



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

August 24, 2023

MEMORANDUM FOR THE RECORD

SUBJECT: Minutes of the July 14, 2023, Meeting of the DoD Board of Actuaries

The Military Retirement Fund and Voluntary Separation Incentive Fund were discussed from 10:00 AM to 11:30 AM.

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.

A handwritten signature in cursive script, reading "Marcia A. Dush", is positioned above a horizontal line.

Marcia A. Dush, Chairperson
DoD Board of Actuaries

A handwritten signature in cursive script, reading "Inger M. Pettygrove", is positioned above a horizontal line.

Inger M. Pettygrove
Designated Federal Officer

DEPARTMENT OF DEFENSE BOARD OF ACTUARIES MEETING MINUTES

July 14, 2023
Virtual Meeting

MILITARY RETIREMENT FUND/VOLUNTARY SEPARATION INCENTIVE FUND

HIGHLIGHTS/KEY BOARD DECISIONS

Agenda Item 1: September 30, 2022, Valuation of the Military Retirement Fund

- Transcript Pages 9-11: 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. It was noted that 2022 figures include the Coast Guard where 2021 figures did not.
- Transcript Pages 11-13: The present value of future benefits was \$2.526 trillion, the present value of future normal cost contributions was \$418 billion, and the fund value was \$1.279 trillion. The Unfunded Accrued Liability (UFL) was \$829.3 billion.
- Transcript Pages 13-16: Total change in UFL was a loss of \$173.3 billion. Total economic experience loss was \$45.1 billion, and the loss due to the plan amendment for Coast Guard was \$59.7 billion. The largest change due to new assumptions was a \$58.8 billion loss due to the VA offset parameters.
- Transcript Pages 16-18: The Board passed a motion to amortize the Coast Guard initial unfunded liability over a period of three years.

Agenda Item 2: September 30, 2023, Valuation of the Military Retirement Fund, Proposed Methods and Assumptions

- Transcript Pages 18-27: Approved long-term economic assumptions for the September 1, 2023 valuation of 4.00% nominal interest rate (no change from last year), 2.75% across-the-board salary increase (no change from last year), and 2.5% inflation (no change from last year).

- Transcript Pages 27-64: Approved proposed Reserve Rates (no change to full-time NCP, decreased part-time NCP by 0.1%), Mortality Improvement Scales (decreased NCPs 0.1% full-time, 0.2% part-time), SBP Parameters (increased full-time and part-time NCPs by 0.4%), and VA offset parameters (decreased NCPs 3.3% full-time, 1.4% part-time).
- Transcript Pages 27-64: Approved FY 2025 DoD NCPs of 26.6% for full-time and 21.5% for part-time and estimated Treasury NCPs of 30.8% for full-time and 9.8% for part-time.

Agenda Item 3: September 30, 2022, VSI Fund Valuation, Proposed Methods and Assumptions

- Transcript Pages 64-73: Approved economic assumptions of 2.75% interest (0.5% increase from last year), 2.2% COLA (unchanged from last year), and 1.0% VA increase (unchanged from last year), leading to a January 1, 2025 amortization payment of \$7.8 million.

Agenda Item 4: Transition to ADVANA

- Transcript Pages 73-80: Explained transition to ADVANA, a new method of accessing data, and ADVANA's advantages over the previous method.

ATTACHMENT 1

DEPARTMENT OF DEFENSE BOARD OF ACTUARIES MEETING AGENDA

Friday, July 14th, 2023
10:00 AM—1:00 PM EST
Virtual Meeting (MS Teams)

DoD365/MS Teams Link:

[https://dod.teams.microsoft.us/dl/launcher/launcher.html?url=%2F %23%2F1%2Fmeetup-join%2F19%3Adod%3Ameeting 26bda19a8fcd4b909148777a4f0fec7c%40thread.v2%2F0%3Fcontent%3D%257b%2522%2522%253a%2522102d0191-eeae-4761-b1cb-1a83e86ef445%2522%252c%25220id%2522%253a%2522244081cb-d4dd-4158-8c6f-2048b5cf15bb%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=1abae826-ab92-4560-a5b3-c9532174f55&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true](https://dod.teams.microsoft.us/dl/launcher/launcher.html?url=%2F%20%2Fmeetup-join%2F19%3Adod%3Ameeting%2026bda19a8fcd4b909148777a4f0fec7c%40thread.v2%2F0%3Fcontent%3D%257b%2522%2522%253a%2522102d0191-eeae-4761-b1cb-1a83e86ef445%2522%252c%25220id%2522%253a%2522244081cb-d4dd-4158-8c6f-2048b5cf15bb%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=1abae826-ab92-4560-a5b3-c9532174f55&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true)

Call-In (for audio only): Dial: 410-874-6749 // Conference ID: 820 191 989#

- (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, 2022, Valuation of the Military Retirement Fund
 - a. Starting Population as of September 30, 2022 (Drew May, DoD Office of the Actuary)
 - b. Actuarial status information as of September 30, 2022 (Drew May)
 - c. Change in unfunded liability for FY 2022 (Drew May)
 - d. Amortization period for Coast Guard liability* (Drew May)
 - e. October 1, 2023 Treasury amortization payment and normal cost payment* (Drew May)
2. September 30, 2023, 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. FY 2025 Full-Time and Part-Time Normal Cost Percentages (Qian Magee, DoD Office of the Actuary)
 - c. Non-Economic Assumptions
 - i. Reserve Rates (Drew May)
 - ii. Mortality improvement factors (Jonathan Wong, DoD Office of the Actuary)
 - iii. SBP parameters (Rich Allen, DoD Office of the Actuary, and Drew May)

iv. VA Offset Parameters and Disability Rates (Jonathan Wong)

VOLUNTARY SEPARATION INCENTIVE FUND

3. September 30, 2022, VSI Fund Valuation, Proposed Methods and Assumptions*
 - a. Introduction (Phil Davis)
 - b. Interest Rate (Jonathan Wong)
 - c. Valuation Update and Other Assumptions (Jonathan Wong)
 - d. Unfunded Liability Amortization Payments (Jonathan Wong)

TRANSITION TO ADVANA (Phil Davis)

* Indicates Board approval required

ATTACHMENT 2

Department of Defense Board of Actuaries Meeting Attendee List

<u>Name</u>	<u>Position or Office</u>
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
Chelsea Chu	OACT
Jonathan Wong	OACT
Ethan Field	Guest
Austin Keib	Guest
William Moorhouse	Advisor, Legal
Tom Liuzzo	Advisor, Reserve Affairs
Peter Abraham	DMDC
David Rafferty	CBO
James Fasano	Advisor, Comptroller
Jonathan Poe	DFAS
Donald E. Sutton, III	ARNG
Alicia Litts	OUSD (C)
Richard Virgile	USCG
Edith Smith	Capitol Crusader
Paul Dotto	OPM
Susan Harvey	DFAS
Christina Horne	DFAS
Daniel Lee	OUSD (C)

Anita Chellaraj	OMB
Craig Graby	Korn Ferry Hay Group
Matthew Torres	DMDC
Horst Spiess	Army
Brittany Gladden	Army
Joseph Ortega	Army
Molly Byrnes	Army
Tracy Payne	Guest
Danilo Mendoza	USCG
Montreville Holcombe	USCG
Jeff Goldstein	OMB
Francis Nguyen	CTR
Richard Rodriguez	Army
COL Clay Pettit	Co-Chair, MRF FMC

ATTACHMENT 3

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

DoD Board of Actuaries Legislative and Policy Update

Mr. Ronald Garner
Assistant Director, Military Compensation Policy
Retired and Annuitant Pay
ODASD(MPP-Compensation)
July 12, 2023



PERSONNEL AND READINESS



Agenda

- **Blended Retirement System Implementation**
 - **Current Status**
- **Recent Legislative Changes**
 - **FY2023 National Defense Authorization Act**
 - **FY2023 Appropriations Omnibus**
- **Pending Legislative Changes**
 - **FY2024 National Defense Authorization Act**



Blended Retirement System

Blended Retirement System Update

- In Service as of June 30, 2023:**

(number in parentheses shows increase/decrease since last update (2021))

	Full-Time	Part-Time	Total
Opted In	204,141 (-65,237)	124,285 (+6,957)	328,426 (-58,280)
Auto-Enrolled	662,214 (+198,291)	317,133 (+96,739)	979,347 (+295,030)
Total In-Service Participants as of June 30, 2023			1,307,773
Net Increase Since June 30, 2021			+236,750

- Lump Sum:**

- Discount rate for CY24 will be 6.26% (-0.06% from CY23)
- 1 Lump Sum taker since June of 2021 (reservist)
- LSDR formula under review in CY23 as required by law



Recent Legislation

FY 2023 National Defense Authorization Act

- **Basic Pay**
 - Pay raise was 4.6% (MRF Impact: MINIMAL)
- **Survivor Benefit Plan Open Season** (MRF Impact: MINIMAL)
 - Section 643 declared an open season enrollment and disenrollment period from 23 December 2022 to 1 January 2024.
 - Eligible members: retired members (including gray area retirees) currently enrolled can disenroll, those currently not enrolled can enroll
 - Cost to members: Prospective premiums plus a retrospective buy-in premium to account for past premiums, interest, and additional factor back to when they could have first elected to participate

FY 2023 Appropriations Omnibus

- **Secure 2.0 Act**



Pending Legislation

FY 2024 National Defense Authorization Act

- **Basic Pay**
 - Pay raise anticipated to be 5.2% (MRF Impact: MINIMAL)
- **House and Senate bills not yet released**



Military Retirement Fund Board of Actuaries Meeting

Defense Finance and Accounting Service

Jonathan Poe / Lori Haines
Enterprise Accounting and Audit Support (EAAS)
Financial Reporting
July 12, 2023





- Overview
- Financial Data
- Fund Status



- Short Term Liquidity

- ✓ Invested approximately \$130.0B in October (Treas contrib \$131.1B)
- ✓ Off cycle investment of \$1.0B in March
- ✓ Inflows exceeding outflows
 - ✓ FY 2023 payments through May \$43.6B
 - ✓ FY 2023 receipts through May \$187.4B
 - ✓ FY 2023 overnights/cash as of May 31st \$15.2B

- United States Coast Guard

- ✓ USCG joined the MRF October 2022

- Long Term Liquidity

- ✓ New investing for FY 2023
 - ✓ As of EOM May, \$131.0B
 - ✓ Average 20-year term
- ✓ Updated Mix Ratio and Average to maturity (60-70% TIPS, 30-40% nominal and 15 years average to maturity)
- ✓ FY 2025-2028 projected investments of \$541.6B





Summary Financial Analysis

Year Ended September 30

(In Billions)

	FY 2022	FY 2021	% Change
Service Contributions	\$26.0	\$25.2	3%
Unfunded Liability Contribution	114.5	98.1	17%
Concurrent Receipts Contribution	10.6	9.8	8%
Interest Income	93.1	56.9	64%
Total Revenue	<u>\$244.2</u>	<u>\$190.0</u>	28%
Benefit Payments	<u>\$71.5</u>	<u>\$63.1</u>	13%
Total Expense	<u>\$71.5</u>	<u>\$63.1</u>	13%





Summary Financial Analysis

Year Ended September 30

(In Billions)

Interest Income

	FY 2022	FY 2021	\$Change
Interest Revenue--Par	\$23.4	\$21.4	\$2.0
Interest Revenue--Inflation	76.0	41.0	\$35.0
Interest Revenue--Discount	0.9	0.9	\$0.0
Interest Revenue--Premium	<u>-7.2</u>	<u>-6.4</u>	<u>-\$0.8</u>
	<u>\$93.1</u>	<u>\$56.9</u>	<u>\$36.2</u>





Military Retirement Fund For the Year Ending September 30, 2022

(in millions)

Assets	
Fund Balance with Treasury	\$610.5
Investments	
Overnight	\$8,891.1
Long term	
Par	\$936,227.3
Inflation purchased	\$51,492.8
Inflation earned	\$198,041.0
Premium outstanding	\$92,245.0
Discount outstanding	-\$14,899.6
Interest receivable	<u>\$6,375.9</u>
Total Long Term Investments	<u>\$1,269,482.4</u>
Total Investments	<u>\$1,278,373.5</u>
Accounts Receivable, net	<u>\$160.1</u>
Total Assets	<u>\$1,279,144.1</u>
Liabilities	
Military Retirement and Other Federal	
Employment Benefits	
Benefits Payable to Beneficiaries	\$394.2
Actuarial Liability	<u>\$2,513,153.1</u>
Total Military and Other Federal Employment Benefits	<u>\$2,513,547.3</u>
Other Liabilities	<u>\$2.4</u>
Total Liabilities	<u>\$2,513,549.7</u>
Net Position	
Cumulative Results of Operations	<u>-\$1,234,405.6</u>
Total Liabilities and Net Position	<u>\$1,279,144.1</u>





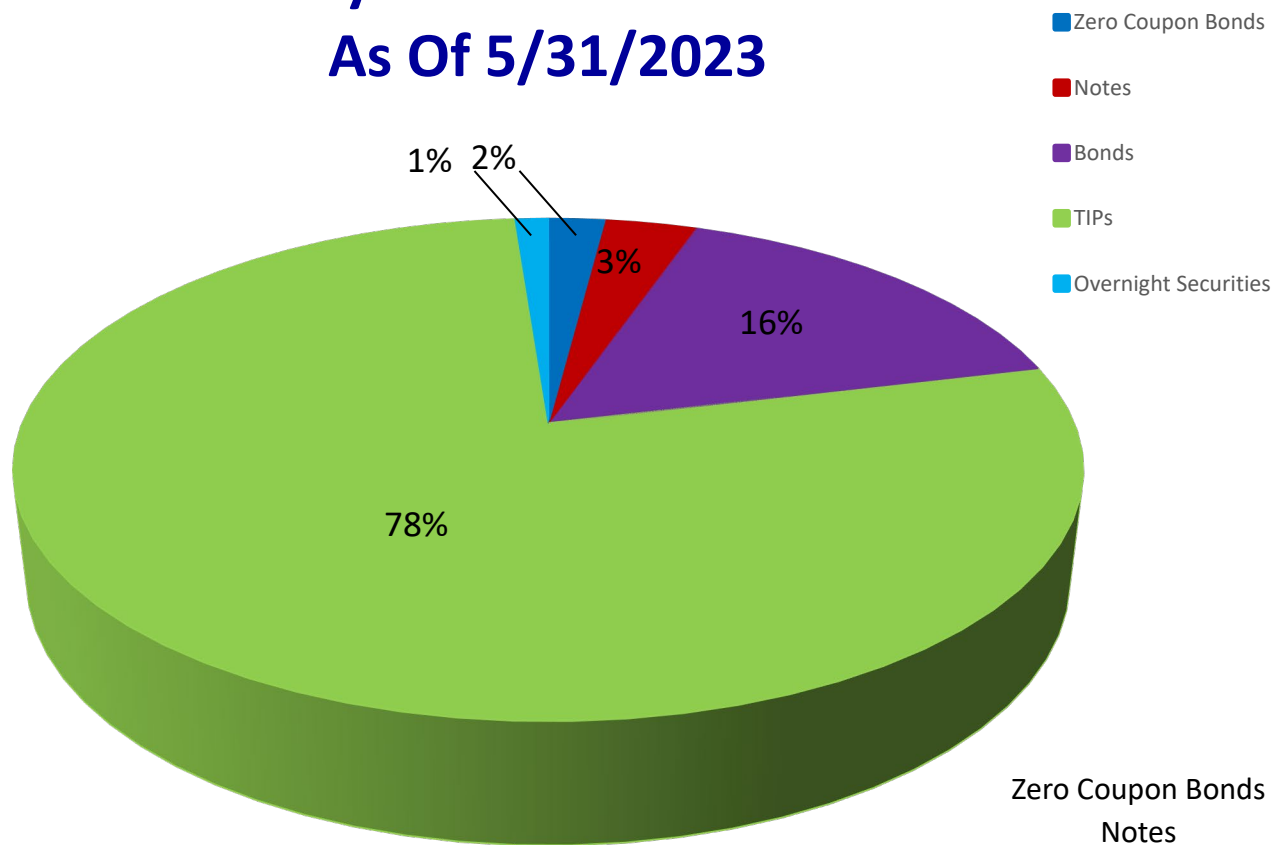
Effective Fund Yields

FY	Yield
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%
2022	7.73%





Military Retirement Portfolio As Of 5/31/2023



Zero Coupon Bonds	\$25.7
Notes	\$42.2
Bonds	\$200.9
TIPs	\$981.3
Overnight Securities	\$15.1
Total (in Billions)	\$1,265.2



FUND STATUS



Security Description	Shares Par	Inflation Compensation	Book Value	Market Value
INTEREST ZCB 08/15/33	12,949,000,000.00	-	10,706,196,324.15	8,737,460,247.54
INTEREST ZCB 08/15/34	13,268,000,000.00	-	10,720,909,874.66	8,581,257,587.28
INTEREST ZCB 08/15/35	13,593,000,000.00	-	10,733,678,248.27	8,419,909,271.40
Zero Coupon Bond Total	39,810,000,000.00	-	32,160,784,447.08	25,738,627,106.22
MK BOND 1.875% 02/15/2051	2,233,238,900.08	-	2,019,288,124.17	1,471,844,012.58
MK BOND 2.500% 02/15/2045	4,280,660,325.79	-	4,064,184,930.64	3,321,524,871.54
MK BOND 2.750% 11/15/2042	30,591,584,611.59	-	26,461,375,703.52	25,276,296,785.33
MK BOND 3.000% 05/15/2042	6,695,039,147.53	-	6,883,297,866.78	5,791,208,862.61
MK BOND 3.125% 02/15/2042	2,864,461,876.61	-	3,026,295,378.05	2,533,258,472.13
MK BOND 3.125% 02/15/2043	3,349,775,799.13	-	3,528,214,322.85	2,937,334,653.86
MK BOND 3.125% 11/15/2041	2,818,271,057.13	-	2,959,988,066.92	2,498,573,434.09
MK BOND 3.500% 02/15/2039	6,039,034,048.35	-	6,143,449,923.03	5,833,329,451.08
MK BOND 3.625% 02/15/2044	3,321,324,845.08	-	3,780,150,509.57	3,131,386,580.50
MK BOND 3.625% 08/15/2043	15,717,372,038.31	-	15,105,765,175.35	14,862,739,933.73
MK BOND 4.250% 05/15/2039	6,479,267,826.79	-	7,486,828,634.58	6,827,528,472.48
MK BOND 4.250% 11/15/2040	5,520,767,853.28	-	6,669,498,975.57	5,781,279,086.36
MK BOND 4.375% 02/15/2038	15,221,088,782.57	-	19,254,725,932.31	16,329,374,309.55
MK BOND 4.375% 05/15/2040	4,793,071,508.45	-	5,863,633,685.83	5,104,621,156.50
MK BOND 4.375% 11/15/2039	6,831,664,626.58	-	8,026,549,390.31	7,286,397,303.29
MK BOND 4.500% 02/15/2036	19,104,981,805.28	-	24,033,043,339.82	20,860,252,008.64
MK BOND 4.500% 05/15/2038	4,396,913,844.83	-	5,190,723,176.92	4,773,399,592.79
MK BOND 4.500% 08/15/2039	5,861,210,424.29	-	7,036,416,979.01	6,355,750,053.84
MK BOND 4.625% 02/15/2040	2,399,775,551.83	-	3,042,736,624.86	2,636,003,457.71
MK BOND 4.750% 02/15/2037	9,697,894,474.30	-	11,543,368,872.89	10,840,427,667.05
MK BOND 5.000% 05/15/2037	4,912,921,714.87	-	6,062,575,407.21	5,617,618,923.35
MK BOND 5.375% 02/15/2031	18,948,966,774.83	-	24,424,988,190.82	21,062,960,880.65
MK BOND 6.000% 02/15/2026	1,400,000,000.00	-	1,498,748,388.83	1,463,875,000.00
MK BOND 6.250% 05/15/2030	9,225,255,976.51	-	11,296,674,724.80	10,634,990,405.42
MK BOND 6.625% 02/15/2027	1,400,000,000.00	-	1,555,644,763.92	1,526,437,500.00
MK BOND 6.875% 08/15/2025	3,800,000,000.00	-	4,182,326,880.84	4,001,875,000.00
MK BOND 7.625% 02/15/2025	2,000,000,000.00	-	2,156,012,968.83	2,096,875,000.00
Bond Total	199,904,543,814.01	-	223,296,506,938.23	200,857,162,875.08



FUND STATUS cont.

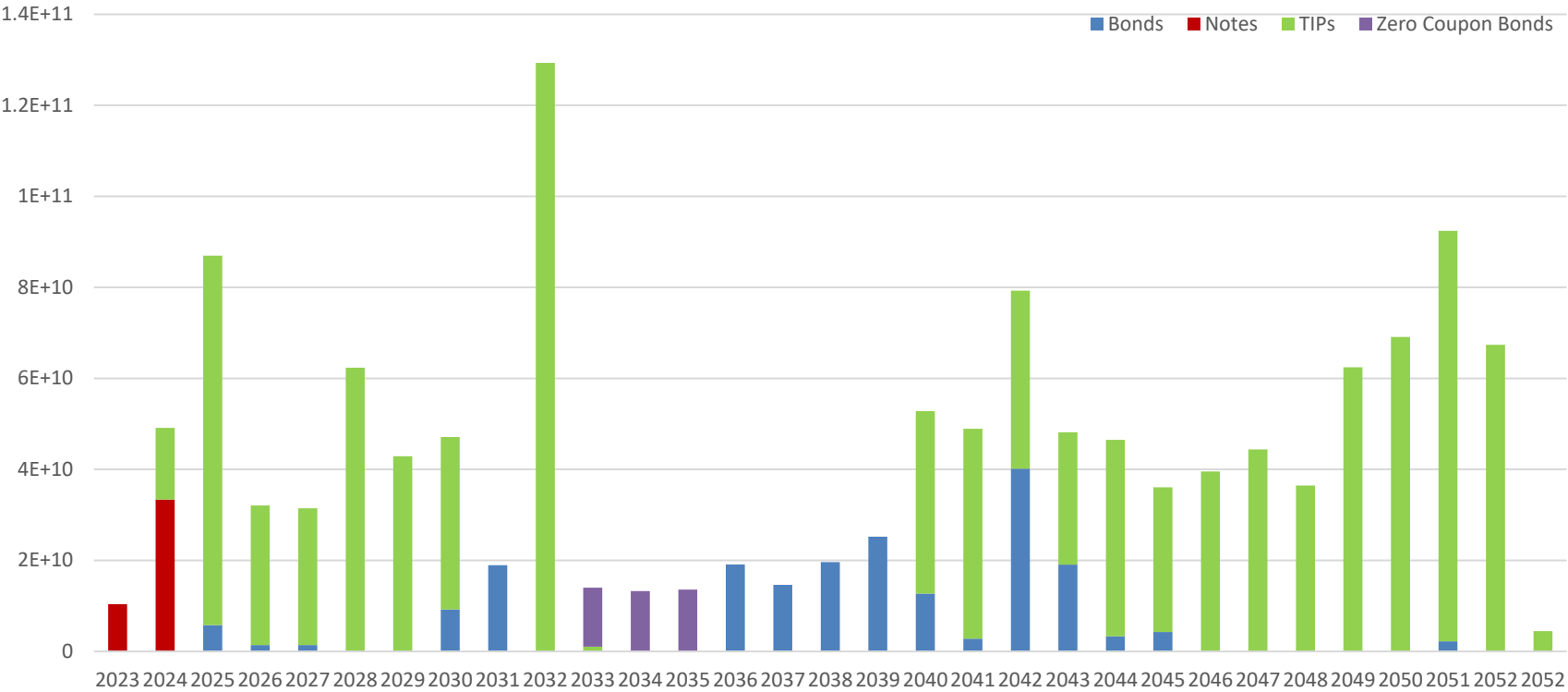


Security Description	Shares Par	Inflation Compensation	Book Value	Market Value
MK NOTE 0.125% 09/15/2023	10,387,253,376.71	-	10,270,779,537.06	10,231,444,576.06
MK NOTE 0.375% 09/15/2024	21,479,417,103.80	-	20,503,462,725.26	20,264,487,573.87
MK NOTE 2.750% 02/15/2024	11,884,976,088.44	-	12,087,672,546.91	11,673,274,951.86
Note Total	43,751,646,568.95	-	42,861,914,809.23	42,169,207,101.79
MK TIPS 0.125% 01/15/2030	32,292,714,800.06	5,587,931,369.00	39,632,106,833.92	34,459,550,311.92
MK TIPS 0.125% 02/15/2051	77,794,558,985.50	12,386,449,681.67	98,133,794,694.74	59,773,099,807.21
MK TIPS 0.125% 02/15/2052	62,154,343,965.27	5,230,909,588.12	46,351,548,177.48	44,432,151,561.76
MK TIPS 0.125% 07/15/2024	12,384,186,897.41	3,356,610,016.67	15,458,975,142.47	15,273,492,005.70
MK TIPS 0.250% 02/15/2050	58,854,771,145.64	10,234,844,702.23	78,794,925,445.12	48,103,645,034.08
MK TIPS 0.625% 02/15/2043	22,156,985,598.00	6,928,489,396.50	26,684,666,907.91	23,841,000,284.55
MK TIPS 0.750% 02/15/2042	29,278,329,999.00	9,827,271,464.16	38,464,954,306.31	33,203,099,742.32
MK TIPS 0.750% 02/15/2045	24,791,139,787.00	6,982,424,521.01	31,392,707,675.27	26,213,190,554.11
MK TIPS 0.875% 02/15/2047	35,491,724,098.11	8,882,158,872.79	43,912,558,562.10	37,163,126,988.13
MK TIPS 1.000% 02/15/2046	31,047,295,342.32	8,498,576,154.06	41,258,382,308.48	34,293,685,438.26
MK TIPS 1.000% 02/15/2048	29,787,977,975.60	6,668,932,509.18	36,148,912,917.69	31,307,371,878.80
MK TIPS 1.000% 02/15/2049	52,067,680,448.21	10,380,733,450.96	68,674,678,560.23	53,529,999,789.19
MK TIPS 1.125% 01/15/2033	1,045,800,093.45	13,794,103.23	1,021,637,087.16	1,027,475,247.60
MK TIPS 1.375% 02/15/2044	33,333,101,942.39	9,832,265,079.95	44,447,104,142.73	40,615,912,532.58
MK TIPS 1.750% 01/15/2028	7,000,000,000.00	3,084,340,000.00	10,828,188,627.75	10,093,794,068.75
MK TIPS 2.000% 01/15/2026	20,167,675,000.00	10,499,291,605.00	30,979,541,826.47	30,590,299,188.49
MK TIPS 2.125% 02/15/2040	28,691,811,638.98	11,371,712,624.99	45,988,946,771.40	43,105,848,137.77
MK TIPS 2.125% 02/15/2041	33,452,277,019.97	12,650,313,077.87	53,508,840,730.95	49,646,726,711.61
MK TIPS 2.375% 01/15/2025	50,700,000,000.00	30,476,277,000.00	82,713,730,445.54	80,846,498,374.69
MK TIPS 2.375% 01/15/2027	20,071,880,000.00	9,966,892,732.80	30,688,726,809.94	30,545,677,022.67
MK TIPS 2.500% 01/15/2029	7,000,000,000.00	2,839,900,000.00	11,033,390,003.46	10,279,620,531.25
MK TIPS 3.375% 04/15/2032	76,051,206,552.50	53,258,659,948.72	139,298,791,080.60	149,110,439,809.21
MK TIPS 3.625% 04/15/2028	28,000,000,000.00	24,247,440,000.00	54,619,683,417.59	56,835,418,325.00
MK TIPS 3.875% 04/15/2029	18,000,000,000.00	15,045,480,000.00	35,344,219,986.79	37,083,224,587.50
TIPS Total	791,615,461,289.41	278,251,697,898.91	1,105,381,012,462.10	981,374,347,933.15
ONE DAY 5.230% 06/01/2023	15,145,866,383.24	-	15,145,866,383.24	15,145,866,383.24
Total Portfolio	1,090,227,518,055.61	278,251,697,898.91	1,418,846,085,039.88	1,265,285,211,399.48





MRF Maturities
As of May 31, 2023



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
10.4	49.1	87.0	32.1	31.4	62.3	42.9	47.1	18.9	129.3	14.0	13.3	13.6	19.1	14.6	19.6	25.2	52.8	48.9	79.3	48.2	46.5	36.1	39.5	44.4	36.5	62.4	69.1	92.4	67.3

DoD Board of Actuaries Meeting Objectives

1. Review and approve the September 30, 2022, closed group valuation results and amortization schedule
 - a. Population as of September 30, 2022
 - b. Actuarial status information as of September 30, 2022
 - c. Change in unfunded liability for FY 2022
 - d. Amortization schedule for Coast Guard liability
 - e. The October 1, 2023, 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, 2023, valuation and FY 2025 Normal Cost Percentages (NCPs)
 - a. COLA
 - b. Interest Rate
 - c. Salary
3. Review and approve proposed non-economic actuarial assumptions for the September 30, 2023, valuation and FY 2025 NCPs
 - a. Reserve rates
 - b. Mortality improvement scales
 - c. SBP parameters
 - d. VA offset parameters/disability rates
4. Set FY 2025 DoD NCP. The NCPs will be sent in a letter to the DoD Comptroller and Secretary of Homeland Security (Coast Guard)
5. Review and approve September 30, 2022, VSI valuation

INITIAL ACCOUNTING FIGURES AS OF SEPTEMBER 30		
(\$ in billions)		
	<u>2022*</u>	<u>2021</u>
Total Active Duty Personnel +		
Full-Time Reservists	1,433,234	1,425,020
Total Annualized Basic Pay	\$71.98	\$67.78
Non-BRS	685,998	739,965
Total Annualized Basic Pay	\$44.24	\$43.93
BRS	747,236	685,055
Total Annualized Basic Pay	\$27.74	\$23.85
Total Selected Drilling Reservists	681,979	702,629
Total Annualized Basic Pay	\$8.62	\$8.40
Non-BRS	385,823	434,854
Total Annualized Basic Pay	\$5.98	\$6.13
BRS	296,156	267,775
Total Annualized Basic Pay	\$2.63	\$2.27
Total Non-Selected Reservists (with 20 years)	180,712	182,944
Total Annualized Basic Pay	-N/A-	-N/A-
Total Number of Non-disabled Retirees	1,907,227	1,866,453
Total Annualized Retired Pay	\$62.13	\$56.92
Total Number of Disabled Retirees	136,468	130,024
Total Annualized Retired Pay	\$2.23	\$1.96
Total Number of Surviving Families	319,193	317,764
Total Annualized Survivor Annuities	\$4.91	\$4.60
* 2022 Figures include the addition of Coast Guard (~3% of active duty population and ~1% of reserves).		

**MILITARY RETIREMENT SYSTEM
ACTUARIAL STATUS INFORMATION**

(\$ in billions)

	<u>9/30/22</u> ¹	<u>9/30/21</u>	<u>Difference</u>	
1. Present Value of Future Benefits (PVFB)				
a. Retirees and Survivors	\$1,372.1	\$1,198.5	\$173.6	14%
b. Reserves	\$248.3	\$221.9	\$26.4	12%
c. Active Duty	<u>\$906.5</u>	<u>\$795.8</u>	\$110.7	14%
TOTAL	\$2,526.8	\$2,216.3	\$310.5	14%
2. Present Value of Future Normal Cost Contributions (PVFNC) ²	\$418.4	\$364.6	\$53.8	15%
3. Actuarial Accrued Liability (1 - 2)	\$2,108.4	\$1,851.6	\$256.8	14%
4. Actuarial Value of Assets ³	\$1,279.1	\$1,106.5	\$172.6	16%
5. Unfunded Accrued Liability (3 - 4)	\$829.3	\$745.1	\$84.2	11%
6. Valuation DoD Normal Cost Percentage (NCP)	<u>FY 2023</u>	<u>FY 2022</u>		
a. Full-time	30.1%	37.4%	-7.3%	
b. Part-time	23.1%	24.7%	-1.6%	
7. Implemented DoD Normal Cost Percentage, Applied to Basic Pay in Fiscal Year ⁴	<u>FY 2024</u>	<u>FY 2023</u>		
a. Full-time	30.0%	36.9%	-6.9%	
b. Part-time	23.1%	24.5%	-1.4%	
8. Implemented Treasury Normal Cost Percentage, Applied to Basic Pay in Fiscal Year ⁵	<u>FY 2024</u>	<u>FY 2023</u>		
a. Full-time	27.9%	16.2%	11.7%	
b. Part-time	8.5%	3.8%	4.7%	

¹ 9/30/22 numbers include Coast Guard.

² 9/30/22 PVFNC reflects a reduction of \$960.559 million due to sequestration of the 10/1/2022 Treasury Concurrent Receipt normal cost contribution. The 9/30/21 PVFNC reflects a reduction of \$956.658 million due to sequestration of the prior Treasury Concurrent Receipt normal cost contribution.

³ The following is a reconciliation of assets during FY22 (\$ in billions):

Beg. of Year	PLUS				MINUS		End of Year
	<u>DoD Accrual</u>	<u>Contributions</u> <u>Treas. Accrual</u>	<u>Unfund. Liab.</u>	<u>Int. Income</u>	<u>Fund Disb.</u>		
\$1,106.5	\$26.0	\$10.6	\$114.5	\$93.1	\$71.5		\$1,279.1

⁴ 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.

⁵ 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, 2022, Valuation of the Military Retirement System.

Long-Term Economic Assumptions

<u>9/30/22 Val</u>	<u>9/30/21 Val</u>
COLA (2.50%)	COLA (2.50%)
Salary (2.75%)	Salary (2.75%)
Interest (4.00%)	Interest (4.00%)

9/30/2022 CHANGE IN UNFUNDED LIABILITY

(\$ in billions)

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

1. 9/30/21 Unfunded Liability	\$745.1		
2. 10/01/21 Amortization Payment on Unfunded Liability	\$114.5		
3. Interest Assumption	1.0400		
4. Expected Unfunded Liability on 9/30/22 (1 - 2) X 3	\$655.9		
5. Actual Unfunded Liability	\$829.3		
6. Total Change in Unfunded Liability (5 - 4)	\$173.3	8.2%	
A. Total Experience (gain) loss	\$45.0	2.1%	
1. COLA, Salary, and Interest	\$45.1	2.1%	
a. Interest ¹ :	-\$40.0	-1.9%	--> -3.1%
b. Salary ² :	\$8.9	0.4%	
c. COLA ³ :	\$76.2	3.6%	
2. Noneconomic Experience ⁴ :	-\$0.1	0.0%	
B. 10/1/22 unpaid contribution ⁵:	\$1.0	0.0%	
C. Including Coast Guard:	\$59.7	2.8%	
D. Total benefit change (gain) loss:	\$0.0	0.0%	
E. Total assumption change (gain) loss	\$67.7	3.2%	
1. Updated VA Offset Parameters	\$58.8	2.8%	
2. Updated Retiree Death and Other Loss Rates	\$1.4	0.1%	
3. Updated Mortality Improvement Scales	\$7.5	0.4%	

(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: 4.00% investment return; FY22 dollar-weighted fund yield: 7.7%

² Valuation assumption: 2.75% long-term salary; 1/1/23 across-the-board pay increase: 4.6%

³ Valuation assumption: 2.50% long-term COLA; 1/1/23 COLA: 8.7%

⁴ (Gains)/losses as a percent of liability for each population are as follows:

Active (-0.1%), Reserves (-0.1%), Retiree (0.0%), Survivor (0.9%)

⁵ Loss due to \$960.559 million sequestration (reduction) to the 10/1/2022 Treasury Concurrent Receipt normal cost contribution.

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, 2022, valuation of the Military Retirement System.

TOTAL TREASURY PAYMENT

(\$ in billions)

	<u>October 1, 2023</u>	<u>October 1, 2022</u>
1. Amortization Payment for:		
a. Initial Unfunded Liability	\$108.303	\$105.404
b. Initial Unfunded Liability for Coast Guard ¹	\$20.953	\$0.000
c. Benefits Changes	\$7.768	\$7.676
d. Actuarial Assumptions	\$21.608	\$17.162
e. Actuarial Experience	(\$8.110)	(\$10.799)
f. Prior year unpaid contribution ²	<u>\$0.999</u>	<u>\$0.995</u>
Total amortization payment	\$151.521	\$120.438
2. Normal Cost payment ³	\$21.673	\$10.612
3. Total Treasury payment	\$173.194	\$131.050

¹ Amortized over 3 years, which is the same as the remaining period for 1.a. The remaining amortization period as of October 1, 2023, for 1.c through 1.e is 18.4 years.

Amortizations are scheduled to increase as a percent of the long-term salary increase assumption.

² Prior year unpaid contribution of \$999 million is due to 8.3% sequestration of the 10/1/2022 Treasury Concurrent Receipt normal cost contribution (\$999 million is equal to \$960.559 million plus one year of interest at the assumed rate of 4.00%). It is treated as an actuarial experience loss, and amortized over one year.

³ Treasury contribution to pay for Concurrent Receipt benefits. The 10/1/2022 normal cost payment of \$10.612 billion is net of the \$960.559 million sequestration reduction. The 10/1/2023 normal cost payment of \$21.673 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, 2023, payment are to be summarized in the DoD Office of the Actuary's September 30, 2022, Valuation of the Military Retirement System report. Support for the prior year's payment is summarized in the September 30, 2021, 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 2022	OPM 2023	SSA OASDI Trustee's Report 2023			MRF Financial Statements 2022	CBO Inflation and 10 Yr Treas. Note 2023	Blue Chip Consensus Inflation and 10 Yr Treas. Note 2022
			Low Cost	Intermediate	High Cost			
Reference Date	7/29/2022	5/10/2023	3/31/2023	3/31/2023	3/31/2023	9/1/2022	2/1/2023	12/1/2022
Rate Projection Period	75-100 Yrs Forward	75-100 Yrs Forward	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100	10 Yr Look Back	2029 to 2033	2029 to 2033
Inflation	2.50%	2.40%	3.00%	2.40%	1.80%	2.30%	2.30%	2.10%
Salary	2.75%	2.65%	4.79%	3.56%	2.35%	2.30%	---	---
Interest Rate	4.00%	4.00%	5.80%	4.70%	3.60%	2.80%	3.80%	3.70%

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 2022	OPM 2023	SSA OASDI Trustee's Report 2023		
			Low Cost	Intermediate	High Cost
Reference Date	7/29/2022	5/10/2023	3/31/2023	3/31/2023	3/31/2023
Rate Projection Period	75-100 Yrs Forward	75-100 Yrs Forward	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100	Inf: '26 to '97 Sal: '32 to '97 Int: '32 to '100
Salary (Real)	0.25%	0.25%	1.79%	1.16%	0.55%
Interest Rate (Real)	1.50%	1.60%	2.80%	2.30%	1.80%

MRF Financial Statements 2022	CBO Inflation and 10 Yr Treas. Note 2023	Blue Chip Consensus Inflation and 10 Yr Treas. Note 2022
9/1/2022	2/1/2023	12/1/2022
10 Yr Look Back	10 Yrs Forward	10 Yrs Forward
0.00%	---	---
0.50%	1.50%	1.60%

Blue Chip L-T Index	Year				
	Dec 2022	Jun 2022	Dec 2021	Jun 2021	Dec 2020
Projection Period	10 Yrs	10 Yrs	10 Yrs	10 Yrs	10 Yrs
CPI	2.10%	2.30%	2.20%	2.20%	2.20%
30 Year Treasury	4.00%	3.90%	3.80%	3.90%	3.60%
Real Return	1.90%	1.60%	1.60%	1.70%	1.40%

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 2024 through 2028 and averages for the five-year periods 2024-2028 and 2029-2033. 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	
		2024	2025	2026	2027	2028	2024-2028	2029-2033
1. Federal Funds Rate	CONSENSUS	3.7	2.9	2.8	2.8	2.7	3.0	2.8
	Top 10 Average	4.5	3.7	3.6	3.5	3.4	3.7	3.4
	Bottom 10 Average	2.7	2.2	2.2	2.2	2.2	2.3	2.3
2. Prime Rate	CONSENSUS	6.8	6.1	5.9	5.9	5.9	6.1	5.9
	Top 10 Average	7.6	6.8	6.7	6.6	6.5	6.8	6.5
	Bottom 10 Average	5.9	5.3	5.3	5.3	5.3	5.4	5.3
3. SOFR	CONSENSUS	3.7	2.9	2.8	2.8	2.7	3.0	2.8
	Top 10 Average	4.4	3.6	3.4	3.3	3.2	3.6	3.3
	Bottom 10 Average	3.0	2.3	2.2	2.2	2.2	2.4	2.2
4. Commercial Paper, 1-Mo	CONSENSUS	3.7	3.1	3.0	2.9	2.9	3.1	2.9
	Top 10 Average	4.4	3.6	3.5	3.4	3.3	3.6	3.3
	Bottom 10 Average	3.2	2.6	2.5	2.4	2.4	2.6	2.5
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.7	3.0	2.9	2.8	2.8	3.0	2.8
	Top 10 Average	4.4	3.7	3.6	3.5	3.4	3.7	3.4
	Bottom 10 Average	2.9	2.2	2.3	2.2	2.2	2.4	2.3
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.7	3.0	3.0	3.0	2.9	3.1	3.0
	Top 10 Average	4.4	3.7	3.7	3.6	3.5	3.8	3.5
	Bottom 10 Average	3.1	2.4	2.4	2.4	2.4	2.5	2.4
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.8	3.1	3.1	3.1	3.0	3.2	3.1
	Top 10 Average	4.4	3.8	3.7	3.6	3.5	3.8	3.6
	Bottom 10 Average	3.1	2.5	2.5	2.5	2.5	2.6	2.6
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.6	3.2	3.2	3.1	3.1	3.2	3.1
	Top 10 Average	4.4	3.9	3.8	3.8	3.7	3.9	3.8
	Bottom 10 Average	2.7	2.5	2.6	2.6	2.6	2.6	2.6
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.6	3.3	3.4	3.4	3.3	3.4	3.4
	Top 10 Average	4.4	4.0	4.0	4.0	3.9	4.1	3.9
	Bottom 10 Average	2.9	2.7	2.7	2.8	2.8	2.8	2.9
10. Treasury Note Yield, 10-Yr	CONSENSUS	3.7	3.5	3.6	3.6	3.6	3.6	3.7
	Top 10 Average	4.4	4.2	4.4	4.4	4.3	4.3	4.3
	Bottom 10 Average	3.0	2.9	2.8	2.9	3.0	2.9	3.0
11. Treasury Bond Yield, 30-Yr	CONSENSUS	4.0	3.9	3.9	4.0	3.9	3.9	4.0
	Top 10 Average	4.6	4.5	4.7	4.6	4.6	4.6	4.7
	Bottom 10 Average	3.4	3.3	3.3	3.3	3.3	3.3	3.3
12. Corporate Aaa Bond Yield	CONSENSUS	5.1	4.9	5.0	5.0	5.0	5.0	5.1
	Top 10 Average	5.7	5.5	5.6	5.6	5.6	5.6	5.7
	Bottom 10 Average	4.6	4.4	4.4	4.4	4.5	4.4	4.5
13. Corporate Baa Bond Yield	CONSENSUS	6.2	5.9	5.9	6.0	5.9	6.0	6.0
	Top 10 Average	6.6	6.4	6.5	6.5	6.5	6.5	6.6
	Bottom 10 Average	5.7	5.3	5.3	5.4	5.4	5.4	5.5
14. State & Local Bonds Yield	CONSENSUS	4.4	4.2	4.3	4.3	4.3	4.3	4.4
	Top 10 Average	4.8	4.7	4.8	4.7	4.7	4.7	4.8
	Bottom 10 Average	3.9	3.7	3.8	3.9	3.9	3.9	3.9
15. Home Mortgage Rate	CONSENSUS	5.9	5.5	5.5	5.5	5.5	5.6	5.5
	Top 10 Average	6.6	6.2	6.2	6.2	6.2	6.3	6.2
	Bottom 10 Average	5.3	4.8	4.8	4.8	4.8	4.9	4.9
A. Fed's AFE Nominal \$ Index	CONSENSUS	117.6	116.0	114.5	113.5	112.2	114.8	110.7
	Top 10 Average	120.7	119.3	118.5	118.0	117.9	118.9	116.7
	Bottom 10 Average	115.1	112.9	110.7	109.2	107.2	111.0	105.4
		Year-Over-Year, % Change					Five-Year Averages	
		2024	2025	2026	2027	2028	2024-2028	2029-2033
B. Real GDP	CONSENSUS	1.4	2.2	2.1	2.0	2.0	1.9	1.9
	Top 10 Average	2.2	2.6	2.6	2.4	2.4	2.5	2.3
	Bottom 10 Average	0.5	1.8	1.7	1.7	1.7	1.5	1.6
C. GDP Chained Price Index	CONSENSUS	2.3	2.1	2.1	2.1	2.1	2.1	2.1
	Top 10 Average	2.7	2.4	2.3	2.3	2.3	2.4	2.2
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	2.4	2.2	2.2	2.2	2.2	2.2	2.1
	Top 10 Average	2.8	2.5	2.4	2.3	2.3	2.5	2.3
	Bottom 10 Average	2.0	2.0	2.0	2.0	2.0	2.0	2.0
E. PCE Price Index	CONSENSUS	2.3	2.1	2.1	2.1	2.1	2.1	2.1
	Top 10 Average	2.6	2.4	2.4	2.3	2.2	2.4	2.2
	Bottom 10 Average	1.9	1.9	1.9	1.9	2.0	1.9	1.9

MRF Fund Yield Projection

BASED ON 2023 SOCIAL SECURITY (SSA) - INTERMEDIATE ASSUMPTIONS

FY	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)		Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
2023	4.00%	-0.67%	3.33%	3.50%	3.50%	10 Yr Avg	2.57%	0.98%	3.55%	3.80%	4.07%
2024	2.53%	0.84%	3.37%	3.50%	3.50%	20 Yr Avg	2.49%	1.36%	3.84%	4.12%	4.38%
2025	2.40%	0.99%	3.39%	3.55%	3.60%	30 Yr Avg	2.46%	1.60%	4.06%	4.28%	4.49%
2026	2.40%	1.01%	3.41%	3.60%	3.70%	50 Yr Avg	2.43%	1.86%	4.29%	4.43%	4.57%
2027	2.40%	1.06%	3.46%	3.69%	3.90%	75 Yr Avg	2.42%	1.99%	4.42%	4.50%	4.62%
2028	2.40%	1.11%	3.51%	3.80%	4.20%						
2029	2.40%	1.20%	3.60%	3.93%	4.40%	10 Yr Fund Wgt Avg	2.54%	1.03%	3.57%	3.83%	4.12%
2030	2.40%	1.32%	3.72%	4.04%	4.60%	20 Yr Fund Wgt Avg	2.46%	1.45%	3.91%	4.19%	4.46%
2031	2.40%	1.42%	3.82%	4.14%	4.60%	30 Yr Fund Wgt Avg	2.43%	1.74%	4.17%	4.37%	4.57%
2032	2.40%	1.48%	3.88%	4.22%	4.70%	50 Yr Fund Wgt Avg	2.41%	2.07%	4.49%	4.56%	4.65%
2033	2.40%	1.54%	3.94%	4.29%	4.70%	75 Yr Fund Wgt Avg	2.40%	2.21%	4.61%	4.63%	4.69%
2034	2.40%	1.59%	3.99%	4.34%	4.70%						
2035	2.40%	1.63%	4.03%	4.38%	4.70%	Ultimate	2.40%	2.26%	4.66%	4.66%	4.70%
2036	2.40%	1.68%	4.08%	4.42%	4.70%						
2037	2.40%	1.72%	4.12%	4.45%	4.70%						
2038	2.40%	1.77%	4.17%	4.47%	4.70%						
2039	2.40%	1.80%	4.20%	4.49%	4.70%						
2040	2.40%	1.85%	4.25%	4.51%	4.70%						
2041	2.40%	1.89%	4.29%	4.53%	4.70%						
2042	2.40%	1.93%	4.33%	4.54%	4.70%						
2043	2.40%	1.95%	4.35%	4.55%	4.70%						
2044	2.40%	1.98%	4.38%	4.57%	4.70%						
2045	2.40%	2.01%	4.41%	4.58%	4.70%						
2046	2.40%	2.03%	4.43%	4.58%	4.70%						
2047	2.40%	2.06%	4.46%	4.59%	4.70%						
2048	2.40%	2.08%	4.48%	4.60%	4.70%						
2049	2.40%	2.11%	4.51%	4.61%	4.70%						
2050	2.40%	2.16%	4.56%	4.61%	4.70%						
2051	2.40%	2.22%	4.62%	4.62%	4.70%						
2052	2.40%	2.22%	4.62%	4.62%	4.70%						
2053	2.40%	2.23%	4.63%	4.63%	4.70%						
2054	2.40%	2.23%	4.63%	4.63%	4.70%						
2055	2.40%	2.24%	4.64%	4.64%	4.70%						
2056	2.40%	2.24%	4.64%	4.64%	4.70%						
2057	2.40%	2.24%	4.64%	4.64%	4.70%						
2058	2.40%	2.24%	4.64%	4.64%	4.70%						
2059	2.40%	2.25%	4.65%	4.65%	4.70%						
2060	2.40%	2.25%	4.65%	4.65%	4.70%						
2061	2.40%	2.25%	4.65%	4.65%	4.70%						
2062	2.40%	2.25%	4.65%	4.65%	4.70%						
2063	2.40%	2.26%	4.66%	4.66%	4.70%						
2064	2.40%	2.26%	4.66%	4.66%	4.70%						
2065	2.40%	2.26%	4.66%	4.66%	4.70%						
2066+	2.40%	2.26%	4.66%	4.66%	4.70%						

10 Yr Avg	2.57%	0.98%	3.55%	3.80%	4.07%
20 Yr Avg	2.49%	1.36%	3.84%	4.12%	4.38%
30 Yr Avg	2.46%	1.60%	4.06%	4.28%	4.49%
50 Yr Avg	2.43%	1.86%	4.29%	4.43%	4.57%
75 Yr Avg	2.42%	1.99%	4.42%	4.50%	4.62%

10 Yr Fund Wgt Avg	2.54%	1.03%	3.57%	3.83%	4.12%
20 Yr Fund Wgt Avg	2.46%	1.45%	3.91%	4.19%	4.46%
30 Yr Fund Wgt Avg	2.43%	1.74%	4.17%	4.37%	4.57%
50 Yr Fund Wgt Avg	2.41%	2.07%	4.49%	4.56%	4.65%
75 Yr Fund Wgt Avg	2.40%	2.21%	4.61%	4.63%	4.69%

Ultimate	2.40%	2.26%	4.66%	4.66%	4.70%
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BoA Assumptions		
2.50%	1.50%	4.00%

Liab Mod Dur	NC FT BRS Mod Dur	NC PT BRS Mod Dur	NC FT Delta*** If Infl -0.25%	NC PT Delta*** If Infl -0.25%
23	30	40	+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 2023 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 4.66%

--- 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 a maturity of future investments of AT MINIMUM 15 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)	Inflation	Real Fund Yield*	Nominal Fund Yield	New Invests** (Cumulative)	New Invests (Annual)
2023	3.21%	0.41%	3.62%	4.08%	4.08%	10 Yr Avg	2.33%	1.20%	3.52%	3.96%
2024	2.70%	-0.01%	2.69%	4.02%	3.93%	20 Yr Avg	2.21%	1.43%	3.64%	3.96%
2025	2.30%	1.25%	3.55%	3.95%	3.88%	30 Yr Avg	2.18%	1.55%	3.73%	3.96%
2026	2.20%	1.38%	3.58%	3.93%	3.88%	50 Yr Avg	2.15%	1.68%	3.83%	3.97%
2027	2.20%	1.38%	3.58%	3.93%	3.95%	75 Yr Avg	2.13%	1.75%	3.88%	3.97%
2028	2.20%	1.39%	3.59%	3.93%	3.90%					
2029	2.15%	1.45%	3.60%	3.93%	3.95%	10 Yr Fund Wgt Avg	2.29%	1.25%	3.54%	3.96%
2030	2.10%	1.56%	3.66%	3.94%	3.98%	20 Yr Fund Wgt Avg	2.18%	1.49%	3.67%	3.96%
2031	2.10%	1.59%	3.69%	3.95%	3.98%	30 Yr Fund Wgt Avg	2.15%	1.62%	3.77%	3.97%
2032	2.10%	1.58%	3.68%	3.95%	3.98%	50 Yr Fund Wgt Avg	2.12%	1.78%	3.90%	3.97%
2033	2.10%	1.59%	3.69%	3.95%	3.98%	75 Yr Fund Wgt Avg	2.11%	1.84%	3.95%	3.97%
2034	2.10%	1.60%	3.70%	3.96%	3.98%					
2035	2.10%	1.61%	3.71%	3.96%	3.98%	Ultimate	2.10%	1.88%	3.98%	3.98%
2036	2.10%	1.63%	3.73%	3.96%	3.98%					
2037	2.10%	1.65%	3.75%	3.96%	3.98%					
2038	2.10%	1.67%	3.77%	3.96%	3.98%					
2039	2.10%	1.68%	3.78%	3.97%	3.98%					
2040	2.10%	1.70%	3.80%	3.97%	3.98%					
2041	2.10%	1.71%	3.81%	3.97%	3.98%					
2042	2.10%	1.73%	3.83%	3.97%	3.98%					
2043	2.10%	1.74%	3.84%	3.97%	3.98%					
2044	2.10%	1.75%	3.85%	3.97%	3.98%					
2045	2.10%	1.76%	3.86%	3.97%	3.98%					
2046	2.10%	1.77%	3.87%	3.97%	3.98%					
2047	2.10%	1.78%	3.88%	3.97%	3.98%					
2048	2.10%	1.78%	3.88%	3.97%	3.98%					
2049	2.10%	1.80%	3.90%	3.97%	3.98%					
2050	2.10%	1.83%	3.93%	3.97%	3.98%					
2051	2.10%	1.87%	3.97%	3.97%	3.98%					
2052	2.10%	1.87%	3.97%	3.97%	3.98%					
2053	2.10%	1.87%	3.97%	3.97%	3.98%					
2054	2.10%	1.87%	3.97%	3.97%	3.98%					
2055	2.10%	1.87%	3.97%	3.97%	3.98%					
2056	2.10%	1.87%	3.97%	3.97%	3.98%					
2057	2.10%	1.87%	3.97%	3.97%	3.98%					
2058	2.10%	1.87%	3.97%	3.97%	3.98%					
2059	2.10%	1.87%	3.97%	3.97%	3.98%					
2060	2.10%	1.87%	3.97%	3.97%	3.98%					
2061	2.10%	1.87%	3.97%	3.97%	3.98%					
2062	2.10%	1.87%	3.97%	3.97%	3.98%					
2063	2.10%	1.88%	3.98%	3.98%	3.98%					
2064	2.10%	1.88%	3.98%	3.98%	3.98%					
2065	2.10%	1.88%	3.98%	3.98%	3.98%					
2066+	2.10%	1.88%	3.98%	3.98%	3.98%					

BoA Assumptions		
2.50%	1.50%	4.00%

Liab Mod Dur	NC FT BRS Mod Dur	NC PT BRS Mod Dur
23	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 3.98%.

***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 3.98%

--- 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 a maturity of future investments of AT MINIMUM 15 years, and current and projected economic conditions.

**PROPOSED NON-ECONOMIC ASSUMPTION CHANGES FOR
9/30/2023 MRF VALUATION AND
FY 2025 MRF NORMAL COST PERCENTAGES (NCPs)**

FY 2025 NCP SUMMARY

Below is a summary of the proposed changes and their impact on the FY 2025 full- and part-time NCPs.

	<u>DoD</u>		<u>Total</u>	
	<u>Full-time</u>	<u>Part-time</u>	<u>Full-Time</u>	<u>Part-time</u>
FY 2024 Budgeted DoD NCPs (Prior assumptions)	30.0%	23.1%	57.9%	31.6%
FY 2025 DoD NCPs from 9/30/2022 Valuation (Prior assumptions)	29.6%	22.8%	57.4%	31.3%
FY 2025 DoD NCPs from 9/30/2023 Valuation (Prior assumptions) *	29.6%	22.8%	57.5%	31.3%
i. Proposed Reserve Rates	0.0%	-0.1%	-0.1%	-0.3%
ii. Proposed Mortality Improvement Scales	-0.1%	-0.2%	-0.4%	-0.3%
iii. Proposed SBP Parameters	0.4%	0.4%	0.2%	0.5%
iv. Proposed VA Offset Parameters	-3.3%	-1.4%	0.2%	0.1%
FY 2025 DoD NCP from 9/30/2023 Valuation**	26.6%	21.5%	57.4%	31.3%

* Impact of additional year of mortality improvement (advancing the valuation year from 2022 to 2023).

** The total NCP (DoD + Treasury) for FY 2025 based on the above proposed changes is 57.4% for full-time and 31.3% for part-time. Therefore, the estimated FY 2025 Treasury NCP is 30.8% for full-time and 9.8% for part-time. See Attachment 1 for Treasury NCPs.

PROPOSED RESERVE RATES

SUMMARY IMPACT: These proposals result in no change (to the 3rd decimal place) in the FY 2025 full-time DoD NCP, a 0.1% decrease in the part-time NCP, and a decrease in the 9/30/2022 accrued liability of \$17.8 billion (or 0.8%).

PROPOSAL: We propose the following updates to reserve retirement rates and blow-up factors and elimination of the reserve career points adjustment factors.

1) Selected reserve and grey area reserve retirement rates and blow-up factors

The proposed rates decrease the FY 2025 full-time DoD NCP by 0.2%, decrease the part-time NCP by 2.2%, and decrease the 9/30/2022 accrued liability by \$25.8 billion (or 1.2%).

- The proposed reserve retirement rates and grey area blow-up factors are based on the same experience period (FYs 2017-2019), but include Coast Guard data (minimal impact).
- The proposed reserve retirement rates improve the actuarial valuation model's short-term projection of reserve retirees when compared to actual for the past several years. Using current rates, the model projected 33% more reserve retirees compared to actual for FY 2022 (26,000 projected vs. 19,500 actual). We propose removing ad hoc increases applied to the current reserve retirement rates below age 60 to account for pre-age 60 retirements per NDAA 2008 (minimal impact). We also propose changing reserve retirement rates applied at the "edges" of age and years of service, e.g., age 63 and over, and 41 or more years of service. We currently assume 100% retirement when a retiree reaches an edge, and the proposal is to apply actual rates of retirement instead (except for age 59 which we will continue to use 100% rate) (moderate impact). These changes lower the projection of FY 2022 reserve retirees to 21,000.

2) Eliminate Reserve Career Points Adjustment factors

Eliminating these factors increases the FY 2025 full-time DoD NCPs by 0.2%, increases the part-time NCP by 2.1%, and increases the 9/30/2022 accrued liability by \$8.0 billion (or 0.4%).

- Career Points Adjustment factors model demographic changes on the progression of average career points throughout the projection (moderate impact). The factors are calculated as the ratio of average career points for continuing reservists to average career points for reservists on the file at the beginning of the year, and have been applied to the beginning of year average career points.

RATIONALE: To improve the projection of reserve retirements, simplify the reserve model, and to incorporate Coast Guard experience, and to better align reserve retirements at the edges of age and years of service with actual data and reflect Board reserve advisors' view that applying actual rates of retirement (instead of 100%) is more reasonable. Attachment 2 provides a comparison of the current and proposed rates.

PROPOSED MORTALITY IMPROVEMENT SCALES

SUMMARY IMPACT: This proposal results in a 0.1% decrease to the FY 2025 full-time DoD NCP, a 0.2% decrease to the part-time DoD NCP, and a decrease in the accrued liability of \$35.5 billion (or 1.7%).

PROPOSAL: We propose the following changes to the military mortality improvement (Mil MI) projection scales: (a) incorporate 2021 data with 0% weight and 2022 data with 25% weight; (b) use military retiree long-term rates of mortality improvement for survivors; and (c) eliminate COVID loads.

The current Mil MI factors in our valuation are based on FY00-20 military data and use modified methods underlying the SOA's MP-2021 model, with loads due to COVID in FYs 2021-2023. The proposed Mil MI projection scales are used to improve death rates for MRF retirees, survivors, and spouses of retirees.

RATIONALE: Updating the Mil MI factors each year helps to keep us aware of emerging trends and techniques in mortality projection. The current Mil MI factors do not include FY21 data due to 16% excess deaths, and include COVID loads in FYs 2021-2023, reverting back to pre-COVID levels thereafter. Excess deaths for military retirees in FY22 were 10%. In addition to lingering effects from COVID, experts suggest that excess deaths for non-COVID reasons (for example, deaths of despair and continued reduction in healthcare capacity) may also continue for many years after 2022. Thus, we are proposing giving a weight of 0% to FY 2021, and a weight of 25% to FY 2022. To avoid potential edge effects of the model, we are continuing to step back 3 years so that 2019 is the starting point of the projection.

We also propose using military retiree long-term rates of mortality improvement for survivors (the current survivor long-term rates are based on those published by the SOA). To obtain the long-term rates for survivors we used a 50% weighting of officer and enlisted long-term rates.

Attachment 3 provides a comparison of the current and proposed methods. Attachment 4 provides the heat maps for the Mil MI factors. Attachment 5 provides illustrations of the comparison between the proposed and current long-term rate of mortality improvement for survivors.

PROPOSED SBP PARAMETERS

SUMMARY IMPACT: This proposal results in a 0.4% increase to the FY 2025 full-time DoD NCP, a 0.4% increase in the part-time NCP, and a decrease in the 9/30/2022 accrued liability of \$1.5 billion (or 0.1%).

PROPOSAL: We propose an update to SBP parameters¹ from the experience periods listed below to FY 2021 for the following:

- SBP new retiree election rate, FYs 2007-2009
- SBP new retiree premium reduction factors, FYs 2007-2009
- SBP continuing retiree parameters modeling survivor benefits, FY 2008

RATIONALE: The purpose of the update is to reflect changes in SBP experience over time, such as potential effects of sunseting CSB/Redux on December 31, 2017, and repeal of the DIC offset in NDAA FY 2020. The proposed parameters also incorporate Coast Guard experience. See Attachments 6 and 7 for a description of the rates development.

¹ Descriptions of SBP parameters can be found in Appendix F of the 9/30/2021 MRF Valuation Report.

PROPOSED VA OFFSET PARAMETERS/DISABILITY RATES

SUMMARY IMPACT: This proposal results in a 3.3% decrease to the FY 2025 full-time DoD NCP, a 1.4% decrease in the part-time NCP, and less than 0.01% change in the 9/30/2022 accrued liability.

PROPOSAL: We propose adjustments to VA Offset parameters and disability rates used in the valuation to reflect future expectations due to the Promise to Address Comprehensive Toxics (PACT) Act.

- Adjust VA Offset parameters for new non-disabled retirees such that the annual increase in concurrent receipt outlays in an open group run is 10% in 30-40 years.
- Ad hoc increases to the permanent and temporary disability retirement rates for both actives and reserves of 10% while decreasing loss incidence by the same number to reflect the anticipated increase in disability retirees due to the PACT Act.

RATIONALE: The PACT Act was passed in August 2022. The number of new veterans receiving VA disability compensation in 2031 is projected to be 20% higher as a result of this legislation. However, the resulting increase in concurrent receipt outlays is not expected to be as great. We propose using a 10% increase in outlays until more data is available. It should be noted that there is a potential for significant increases in concurrent receipt outlays in the future. The Board's letter to the Secretary of Defense regarding concurrent receipt is at Attachment 8.

Attachment 1: Proposed changes and their impact on FY2025 Full- and Part-time NCPs:**DoD NCP**

	Full-time	Part-time
FY 2024 Budgeted DoD NCPs (Prior assumptions)	30.0%	23.1%
FY 2025 DoD NCPs from 9/30/2022 Valuation (Prior assumptions)	29.6%	22.8%
FY 2025 DoD NCPs from 9/30/2023 Valuation (Prior assumptions) *	29.6%	22.8%
i. Proposed Reserve Rates	0.0%	-0.1%
ii. Proposed Mortality Improvement Scales	-0.1%	-0.2%
iii. Proposed SBP Parameters	0.4%	0.4%
iv. Proposed VA Offset Parameters/Disability Rates	-3.3%	-1.4%
FY 2025 DoD NCP from 9/30/2023 Valuation	26.6%	21.5%

Total NCP

	Full-time	Part-time
FY 2024 Budgeted Total NCPs (Prior assumptions)	57.9%	31.6%
FY 2025 Total NCPs from 9/30/2022 Valuation (Prior assumptions)	57.4%	31.3%
FY 2025 Total NCPs from 9/30/2023 Valuation (Prior assumptions) *	57.5%	31.3%
i. Proposed Reserve Rates	-0.1%	-0.3%
ii. Proposed Mortality Improvement Scales	-0.4%	-0.3%
iii. Proposed SBP Parameters	0.2%	0.5%
iv. Proposed VA Offset Parameters/Disability Rates	0.2%	0.1%
FY 2025 Total NCP from 9/30/2023 Valuation	57.4%	31.3%

Treasury NCP

	Full-time	Part-time
FY 2024 Budgeted Treasury NCPs (Prior assumptions)	27.9%	8.5%
FY 2025 Treasury NCPs from 9/30/2022 Valuation (Prior assumptions)	27.8%	8.5%
FY 2025 Treasury NCPs from 9/30/2023 Valuation (Prior assumptions) *	27.9%	8.5%
i. Proposed Reserve Rates	-0.1%	-0.2%
ii. Proposed Mortality Improvement Scales	-0.3%	-0.1%
iii. Proposed SBP Parameters	-0.2%	0.1%
iv. Proposed VA Offset Parameters/Disability Rates	3.5%	1.5%
FY 2025 Treasury NCP from 9/30/2023 Valuation	30.8%	9.8%

* Reflects an additional year of mortality improvement in the NCPs (advancing the valuation year from 2022 to 2023).

Attachment 2: Reserve Retirement Update

Footnotes:

1. Additional changes to the proposed rates are including CG experience for both select and grey and using YOS <41 for the shown ages for grey retirements. A factor (not shown here) is applied to the grey retirement rate at 41 YOS. This adds a dimension to the retirement rates to account for the difference between 41 YOS retirements and the average of YOS <41 used elsewhere. At age 59 and 41 YOS, a retirement rate of 100% is used.
2. Both the actual retirements and the proposed rates do not include grey area retirees who appear on the end of year file as retired while not being on the beginning of year file. These retirees are modeled with the grey area blow up factor applied to the shown rates.
3. The proposed changes have the following impact on the probability of a reserve new entrant making retirement:
Officer: 61% to 58% Enlisted: 16% to 15% All: 18% to 16%

Attachment 3: MI METHODS/ASSUMPTIONS COMPARISON:

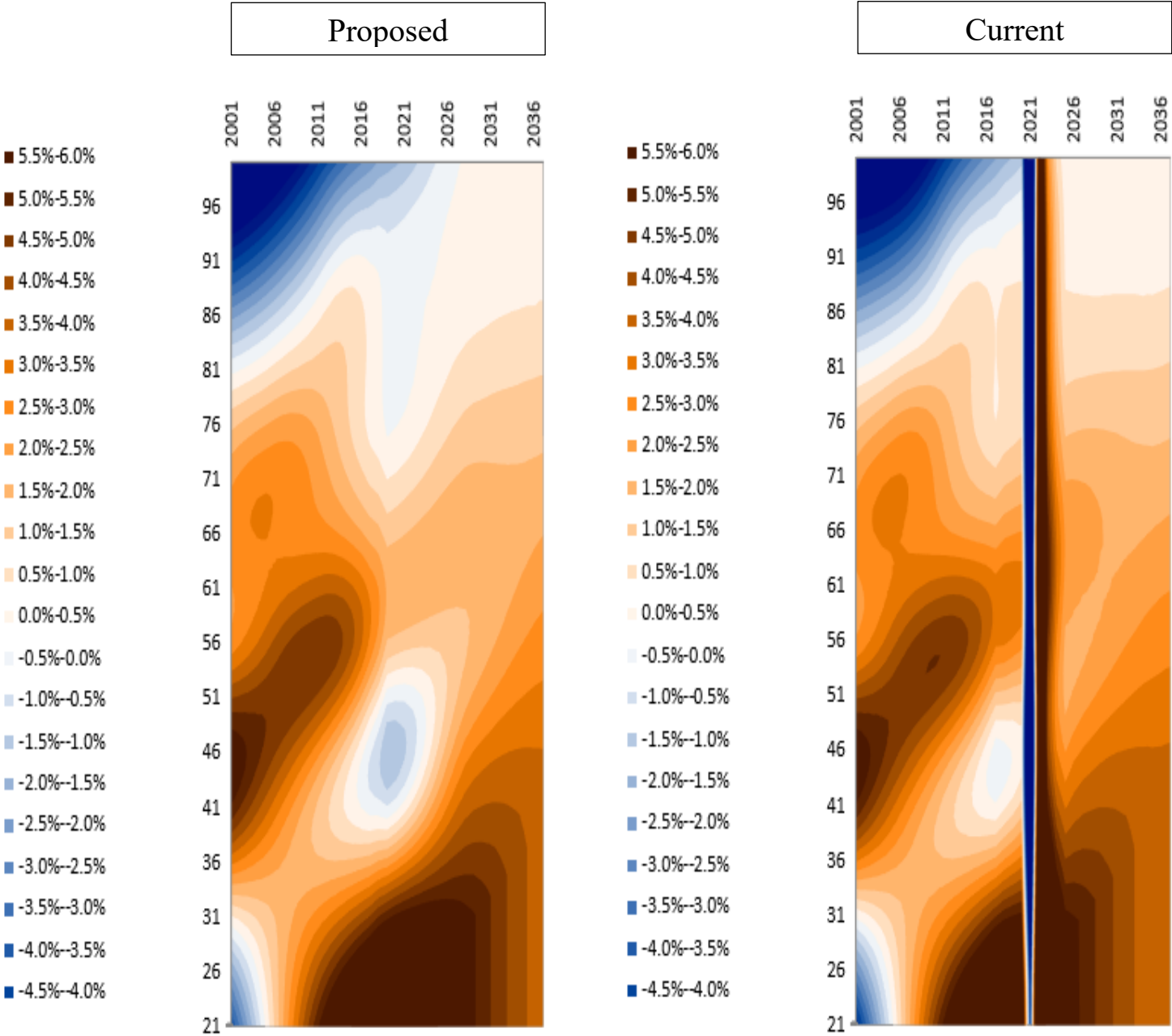
<u>Model Component</u>	<u>SOA MP 2021¹</u>	<u>DoD Current</u>	<u>DoD Proposed</u>
Underlying Mortality Data	SSA-published through 2019	DoD data 2000 through 2020	DoD data 2000 through 2022, with weights of 0% and 25% applied to 2021 and 2022 data
Graduation Technique	2D Whittaker Henderson; Order 3	2D 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. ²		
Initial Slope Constraint	0		
Long Term MI	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.	Enlisted: 3.5% before age 45, linear decrease to 0.25% to age 90, then linear decrease to 0 at age 115. Officer: 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 SOA long term rate of improvement.	No change to Enlisted and Officer. Survivor: A 50% and 50% blend of the DoD retiree officer and enlisted long-term rates of improvement.
Convergence Period – Horizontal (Age)	10 Years		
Convergence Period – Diagonal (Cohort)	20 Years ³		
Additional COVID adjustment	None	Load the mortality by 15% for FY 2021, 4% for FY 2022, and 1% for FY 2023	None

¹ SOA did not produce a new projection scale in 2022 as the COVID impacted data was uncertain to be predictive of future mortality

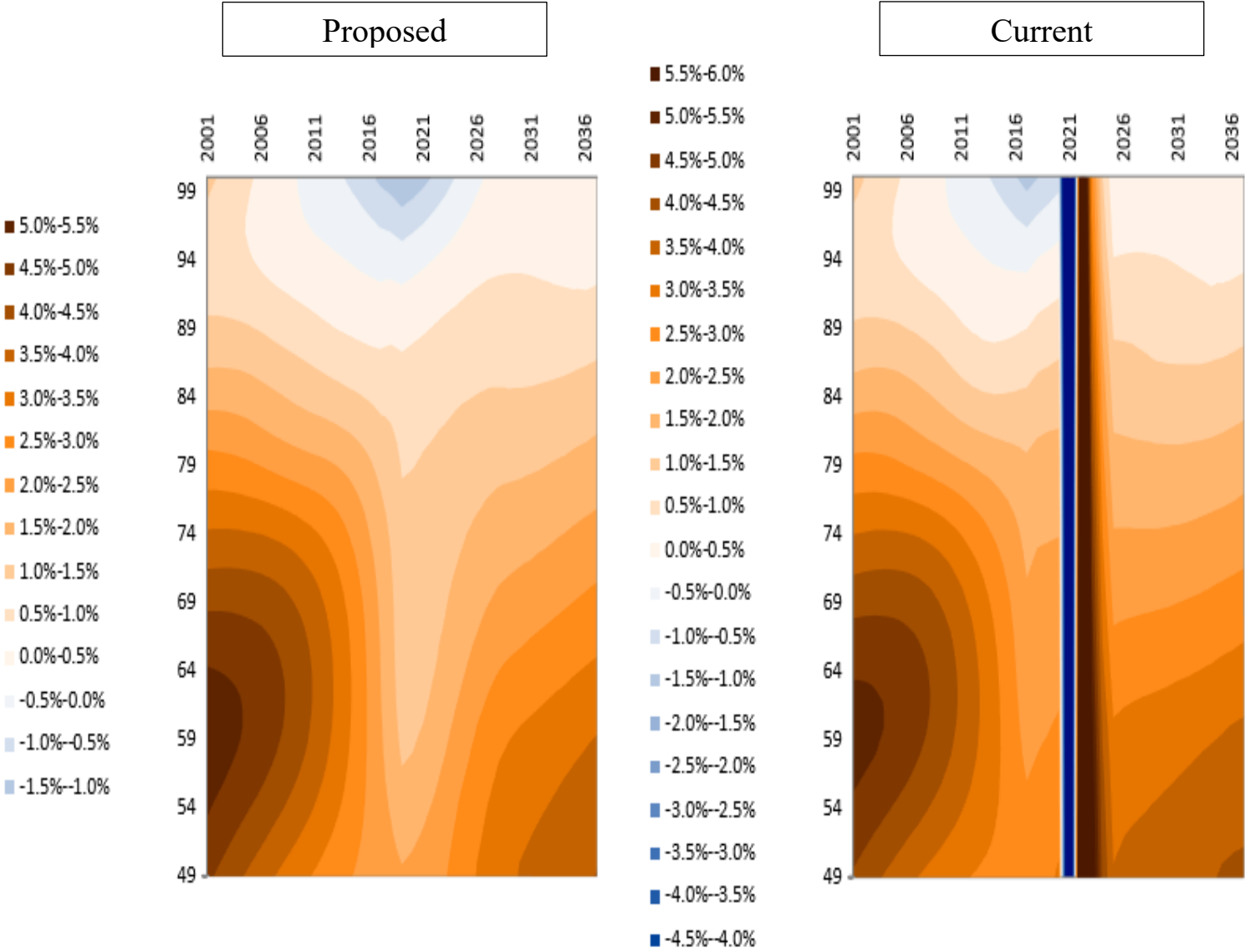
² Starting MI values for young ages without credible data are set equal to the MI for the youngest credible age. Starting MI values for old ages without credible data grade to 0 at age 115, analogous to the assumed long-term MI.

³ DoD proposed improvement scales converge to an ultimate level in 2039 (first projection year is 2019).

Attachment 4: DoD Mortality Improvement Heat Map – Retired Enlisted

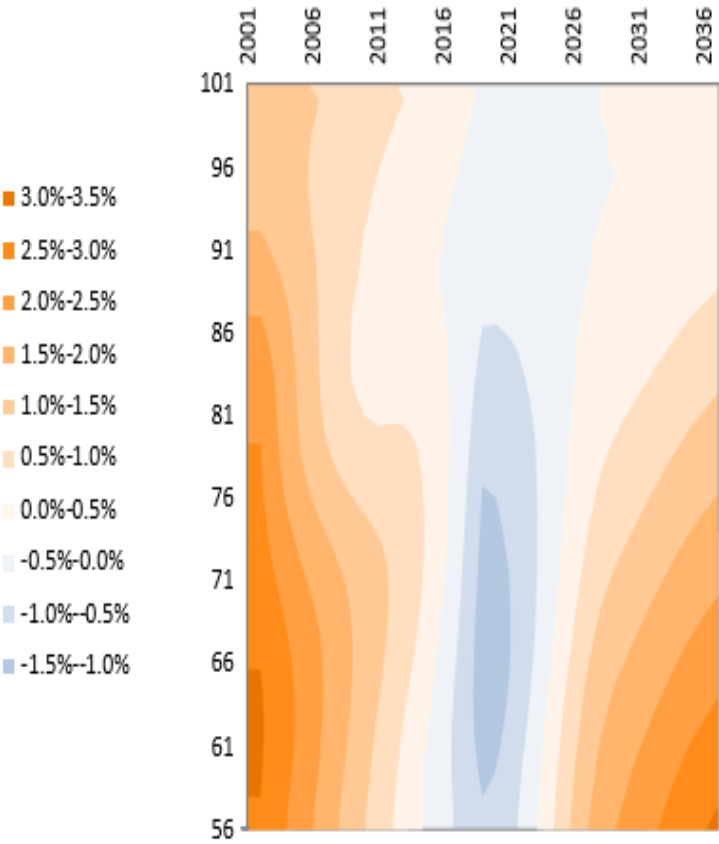


Attachment 4 (Cont.): DoD Mortality Improvement Heat Map – Retired Officer



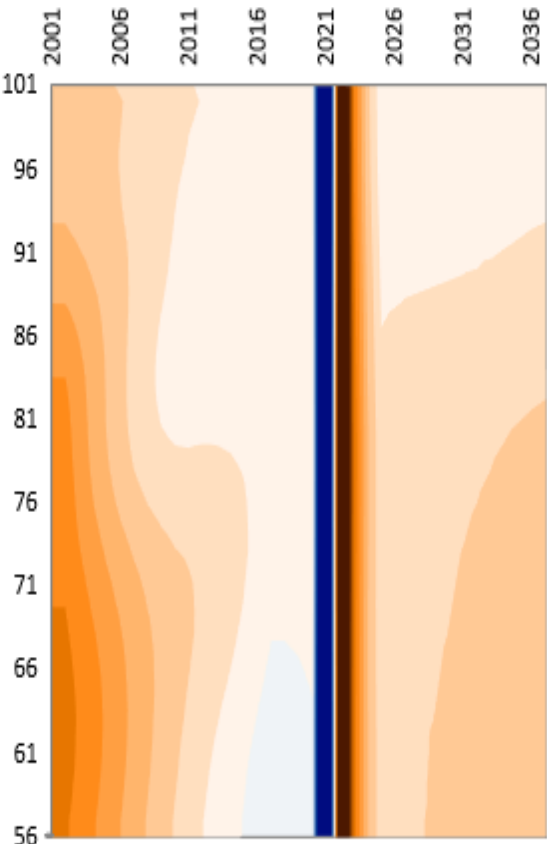
Attachment 4 (Cont.): DoD Mortality Improvement Heat Map – Spouse

Proposed

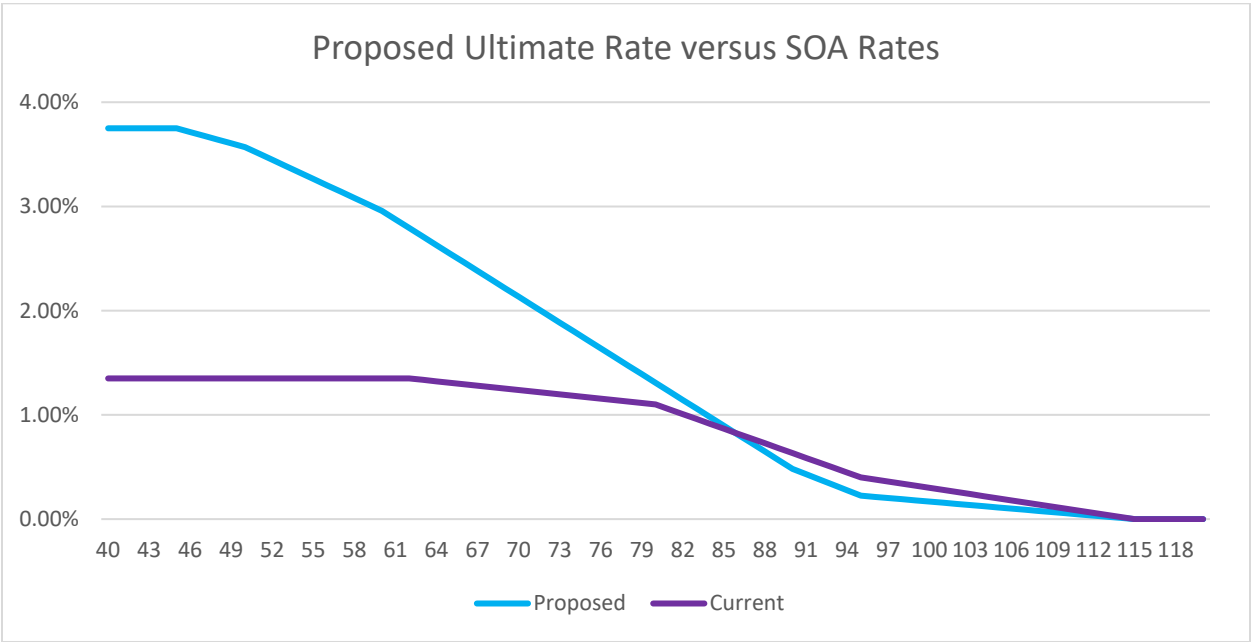


- 5.5%-6.0%
- 5.0%-5.5%
- 4.5%-5.0%
- 4.0%-4.5%
- 3.5%-4.0%
- 3.0%-3.5%
- 2.5%-3.0%
- 2.0%-2.5%
- 1.5%-2.0%
- 1.0%-1.5%
- 0.5%-1.0%
- 0.0%-0.5%
- 0.5%-0.0%
- 1.0%--0.5%
- 1.5%--1.0%
- 2.0%--1.5%
- 2.5%--2.0%
- 3.0%--2.5%
- 3.5%--3.0%
- 4.0%--3.5%
- 4.5%--4.0%

Current

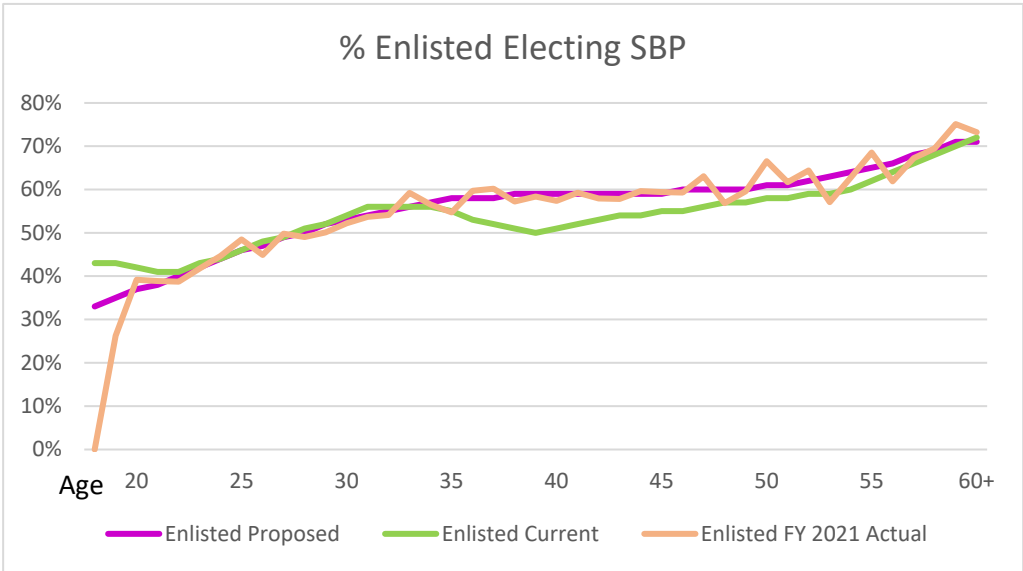
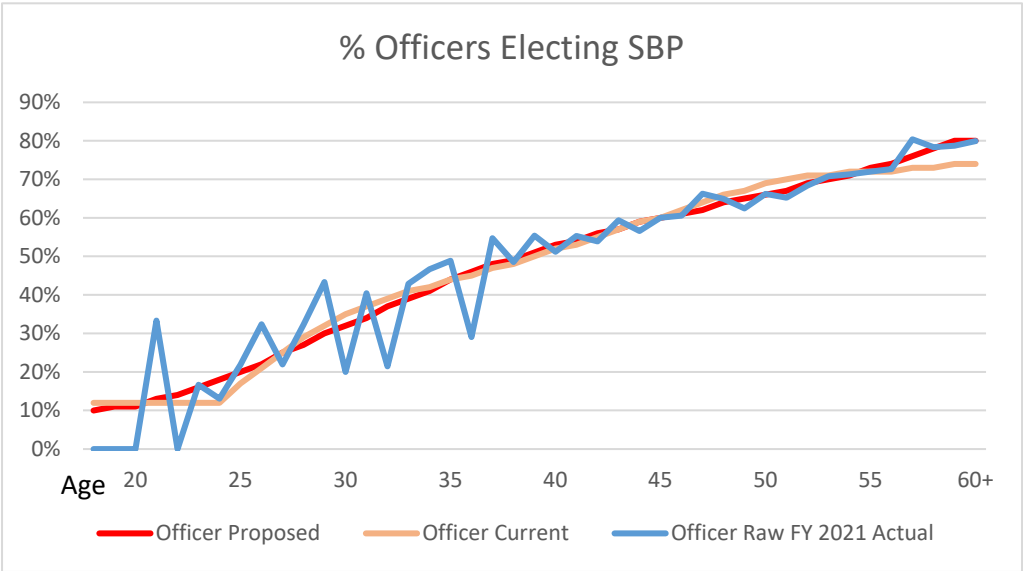


Attachment 5: Long Term Rate of Mortality Improvement for Survivors



Attachment 6: SBP Participation Rate Assumptions

SBP Participation Rate Assumptions



The election rate is for Spouse and Spouse-Child elections only. Includes former spouse

Reserve

SBP & RCSBP Participation Rates

Current Assumptions

	RC-SBP Participation			SBP Participation	
	Immediate	Deferred		Immediate	Deferred
Officer	0.438	0.094		0.811	0.000
Enlisted	0.456	0.067		0.809	0.000

Proposed Assumptions

	RC-SBP Participation Rates			SBP Participation Rates	
	Immediate	Deferred		Immediate	Deferred
Officer	0.624	0.012		0.855	0.000
Enlisted	0.700	0.023		0.821	0.000

Participation Rate is for all elections

Attachment 7: Other Updated SBP Parameters

SBP New Retiree Premium Reduction Factors

Summary: The parameters updated are described in the FY 2021 Technical Reference to the MRS Valuation, Actives Table F-1 Item 6 as “Reduction Factors for SBP: Premium amounts, as a percent of retired pay, by age, officer/enlisted status, and benefit tier.” Specifically, these parameters adjust between net and gross pay accounting for offset due to SBP premium along with effects due to VA offset. These parameters are used at retirement (Fig. 1), 30-year paid-up (Fig. 2), and adjusted for BRS lump sum election reduction in gross pay at retirement and used again for gross pay restoral at age 67 (Fig. 3).

Additionally, we propose to simplify the SBP premium reduction used at retirement by combining all ages and combining CSB and non-CSB. The proposed simplification does not change the NCPs at a 0.1% level when compared to simply updating the prior method with new experience.

Experience: Update from FYs 2007-2009 (2007-2008 with adjustments for the BRS parameters) to FY 2021

Summary Impact: FT NCP -0.1%, PT NCP no change

SBP Continuing Retiree Parameters Modeling Survivor Benefits

Summary: The parameters updated are described in Survivor Table F-1 Item 5 as “Rates for Electing SBP Options: Given that a member elects SBP; there is still a choice of options: spouse only, child only, spouse and child, or insurable interest. These are expressed as ratios to those electing spouse only or spouse/child coverage...” (Fig. 4-6) and Item 2 as “Ratio of SBP Base Amount to Net Retired Pay” (Fig. 7).

The people allocation factors go from electors in pay status to all electors. Therefore, values over 1 are possible and allocation factors for spouse/child are also needed. Insurable interest is not included in the following figures. The factors for it remain approximately zero except for disabled enlisted which saw a small increase for younger ages.

Experience: Update from FY 2008 to FY 2021

Summary Impact: FT NCP +0.4%, PT NCP +0.3%

Figure 1: SBP Premium Offset for New Retirees

Current, FYs 2007-2009												
Age	NDIS NonCSB				NDIS CSB				DIS			
	All Retirees		Sp-SpCh Electors		All Retirees		Sp-SpCh Electors		All Retirees		Sp-SpCh Electors	
	Off	Enl	Off	Enl	Off	Enl	Off	Enl	Off	Enl	Off	Enl
16 to 25	-	-	-	-	-	-	-	-	0.99	0.981	0.962	0.958
26 to 30	-	-	-	-	-	-	-	-	0.986	0.973	0.938	0.948
31 to 35	-	-	-	-	-	-	-	-	0.972	0.968	0.938	0.944
36 to 40	0.971	0.97	0.939	0.941	0.973	0.973	0.932	0.933	0.97	0.967	0.938	0.942
41 to 45	0.966	0.969	0.942	0.941	0.969	0.971	0.934	0.934	0.963	0.963	0.939	0.941
46 to 50	0.962	0.968	0.942	0.943	0.964	0.97	0.934	0.935	0.96	0.963	0.939	0.939
51 to 55	0.957	0.966	0.941	0.942	0.96	0.968	0.933	0.934	0.962	0.956	0.938	0.939
56+	0.952	0.96	0.938	0.94	0.955	0.962	0.93	0.932	0.951	0.956	0.937	0.938

FY 2021 Experience												
Age	NDIS NonCSB				NDIS CSB				DIS			
	All Retirees		Sp-SpCh Electors		All Retirees		Sp-SpCh Electors		All Retirees		Sp-SpCh Electors	
	Off	Enl	Off	Enl	Off	Enl	Off	Enl	Off	Enl	Off	Enl
16 to 25	-	-	-	-	-	-	-	-	0.987	0.980	0.940	0.953
26 to 30	-	-	-	-	-	-	-	-	0.982	0.973	0.941	0.947
31 to 35	-	-	-	-	-	-	-	-	0.974	0.968	0.936	0.943
36 to 40	0.967	0.963	0.936	0.936	0.966	0.957	0.928	0.927	0.966	0.962	0.936	0.938
41 to 45	0.963	0.963	0.936	0.936	0.961	0.959	0.931	0.930	0.961	0.963	0.936	0.937
46 to 50	0.958	0.962	0.937	0.937	0.967	0.960	0.938	0.934	0.961	0.957	0.937	0.936
51 to 55	0.956	0.962	0.938	0.937	0.963	0.960	0.937	0.934	0.959	0.958	0.936	0.937
56+	0.952	0.960	0.939	0.937	0.951	0.955	0.935	0.932	0.965	0.957	0.935	0.938

Proposed							
NDIS				DIS			
All Retirees		Sp-SpCh Electors		All Retirees		Sp-SpCh Electors	
Off	Enl	Off	Enl	Off	Enl	Off	Enl
0.959	0.962	0.937	0.935	0.967	0.969	0.936	0.943

Figure 2: SBP Premium Offset Removal at 30-Year Paid-Up

Current					Proposed				
	SBP	Tot SBP & VA	DoD SBP & VA	Age		SBP	Tot SBP & VA	DoD SBP & VA	Age
Ndis Off	0.946	0.929	0.867	79	Ndis Off	0.959	0.955	0.721	76
Ndis Enl	0.954	0.918	0.849	76	Ndis Enl	0.962	0.948	0.584	73
Pdis Off	0.942	0.875	0.698	77	Pdis Off	0.967	0.384	0.349	74
Pdis Enl	0.953	0.837	0.716	70	Pdis Enl	0.969	0.414	0.368	71
Res Off	0.940	0.931	0.919	91	Res Off	0.937	0.926	0.790	90
Res Enl	0.954	0.939	0.934	91	Res Enl	0.950	0.915	0.763	90

Figure 3: BRS Lump Sum SBP Factors

Current					Proposed				
	All Retirees		Sp-SpCh Electors			All Retirees		Sp-SpCh Electors	
	25% LS	50% LS	25% LS	50% LS		25% LS	50% LS	25% LS	50% LS
NDIS Off	0.96437	0.94167	0.96437	0.94167	NDIS Off	0.945	0.917	0.916	0.874
NDIS Enl	0.97240	0.91474	0.97240	0.91474	NDIS Enl	0.949	0.924	0.914	0.871

Figure 4: NDIS SBP People Allocation Factors

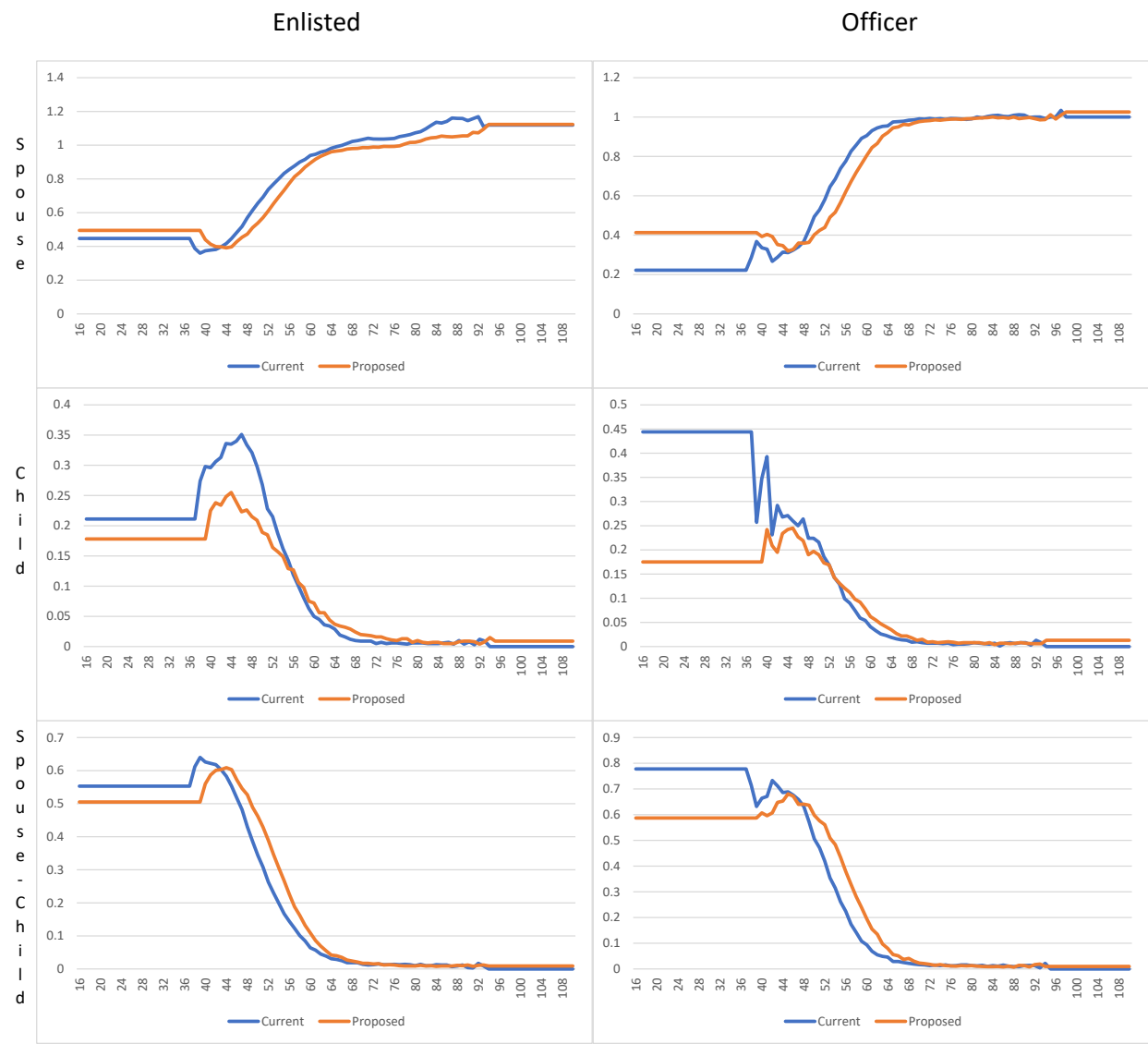


Figure 5: DIS SBP People Allocation Factors

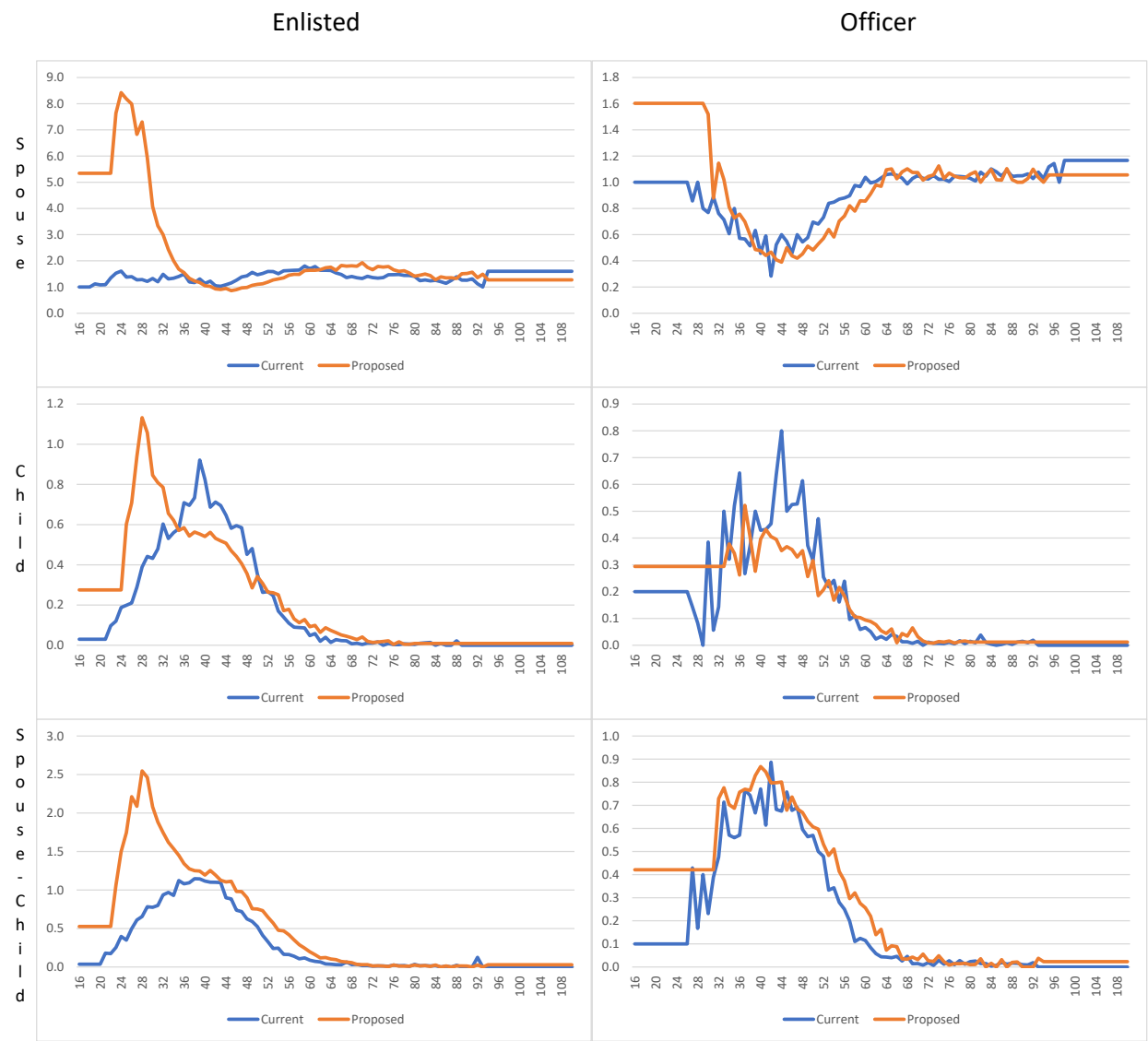


Figure 6: RESE SBP People Allocation Factors

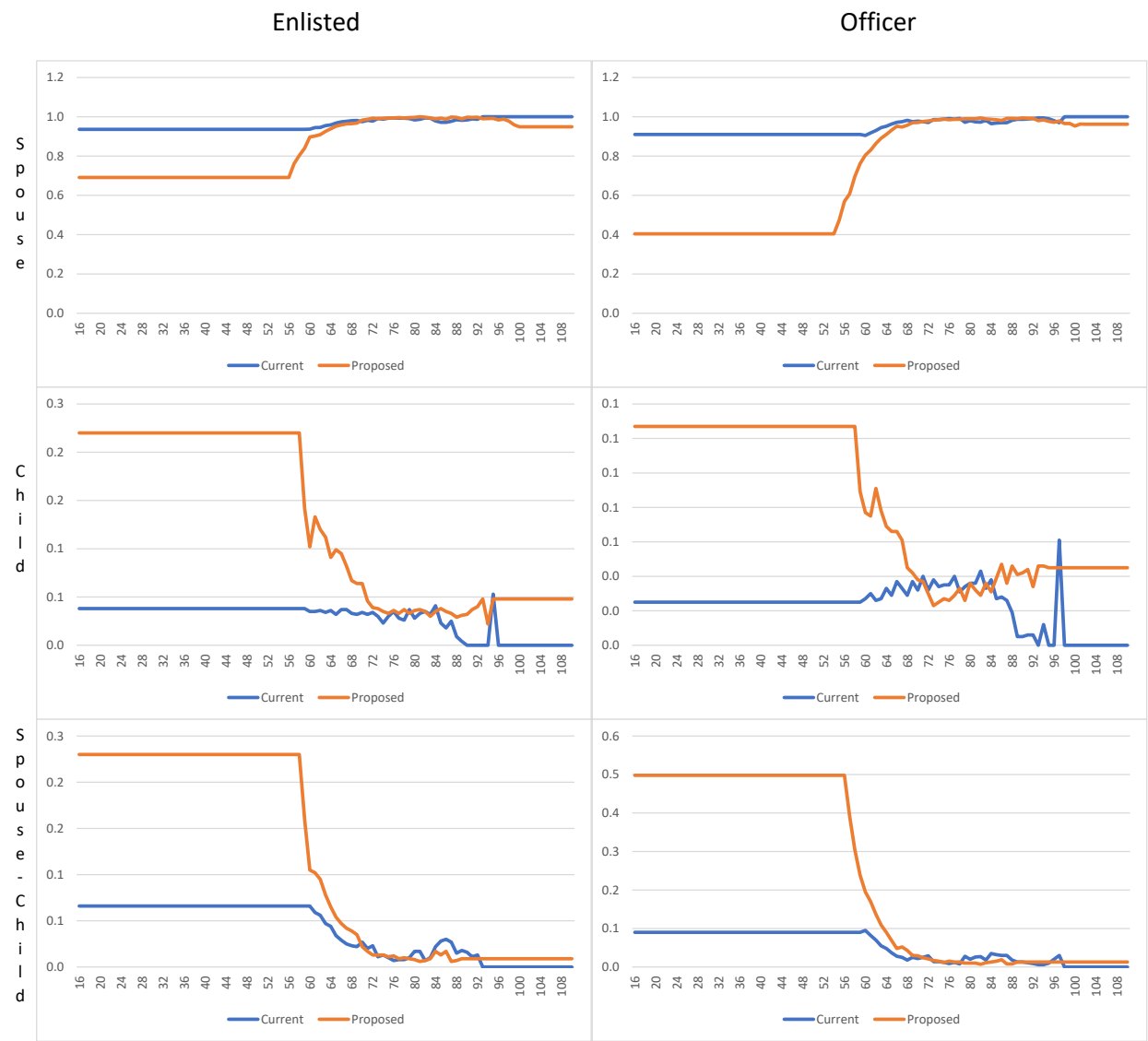
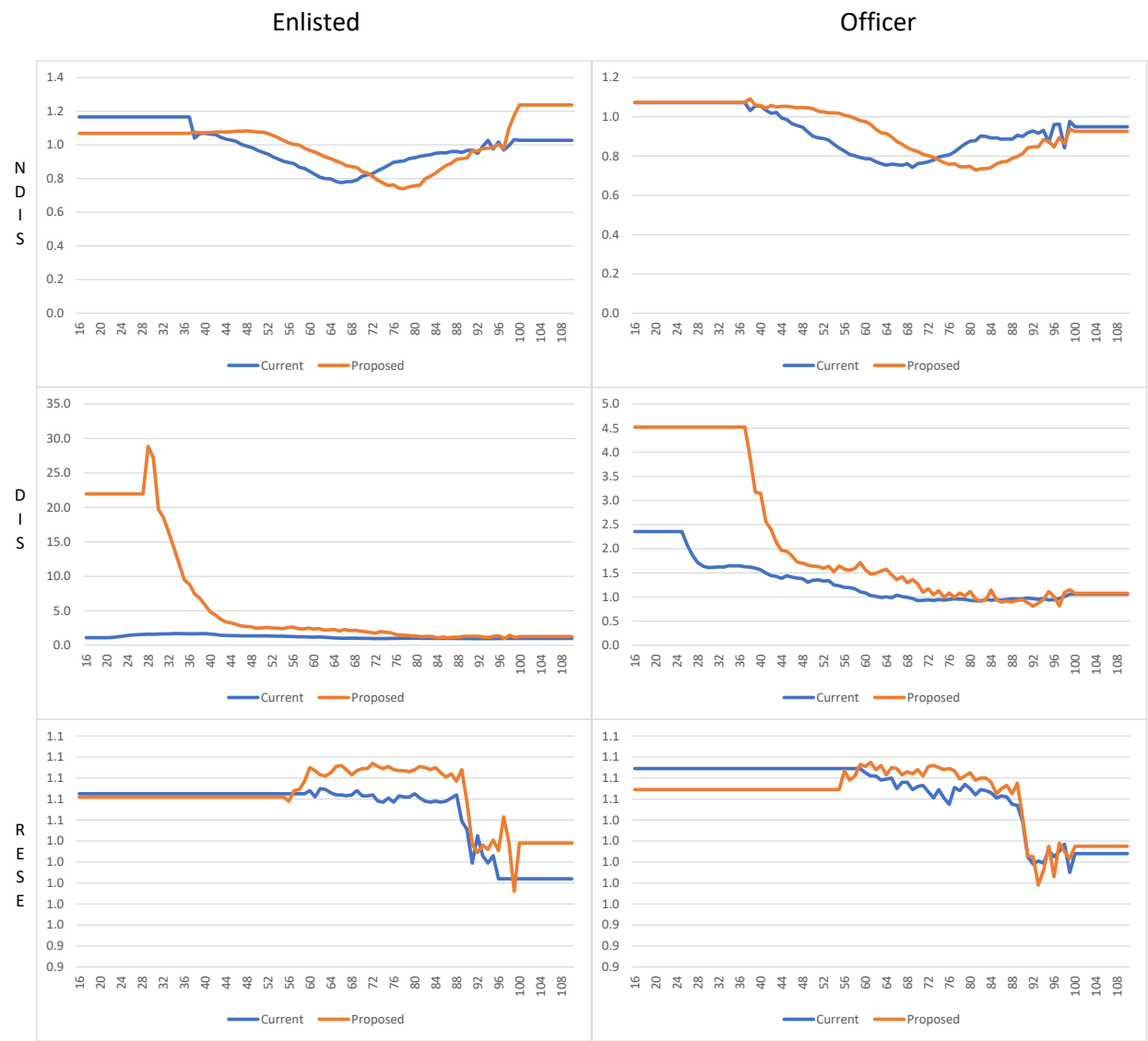


Figure 7: SBP Base/Net Factors



Attachment 8: Board's Letter Regarding Concurrent Receipt



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

December 2, 2022

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

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

Dear Secretary Austin:

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

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

Background

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

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

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

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

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

Current Observations

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

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

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

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

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

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

Recommendation

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

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

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

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

- As we have said in prior Quadrennial Reports, the Board feels the appropriate way to fund NCPs would be to assign the total NCPs to DoD and include enough funding in its annual budget to cover that cost. We understand this would require significant changes to current law.
- We believe the original intent of Concurrent Receipt was to protect DoD from an unexpected jump in cost triggered by a law change beyond DoD's control. Elimination of the VA disability benefit offset in 2004 triggered a *one-time* increase of the total NCP based on utilization of VA disability benefits *at that time*. Increased utilization of VA disability benefits after 2004 should have no effect on NCP as these benefits were never offset. Currently, the language, "to be determined without regard to section 1413a or 1414 of this title," appears to bind us to an approach that continues to decrease DoD's NCP share. Amending or reinterpreting the Concurrent Receipt rule to align with its original intent, shielding the DoD budget from the one-time cost increase of 2004, would solve this issue.

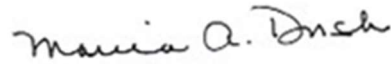
Comment about VA Funding

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

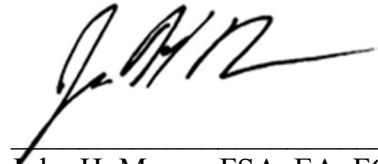
In our prior Quadrennial Reports, we have recommended that accrual accounting, rather than a pay-as-you-go basis, be used for VA-funded education benefits as it is for DoD-funded education benefits. We effectively make the same recommendation here. The increasingly significant VA disability benefits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

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

Sincerely,



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



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



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

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



Voluntary Separation Incentive Fund Board of Actuaries Meeting

Defense Finance and Accounting Service

Jonathan Poe
Enterprise Accounting and Auditing Services (EAAS)
Financial Reporting
July 12, 2023



Agenda



- Overview
- Financial Data
- Fund Status



- Short Term Liquidity

- ✓ No new investing
 - ✓ \$ 27.5M in overnights (May 31)
 - ✓ \$ 0.89M in cash (May 31)
- ✓ Outflows on track to surpass inflows
 - ✓ FY 2023 program expense \$12.9M (May 31), \$25M Estimated as of September 2023
 - ✓ FY 2023 program revenue \$13.0M (May 31)
 - ✓ FY 2023 interest revenue \$1.4M (May 31)

- Long Term Liquidity

- ✓ \$26.6M long-term par (May 31)
- ✓ No new program entrants since 2001





Summary Financial Analysis

Year Ended September 30

(In Millions)

	FY 2022	FY 2021	% Change
Service Contributions	\$15.7M	\$21.4M	-27%
Interest Income	\$1.4M	\$1.6M	-13%
Total Revenue	\$17.1M	\$23.0M	-26%
Benefit Payments	<u>\$30.4M</u>	<u>\$37.4M</u>	<u>-19%</u>
Total Expense	<u>\$30.1M</u>	<u>\$37.1M</u>	<u>-19%</u>





Interest Analysis

Year Ended September 30

(In Millions)

Interest Income

	FY 2022	FY 2021	\$ Change
Interest Revenue--Par	\$1.9	\$2.1	-\$0.2
Interest Revenue--Inflation	\$0.0	\$0.0	\$0.0
Interest Revenue--Discount	\$0.09	\$0.1	-\$0.01
Interest Revenue--Premium	<u>-\$0.6</u>	<u>-\$0.6</u>	<u>\$0.0</u>
	<u>\$1.4</u>	<u>\$1.6</u>	<u>-\$0.2</u>





Voluntary Separation Incentive For the Year Ending September 30, 2022

(in millions)

Assets	
Fund Balance with Treasury	\$ 1.60
Investments	
Overnight	\$4.40
Long term	
Par	\$46.32
Premium outstanding	\$2..10
Discount outstanding	-\$..01
Interest receivable	<u>\$.50</u>
Total Long Term Investments	<u>\$48.91</u>
Total Investments	<u>\$53.31</u>
Total Assets	<u>\$54.91</u>
Liabilities	
Military Retirement and Other Federal	
Employment Benefits	
Due and Payable	\$1.50
Actuarial Liability	<u>\$107.74</u>
Total Military and Other Federal Employment Benefits	<u>\$109.24</u>
Total Liabilities	\$109.24
Net Position	
Cumulative Results of Operations	\$-54.33
Total Liabilities and Net Position	<u>\$54.91</u>



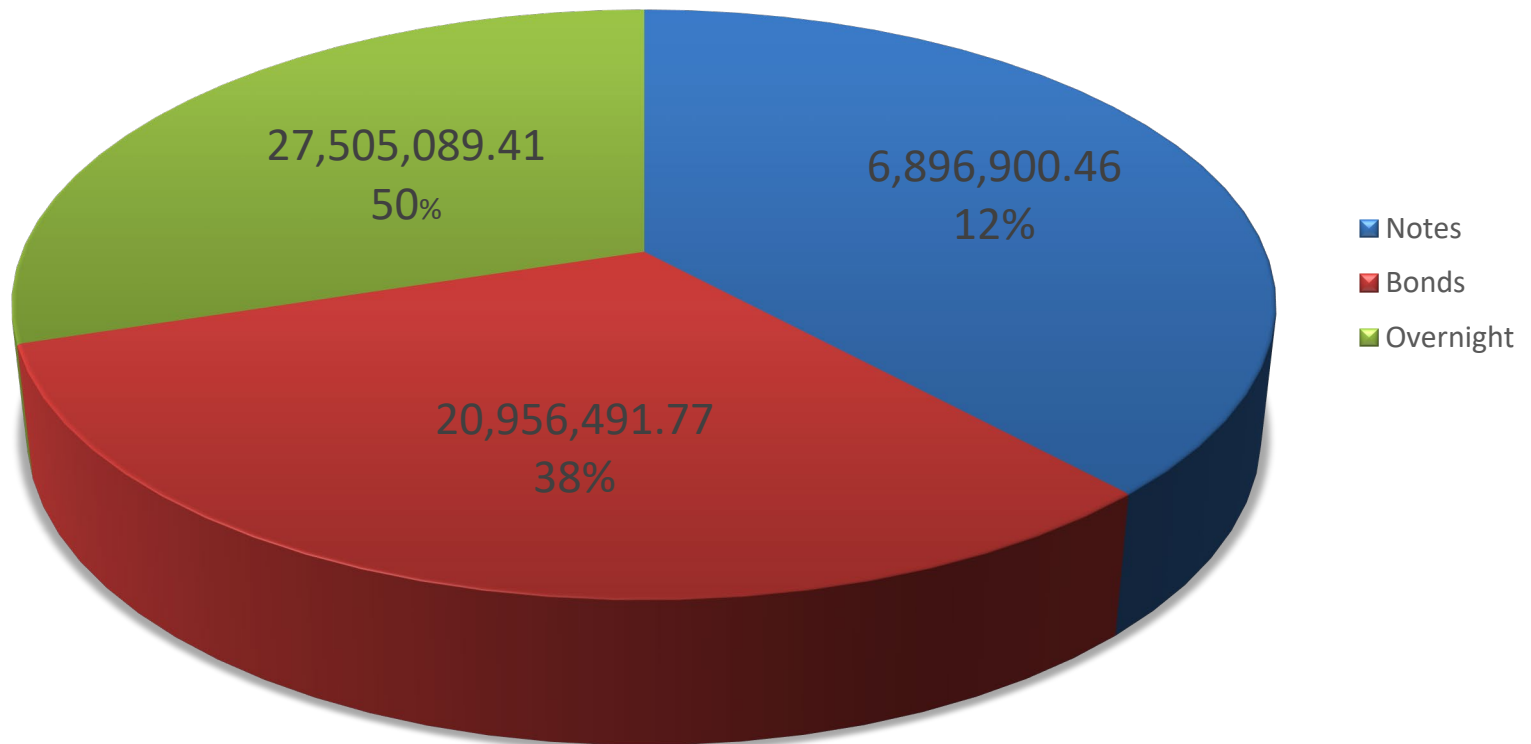


Effective Fund Yields

FY	Yield
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%
2022	2.29%



Voluntary Separation Portfolio As of May 31, 2023



FUND STATUS

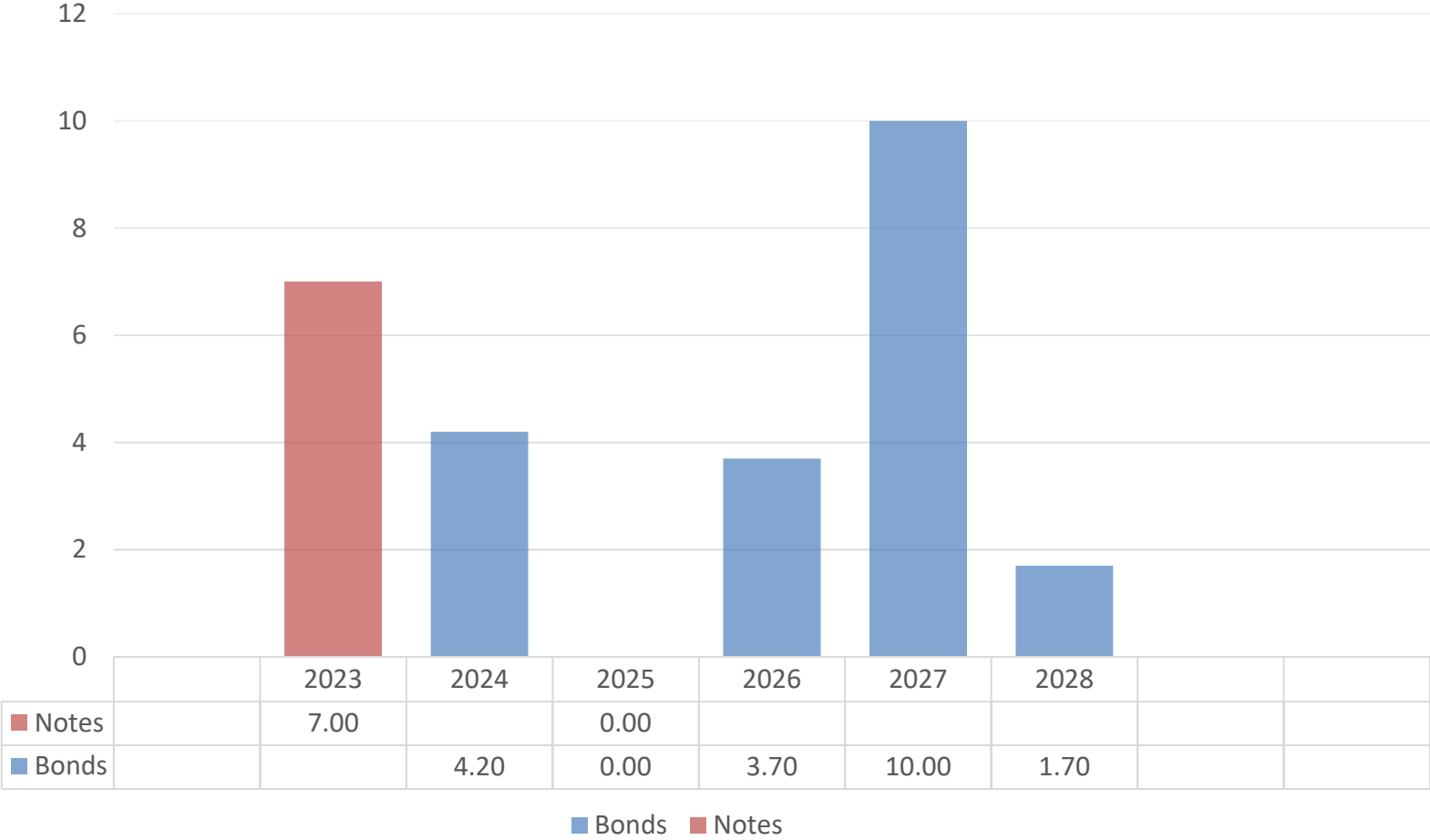


Security Description	Shares/Par	Book Value	Market Value
MK BOND 7.500% 11/15/2024	\$ 4,218,497.61	\$ 4,540,369.60	\$ 4,378,009.55
MK BOND 6.000% 02/15/2026	\$ 3,667,977.19	\$ 4,065,547.61	\$ 3,835,328.65
MK BOND 6.625% 02/15/2027	\$ 10,000,000.00	\$ 11,063,628.54	\$ 10,903,125.00
MK BOND 5.250% 11/15/2028	\$ 1,721,664.16	\$ 1,945,206.48	\$ 1,840,028.57
Total BONDS	\$ 19,608,138.96	\$ 21,614,752.23	\$ 20,956,491.77
MK NOTE 2.750% 11/15/2023	\$ 6,997,578.71	\$ 6,998,122.12	\$ 6,896,900.46
Total NOTES	\$ 6,997,578.71	\$ 6,998,122.12	\$ 6,896,900.46
ONE DAY 5.23 % 06/01/2022	\$ 27,505,089.41	\$ 27,505,089.41	\$ 27,505,089.41
Total	\$ 54,090,807.08	\$ 56,117,963.76	\$ 55,358,481.64





VSI Maturities
As of May 31, 2023



► 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**
2023	3.21%	0.35%	3.56%	4.44%
2024	2.70%	1.10%	3.80%	3.77%
2025	2.30%	1.39%	3.69%	3.25%
2026	2.20%	1.77%	3.97%	3.20%
2027	2.20%	1.36%	3.56%	3.12%
2028	2.20%	1.47%	3.67%	3.10%
2029	2.15%	1.29%	3.44%	3.10%
2030	2.10%	1.34%	3.44%	3.10%
2031	2.10%	1.29%	3.39%	3.10%
2032	2.10%	1.29%	3.39%	3.10%

5 Yr Avg	2.52%	1.19%	3.72%	3.56%
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5 Yr Fund Wgt Avg	2.50%	1.22%	3.72%	3.53%
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<u>Current Interest Assumption</u>	<u>Proposed Interest Assumption</u>
2.25%	2.75%

FY	Inflation	Real*	Fund Yield	Blue Chip Return on New Invests**
2033	2.10%	1.29%	3.39%	3.10%
2034	2.10%	1.26%	3.36%	3.10%
2035	2.10%	1.26%	3.36%	3.10%
2036	2.10%	1.26%	3.36%	3.10%
2037	2.10%	1.26%	3.36%	3.10%
2038	2.10%	1.26%	3.36%	3.10%
2039	2.10%	1.26%	3.36%	3.10%
2040	2.10%	1.26%	3.36%	3.10%
2041	2.10%	1.26%	3.36%	3.10%
2042	2.10%	1.26%	3.36%	3.10%

<u>Asset Duration</u>	<u>Liability Duration</u>
3.7	3.2

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, 2022)

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	64	\$7,817	\$3,215	212	\$7,464	44	\$15,403	\$4,966	142	\$14,763
2	48	\$8,338	\$3,518	174	\$7,862	49	\$16,500	\$6,225	136	\$15,112
3	42	\$8,900	\$3,748	154	\$8,046	35	\$16,805	\$6,121	108	\$16,667
4	31	\$8,876	\$3,538	132	\$8,799	26	\$17,082	\$4,960	97	\$16,704
5	33	\$9,667	\$4,419	110	\$9,643	31	\$19,030	\$4,687	54	\$17,457
6	36	\$9,706	\$3,629	95	\$9,574	25	\$19,880	\$4,132	57	\$18,747
7	22	\$10,429	\$4,651	82	\$9,572	10	\$20,207	\$6,650	38	\$18,596
8	22	\$10,473	\$4,021	88	\$9,355	9	\$20,217	\$9,812	41	\$16,175
9	18	\$11,304	\$4,649	34	\$10,674	4	\$21,285	\$11,112	28	\$16,818
10	13	\$11,969	\$4,418	29	\$11,784	9	\$22,341	\$7,735	18	\$23,559
11	4	\$12,405	\$1,824	13	\$12,317	5	\$24,747	\$5,395	11	\$23,772
12	2	\$13,365	\$4,938	5	\$11,955	1	\$21,055	\$1,824	6	\$24,516
13	1	\$22,747	\$3,612	1	\$22,808	1	\$36,771	\$1,824	0	\$0
14	0	\$0	\$0	0	\$0	1	\$23,312	\$1,824	4	\$32,192
15	0	\$0	\$0	0	\$0	2	\$31,674	\$16,830	0	\$0
16	0	\$0	\$0	0	\$0	2	\$39,049	\$11,436	0	\$0
17	1	\$24,676	\$11,496	0	\$0	1	\$26,391	\$8,964	0	\$0
18	1	\$27,253	\$12,600	0	\$0	1	\$27,253	\$15,900	0	\$0
Total	338	\$9,431	\$3,831	1,129	\$8,748	256	\$18,264	\$5,852	740	\$16,737

NOTE: (i) Table includes 2,463 VSI annuitants who have remaining benefit payments.

(ii) Table includes 423 survivors receiving benefits from 322 deceased VSI members.

(iii) Table excludes 481 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.

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

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

Based on 2.75% interest, 2.2% COLA on VA Offsets and 1.0% Non-COLA increase on VA Offsets

1. 10/1/2021 Unfunded Liability	\$67.4		
2. 1/1/2022 Amortization Payment on UFL	\$15.7		
3. Interest Rate Assumption	1.0225		
4. Expected Unfunded Liability on 10/1/2022 (1 X 3) - (2 X 3 ^ 0.75)	\$52.9		
5. Actual Unfunded Liability on 10/1/2022	\$49.0		
6. Total (Gain)/Loss in Unfunded Liability (5 - 4)	-\$3.86	-3.8%	
A. Total (Gain)/Loss Due to Assets	-\$1.02	-1.0%	
1. Asset (Gain)/Loss-Yield ¹	-\$0.03	0.0%	--> -0.1%
2. Asset (Gain)/Loss-Benefit Payments ²	-\$1.0	-1.0%	
B. Total (Gain)/Loss Due to Liability	-\$2.84	-2.8%	
1. Liability (Gain)/Loss-2022 COLA ³	-\$0.5	-0.5%	
2. Liability (Gain)/Loss-2021 VA Update ⁴	-\$0.4	-0.4%	
3. Liability (Gain)/Loss-Interest Rate	-\$1.5	-1.5%	
4. Liability (Gain)/Loss-VA Incr. Assump.	\$0.0	0.0%	
5. Liability (Gain)/Loss-Residual ⁵	-\$0.4	-0.4%	

(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: 2.29%

² Projected FY22 benefit payments: \$31.1M; actual FY22 benefit payments: \$30.1M

³ Projected 2023 COLA (excluding the VA Increase Assumption): 2.2%; actual 2023 COLA: 8.7%

⁴ Represents actual 2022 VA offsets being different than expected.

⁵ Represents DFAS data changes and residual.

VSI AMORTIZATION

(\$ in Millions)

Based on 2.75% interest, 2.2% COLA on VA Offsets and 1.0% Non-COLA increase on VA Offsets

VSI Valuation Results as of 9/30/2022:

a. 9/30/2022 PVFB	\$102.4	PVFB Sensitivity at 25 basis points: 1%
b. 10/1/2022 Fund	\$53.4	
c. 10/1/2022 UFL	\$49.0	

Amortization Schedule - DECREASING Amortization Payments:

d. 1/1/2024	\$10.6	
e. 1/1/2025 - expiration	44.9% 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 2023	\$13.0	\$59.7	\$1.4	\$25.5	\$42.3
FY 2024	\$10.6	\$47.0	\$1.1	\$20.9	\$33.1
FY 2025	\$7.8	\$35.9	\$0.8	\$17.3	\$24.4
FY 2026	\$6.1	\$26.6	\$0.6	\$13.6	\$17.6
FY 2027	\$4.7	\$19.2	\$0.4	\$10.5	\$12.2
FY 2028	\$3.5	\$13.2	\$0.3	\$7.9	\$8.2
FY 2029	\$2.6	\$8.7	\$0.2	\$5.7	\$5.2
FY 2030	\$1.8	\$5.5	\$0.1	\$3.9	\$3.2
FY 2031	\$1.2	\$3.4	\$0.1	\$2.6	\$1.8
FY 2032	\$0.7	\$2.1	\$0.0	\$1.6	\$1.0
FY 2033	\$0.39	\$1.2	\$0.0	\$0.9	\$0.5
FY 2034	\$0.19	\$0.7	\$0.0	\$0.4	\$0.3
FY 2035	\$0.13	\$0.5	\$0.0	\$0.3	\$0.2
FY 2036	\$0.08	\$0.2	\$0.0	\$0.2	\$0.1
FY 2037	\$0.04	\$0.1	\$0.0	\$0.1	\$0.0
FY 2038	\$0.02	\$0.0	\$0.0	\$0.0	\$0.0
FY 2039	\$0.00	\$0.01	\$0.0	\$0.00	\$0.0
FY 2040	\$0.00	\$0.00	\$0.0	\$0.000	\$0.0
FY 2041	\$0.00	\$0.000	\$0.0	\$0.0000	\$0.0

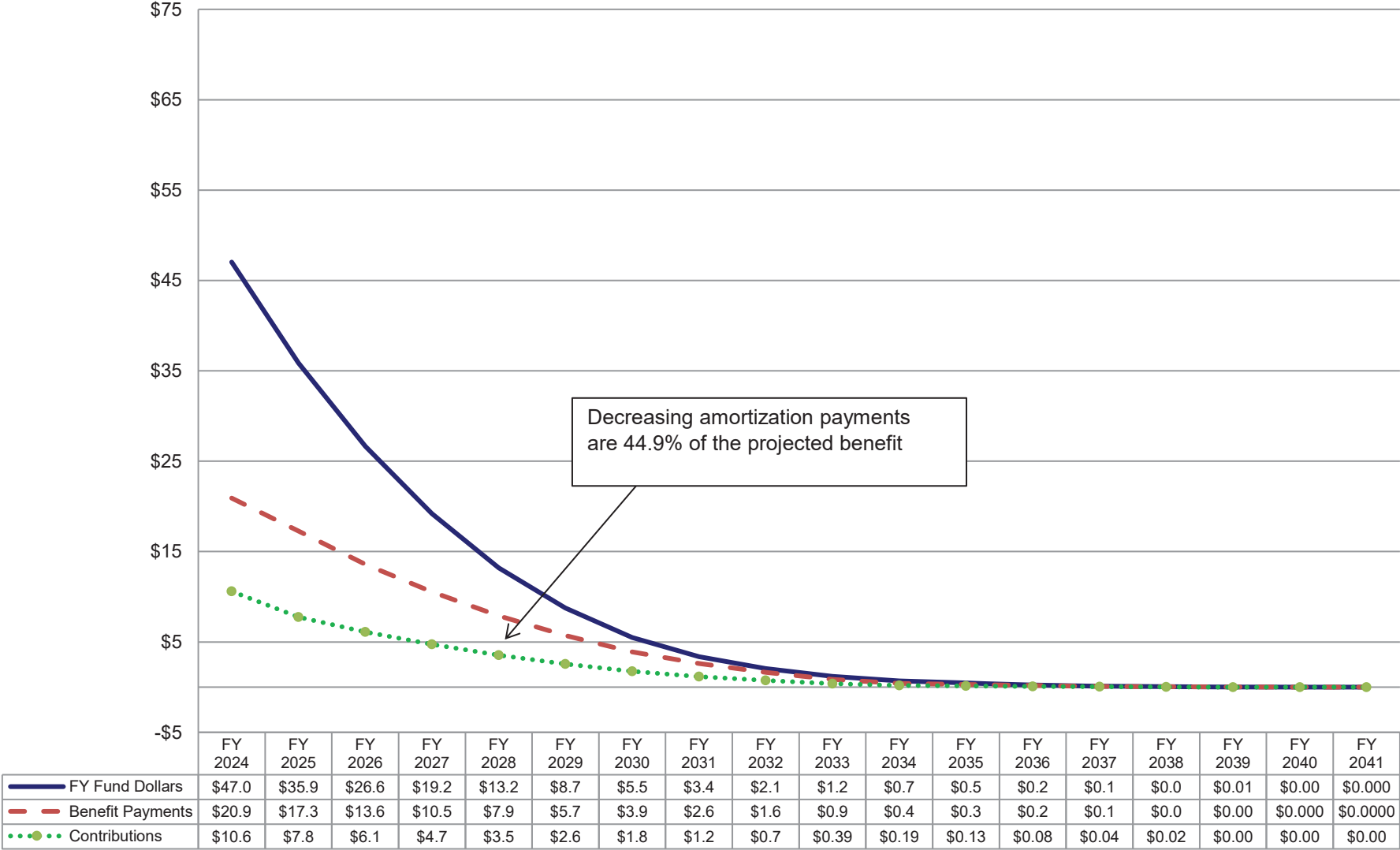
NOTE: VA compensation offsets VSI payments; VSI liability calculations reflect VA offsets

The last net VSI payment is projected to be in 2039.

44.9% is calculated by finding the percentage that draws fund to zero by the last benefit payment.

VSI CASH FLOW PROJECTIONS

(\$ in Millions)



ADVANA CONVERSION

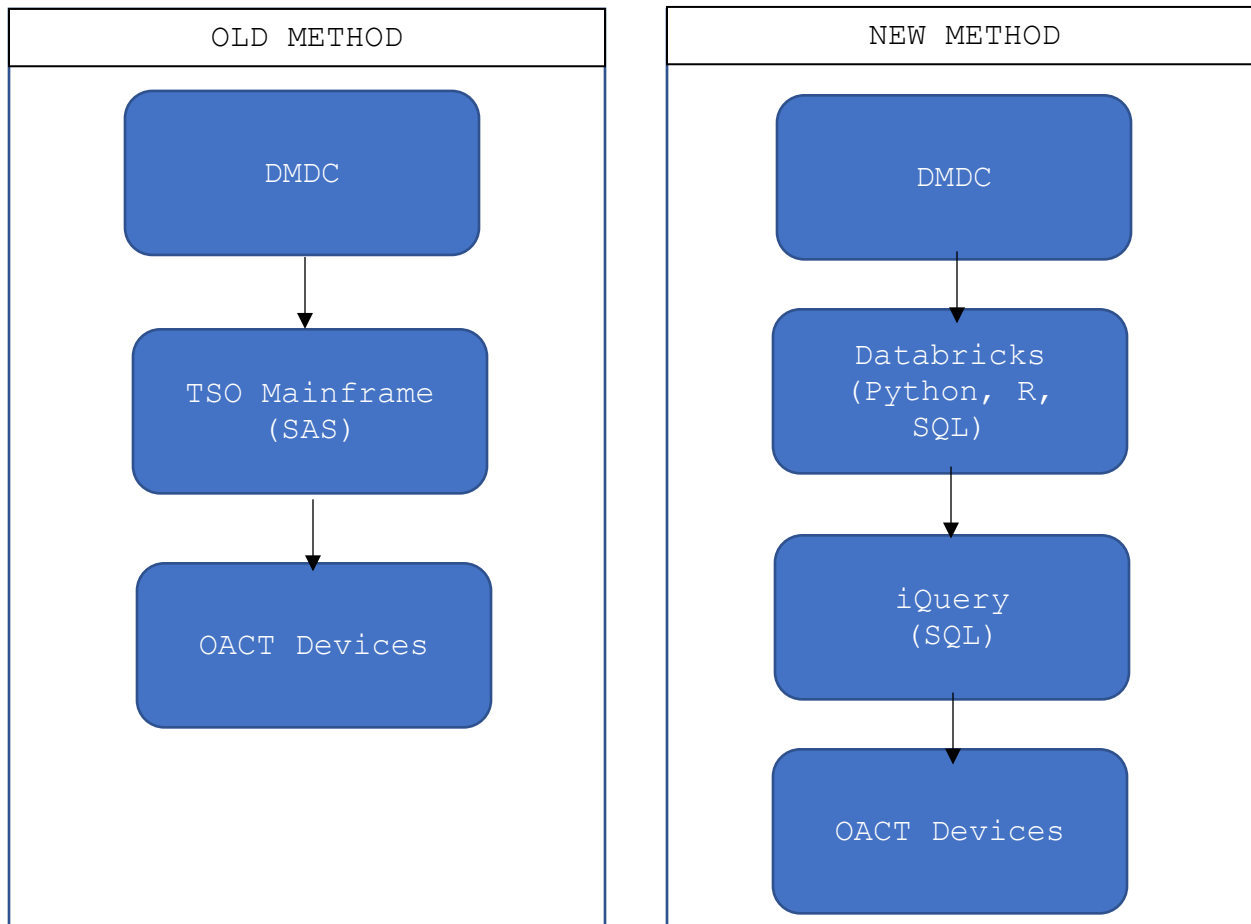


DoD Office of the Actuary

Converting to ADVANA for Data Extraction

Introduction

The Census data used for valuation purposes is extracted from files maintained by the Defense Manpower Data Center (DMDC) in Monterey, California. In the past, OACT has accessed this data through TSO Mainframe utilizing programs written in the SAS language. DoD has introduced a cloud computing system called ADVANA where DoD is able to combine 1,200 systems into one central platform for data and analytics, simplifying more than 3,000 business systems and tracking everything from finance to infrastructure. This comes with the decommissioning of the TSO Mainframe in the coming months. The ADVANA platform is accessed through Internet Browsers allowing streamlined access, especially compared to the TSO Mainframe. ADVANA has several 'Data Tools' available to users, in which two are what is used primarily by OACT. The first tool Databricks, which allows users to access the files maintained by DMDC and perform operations using three different programming languages: Python, R, and SQL. The second tool is iQuery, which allows users to access and export the files maintained by DMDC as well as user-created files using SQL. For OACT's purposes, DMDC files are extracted and manipulated in Databricks and then exported using iQuery. Several OACT members have undertaken the monumental task of converting all TSO Mainframe SAS programs to Databricks and iQuery programs and performing parallel runs for the 2021 and 2022 valuation.



Impact of Conversion

Causes of Impacts

The OACT members tasked with converting the TSO Mainframe programs have tried to as closely as possible replicate the exact operations performed, however there will always be some differences. These can be caused by small differences in how the different programming languages perform operations. For example, by default SAS stores up to 16 digits for a numeric variable, while Python stores up to 28. Some differences can also be traced back to changes within the files by DMDC, and these differences have been reported back to them when noticed. Additionally, some differences can be traced to OACT members removing sections of the original programs that are no longer or should no longer be used. Since the conversion is solely on replicating the census files used in the valuation model, there are no changes to the NCP.

The conversion has been broken down into 4 different areas: Active Duty, Reserves, Retirees, and Survivors. After incorporating the 4 different census into our valuation model, there is a 0.004% difference in accrued liability compared to the mainframe census.

For the data used in the FY21 valuation:

BRS Counts	Active Duty	Reserves	Retirees	Survivors
TSO Mainframe	698,122	269,069	0	0
Advana	698,125	269,069	0	0
Difference	(3)	0	0	0

Non-BRS Counts	Active Duty	Reserves	Retirees	Survivors
TSO Mainframe	767,373	624,789	1,996,477	317,764
Advana	767,604	624,789	1,996,551	317,764
Difference	(231)	0	(74)	0

For the data used in the FY22 valuation:

BRS Counts	Active Duty	Reserves	Retirees	Survivors
TSO Mainframe	747,236	296,156	0	0
Advana	747,173	296,156	0	0
Difference	62	0	0	0

Non-BRS Counts	Active Duty	Reserves	Retirees	Survivors
TSO Mainframe	685,998	566,174	2,043,695	319,238
Advana	685,997	566,174	2,043,761	319,238
Difference	1	0	(66)	0

BRS + NON BRS Liability	Mainframe	Mainframe with Surv	Mainframe with Surv + Ret	Mainframe with Surv+Ret+Res	Mainframe with Surv + Ret+Res+Act	
Liability	2,107,963,965	2,107,957,424	2,108,003,567	2,107,998,545	2,108,057,856	
Different		(6,541)	46,144	(5,022)	59,311	
Total Difference		(6,541)	39,603	34,580	93,891	0.004%

ATTACHMENT 4

Transcript of the Department of Defense Board of Actuaries Meeting

UNITED STATES DEPARTMENT OF DEFENSE
OFFICE OF THE ACTUARY

+ + + + +

BOARD OF ACTUARIES MEETING

+ + + + +

FRIDAY
JULY 14, 2023

+ + + + +

The Department of Defense Board of Actuaries
met via Videoconference, at 10:00 a.m. EDT,
Marcia Dush, Chair, presiding.

PRESENT

MARCIA DUSH, Chair

MICHAEL CLARK, Board Member

JOHN MOORE, Board Member

CONTENTS

MILITARY RETIREMENT FUND:

September 30, 2022, Valuation of the Military Retirement Fund

Starting Population as of September 30, 2022 (Drew May, DoD Office of the Actuary).	9
Actuarial status information as of September 30, 2022 (Drew May). . . . .	.11
Change in unfunded liability for FY 2022 (Drew May) . . . . .	.12
Amortization period for Coast Guard liability (Drew May) . . . . .	.14
October 1, 2023 Treasury amortization payment and normal cost payment (Drew May). . . . .	.17

September 30, 2023, Valuation of the Military Retirement Fund, Proposed Methods and Assumptions

Economic Assumptions -- COLA, Interest Rate, and Across-the-Board Salary Increases (Phil Davis, DoD Office of the Actuary) . . . . .	.18
FY2025 Full-Time and Part-Time Normal Cost Percentages (Qian Magee, DoD Office of the Actuary) . . . . .	.27
Non-Economic Assumptions . . . . .	.27
Reserve Rates (Drew May) . . . . .	.30
Mortality improvement factors (Jonathan Wong, DoD Office of the Actuary) . . . . .	.37
SBP parameters (Rich Allen, DoD Office of the Actuary, and Drew May). . . . .	.43
VA Offset Parameters and Disability Rates (Jonathan Wong) . . . . .	.59

VOLUNTARY SEPARATION INCENTIVE FUND

September 30, 2022, VSI Fund Valuation, Proposed
Methods and Assumptions

Introduction (Phil Davis). . . . .	.65
Interest Rate (Jonathan Wong). . . . .	.66
Valuation Update and Other Assumptions (Jonathan Wong). . . . .	.67
Unfunded Liability Amortization Payments (Jonathan Wong) . . . . .	.68
TRANSITION TO ADVANA (Phil Davis). . . . .	.74

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

(10:00 a.m.)

MS. DUSH: Good morning. It is 10 o'clock Eastern on Friday, July 14th, 2023. This is a meeting of the Department of Defense Board of Actuaries.

Today we'll be discussing the valuations concerning the military retirement fund as well as the Voluntary Separation Incentive Fund referred to as VSI.

This meeting is being recorded. And I would, my name is Marcia Dush. I am the Chair of the Board. I would like my two Board Co-Board Members to introduce themselves. John?

MR. MOORE: Yes, I am John Moore. I'm one of the side Board Member.

MS. DUSH: Mike?

MR. CLARK: And I am Mike Clark. I am a Board Member.

MS. DUSH: During this meeting I'm going to ask if you would please keep your audio muted if you're not speaking. But when you do

1 speak, I would ask you to identify yourself
2 before asking a question.

3 And if you are a guest of this
4 meeting, we're going to ask that you send an
5 email to Inger Pettygrove to ensure that we have
6 a complete record of everybody who's attending
7 the meeting. Inger, would you give the details
8 on that?

9 MS. PETTYGROVE: I will. I just put
10 in the chat and actually Anita who's on the phone
11 I already got an email from her. Thank you,
12 Anita. Not the easiest name.

13 My email address is Inger, I-N-G-E-R
14 dot M as in Marie dot Pettygrove, P-E-T-T-Y-G-R-
15 O-V-E dot CIV, C-I-V and that's @mail.mil.

16 MS. DUSH: Okay, thank you.

17 MS. PETTYGROVE: Yes, if you didn't
18 get all of that, if you have contact with anybody
19 in the Office of the Actuary, they can get the
20 information through.

21 MS. DUSH: Okay. So at this point, I
22 would like to turn this over to Qian Magee to

1 take us through an introduction of what we will
2 be discussing today.

3 MS. MAGEE: Well, thank you so much,
4 Marcia. I'm going to go over the agenda and the
5 meeting objectives. But before I do that, I want
6 to introduce our newest member, Jonathan Wong.

7 Jon graduated from UC-Santa Barbara
8 with a Bachelor of Science Degree in Actuarial
9 Science and has been with us for about nine
10 months. He has already been making significant
11 contributions to the office.

12 You can see from the agenda that he
13 will be presenting on various subjects. We are
14 very glad to have him. All right.

15 MS. DUSH: Thank you, Qian.

16 MS. MAGEE: So now for the, yes, thank
17 you. Now, please look at the agenda for today.
18 We will start with the military retirement fund.
19 The first item is the September 30, 2022
20 valuation of this fund.

21 Drew May of this office will discuss
22 the population and actuarial status as of

1 September 30, 2022, the change in our founded
2 liability for fiscal 2022, the amortization
3 period for coast guard liability and the October
4 1st, 2023 treasury payments.

5 The items with an asterisk mean Board
6 approval is required. Following this, we will
7 present the proposals for the September 30, 2023
8 valuation methods and assumptions. Phil Davis
9 will present the proposed economic assumptions.

10 I will present the proposed fiscal
11 2025 normal cost percentages. And Drew May,
12 Jonathan Wong and Rich Allen will present the
13 full proposals of the changes to the non-economic
14 assumptions for the September 30, 2023
15 evaluation.

16 Following the MRN, Phil and Jon will
17 go over the valuation methods and assumptions for
18 the September 30, 2022 VSI found valuation.
19 Finally, we have added a brief presentation to
20 the agenda which is converting from mainframe to
21 a cloud-based platform called ADVANA for our
22 valuation data extraction.

1 Phil will go over that and we hope
2 that you'll find this topic interesting. All
3 right let's move on to the meeting objective. So
4 we want to be clear on our meeting objectives.

5 First, the board will review the
6 September 30, 2022 closed group valuation results
7 and the 10-1-2023 Treasury payments as well as
8 approve the amortization schedule for the coast
9 guard liability.

10 Next, the Board will review the
11 proposed methods and assumptions used to compute
12 the liability for the September 30, 2023
13 valuation and the fiscal 2025 normal cost
14 percentages.

15 Item 2 is for the Board to set the
16 long-term economic assumptions and Item 3 is to
17 approve the non-economic assumptions. Item 4 is
18 to formally approve the fiscal 2025 DoD normal
19 cost percentages.

20 Lastly, the Board will review and
21 approve the September 30, 2023 VSI evaluation.
22 So with that, I'm turning it over to Drew May for

1 the September 30, 2022 valuation results for MRF.
2 Drew?

3 MR. MAY: Thank you Qian. We will
4 begin the closed group valuation results with the
5 starting population as of September 30, 2022.

6 Please note that the 2022 figures
7 include the addition of coast guard while the
8 2021 figures do not. The pre-retirement
9 population includes active duty, which also
10 includes full time reservists, part time selected
11 reservists and non-selected reservists with 20
12 good years.

13 It's also referred to as gray area.
14 Last year we mentioned that we had heard that
15 services were having trouble meeting recruiting
16 targets and this difficulty has continued into
17 2022.

18 Without the addition of coast guard,
19 we have seen a decrease in both total active duty
20 about 1.39 million or a 2.2 percent decrease and
21 a decrease in total selector reservists, about
22 600, 76,000 or a 3.8 percent decrease.

1 We also that likely due to inflation,
2 the percentage pay increase from 2021 to 2022
3 exceeds the population increase. For example,
4 for both active duty and selected reserve VRS, we
5 are seeing a population increase of about 10
6 percent, but a pay increase of about 16 percent.

7 We will continue to work with the
8 services to monitor these changes and ensure that
9 the population does not differ from our
10 assumptions.

11 The retirement population includes
12 non-disabled retirees, disabled retirees, and
13 surviving families. Again, 2022 numbers include
14 coast guard while the 2021 numbers do not.

15 Without the addition of coast guard,
16 there is still an increase in the retiree
17 population, but there is a decrease in survivors
18 going from 2021 to 2022.

19 This could be attributed to 2022
20 having better mortality than 2021. Initially,
21 the largest percent increase in retirees is
22 disability retirees.

1 We will cover mortality and disability
2 updates in more detail in the proposed non-
3 economic assumptions later. With that, are there
4 any questions or comments on this page?

5 MS. DUSH: I think again what we're
6 seeing especially when you look at the retired
7 population, you are seeing the effect of the COLA
8 in here which is that average benefits are going
9 up, you know, much faster or the total benefits
10 are going up much faster than the increase in the
11 number of retirees.

12 MR. MAY: Yes, if you look at the pay
13 increase, it is larger for the retirees as well
14 not just those in the service.

15 MS. DUSH: Okay, please continue.

16 MR. MAY: Great. Next page please.
17 On this page we have the actuarial status as of
18 September 30th, 2022 with the prior year for
19 comparison purposes.

20 The present value of future benefits
21 has increased 14 percent to 2.526 trillion. The
22 present value of future normal cost contributions

1 has increased 15 percent to 418 billion.

2 And the fund has increased 16 percent
3 to 1.279 trillion. Changes in the fund are
4 outlined in more detail in footnote 3 below. And
5 again, these numbers also reflect the inclusion
6 of coast guard.

7 Scrolling back up, calculating the
8 unfunded liability as present value, future
9 benefits, minus present value, future normal
10 costs and minus the fund value results in an
11 unfunded liability of 829.3 billion.

12 And we'll go over the reconciliation
13 of the 11 percent increase in the unfunded
14 liability on the next page. Item 6 is the DoD
15 NCP based upon the 2022 valuation. Items 7 and 8
16 are the DoD and Treasury NCPs respectively which
17 were approved at last year's meeting and are
18 applied to basic pay.

19 And you can see as a result of the VA
20 perimeters approved last year, the allocation of
21 the total NCPA shifted towards Treasury which you
22 can see with the decrease in the DoD NCPs and the

1 increase in the Treasury NCPs.

2 Lastly, on this page, at the bottom
3 right, we have the long-term economic assumptions
4 used for the valuation with COLA at 2.5 percent,
5 salary at 2.75 percent and interest at 4 percent.

6 There was no change from the September
7 30, 2021 valuation. Are there any questions or
8 comments on this page?

9 MS. DUSH: I'm good. Mike and John?

10 MR. CLARK: No comments.

11 MR. MOORE: No. Yes, I'm good. Thank
12 you.

13 MS. DUSH: All right.

14 MR. MAY: The unfunded liability as of
15 9-30-2021 was 745.1 billion. Rolling that
16 forward along with the fiscal year 2022
17 amortization payment, at the long-term interest
18 assumption of 4 percent gives us an expected
19 unfunded liability of 655.9 billion.

20 And as mentioned on the previous page,
21 the actual unfunded liability was 829.3 billion
22 so we have a loss of 173.3 billion. This loss

1 can largely be attributed to three components.

2 First, the January 1, 2023 COLA was
3 8.7 percent compared to evaluation assumption of
4 2.5 percent which resulted in a loss of 76.2
5 billion.

6 It is worth noting that the
7 investment in TIPS led to a fund yield of 7.7
8 percent comparable valuation assumption of 4
9 percent which led to a gain of 40 billion, but
10 this does not offset the loss due to COLA.

11 Furthermore, also tied to inflation,
12 we have a salary increase of 4.6 percent compared
13 to the valuation assumption of 2.75 percent which
14 resulted in a loss of 8.9 billion combined less
15 results in an economic experience loss of 45.1
16 billion.

17 Second, the plan amendment for coast
18 guard results in an increase in unfunded liability
19 of 59.7 billion and lastly the largest portion of
20 change due to new assumptions was the VA offset
21 parameters which resulted in a loss of 58.8
22 billion which is consistent with the increase in

1 9-30-2021 liability of 55.7 billion calculated
2 last year when it was approved. Are there any
3 questions or comments on this page?

4 MS. DUSH: The only comment that I
5 would make is the very small difference for non-
6 economic experience which I again commend OACT
7 for doing a good job of monitoring and setting
8 the non-economic assumptions.

9 I think this has traditionally been a
10 very small item in the gain and loss.

11 MR. MAY: Thank you.

12 MS. DUSH: All right. So this year we
13 are seeing at 9-1-22, we do see that we updated
14 mortality improvement and it was a loss meaning
15 that we were predicting longer life expectancy.

16 And I think we'll see some of that
17 reversing out for the next valuation if I recall
18 the proposals correctly. Anything else?

19 MR. CLARK: I would just point out, I
20 think it's interesting to see the impact of past,
21 you know, high inflation on the experience
22 results.

1 And I think a key question we deal
2 with is what do we think that's going to be in
3 the future and I don't think we've seen that
4 being maintained. So might just make a note.

5 MS. DUSH: Yes. Okay, I think we can
6 go on.

7 MR. MAY: On this page, we have the
8 amortization payments for the initial unfunded
9 liability, benefit change, assumption change,
10 experience gain loss and the prior year unpaid
11 contribution.

12 The values here for Item B are using
13 three years as a place holder for coast guard
14 initial unfunded liability amortization which
15 would align it with the amortization of the
16 existing initial un-fund liability.

17 The amortization period for benefit
18 change, assumption change and experienced game
19 loss is 18.4 years which is the liability
20 weighted average of the old basis and the new
21 basis which will be amortized in 20 years.

22 Most of the amortization payment

1 increase is due to the inclusion of coast guard
2 and the increase in normal cost payment as
3 mentioned earlier is due to the shift in the
4 allocation from the NACPs from DoD to Treasury
5 due to the A perimeters. Are there any questions
6 or comments on this page?

7 MS. DUSH: Again, we'll be talking
8 more about the VA concurrent receipt issues I
9 think down later on in today's meeting. But
10 again, this was the increase that we're seeing
11 here was based on several years of experience and
12 did not even take into account very recent
13 experience.

14 So we are seeing a tremendous shift in
15 responsibility for normal costs from DoD to
16 Treasury because of the concurrent receipt
17 provisions.

18 I think at this point I need a motion
19 to accept the proposal to amortize the initial
20 unfunded for the coast guard liability over three
21 years which will tie it to the amortization of
22 the initial unfunded for the rest of the MRF.

1 MR. MOORE: Chair, I'll make the
2 motion to approve the amortization method being
3 used including the coast guard's initial
4 amortization unfunded being set to what the
5 remaining balance of three years.

6 MR. CLARK: I second that.

7 MR. MOORE: That was John, thank you,
8 sorry.

9 MS. DUSH: And, Mike, I heard a motion
10 from John Moore, a second from Mike Clark. All
11 in favor?

12 (Chorus of ayes)

13 MS. DUSH: Any further discussion?
14 All right, the motion is -- or any nays?

15 (No audible response)

16 The motion is passed. And let's move
17 on.

18 MR. MAY: Great. Thank you. That
19 concludes the valuation results. Next will be
20 Phil Davis covering economic sanctions.

21 MS. DUSH: Thank you, Drew.

22 MR. DAVIS: Thank you, Drew. So like

1 Drew said, I'll be covering the economic
2 assumptions so on this page, we just list some of
3 the assumptions set by this Board last year as
4 well as other Boards and other systems.

5 So as Drew said, in this first column,
6 we list the current assumptions set by the Board
7 last year of 2.5 percent inflation, 2.75 percent
8 salary, and 4 percent interest rate.

9 To the right of that, we list the OPM
10 assumptions which are all unchanged from last
11 year. I just want to point out that the salary
12 referred here for MRF and OPM does not include
13 promotion of Social Security ones do.

14 Speaking of Social Security, here we
15 list the three cost metrics for their
16 assumptions, the low cost, intermediate and high
17 cost set by them in March of this year.

18 And their inflation and interest rate
19 assumptions were unchanged compared to last year
20 and there was a slight increase in their salary
21 assumptions.

22 Here we list the assumptions used

1 during our financial statements. And we also
2 have the CBO inflation and ten-year Treasury note
3 as well as the blue chip inflation and ten-year
4 Treasury note for the most recent copy of blue
5 chip we have which is December.

6 Are there any questions or comments
7 for this page?

8 MS. DUSH: No, please continue.

9 MR. DAVIS: Okay. So on this page, we
10 just do a little bit of math for the Board
11 getting the salary and interest rate into real
12 terms by just subtracting the inflation.

13 And then we also list the blue chip
14 CPI and 30-year treasury assumptions that for
15 every six months going back to December of 2020.
16 Any questions or comments for this page?

17 MS. DUSH: The only comment is again
18 to remember that the blue chip forecast is really
19 a ten-year forecast and our outlook is longer
20 than that.

21 I don't know, that would be the only
22 thought I would have there. John or Mike,

1 anything at this point?

2 MR. MOORE: Nothing here.

3 MS. DUSH: Okay, please continue.

4 MR. DAVIS: All right. So here we
5 just have the page from the blue chip for the
6 long-range survey. I won't go into any of these
7 numbers in depth, but once we publish this,
8 everyone can look at it to their hearts' content.

9 Now here we have the MRF fund yield
10 projection. And this is based off the Social
11 Security intermediate assumptions. As far as how
12 to read this page, I'll zoom in a little.

13 We list the fiscal years from 2023 to
14 2066 and beyond and we have the inflation, the
15 real-fund yield, the nominal fund yield and new
16 investments on a cumulative basis and new
17 investments on an annual basis.

18 And we have that for all of these
19 fiscal years. We also have ten, 20, 30, 50 and
20 75 year geometric averages for all of these rates
21 as well as fund-weighted averages for all of
22 these time periods.

1 Now below we list the ultimate
2 assumptions which is a 2.4 percent inflation,
3 2.26 percent real, 4.66 percent nominal and 4.66
4 for new investments on accumulative basis and new
5 investments on an annual basis is 4.7 percent.

6 And again, just to reiterate, the
7 assumptions set by the Board last year of 2.5
8 percent inflation, 1.5 percent real and 4 percent
9 nominal. Any questions or comments for this
10 page?

11 MS. DUSH: Well I think it's
12 interesting. When I look at it that we don't hit
13 on this set of assumptions, we don't hit a 4
14 percent return until about 2035.

15 Now we might expect since inflation is
16 continuing that perhaps the 2023 real fund yield
17 or the nominal fund yield may be a little bit
18 higher, but it's, I still have concerns about
19 trying to hike the interest rate too much in
20 anticipation of higher real fund yields which is
21 what is most important in the valuation of this
22 fund.

1 You know, if you look at the 30-year
2 average, we're still at a, at the 30-year fund
3 weighted average, we're still just about 4
4 percent, you know, and I think when we look at
5 the next page, we'll see something a little
6 different which also gives us, I think some pause
7 to be conservative.

8 John and Mike, would you like to
9 comment on your thoughts at this point?

10 MR. CLARK: Sure, I can go. The, I
11 agree with you, Marcia. The lines that I look at
12 are the 20- to 50-year fund rate average real
13 fund, you know, which is between about 1.5 and 2
14 roughly.

15 So it feels like there may be future
16 room to increase that real rate, but in my
17 opinion, we are in such a strange bond
18 environment right now with the inverted curve,
19 we're really not sure if inflation is transitory
20 or not.

21 So I'm comfortable not making quick
22 moves and collecting an additional year of data

1 on this.

2 MS. DUSH: John, anything?

3 MR. MOORE: I think Mike stated things
4 very nicely.

5 MS. DUSH: Phil, would you go on to
6 the next page because I think that is also of
7 interest. While we have anchored a lot of our
8 thinking on the Social Security assumptions, it
9 is interesting to look at the blue chip
10 assumptions as well.

11 MR. DAVIS: Yes, ma'am, so just like
12 the previous page, you can this the same, but now
13 it is based off the blue chip assumptions and
14 I'll just read out the ultimate assumptions for
15 blue chip, which is 2.1 percent inflation, 1.88
16 percent real, 3.98 percent nominal, 3.98 percent
17 for new investments on a cumulative basis and
18 3.98 for new investments on an annual basis.

19 MS. DUSH: Yes, so and again, blue
20 chip is a, to look at it on the 20-, 30-, 50-year
21 basis, is not really as good as looking at Social
22 Security.

1 Their focus is much more on the ten,
2 but if you look at really what they're talking
3 about for the next ten to 20 years, it's only at
4 the 20-year point are they getting a real fund
5 yield of about 1.5, 1.49.

6 So again, I think this is just in my
7 mind, you know, a little bit of a cautionary tale
8 to maybe hold off before making any assumption
9 changes, economic assumption changes at this
10 point. Any further thoughts on this?

11 MR. CLARK: I agree, Marcia. These
12 numbers support the proposed assumption thus far.
13 I know we've used Social Security as the basis in
14 the past.

15 If these numbers were perhaps on the
16 other side of the Social Security numbers, then I
17 think we would have a conversation, but the fact
18 that these rates are lower makes me comfortable
19 in maintaining what we have for assumptions here.

20 MS. DUSH: Good. John? Are you good?

21 MR. MOORE: Yes, no additional
22 comments.

1 MS. DUSH: All right, if that's the
2 case, then I would like to get a motion for the
3 9-1-23 valuation to use a 1.5 real rate of
4 return, a 2.5 percent cost CPI assumption which
5 results in a 4 percent nominal interest rate
6 discount and a 2.75 across-the-board pay
7 increase.

8 And again, remembering that the across
9 the pay increase does not include the promotional
10 increases.

11 MR. CLARK: Okay, you guys, I so move
12 to approve the economic assumptions for the
13 October 1st, 2023 evaluation which would include
14 inflation of 2.5 percent, the interest rate of 4
15 percent which would result in a real yield of 1.5
16 percent, and across-the-board salary of 2.75
17 percent.

18 MS. DUSH: So that, the 2.75 is the
19 sum of the inflation that 2.5 plus .25 percent of
20 additional across the board pay increase.

21 MR. CLARK: Agreed.

22 MR. MOORE: I'll second that motion.

1 MS. DUSH: All in favor?

2 (Chorus of ayes)

3 MS. DUSH: Any nay?

4 (No audible response)

5 Motion is passed and I think we can
6 move on.

7 MR. DAVIS: Okay. So now I believe
8 I'm turning it over to Qian Magee.

9 MS. DUSH: Thank you.

10 MS. MAGEE: Thank you so much, Phil.
11 So now we're going to discuss various proposals
12 for the non-economic assumptions. I'm going to
13 give a summary of the changes in normal cost
14 percentages.

15 To be begin with, the fiscal 2024 DoD
16 Implemented NCPs are 30 percent for full time and
17 23.1 percent for part time. Using prior
18 assumptions and based on the September 30, 2022
19 evaluation, the DoD full-time NCP is 29.6 percent
20 and part-time NCPs 22.8 percent.

21 With one year or mortality improvement
22 to 9-30-2023, there are actually no changes in

1 the NCPs. So the following are four proposals we
2 have for this year. First is at update to
3 reserve rates. If you remember, we updated the
4 reserve rates a couple of years ago.

5 This time we did some clean up and
6 make some improvements to the retirement rates.
7 Drew will discuss in detail. The combining facts
8 of this update have no effect on the full-time
9 NCP and decrease the part-time NPC by 4.1
10 percent.

11 Next up is the update of mortality
12 improvement skills. We have upped the mortality
13 improvement skills in recent years. This year we
14 did a lot of research to decide whether we should
15 up the scales.

16 In the end, we decided to update which
17 John will discuss in detail. The impact of NCP
18 is a decrease of .1 percent for full time and a
19 decrease of .2 percent for part time.

20 The next update is on several SBP
21 perimeters. In the last two years we have
22 updated the active rates, the reserve rates and

1 the retire rates.

2 So this time we're updating some
3 perimeters that affect the survivors. Rich Allen
4 and Drew will discuss these updates. The NCP's
5 increase by 24 percent for both full time and
6 part time.

7 Lastly, we have updated some VA offset
8 perimeters and the disability retirement rates to
9 reflect the possible impact of PACT Act.
10 Jonathan Wong will discuss in detail.

11 The impact on NCP is a decrease of 3.3
12 percent for full time, and a decrease of 1.4
13 percent for part time. The bottom line fiscal
14 2025 DoD NCP under these proposals will be 26.6
15 percent for full time and 21 percent, 21.5
16 percent for part time.

17 The estimated fiscal 2025 Treasury
18 NCPs will be 30.8 percent for full time and 9.8
19 percent for part time. Please see Attachment 1.
20 We have a list of Treasurer NCPs under each
21 change. So do you have --

22 MS. DUSH: Qian, I think it's --

1 MS. MAGEE: -- any questions, go
2 ahead.

3 MS. DUSH: Qian, I think it's really
4 important to make a note that this is the first
5 time that the DoD NCP has now slipped below 50
6 percent of the total NCP.

7 And with, so the implication is then
8 that Treasury is now paying for more than half of
9 the ongoing benefits. And again, this is related
10 to concurrent receipt and the large increases in
11 disability payments that are attributable to the
12 large increases in disability benefits that are
13 attributable to concurrent receipt.

14 MS. MAGEE: Definitely. So yes, this
15 is the first time that happens. Thank you,
16 Marcia, for your comment. So with that, I'm
17 going to turn to Drew to start with discussion of
18 the reserve rates. Drew?

19 MR. MAY: Thank you, Qian. Again, the
20 reserve rate update results in no change to the
21 DoD fiscal year 2025, full-time NCP. A 0.1
22 percent decrease in the part-time NCP and a

1 decrease in the 9-30-2022 accrued liability of
2 17.8 billion or 0.8 percent.

3 The proposed rate changes are a
4 combination of two updates. First, in order to
5 address over-projection of reserve retirees that
6 we've been seeing over several years, we are
7 proposing to remove ad hoc increases to account
8 for a period of six-year retirements per NDAA
9 2008 which had a minimal impact in changing
10 reserve retirements applied at edge ages and year
11 of service.

12 Which in the case of our model would
13 be age 63 and 41 years of service which had a
14 moderate impact. Lastly, we also updated the
15 rates to include co-star which had been more
16 impact.

17 At this point, could we go to
18 Attachment 2 to go into more detail on the
19 retirement rate change? Thank you. So the main
20 change to these rates is that at age 63 or 41
21 years of service we no longer assume that all
22 reserves will retire.

1 Therefore, the rate goes from 100
2 percent to one based on experience. The graph
3 shows the rates by age. Additionally, we've
4 added a dimension to these rates not shown in
5 these graphs at 41 years of service which
6 increases very slightly to better match
7 experience.

8 Lastly, at age 59 and 41 years of
9 service, we believe it is still reasonable to
10 assume that upon hitting 60 one should retire.
11 Therefore the rate of 100 percent is still used.

12 The rationale behind this change is
13 that there are about 2,600 gray area reserves at
14 or over age 63 not claiming benefits. A gray
15 area reserve is one with 20 good years of
16 service, but not receiving retirement benefits.

17 Typically this is because they have
18 not reached age 60 to be eligible for them. But
19 for those mentioned above, this is not the case.

20 And we reached out for expert opinion
21 and were told that these could be unmanaged
22 records where the person could already be

1 retired, retired in another service, deceased, or
2 simply not applying for ineligibility reasons
3 such as being overseas.

4 Furthermore, these records are for
5 inactive service members. Therefore, they are
6 not likely being pursued to claim their benefits.

7 Given this explanation, we do not
8 believe an assumption of everyone who reaches a
9 certain age or year of service retiring to be
10 appropriate for the reserves and instead changed
11 our rates to be one based on experience.

12 The second update is a removal of the
13 reserve career point adjustment factors. These
14 factors model experience where people tend to
15 have higher points when leaving than those who
16 stay.

17 The factors are complicated and it is
18 not intuitive to think that this difference
19 should exist or persist to the future.
20 Therefore, removing them would simplify the model
21 and reduce both the risk of operational error and
22 fitting too closely to current experience.

1 And this would not result in material
2 experience, gain/loss to future valuations. Are
3 there any questions or comments on this proposal?

4 MS. DUSH: Not from me.

5 MS. PAYNE: I have a question. I'm a
6 guest, Tracy Payne. Are those retirees over 60
7 who are not receiving the pay, is there any way
8 to contact those members?

9 It is perhaps they did not apply for
10 some reason other than those listed.

11 MR. MAY: That would be a question I
12 think for the services who would be managing
13 them.

14 MS. PAYNE: Okay. Because I know, I
15 personally know one who did not apply after the
16 age of 60, but he passed after the age of 60 so
17 that doesn't matter right now. So. Thank you.

18 MR. VIRGIL: Hi, this is Rick Virgil.
19 I just joined a little while ago and at the coast
20 guard, you know, we may not have exactly the same
21 policies as DoD, but we're both military.

22 And I was in the private sector where

1 you have a program that requires employers to try
2 to find missing participants. That doesn't
3 happen in the military.

4 It's strictly up to the participant to
5 call and collect their pension. But they can
6 collect it retroactively I think up to three
7 years if they wait beyond age 60.

8 MR. MAY: Thank you. That aligns with
9 what we've heard as well. So at a certain point,
10 they don't get the full benefit that they missed
11 if they're late in claiming.

12 MS. PAYNE: This is Tracy Payne again.
13 I know that that's up to the, pardon me -- frog
14 in the throat. I know that that's up to the
15 services.

16 But it seem like not informing
17 reservists especially because there's a long time
18 between when they become gray area retirees and
19 when they actually retire.

20 They don't live in the military world.
21 It would be nice to reach out to those members
22 and give them the pay that they're due. And if

1 there's any way that this Committee has any input
2 on that, I am asking that this Committee take
3 that action. Thank you.

4 MS. DUSH: Qian or Pete Zouras, --

5 MR. ZOURAS: Right so --

6 MS. DUSH: -- who would be the
7 appropriate person to approach on that?

8 MR. ZOURAS: Right, your advisor from
9 military pay and policy. I don't know if he's on
10 the phone, but yes, he would be the person to,
11 for us to contact to make that request.

12 MR. LIUZZO: Yes, this is Tom Liuzzo
13 from MPP. We can, that would definitely be
14 something the services would have to do, but it's
15 something I can raise to our policy owner on the
16 non-regular retirement and see what processes
17 might be currently in place or if something else
18 could be done in that arena. Over.

19 MS. DUSH: Thank you.

20 MR. MAY: If there are no further
21 questions or comments, next we'll be going to Jon
22 Wong who will cover mortality improvement.

1 MR. WONG: Thank you, Drew. Before I
2 dive into mortality improvement, I'll have to
3 take a second to properly introduce myself for
4 those hearing or seeing me for the first time.
5 My name is Jonathan Wong.

6 I joined OACT a little less than a
7 year ago. While I'm still a fledgling, I do my
8 best for reflective areas projects that our
9 office has to show.

10 For mortality improvement, we are
11 proposing a few changes. So the first change is
12 incorporation of the 2021 and 2022 mortality data
13 into the experience pier with the weights of zero
14 percent for 2021 and 25 percent for 2022.

15 Secondly, we have the removal of the
16 previous year's adjustment for the impact of
17 COVID. And the last change is in new term rate
18 of improvement for survivors.

19 And for those interested, Attachment
20 3 illustrates the differences and similarities
21 between the SOA's mortality rate improvement
22 model and our current model from last year and

1 our proposed model.

2 It's worth mentioning that SOA did not
3 produce a new projection scale in 2022. As the
4 COVID impacted data wasn't certain to be
5 predictive of future mortality.

6 MS. PETTYGROVE: Hey, John, it's
7 Inger. I'm just going to jump in. SOA is the
8 Society of Actuaries, they promulgate a lot of
9 rates that, you know, they have a lot of numbers
10 so just for the non-actuaries on the call, that's
11 what that refers to.

12 MR. WONG: Thank you, Inger. And as
13 Qian mentioned, the impact of this proposal would
14 result in a .1 percent decrease for full time and
15 a .2 percent decrease for part time of the NCP.

16 And a decrease in accrued liability of
17 35.5 billion or 1.7 percent. To moderate the
18 rush and offer the use of weights, it is worth
19 noting that uncertainty, pertaining to the state
20 of COVID in the next couple of years.

21 As noted by the Society of Actuaries,
22 the mortality and rates weren't nearly all causes

1 of death was observed to be higher during 2020
2 than in recent prior years.

3 When we looked at including 2021 and
4 2022 data, it elevated future mortality
5 projections so we looked at different approaches
6 before settling with the continuous mortality
7 investigation also known as CMI's approach on
8 reflecting pandemic mortality.

9 And CMI has released its response on
10 its plan for the next version of its mortality
11 projection model and they believe that 2022 might
12 be indicative of future mortality to some extent
13 and have decided to place a 25 percent weight to
14 the 2022 mortality data.

15 And furthermore, they plan to steadily
16 increase this weight on mortality data until
17 around 2025 by which time they expect to have a
18 clear indication of mortality trends of the
19 future.

20 And interestingly, we also attached
21 the heat maps in Attachment 4 and those are just
22 the mortality improvement heat maps. And lastly,

1 we have a new long-term rate of improvement for
2 survivors.

3 And these use an average blend of our
4 officer and enlisted long-term rate of
5 improvement. And the impact of this change in
6 particular is a .04 percent increase and full-
7 time NCP and a .03 percent increase in part time.

8 And we believe that using our retired
9 data to reflect the survivor long-term rate of
10 improvement is better than using the SOA's long-
11 term improvement. Are there any questions or
12 comments at this point? Marcia, I believe --

13 MS. PETTYGROVE: Marcia, we're not
14 hearing you. Yes.

15 MS. DUSH: Sorry. All right, it's
16 important to realize that this is just about
17 mortality improvement. The underlying base table
18 that we're using is still the same.

19 And when is the next time that a full
20 mortality study would be scheduled to update the
21 base table? Is that like once every ten years?

22 MR. ZOURAS: Five or ten years.

1 MS. DUSH: Okay.

2 MR. ZOURAS: Yes. We'll monitor it
3 every year and make the decision if things get
4 too far apart.

5 MS. DUSH: Okay. And again, so what
6 we're really focused on here is just looking out
7 as to what we think is going to happen to
8 mortality of the future.

9 As we saw before, last year's
10 valuation was a cost increase meaning that we
11 were expecting mortality improvements more than
12 had been expected before.

13 This year we're scaling back a little
14 bit. We're seeing that the cost is bringing down
15 the normal cost percentages a little bit. So
16 it's just moderating what we had expected before.
17 Any thoughts from Mike or John?

18 MR. CLARK: I think it's a reasonable
19 change to ignore very high mortality experience
20 during the height of COVID while still waiting
21 for more data to consider longer term effects.
22 So I think it's reasonable.

1 MS. DUSH: I do see a hand up from
2 Tracy I believe.

3 MS. PETTYGROVE: I think that was
4 probably left over, but Tracy unless there was a
5 --.

6 MS. PAYNE: Yes.

7 MS. PETTYGROVE: Thank you, Tracy.

8 MS. DUSH: Yes, okay. John, any
9 further comments on this?

10 MR. VIRGIL: Hi, Rick Virgil again.
11 I have, I have one small comment which I think
12 supports the Society of Actuaries has published a
13 mortality improved table every year for about the
14 last ten years almost.

15 And last year they said because of
16 COVID they are not going to update the table
17 first time. There's a lot of recognition that
18 COVID had a, was a temporary dip, I'm sorry,
19 temporary increase in mortality rates and it
20 shouldn't be recognized in the tables on the
21 lower.

22 MS. DUSH: Okay, any further

1 discussion on this subject? Thank you, John.

2 And let's now go to the SBP perimeters. Is that
3 Rich?

4 MR. ZOURAS: I'll hand it over to
5 Rich. Yes.

6 RICHARD ALLEN: Yes. Hello, everybody.
7 Richard Allen from Office of the Actuary. I'm
8 going to talk about the proposed SBP parameters.

9 This proposal results in a .4 percent
10 increase to the FY '25 full-time DoD NCP, a .4
11 percent increase in the part-time NCP and a
12 decrease in the 9-30-22 accrued liability of 1.5
13 billion or .1 percent.

14 What we're proposing is an update to
15 SBP perimeters from the experienced periods
16 listed below to the FY21 for the following SBP
17 new retiree elections from 2007 to '09, SBP new
18 premium reduction factors from FY 2007, 2009 also
19 and SBP continuing retiree perimeters modeling
20 survivor benefits from FY 2008.

21 The rationale or purpose of the update
22 is to reflect changes in SBP experience over time

1 such as the potential effects of sunseting the
2 redux at the end of 2017 and the repeal of the
3 DIC offset which was in the DNAA FY 2020.

4 The proposed perimeters also
5 incorporate coast guard experience. In
6 Attachment 6 and 7 we have a description of the
7 rates that we're developing. And here we see the
8 participation rate assumptions for SBP.

9 First, let me give a brief overview of
10 what SBP and also RCSBP are. That is the
11 survivor benefit plan. This is a plan which
12 allows for retirees to have their retirement
13 benefits continued to their dependents if they
14 should die before their dependents.

15 Participation is optional and those
16 who choose to enroll, there is a reduction in pay
17 so it's important for retired pay purposes. As
18 mentioned, the rates were last updated around
19 2009.

20 We have separate rates for officer and
21 enlisted and we also have separate rates by age.
22 And if you look at the chart here, I'll start

1 with the officer, we see the current rates is the
2 orange line.

3 And that's the participation rate on
4 the left side and the age at retirement below.
5 The blue line which is the one that goes up and
6 down is the actual experience from 2021.

7 And then the red line is what we're
8 proposing which is basically a smooth rate of
9 what the 2021 actual is. For the officers, it
10 really doesn't change that much from what we
11 currently have.

12 If you look at the bottom chart, the
13 enlisted, since the current rates are those rates
14 in green, you can see that we're now proposing
15 higher rates so that's a change.

16 And these are election rates for
17 spouses, spouse/child elections which is the note
18 at the bottom.

19 MS. DUSH: And since for enlisted
20 participants, the rates we're proposing are now
21 higher and there is some subsidy in this benefit.
22 That's why cost circling up a little bit. Is

1 that a correct assumption?

2 RICHARD ALLEN: That is correct. This
3 is a subsidized benefit so if participation
4 increases, then the amount that is subsidized
5 will also increase which is why there was that
6 increase in the NCP.

7 MS. DUSH: Thank you.

8 MS. PAYNE: I have a question. This
9 is Tracy Payne.

10 RICHARD ALLEN: Hello, Tracy.

11 MS. PAYNE: Hi. So I understand that
12 under the law insurable interest cannot be
13 elected for a child. But the Department of
14 Defense does allow that and it's on their website
15 and in their manual.

16 So in that case, when a child is
17 elected under insurable interest and that's a
18 dependent child, can that be terminated
19 arbitrarily or is that child protected as he
20 would be under child coverage?

21 RICHARD ALLEN: Child coverage
22 automatically terminates when the child is 18 or

1 if they are enrolled in college when they're 22.

2 The exception being a child who is
3 incapacitated and would need support after
4 turning 22. The insurable interest election
5 would allow somebody to cover that child
6 indefinitely.

7 However, the insurable interest
8 premium is significantly higher. But that
9 election would have had to have been, the
10 insurable interest election would have had to
11 have been made at the point of retirement.

12 MS. PAYNE: Okay. And so if the child
13 election is made, the member cannot terminate
14 that until the child ages out or other
15 requirements?

16 RICHARD ALLEN: That is correct.

17 MS. PAYNE: Okay. If he elects
18 insurable interest coverage for that child, can
19 he terminate that while that child is still
20 underage and a dependent?

21 RICHARD ALLEN: Insurable interest
22 coverage can be terminated at any point. If that

1 happens, that's the end of insurable interest
2 coverage.

3 He couldn't like come back later and
4 then want to re-enroll that child.

5 MS. PAYNE: Why would the Department
6 of Defense offer -- not allow you to terminate
7 child coverage under normal circumstances, but
8 then tell you that you can cover that child under
9 insurable interest and allow you to terminate it
10 at any time?

11 Why would they not protect that child
12 just as they would protect another child?

13 RICHARD ALLEN: Well, first of all,
14 you said Department of Defense. It's actually,
15 these are Congressional laws.

16 MS. PAYNE: Okay.

17 RICHARD ALLEN: We just implement the
18 policy.

19 MS. PAYNE: Yes, but the law doesn't
20 say that you can cover a child. It says
21 unmarried member without dependents.

22 RICHARD ALLEN: Again, --

1 MS. PAYNE: May not, but the DoD says
2 that they can.

3 RICHARD ALLEN: Nothing personal, I'm
4 not sure this is the right forum for this
5 discussion, but I'll try to answer your questions
6 anyway.

7 MS. PAYNE: Okay.

8 RICHARD ALLEN: SBP, when members have
9 at retirement generally have to make an
10 irrevocable decision on spouse coverage or child
11 coverage.

12 They, if a member has a child at
13 retirement, that is their one and only
14 opportunity to elect coverage for that child.
15 And if they do elect to cover that child, then
16 that child will be covered until they're
17 ineligible.

18 And that would also include if they
19 have more than one child. So as I said, if
20 barring if they're incapacitated, that would be
21 until the member's youngest child turns 18 or 22
22 if still in school. And that's just simply what

1 the rules of SBP are.

2 MS. PAYNE: Right. And I will end
3 this, but I will say that the DoD is offering an
4 alternative to the law that says an unmarried
5 member may elect insurable interests for one
6 child.

7 And, but not following the rules that
8 would follow for any other child that was elected
9 coverage for. Like why would you offer to elect
10 to --

11 RICHARD ALLEN: Insurable interest,
12 insurable interest is offered for a variety of
13 reasons. Not just child coverage. It's designed
14 to allow someone to cover somebody who has a
15 financial interest in that retiree who is not the
16 spouse or the child.

17 MS. PAYNE: Right.

18 RICHARD ALLEN: Some people may choose
19 to cover a child because they want that child to
20 have survivor coverage beyond age 18 or 22.

21 That's not really the intention, but
22 you might say it's a little bit of a loophole in

1 the program. There's very few retirees who cover
2 a child through the insurable interest option.

3 MS. PAYNE: Yes, okay so the law says
4 you can't, DoD says you can, but they're not
5 provided the protection.

6 RICHARD ALLEN: Again, these are
7 really questions that should be addressed
8 probably to the DFAS legal counsel who would make
9 these determinations.

10 This is, like I said, this is not
11 really the right place for this discussion.

12 MS. PAYNE: All right. Thank you, Mr.
13 Allen.

14 RICHARD ALLEN: You're very welcome.
15 Okay, if we can continue with the SBP proposals
16 on the next slide. And here I'm just going to
17 talk about the reserve participation rates. I've
18 described the SBP program.

19 The RCSBP program which stands for
20 Reserve Component SBP are for reserves who want
21 to make an election while they're in the gray
22 area and have coverage for while they're in the

1 gray area.

2 If they make that election, they can
3 choose to either have an immediate benefit or a
4 deferred benefit. An immediate benefit would be
5 payable at the moment for the first month after
6 the retiree's death.

7 A deferred benefit would be paid when
8 that retiree would have turned age 60 since
9 that's when they were, would have received
10 retired pay.

11 And you can see what the current
12 assumptions were or still are I guess
13 technically. About four and a half, about 45
14 percent for immediate and a little under 10
15 percent for deferred is the current.

16 We're proposing the immediate go up
17 based on recent experience to 62 percent for
18 officers, 70 percent for enlisted and the
19 deferred go significantly drop to 1 and 2
20 percent.

21 I also show the SBP participation
22 rates for SBP which would be after age 60.

1 Everything is immediate coverage. And there are
2 some slight increases there.

3 MS. DUSH: So Rich, just to be clear,
4 is this reserves who are in the gray area meaning
5 they have 20 good years, but they have not
6 commenced a retirement benefit yet? And so what
7 they're doing is they're electing spouse coverage
8 that would begin while they have not begun
9 retirement benefits.

10 But if they should die before they
11 begin retirement benefits, either the spouse's
12 benefit begins immediately or is deferred to age
13 60.

14 And so what we're seeing is very few
15 choose a deferral to 60. Most choose an
16 immediate benefit for the spouse. Have I stated
17 that correctly?

18 RICHARD ALLEN: Yes, that is correct.
19 And I should also add they pay for the coverage
20 after they start receiving retired pay so kind of
21 they're having coverage in the gray area without
22 making any payments.

1 But then when they turn 60, they would
2 have a reduction in pay had they elected while in
3 the gray area.

4 MS. DUSH: Okay, thank you.

5 RICHARD ALLEN: Okay. Okay and that's
6 the end of what I have.

7 MR. MAY: I will continue with the SBP
8 perimeters. We can go to Attachment 7. First
9 moving on to the second bulleted and the proposal
10 above SBP new retiree premium reduction factors.

11 To understand these, I'll briefly go
12 over how SBP works and that is when a retiree in
13 electing SBP, a member will select a base amount
14 up to full retired pay.

15 And this base amount elected
16 determines both the benefit the survivor would
17 receive and the premium that is deducted from
18 retired pay for it.

19 This item here refers to perimeters
20 used to model this reduction in retired pay
21 because of SBP premium. And they are primarily
22 used at retirement and SBP election to adjust the

1 annuity for SBP premium.

2 But they are also used to account for
3 SBP premium and combined with VA offsets during
4 BRS lump sum election and the associated retired
5 pay restoral at age 67.

6 And lastly, to return the premium to
7 monthly pay when the member has reached the 30
8 year paid up status. The proposed perimeters
9 also simplify the current perimeters by combining
10 career status bonus and non-CSP and as well as
11 ages whenever possible.

12 This simplification had no impact on
13 the NCPs at the 0.1 percent level compared to
14 keeping the exact same methodology and only
15 updating the experience.

16 If anyone is interested in more
17 detail, these perimeters are the first 30 sets of
18 tables in Attachment 7 and they are also
19 described in the technical reference to the MRS
20 evaluation, Actives Table F1, Item 6, Reduction
21 Factors for SBP.

22 The third bullet Continuing Retiree

1 Perimeters is split into two parts. The first
2 part is people allocation factors. The current
3 and proposed election shown earlier is for a
4 spouse or a spouse/child elections for members in
5 pay status.

6 These factors allocate the projected
7 electors into all election types and also account
8 for SB elections from people not in pay status.

9 If interested, more details on these
10 perimeters are in the next third figures in
11 Attachment 7 and they are also described in the
12 technical reference, Survivor Table, F1, Item 5,
13 Rates for Electing SBP Options.

14 The second part of the update is an
15 update to the base or net factor. As mentioned
16 earlier, the base amount elected determines the
17 survivor's benefits as well as the premium.

18 And this perimeter is used to model
19 future survivor benefits using information we
20 have about a member's net retired pay amount. If
21 interested, more detail on this perimeter is in
22 the final set of graphs for Attachment 7.

1 And they are also described in the
2 technical reference Survivor Table, F1, Item 2 or
3 Issue of SBP Base Amount to Net Retired Pay. Are
4 there any questions on the other SBP perimeters
5 being proposed?

6 MS. DUSH: Drew, I did see a hand go
7 up. I believe it was Ms. Alicia. Do you have a
8 question?

9 MS. LITTS: Hello, ma'am. Hi, it's
10 Alicia Litts from OUSD Comptroller. I have more
11 of a comment and not necessarily I guess a
12 question.

13 But as you know, Survivor Benefit Pay
14 is paid out of military retirement fund, but the
15 reduction to a member's retirement is not
16 contributed to the fund. Is that taken into
17 consideration here?

18 Because if the money that's being
19 taken from the member to pay for this isn't going
20 into the fund, isn't that considered an unfunded
21 liability?

22 MR. MAY: I believe this is simply

1 adjusting the amount that the retiree at that
2 point would be receiving through a retired pay.

3 MS. LITTS: Okay. All right so I just
4 want to make sure. Okay. So this is just
5 adjusting their amount that's actually going to
6 be leaving the fund then?

7 MR. MAY: Yes.

8 MS. LITTS: For the retiree? Not the
9 survivor benefit cost?

10 MR. MAY: The, --

11 MR. ZOURAS: That's correct. Yes,
12 that's correct. The --

13 MS. LITTS: Okay.

14 MR. ZOURAS: -- the money coming out
15 of the fund to pay retirees is net of the premium
16 so the fund is, they'll be reimbursed in a sense
17 for the future, payment of future survivor
18 benefits.

19 I think what you're talking about are
20 people who are not in paid status and the
21 premiums that they pay do not get paid into the
22 fund.

1 The amount that they remit and some
2 don't remit, that's a -- there I think you're
3 correct there. You know, those premiums are not
4 reflected in our model and in reality, you know,
5 they're not being funded properly.

6 MS. LITTS: Okay. Thank you, Pete.

7 MR. MAY: Is there any further
8 questions? Hearing none, we'll go back to Jon
9 Wong for the final set of proposals.

10 MR. WONG: Thank you, Drew. For our
11 last proposal, we have the offset perimeters. So
12 just to give some context, there's several
13 legislative proposals that sought to expand can
14 currently receive benefits and eligibility to
15 military retirees and one such instance is being
16 the PACT Act.

17 So the PACT Act was passed in August
18 of 2022 and I guess let me go over the acronym
19 for just a Promise to address Comprehensive
20 Toxics and it seeks to expand the VA health care
21 and benefits to Veterans who have been exposed to
22 toxic substances, materials or environments

1 during military service.

2 The number of new Veterans receiving
3 the new disability compensation in 2031 is
4 projected to be 20 percent higher because of this
5 legislation.

6 For our proposals, we are proposing
7 adjustments to VA offset perimeters and
8 disability rates using valuation. And the impact
9 of our proposals would be at 3.3 percent decrease
10 to the FY2025 full-time NCP.

11 And a 1.4 percent decrease in the
12 part-time NCP. And less than .01 percent change
13 in the accrued liability. So for the VA offset
14 perimeters, we are adjusting the VA offset
15 perimeters in our model for new non-disabled
16 retirees such that the increase in concurrent
17 receipt outweighs in an opening group where
18 there's a 10 percent over a 30 or 40 year
19 horizon.

20 And for disability rates, as a result
21 of PACT, we expect more non-disabled retirees to
22 get disability compensation so as a result, we

1 are proposing a 10 percent increase in the
2 disability retirement rates for both actives and
3 reserves while decreasing the lost incidents are
4 the same number. And as my --

5 MS. DUSH: So, go ahead. Go ahead,
6 I'm sorry.

7 MR. WONG: I just wanted to bring out
8 that we also attached Attachment 8 which goes
9 over the Board to the Secretary of Defense. And
10 just going over some of the legislative issues
11 and as repercussions of the recurring receipt.

12 MS. DUSH: So again, what's happening
13 here is that we expect there to be more VA
14 disability payments. And normally that would,
15 before the PACT Act, you know, what we're saying
16 is we don't expect any changes really to overall
17 military retirement fund retirement payments.

18 So that stays the same and that's why
19 the liability doesn't change. But because there
20 are more VA disability benefits, those are being
21 paid concurrently with retirement benefits.

22 And if they are subject to the laws

1 regarding concurrent receipt, then the cost of
2 those benefits in the MRF should be passed to the
3 Treasury.

4 And that is why an increase in the VA
5 benefits causes a decrease in the DoD normal cost
6 percentages based on the way the laws have been
7 written.

8 And so, again, it doesn't change our
9 estimates too much of what total MRF benefit
10 payments are going to be. It just changes our
11 estimate of what is attributable to DoD and what
12 should be passed to Treasury. Have I said that
13 correctly, Jon, Jon Wong?

14 MR. WONG: Yes, sorry.

15 MS. DUSH: Okay.

16 MR. WONG: I agree with that.

17 MS. DUSH: Good. Any further
18 discussion on this subject?

19 MR. CLARK: I --

20 MS. DUSH: More for Jon?

21 MR. CLARK: I'll just comment, Marcia,
22 that I think this is the good faith efforts to

1 try to estimate the potential effect of a law
2 that just recently passed.

3 I would not be surprised if we revisit
4 this in the next few years, we figure that we
5 need to actually increase it further, further
6 accelerating the move of normal costs away from
7 DoD towards Treasury.

8 I question whether that's the intent
9 of the original law, but we're sort of stuck in
10 that from a legal perspective. And I anticipate
11 we'll just be bringing this question up again in
12 future years.

13 MS. DUSH: Yes, I think that's really
14 the basis for the letter we've wrote last year.
15 John Moore, any further comments?

16 MR. MOORE: No, what agreed, well
17 stated and the letters trying to lay out this
18 issue a little better so that we can continue
19 discussion on it.

20 MS. DUSH: All right, well at this
21 point I would like a motion to support the
22 changes to the non-economic assumptions regarding

1 reserve rates, mortality improvement, SBP
2 perimeters, and the VA offset perimeters and
3 disability rates.

4 MR. MOORE: So moved, Chair.

5 MS. DUSH: Okay, a second?

6 MR. CLARK: I second.

7 MS. DUSH: If there's no further
8 discussion, all in favor, aye?

9 (Chorus of ayes)

10 MS. DUSH: Any nay?

11 (No audible response)

12 MS. DUSH: Motion is passed. So at
13 this point what I'd like to do is just restate
14 then that the fiscal year '25 DoD NCPs will be
15 26.6 percent for full-time members and 21.5
16 percent for part-time members.

17 Is there any further discussion on the
18 MRF before we move to the valuation of the
19 voluntary separation incentive program? So if
20 not, I think, Phil, are you up for that?

21 MR. DAVIS: Yes, ma'am.

22 MS. DUSH: Okay.

1 MR. DAVIS: I'll be providing a side
2 level overview and an introduction of the
3 voluntary separation incentive or VSI and
4 then I'll be turning it over to Jon Wong who just
5 spoke.

6 So VSI was a program that started in
7 1992 in an effort to downsize the active military
8 force and to be eligible, members had to have six
9 years of active duty service, have five years of
10 continuous active service at the time of
11 separation and a rank that had more members than
12 were needed and they also have to continue
13 drilling and reserves.

14 The benefit is an annuity payable for
15 twice as long as the member's years of service
16 and equal to two and a half percent of their base
17 pay times their years of service.

18 And this is subject to a VA offset and
19 can be passed to survivors. VSI has been closed
20 since October of 2001 so we've had no new
21 entrance since then.

22 Unless there are any questions, I

1 guess high level ones, I'll pass it on to Jon.

2 MR. WONG: Thanks, Phil. So again,
3 start with this page and here we have the VSI
4 funding projection and current interest rate
5 assumptions.

6 So we have an interest rate assumption
7 of a 2.25 percent, you know, set last year. And
8 the proposed interest rate is shown as 2.75.

9 We also have the table above which is
10 listing out the inflation real, inflation rate,
11 the real interest rate and the fund yield for
12 fiscal year 2023 and above.

13 And we also have the, below that we
14 have the value averages and below that we also
15 have an average as rated by the expected value of
16 the fund. And in the notes we listed investment
17 strategies and the funds are invested in the mix
18 of overnights and bills and not invested in tips.
19 So any comments or questions on this page?

20 MS. DUSH: I think on this, yes, I
21 think the important point here is this fund has
22 such a short duration that the interest discount

1 rate almost has no effect.

2 And I think the proposal to go up a
3 little bit based on current interest rate
4 projections is good. To take it up much higher,
5 again, I think that we'll see that an interest-
6 rate change doesn't have a whole lot of effect
7 upon this plan.

8 So again, I think the proposal to go
9 to 2.75 from 2.25 is reasonable at this point in
10 time. John and Mike, any comments?

11 MR. CLARK: I agree, Marcia. I think
12 the short end of the yield curve is certainly
13 strange right now. Rates are very high and I
14 think we'll revisit this whenever we get to a
15 point where maybe, you know, the curve looks more
16 normal.

17 But as you said, the rate doesn't have
18 a huge affect on liability anyway. So I think
19 I'm comfortable taking incremental steps toward
20 where we think it's going.

21 MS. DUSH: Okay.

22 MR. MOORE: Same here.

1 MS. DUSH: All right, please continue,
2 Jon.

3 MR. WONG: So on the next page, we
4 have the table showing the number of remaining
5 payments broken down by various categories and
6 details.

7 Pay grade, value offset status, count,
8 average VSI payment, average VA payment, and
9 something else about this table as you can read
10 down below, the table excludes 481 eligible VSI
11 members who have a full VA offset.

12 And the table includes 423 survivors
13 receiving 2023 survivors receiving benefits from
14 322 deceased VSI members. And on the next page
15 we have a list of breakdown of the changes in
16 unfunded liability.

17 And these are based on the assumptions
18 of a 2.75 percent interest, 2.2 percent COLA on
19 VA offsets and a 1 percent non-COLA interest on
20 VA.

21 So starting with the unfunded
22 liability on October 1st of 2021, and the

1 amortization payment made on January 1st of 2021,
2 we can get the expected unfunded liability on
3 October 1st, 2022, which we show here as 52.9
4 million and the actual unfunded liability if 49
5 million for a gain of 3.86 million.

6 And we could break down this gain into
7 two components so 1.02 million due to gain due to
8 assets and then 2.84 million gain due to
9 liability.

10 And a larger portion of the gain is
11 due to assets being attributed to benefits
12 payment with a projected payment for fiscal year
13 2022 being 31.1 million when in actual it's 30.1
14 million.

15 And for liability, we see about a half
16 a million gain due to COLA being higher than
17 assumption as observed in the footnote 3. And
18 then we also have a 400,000 gain due to the
19 offsets being different than expected.

20 And similarly, a 400,000 gain due to
21 residual and the fast data change.

22 MS. DUSH: All right, so what's really

1 interesting here is before we've said in the MRF
2 because of VA increases in benefits, you know,
3 that affected concurrent receipt.

4 Here and it didn't affect the total,
5 you know, concurrent receipt benefits don't
6 affect the total payment from the MRF. Here,
7 they, an increase in a VA benefit does affect the
8 payment from this plan because the VA benefits
9 are offsets.

10 They reduce the payment from this
11 plan. And so when you have a VA COLA that's
12 higher than expected, that's going to be a gain
13 to this plan.

14 When you have updated ratings,
15 increases in ratings, that increased VA benefits,
16 they increase the offsets so that becomes a gain
17 here.

18 So here we see modest gains due to
19 changes in the VA offsets. And then as I said
20 before, we were proposing to update the interest
21 rate from 2.25 to 2.75.

22 You know that has a million and a half

1 dollar affect for 50 basis points as a gain. So
2 at that, you want to, any further discussion on
3 this? Keep going, Jon.

4 MR. WONG: All right. Thanks. So the
5 next two pages provide the detail of VSI
6 amortization, but these are based on assumptions
7 we stated earlier.

8 For the amortization schedule, we're
9 looking for a contribution of 7.8 million for
10 January 1st of the fiscal year 2025. This amount
11 would be 44.9 percent of the fiscal year
12 projected benefits payments.

13 In other words, this is a percentage
14 such that if applied for the remaining payments,
15 the fund will stay above zero until the last
16 benefit payment in 2039. On the next page we
17 also --

18 MS. DUSH: And then --

19 MR. WONG: -- we also have --.

20 MS. DUSH: Go ahead. That --

21 MR. WONG: On the next page, --

22 MS. DUSCH: -- that was the point.

1 MR. WONG: -- on the next page, we
2 have the visual of the VSI fund table and we can
3 see here that the fund balance benefit payment
4 and the amortization payments gradually decrease
5 as it converts to zero.

6 MS. DUSH: Okay. Any discussion on
7 these results? Okay. So at this point, I'd like
8 to call for a motion that supports the interest
9 rate of 2.75 for this valuation for the COLA
10 increase on VA offsets of 2.2 percent, for the
11 non-COLA increase on VA offsets of 1 percent, for
12 approval of these results of the 9-30-22
13 valuation.

14 And the resulting amortization payment
15 of 7.8 million for fiscal year '25.

16 MR. CLARK: All right. So I will move
17 to accept the assumptions so there is more and
18 more time 2.75 percent interest, 2.2 percent COLA
19 increase on the VA offset, and a 1 percent non-
20 COLA increase on the VA offsets.

21 And I also move to accept these 9-30-
22 2022 valuation results including a fiscal 2025

1 \$7.8 million contribution to the VSI.

2 MS. DUSH: Any discussion? All in
3 favor, aye?

4 (Chorus of ayes)

5 MS. DUSH: Any nay?

6 MR. MOORE: Oh, wait. I'm sorry.
7 Marcia, I need to, I probably need to second
8 that.

9 MS. DUSH: Oh, okay.

10 MR. MOORE: Should I second that?

11 MR. CLARK: Yes.

12 MS. DUSH: Seconding the motion.

13 MR. MOORE: Yes.

14 MS. DUSH: Any further discussion?
15 All in favor?

16 (Chorus of ayes)

17 MS. DUSH: Any nay?

18 (No audible response)

19 MS. DUSH: And so the motion is
20 passed. And I think that is it. I think that
21 concludes, oh, I forgot. We are going on to a
22 discussion of the ADVANA conversion. And is that

1 you, Qian or?

2 MR. DAVIS: That's me.

3 MS. MAGEE: That will be Phil.

4 MS. DUSH: That's you, Phil.

5 MR. DAVIS: Yes.

6 MS. DUSH: Okay.

7 MR. DAVIS: And don't worry, everyone.

8 It should be quick. So I'll be covering a
9 project that mainly three OACTers have been
10 working on for the last several months.

11 And it essentially boils down to a
12 change in the method in which we access data
13 coming from DMDC particularly in our producing of
14 the retirement census data.

15 And none of the numbers we have shown
16 so far during the presentation reflect these sort
17 of come from this new method, but going forward
18 they will for next year.

19 And so essentially the method that we
20 have been using in the past and used for this
21 year is outlined here in a crude graphic where
22 DMDC produces and maintains the data files.

1 We then access them through a platform
2 called TSO Mainframe or --

3 MS. PETTYGROVE: Phil, --

4 MR. DAVIS: -- or just the mainframe.

5 MS. PETTYGROVE: Phil, --

6 MR. DAVIS: Yes.

7 MS. PETTYGROVE: Phil, could you just
8 say what DMDC is?

9 MR. DAVIS: DMDC are the Defense
10 Manpower Data Center in Monterey, California.
11 And as I was saying, we mainly access that
12 through TSO Mainframe using SAS programs.

13 And then we'll transfer those to OACT
14 devices where we can continue working on those.
15 And this method has been somewhat cumbersome in
16 the past.

17 I know for several OACTers, we have to
18 have complete separate devices only dedicated to
19 accessing DMDC data and then we have to transfer
20 those to our day-to-day device using a method
21 like DoD safe transfer.

22 And DMDC or the mainframe is actually

1 being shut down in the coming months. And with
2 that comes the introduction of this new data
3 system called ADVANA which is a combination of
4 Advancing and Analytics which is a platform
5 that's owned by the Comptroller.

6 And ADVANA is a cloud computing
7 platform with several different data tools. And
8 for OACT's purposes so far we've used two which
9 are Databricks and IQuery.

10 And additionally, ADVANA has machine
11 learning and built in protective analytics
12 capabilities that we haven't been able to explore
13 yet.

14 But we're really excited to be able to
15 get the chance to do so. And so this new method
16 going forward essentially boils down to this
17 graphic where the data files are still maintained
18 and produced by DMDC.

19 But now we are accessing those raw
20 data files through Databricks forming whatever
21 calculations and manipulations that we previously
22 did in the mainframe using Databricks.

1 And then uploading these new files to
2 our cluster which is essentially our office's
3 dedicated digital workspace. And then we
4 download those through IQuery straight to our
5 devices.

6 So it's much more streamlined as it
7 can all be accessed through the browser as
8 opposed to having to pull out a new laptop. Are
9 there any questions or comments for this page and
10 the introduction of our data access methods?

11 MS. DUSH: No.

12 MR. DAVIS: Okay. So moving on, so we
13 outperformed two parallel runs for using the 2021
14 data and the 2022 as a comparison for the census
15 production for retirement.

16 And there are some impacts. And due
17 to this conversion within the final data we'd be
18 using and some of the causes of these impacts can
19 be something as simple as a change in the
20 programming languages so for mainframe, we use
21 SAS programming.

22 And for this new method in ADVANA, we

1 use a combination of Python, R and Sequel. And
2 so these different languages can result in some
3 slight differences.

4 For example, by default, SAS stores up
5 to 16 digits for numeric variables while Python
6 can store up to 28. And additionally, some
7 differences can be traced back to changes within
8 the raw files that are produced by DMDC.

9 And as we notice those, we have
10 reported them to DMDC and either received an
11 explanation as to a reason for the change or
12 there's been a fix in this which is nice.

13 And additionally, some differences can
14 just be traced to OACTers removing sections of
15 code that should no longer be used or are no
16 longer being used.

17 And that can result in some minimal
18 changes. And so the conversion talking about has
19 been broken down into four population groups,
20 active duty, reserves, retirees, and survivors.

21 And I'll just show the data counts so
22 the counts of members within these population

1 groups for FY21 and then going down, we also have
2 the FY22 numbers as well as the liabilities
3 produced by these censuses.

4 So for FY22 there was a total change
5 in three people between the mainframe and ADVANA
6 methods and additionally, there was a .004
7 percent difference within the liability of these
8 two difference censuses. That concludes --

9 MS. DUSH: I think --

10 MR. DAVIS: Oh, yes, ma'am?

11 MS. DUSH: Yes, actually amazingly
12 close for transferring, from changing completely
13 different data accessing methods. I think this
14 is working, it appears to work very well.

15 MR. DAVIS: Thank you, ma'am. No, I'm
16 glad to hear that. I'm sure Drew and John are as
17 well. Are there any other --

18 MS. DUSH: Okay.

19 MR. DAVIS: -- questions or comments?
20 Then turning it over to you, Marcia, to conclude
21 everything.

22 MS. DUSH: Okay. Well, we appreciate

1 all the hard work that OACT has put into this
2 valuation and I'd like to ask if there are any
3 final questions before we adjourn?

4 With no final questions, I adjourn
5 this meeting of the Board of Actuaries for the
6 Department of Defense. I would ask that guests
7 sign off at this point.

8 I would like my fellow Board Members
9 to stay on for just a couple of minutes and we'll
10 discuss the transmission of the result of the
11 NCPs via letters to the various parties that we
12 have to communicate with.

13 So at this point, guests can sign off.
14 Thank you.

15 (Whereupon, the above-entitled matter
16 went off the record at 11:30 a.m.)
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A	
a.m 1:8 4:2 80:16	52:8,22 53:12 55:5
able 76:12,14	agenda 6:4,12,17 7:20
above-entitled 80:15	ages 31:10 47:14 55:11
accelerating 63:6	ago 28:4 34:19 37:7
accept 17:19 72:17,21	agree 23:11 25:11
access 74:12 75:1,11	62:16 67:11
77:10	agreed 26:21 63:16
accessed 77:7	ahead 30:2 61:5,5
accessing 75:19 76:19	71:20
79:13	Alicia 57:7,10
account 17:12 31:7	align 16:15
55:2 56:7	aligns 35:8
accrued 31:1 38:16	Allen 2:19 7:12 29:3
43:12 60:13	43:6,7 46:2,10,21
accumulative 22:4	47:16,21 48:13,17,22
acronym 59:18	49:3,8 50:11,18 51:6
across-the-board 2:12	51:13,14 53:18 54:5
26:6,16	allocate 56:6
Act 29:9 59:16,17 61:15	allocation 12:20 17:4
action 36:3	56:2
active 9:9,19 10:4 28:22	allow 46:14 47:5 48:6,9
65:7,9,10 78:20	50:14
actives 55:20 61:2	allows 44:12
actual 13:21 45:6,9	alternative 50:4
69:4,13	amazingly 79:11
actuarial 2:5 6:8,22	amendment 14:17
11:17	amortization 2:7,9 3:5
Actuaries 1:3,8 4:6	7:2 8:8 13:17 16:8,14
38:8,21 42:12 80:5	16:15,17,22 17:21
Actuary 1:1 2:5,13,15	18:2,4 69:1 71:6,8
2:18,20 5:19 43:7	72:4,14
ad 31:7	amortize 17:19
add 53:19	amortized 16:21
added 7:19 32:4	amount 46:4 54:13,15
addition 9:7,18 10:15	56:16,20 57:3 58:1,5
additional 23:22 25:21	59:1 71:10
26:20	analytics 76:4,11
additionally 32:3 76:10	anchored 24:7
78:6,13 79:6	Anita 5:10,12
address 5:13 31:5	annual 21:17 22:5
59:19	24:18
addressed 51:7	annuity 55:1 65:14
adjourn 80:3,4	answer 49:5
adjust 54:22	anticipate 63:10
adjusting 58:1,5 60:14	anticipation 22:20
adjustment 33:13 37:16	anybody 5:18
adjustments 60:7	anyway 49:6 67:18
ADVANA 3:7 7:21	apart 41:4
73:22 76:3,6,10 77:22	appears 79:14
79:5	applied 12:18 31:10
Advancing 76:4	71:14
advisor 36:8	apply 34:9,15
affect 29:3 67:18 70:4,6	applying 33:2
70:7 71:1	appreciate 79:22
age 31:13,20 32:3,8,14	approach 36:7 39:7
32:18 33:9 34:16,16	approaches 39:5
35:7 44:21 45:4 50:20	appropriate 33:10 36:7
	approval 7:6 72:12
	approve 8:8,17,18,21
	18:2 26:12
	approved 12:17,20 15:2
	arbitrarily 46:19
	area 9:13 32:13,15
	35:18 51:22 52:1 53:4
	53:21 54:3
	areas 37:8
	arena 36:18
	asking 5:2 36:2
	assets 69:8,11
	associated 55:4
	assume 31:21 32:10
	assumption 13:18 14:3
	14:8,13 16:9,18 25:8
	25:9,12 26:4 33:8
	46:1 66:6 69:17
	assumptions 2:11,12
	2:15 3:2,5 7:8,9,14,17
	8:11,16,17 10:10 11:3
	13:3 14:20 15:8 19:2
	19:3,6,10,16,19,21,22
	20:14 21:11 22:2,7,13
	24:8,10,13,14 25:19
	26:12 27:12,18 44:8
	52:12 63:22 66:5
	68:17 71:6 72:17
	asterisk 7:5
	ation 65:3
	attached 39:20 61:8
	Attachment 29:19
	31:18 37:19 39:21
	44:6 54:8 55:18 56:11
	56:22 61:8
	attending 5:6
	attributable 30:11,13
	62:11
	attributed 10:19 14:1
	69:11
	audible 18:15 27:4
	64:11 73:18
	audio 4:21
	August 59:17
	automatically 46:22
	average 11:8 16:20
	23:2,3,12 40:3 66:15
	68:8,8
	averages 21:20,21
	66:14
	aye 64:8 73:3
	eyes 18:12 27:2 64:9
	73:4,16
	B
	B 16:12
	Bachelor 6:8
	back 12:7 20:15 41:13
	48:3 59:8 78:7
	balance 18:5 72:3
	Barbara 6:7
	barring 49:20
	base 40:17,21 54:13,15
	56:15,16 57:3 65:16
	based 12:15 17:11
	21:10 24:13 27:18
	32:2 33:11 52:17 62:6
	67:3 68:17 71:6
	basic 12:18
	basically 45:8
	basis 16:20,21 21:16,17
	22:4,5 24:17,18,21
	25:13 63:14 71:1
	begins 53:12
	begun 53:8
	believe 27:7 32:9 33:8
	39:11 40:8,12 42:2
	57:7,22
	benefit 16:9,17 35:10
	44:11 45:21 46:3 52:3
	52:4,4,7 53:6,12,16
	54:16 57:13 58:9 62:9
	65:14 70:7 71:16 72:3
	benefits 11:8,9,20 12:9
	30:9,12 32:14,16 33:6
	43:20 44:13 53:9,11
	56:17,19 58:18 59:14
	59:21 61:20,21 62:2,5
	68:13 69:11 70:2,5,8
	70:15 71:12
	best 37:8
	better 10:20 32:6 40:10
	63:18
	beyond 21:14 35:7
	50:20
	billion 12:1,11 13:15,19
	13:21,22 14:5,9,14,16
	14:19,22 15:1 31:2
	38:17 43:13
	bills 66:18
	bit 20:10 22:17 25:7
	41:14,15 45:22 50:22
	67:3
	blend 40:3
	blue 20:3,4,13,18 21:5
	24:9,13,15,19 45:5
	board 1:3,8,11,12 4:5
	4:13,13,16,19 7:5 8:5
	8:10,15,20 19:3,6
	20:10 22:7 26:20 61:9
	80:5,8
	Boards 19:4
	boils 74:11 76:16
	bond 23:17
	bonus 55:10
	bottom 13:2 29:13
	45:12,18

break 69:6
breakdown 68:15
brief 7:19 44:9
briefly 54:11
bring 61:7
bringing 41:14 63:11
broken 68:5 78:19
browser 77:7
BRS 55:4
built 76:11
bullet 55:22
bulleted 54:9

C

C-I-V 5:15
calculated 15:1
calculating 12:7
calculations 76:21
California 75:10
call 35:5 38:10 72:8
called 7:21 75:2 76:3
capabilities 76:12
care 59:20
career 33:13 55:10
case 26:2 31:12 32:19 46:16
categories 68:5
causes 38:22 62:5 77:18
cautionary 25:7
CBO 20:2
census 74:14 77:14
censuses 79:3,8
Center 75:10
certain 33:9 35:9 38:4
certainly 67:12
Chair 1:9,11 4:12 18:1 64:4
chance 76:15
change 2:6 7:1 13:6 14:20 16:9,9,18,18 29:21 30:20 31:19,20 32:12 37:11,17 40:5 41:19 45:10,15 60:12 61:19 62:8 67:6 69:21 74:12 77:19 78:11 79:4
changed 33:10
changes 7:13 10:8 12:3 25:9,9 27:13,22 31:3 37:11 43:22 61:16 62:10 63:22 68:15 70:19 78:7,18
changing 31:9 79:12
chart 44:22 45:12
chat 5:10
child 46:13,16,18,19,20 46:21,22 47:2,5,12,14

47:18,19 48:4,7,8,11 48:12,20 49:10,12,14 49:15,16,19,21 50:6,8 50:13,16,19,19 51:2
chip 20:3,5,13,18 21:5 24:9,13,15,20
choose 44:16 50:18 52:3 53:15,15
Chorus 18:12 27:2 64:9 73:4,16
circling 45:22
circumstances 48:7
CIV 5:15
claim 33:6
claiming 32:14 35:11
Clark 1:11 4:18,18 13:10 15:19 18:6,10 23:10 25:11 26:11,21 41:18 62:19,21 64:6 67:11 72:16 73:11
clean 28:5
clear 8:4 39:18 53:3
close 79:12
closed 8:6 9:4 65:19
closely 33:22
cloud 76:6
cloud-based 7:21
cluster 77:2
CMI 39:9
CMI's 39:7
Co-Board 4:13
co-star 31:15
coast 2:7 7:3 8:8 9:7,18 10:14,15 12:6 14:17 16:13 17:1,20 18:3 34:19 44:5
code 78:15
COLA 2:12 11:7 13:4 14:2,10 68:18 69:16 70:11 72:9,18,20
collect 35:5,6
collecting 23:22
college 47:1
column 19:5
combination 31:4 76:3 78:1
combined 14:14 55:3
combining 28:7 55:9
come 48:3 74:17
comes 76:2
comfortable 23:21 25:18 67:19
coming 58:14 74:13 76:1
commenced 53:6
commend 15:6
comment 15:4 20:17 23:9 30:16 42:11

57:11 62:21
comments 11:4 13:8,10 15:3 17:6 20:6,16 22:9 25:22 34:3 36:21 40:12 42:9 63:15 66:19 67:10 77:9 79:19
Committee 36:1,2
communicate 80:12
comparable 14:8
compared 14:3,12 19:19 55:13
comparison 11:19 77:14
compensation 60:3,22
complete 5:6 75:18
completely 79:12
complicated 33:17
Component 51:20
components 14:1 69:7
Comprehensive 59:19
Comptroller 57:10 76:5
compute 8:11
computing 76:6
concerning 4:8
concerns 22:18
conclude 79:20
concludes 18:19 73:21 79:8
concurrent 17:8,16 30:10,13 60:16 62:1 70:3,5
concurrently 61:21
Congressional 48:15
conservative 23:7
consider 41:21
consideration 57:17
considered 57:20
consistent 14:22
contact 5:18 34:8 36:11
content 21:8
CONTENTS 2:1
context 59:12
continue 10:7 11:15 20:8 21:3 51:15 54:7 63:18 65:12 68:1 75:14
continued 9:16 44:13
continuing 22:16 43:19 55:22
continuous 39:6 65:10
contributed 57:16
contribution 16:11 71:9 73:1
contributions 6:11 11:22
conversation 25:17
conversion 73:22 77:17

78:18
converting 7:20
converts 72:5
copy 20:4
correct 46:1,2 47:16 53:18 58:11,12 59:3
correctly 15:18 53:17 62:13
cost 2:9,14 7:11 8:13 8:19 11:22 17:2 19:15 19:16,17 26:4 27:13 41:10,14,15 45:22 58:9 62:1,5
costs 12:10 17:15 63:6
counsel 51:8
count 68:7
counts 78:21,22
couple 28:4 38:20 80:9
cover 11:1 36:22 47:5 48:8,20 49:15 50:14 50:19 51:1
coverage 46:20,21 47:18,22 48:2,7 49:10 49:11,14 50:9,13,20 51:22 53:1,7,19,21
covered 49:16
covering 18:20 19:1 74:8
COVID 37:17 38:4,20 41:20 42:16,18
CPI 20:14 26:4
crude 74:21
cumbersome 75:15
cumulative 21:16 24:17
current 19:6 33:22 37:22 45:1,13 52:11 52:15 55:9 56:2 66:4 67:3
currently 36:17 45:11 59:14
curve 23:18 67:12,15

D

data 7:22 23:22 37:12 38:4 39:4,14,16 40:9 41:21 69:21 74:12,14 74:22 75:10,19 76:2,7 76:17,20 77:10,14,17 78:21 79:13
Databricks 76:9,20,22
Davis 2:13 3:3,7 7:8 18:20,22 20:9 21:4 24:11 27:7 64:21 65:1 74:2,5,7 75:4,6,9 77:12 79:10,15,19
day-to-day 75:20
deal 16:1
death 39:1 52:6

deceased 33:1 68:14
December 20:5,15
decide 28:14
decided 28:16 39:13
decision 41:3 49:10
decrease 9:19,20,21,22
 10:17 12:22 28:9,18
 28:19 29:11,12 30:22
 31:1 38:14,15,16
 43:12 60:9,11 62:5
 72:4
decreasing 61:3
dedicated 75:18 77:3
deducted 54:17
default 78:4
Defense 1:1,8 4:5 46:14
 48:6,14 61:9 75:9
 80:6
deferral 53:15
deferred 52:4,7,15,19
 53:12
definitely 30:14 36:13
Degree 6:8
Department 1:1,8 4:5
 46:13 48:5,14 80:6
dependent 46:18 47:20
dependents 44:13,14
 48:21
depth 21:7
described 51:18 55:19
 56:11 57:1
description 44:6
designed 50:13
detail 11:2 12:4 28:7,17
 29:10 31:18 55:17
 56:21 71:5
details 5:7 56:9 68:6
determinations 51:9
determines 54:16 56:16
developing 44:7
device 75:20
devices 75:14,18 77:5
DFAS 51:8
DIC 44:3
die 44:14 53:10
differ 10:9
difference 15:5 33:18
 79:7,8
differences 37:20 78:3
 78:7,13
different 23:6 39:5
 69:19 76:7 78:2 79:13
difficulty 9:16
digital 77:3
digits 78:5
dimension 32:4
dip 42:18
disability 2:21 10:22

11:1 29:8 30:11,12
 60:3,8,20,22 61:2,14
 61:20 64:3
disabled 10:12
discount 26:6 66:22
discuss 6:21 27:11
 28:7,17 29:4,10 80:10
discussing 4:7 6:2
discussion 18:13 30:17
 43:1 49:5 51:11 62:18
 63:19 64:8,17 71:2
 72:6 73:2,14,22
dive 37:2
DMDC 74:13,22 75:8,9
 75:19,22 76:18 78:8
 78:10
DNAA 44:3
DoD 2:4,13,15,18,20
 8:18 12:14,16,22 17:4
 17:15 27:15,19 29:14
 30:5,21 34:21 43:10
 49:1 50:3 51:4 62:5
 62:11 63:7 64:14
 75:21
doing 15:7 53:7
dollar 71:1
dot 5:14,14,15
download 77:4
downsize 65:7
Drew 2:4,6,7,8,9,16,20
 6:21 7:11 8:22 9:2
 18:21,22 19:1,5 28:7
 29:4 30:17,18 37:1
 57:6 59:10 79:16
drilling 65:13
drop 52:19
due 10:1 14:10,20 17:1
 17:3,5 35:22 69:7,7,8
 69:11,16,18,20 70:18
 77:16
duration 66:22
DUSCH 71:22
Dush 1:9,11 4:3,12,17
 4:20 5:16,21 6:15
 11:5,15 13:9,13 15:4
 15:12 16:5 17:7 18:9
 18:13,21 20:8,17 21:3
 22:11 24:2,5,19 25:20
 26:1,18 27:1,3,9
 29:22 30:3 34:4 36:4
 36:6,19 40:15 41:1,5
 42:1,8,22 45:19 46:7
 53:3 54:4 57:6 61:5
 61:12 62:15,17,20
 63:13,20 64:5,7,10,12
 64:22 66:20 67:21
 68:1 69:22 71:18,20
 72:6 73:2,5,9,12,14

73:17,19 74:4,6 77:11
 79:9,11,18,22
duty 9:9,19 10:4 65:9
 78:20

E

earlier 17:3 56:3,16
 71:7
easiest 5:12
Eastern 4:4
economic 2:12 7:9 8:16
 11:3 13:3 14:15 15:6
 18:20 19:1 25:9 26:12
edge 31:10
EDT 1:8
effect 11:7 28:8 63:1
 67:1,6
effects 41:21 44:1
effort 65:7
efforts 62:22
either 52:3 53:11 78:10
elect 49:14,15 50:5,9
elected 46:13,17 50:8
 54:2,15 56:16
electing 53:7 54:13
 56:13
election 45:16 47:4,9
 47:10,13 51:21 52:2
 54:22 55:4 56:3,7
elections 43:17 45:17
 56:4,8
electors 56:7
elects 47:17
elevated 39:4
eligibility 59:14
eligible 32:18 65:8
 68:10
email 5:5,11,13
employers 35:1
enlisted 40:4 44:21
 45:13,19 52:18
enroll 44:16
enrolled 47:1
ensure 5:5 10:8
entrance 65:21
environment 23:18
environments 59:22
equal 65:16
error 33:21
especially 11:6 35:17
essentially 74:11,19
 76:16 77:2
estimate 62:11 63:1
estimated 29:17
estimates 62:9
evaluation 7:15 8:21
 14:3 26:13 27:19
 55:20

everybody 5:6 43:6
exact 55:14
exactly 34:20
example 10:3 78:4
exceeds 10:3
exception 47:2
excited 76:14
excludes 68:10
exist 33:19
existing 16:16
expand 59:13,20
expect 22:15 39:17
 60:21 61:13,16
expectancy 15:15
expected 13:18 41:12
 41:16 66:15 69:2,19
 70:12
expecting 41:11
experience 14:15 15:6
 15:21 16:10 17:11,13
 32:2,7 33:11,14,22
 34:2 37:13 41:19
 43:22 44:5 45:6 52:17
 55:15
experienced 16:18
 43:15
expert 32:20
explanation 33:7 78:11
explore 76:12
exposed 59:21
extent 39:12
extraction 7:22

F

F1 55:20 56:12 57:2
fact 25:17
factor 56:15
factors 2:17 33:13,14
 33:17 43:18 54:10
 55:21 56:2,6
facts 28:7
faith 62:22
families 10:13
far 21:11 25:12 41:4
 74:16 76:8
fast 69:21
faster 11:9,10
favor 18:11 27:1 64:8
 73:3,15
feels 23:15
fellow 80:8
figure 63:4
figures 9:6,8 56:10
files 74:22 76:17,20
 77:1 78:8
final 56:22 59:9 77:17
 80:3,4
Finally 7:19

financial 20:1 50:15
find 8:2 35:2
first 6:19 8:5 14:2 19:5
 28:2 30:4,15 31:4
 37:4,11 42:17 44:9
 48:13 52:5 54:8 55:17
 56:1
fiscal 7:2,10 8:13,18
 13:16 21:13,19 27:15
 29:13,17 30:21 64:14
 66:12 69:12 71:10,11
 72:15,22
fitting 33:22
five 40:22 65:9
fix 78:12
fledgling 37:7
focus 25:1
focused 41:6
follow 50:8
following 7:6,16 28:1
 43:16 50:7
footnote 12:4 69:17
force 65:8
forecast 20:18,19
forgot 73:21
formally 8:18
forming 76:20
forum 49:4
forward 13:16 74:17
 76:16
found 7:18
founded 7:1
four 28:1 52:13 78:19
Friday 1:5 4:4
frog 35:13
full 7:13 9:10 27:16
 28:18 29:5,12,15,18
 35:10 38:14 40:19
 54:14 68:11
full- 40:6
full-time 2:14 27:19
 28:8 30:21 43:10
 60:10 64:15
fund 2:2,3,11 3:1,2 4:9
 4:10 6:18,20 12:2,3
 12:10 14:7 21:9,15
 22:16,17,20,22 23:2
 23:12,13 25:4 57:14
 57:16,20 58:6,15,16
 58:22 61:17 66:11,16
 66:21 71:15 72:2,3
fund-weighted 21:21
funded 59:5
funding 66:4
funds 66:17
further 18:13 25:10
 36:20 42:9,22 59:7
 62:17 63:5,5,15 64:7

64:17 71:2 73:14
furthermore 14:11 33:4
 39:15
future 11:20,22 12:8,9
 16:3 23:15 33:19 34:2
 38:5 39:4,12,19 41:8
 56:19 58:17,17 63:12
FY 2:7 43:10,18,20 44:3
FY2025 2:14 60:10
FY21 43:16 79:1
FY22 79:2,4

G

gain 14:9 15:10 16:10
 69:5,6,7,8,10,16,18
 69:20 70:12,16 71:1
gain/loss 34:2
gains 70:18
game 16:18
generally 49:9
geometric 21:20
getting 20:11 25:4
give 5:7 27:13 35:22
 44:9 59:12
Given 33:7
gives 13:18 23:6
glad 6:14 79:16
go 6:4 7:17 8:1 12:12
 16:6 21:6 23:10 24:5
 30:1 31:17,18 43:2
 52:16,19 54:8,11 57:6
 59:8,18 61:5,5 67:2,8
 71:20
goes 32:1 45:5 61:8
going 4:21 5:4 6:4
 10:18 11:8,10 16:2
 20:15 27:11,12 30:17
 36:21 38:7 41:7 42:16
 43:8 51:16 57:19 58:5
 61:10 62:10 67:20
 70:12 71:3 73:21
 74:17 76:16 79:1
good 4:3 9:12 13:9,11
 15:7 24:21 25:20,20
 32:15 53:5 62:17,22
 67:4
grade 68:7
gradually 72:4
graduated 6:7
graph 32:2
graphic 74:21 76:17
graphs 32:5 56:22
gray 9:13 32:13,14
 35:18 51:21 52:1 53:4
 53:21 54:3
Great 11:16 18:18
green 45:14
group 8:6 9:4 60:17

groups 78:19 79:1
guard 2:8 7:3 8:9 9:7,18
 10:14,15 12:6 14:18
 16:13 17:1,20 34:20
 44:5
guard's 18:3
guess 52:12 57:11
 59:18 66:1
guest 5:3 34:6
guests 80:6,13
guys 26:11

H

half 30:8 52:13 65:16
 69:15 70:22
hand 42:1 43:4 57:6
happen 35:3 41:7
happening 61:12
happens 30:15 48:1
hard 80:1
health 59:20
hear 79:16
heard 9:14 18:9 35:9
hearing 37:4 40:14 59:8
hearts' 21:8
heat 39:21,22
height 41:20
Hello 43:6 46:10 57:9
Hey 38:6
Hi 34:18 42:10 46:11
 57:9
high 15:21 19:16 41:19
 66:1 67:13
higher 22:18,20 33:15
 39:1 45:15,21 47:8
 60:4 67:4 69:16 70:12
hike 22:19
hit 22:12,13
hitting 32:10
hoc 31:7
hold 25:8
holder 16:13
hope 8:1
horizon 60:19
huge 67:18

I

I-N-G-E-R 5:13
identify 5:1
ignore 41:19
illustrates 37:20
immediate 52:3,4,14,16
 53:1,16
immediately 53:12
impact 15:20 28:17
 29:9,11 31:9,14,16
 37:16 38:13 40:5
 55:12 60:8

impacted 38:4
impacts 77:16,18
implement 48:17
Implemented 27:16
implication 30:7
important 22:21 30:4
 40:16 44:17 66:21
improved 42:13
improvement 2:17
 15:14 27:21 28:12,13
 36:22 37:2,10,18,21
 39:22 40:1,5,10,11,17
 64:1
improvements 28:6
 41:11
inactive 33:5
incapacitated 47:3
 49:20
incentive 3:1 4:10
 64:19 65:3
incidents 61:3
include 9:7 10:13 19:12
 26:9,13 31:15 49:18
includes 9:9,10 10:11
 68:12
including 18:3 39:3
 72:22
inclusion 12:5 17:1
incorporate 44:5
incorporation 37:12
increase 10:2,3,5,6,16
 10:21 11:10,13 12:13
 13:1 14:12,18,22 17:1
 17:2,10 19:20 23:16
 26:7,9,20 29:5 39:16
 40:6,7 41:10 42:19
 43:10,11 46:5,6 60:16
 61:1 62:4 63:5 70:7
 70:16 72:10,11,19,20
increased 11:21 12:1,2
 70:15
increases 2:13 26:10
 30:10,12 31:7 32:6
 46:4 53:2 70:2,15
incremental 67:19
indefinitely 47:6
indication 39:18
indicative 39:12
ineligibility 33:2
ineligible 49:17
inflation 10:1 14:11
 15:21 19:7,18 20:2,3
 20:12 21:14 22:2,8,15
 23:19 24:15 26:14,19
 66:10,10
information 2:5 5:20
 56:19
informing 35:16

Inger 5:5,7,13 38:7,12
initial 16:8,14,16 17:19
 17:22 18:3
Initially 10:20
input 36:1
instance 59:15
insurable 46:12,17 47:4
 47:7,10,18,21 48:1,9
 50:5,11,12 51:2
intent 63:8
intention 50:21
interest 2:12 3:4 13:5
 13:17 19:8,18 20:11
 22:19 24:7 26:5,14
 46:12,17 47:4,7,10,18
 47:21 48:1,9 50:11,12
 50:15 51:2 66:4,6,8
 66:11,22 67:3 68:18
 68:19 70:20 72:8,18
interest- 67:5
interested 37:19 55:16
 56:9,21
interesting 8:2 15:20
 22:12 24:9 70:1
interestingly 39:20
interests 50:5
intermediate 19:16
 21:11
introduce 4:14 6:6 37:3
introduction 3:3 6:1
 65:2 76:2 77:10
intuitive 33:18
inverted 23:18
invested 66:17,18
investigation 39:7
investment 14:7 66:16
investments 21:16,17
 22:4,5 24:17,18
IQuery 76:9 77:4
irrevocable 49:10
issue 57:3 63:18
issues 17:8 61:10
item 6:19 8:15,16,17
 12:14 15:10 16:12
 54:19 55:20 56:12
 57:2
items 7:5 12:15

J

January 14:2 69:1
 71:10
job 15:7
John 1:12 4:14,15 13:9
 18:7,10 20:22 23:8
 24:2 25:20 28:17 38:6
 41:17 42:8 43:1 63:15
 67:10 79:16
joined 34:19 37:6

Jon 6:7 7:16 36:21 59:8
 62:13,13,20 65:4 66:1
 68:2 71:3
Jonathan 2:18,21 3:4,5
 3:6 6:6 7:12 29:10
 37:5
July 1:6 4:4
jump 38:7

K

keep 4:21 71:3
keeping 55:14
key 16:1
kind 53:20
know 11:9 15:21 20:21
 23:1,4,13 25:7,13
 34:14,15,20 35:13,14
 36:9 38:9 57:13 59:3
 59:4 61:15 66:7 67:15
 70:2,5,22 75:17
known 39:7

L

languages 77:20 78:2
laptop 77:8
large 30:10,12
largely 14:1
larger 11:13 69:10
largest 10:21 14:19
lastly 8:20 13:2 14:19
 29:7 31:14 32:8 39:22
 55:6
late 35:11
law 46:12 48:19 50:4
 51:3 63:1,9
laws 48:15 61:22 62:6
lay 63:17
learning 76:11
leaving 33:15 58:6
led 14:7,9
left 42:4 45:4
legal 51:8 63:10
legislation 60:5
legislative 59:13 61:10
let's 8:3 18:16 43:2
letter 63:14
letters 63:17 80:11
level 55:13 65:2 66:1
liabilities 79:2
liability 2:6,8 3:5 7:2,3
 8:9,12 12:8,11,14
 13:14,19,21 14:18
 15:1 16:9,14,16,19
 17:20 31:1 38:16
 43:12 57:21 60:13
 61:19 67:18 68:16,22
 69:2,4,9,15 79:7
life 15:15

line 29:13 45:2,5,7
lines 23:11
list 19:2,6,9,15,22 20:13
 21:13 22:1 29:20
 68:15
listed 34:10 43:16
 66:16
listing 66:10
little 20:10 21:12 22:17
 23:5 25:7 34:19 37:6
 41:13,15 45:22 50:22
 52:14 63:18 67:3
Litts 57:9,10 58:3,8,13
 59:6
Liuzzo 36:12,12
live 35:20
long 35:17 65:15
long- 40:10
long-range 21:6
long-term 8:16 13:3,17
 40:1,4,9
longer 15:15 20:19
 31:21 41:21 78:15,16
look 6:17 11:6,12 21:8
 22:12 23:1,4,11 24:9
 24:20 25:2 44:22
 45:12
looked 39:3,5
looking 24:21 41:6 71:9
looks 67:15
loophole 50:22
loss 13:22,22 14:4,10
 14:14,15,21 15:10,14
 16:10,19
lost 61:3
lot 24:7 28:14 38:8,9
 42:17 67:6
low 19:16
lower 25:18 42:21
lump 55:4

M

M 5:14
ma'am 24:11 57:9 64:21
 79:10,15
machine 76:10
Magee 2:14 5:22 6:3,16
 27:8,10 30:1,14 74:3
mail.mil 5:15
main 31:19
mainframe 7:20 75:2,4
 75:12,22 76:22 77:20
 79:5
maintained 16:4 76:17
maintaining 25:19
maintains 74:22
making 6:10 23:21 25:8
 53:22

managing 34:12
manipulations 76:21
Manpower 75:10
manual 46:15
maps 39:21,22
March 19:17
Marcia 1:9,11 4:12 6:4
 23:11 25:11 30:16
 40:12,13 62:21 67:11
 73:7 79:20
Marie 5:14
match 32:6
material 34:1
materials 59:22
math 20:10
matter 34:17 80:15
mean 7:5
meaning 15:14 41:10
 53:4
meeting 1:3 4:5,11,20
 5:4,7 6:5 8:3,4 9:15
 12:17 17:9 80:5
member 1:11,12 4:16
 4:19 6:6 47:13 48:21
 49:12 50:5 54:13 55:7
 57:19
member's 49:21 56:20
 57:15 65:15
members 4:14 33:5
 34:8 35:21 49:8 56:4
 64:15,16 65:8,11
 68:11,14 78:22 80:8
mentioned 9:14 13:20
 17:3 32:19 38:13
 44:18 56:15
mentioning 38:2
met 1:8
method 18:2 74:12,17
 74:19 75:15,20 76:15
 77:22
methodology 55:14
methods 2:11 3:2 7:8
 7:17 8:11 77:10 79:6
 79:13
metrics 19:15
MICHAEL 1:11
Mike 4:17,18 13:9 18:9
 18:10 20:22 23:8 24:3
 41:17 67:10
military 2:2,2,10 4:8
 6:18 34:21 35:3,20
 36:9 57:14 59:15 60:1
 61:17 65:7
million 9:20 69:4,5,5,7
 69:8,13,14,16 70:22
 71:9 72:15 73:1
mind 25:7
minimal 31:9 78:17

minus 12:9,10
minutes 80:9
missed 35:10
missing 35:2
mix 66:17
model 31:12 33:14,20
 37:22,22 38:1 39:11
 54:20 56:18 59:4
 60:15
modeling 43:19
moderate 31:14 38:17
moderating 41:16
modest 70:18
moment 52:5
money 57:18 58:14
monitor 10:8 41:2
monitoring 15:7
Monterey 75:10
month 52:5
monthly 55:7
months 6:10 20:15
 74:10 76:1
Moore 1:12 4:15,15
 13:11 18:1,7,10 21:2
 24:3 25:21 26:22
 63:15,16 64:4 67:22
 73:6,10,13
morning 4:3
mortality 2:17 10:20
 11:1 15:14 27:21
 28:11,12 36:22 37:2
 37:10,12,21 38:5,22
 39:4,6,8,10,12,14,16
 39:18,22 40:17,20
 41:8,11,19 42:13,19
 64:1
motion 17:18 18:2,9,14
 18:16 26:2,22 27:5
 63:21 64:12 72:8
 73:12,19
move 8:3 18:16 26:11
 27:6 63:6 64:18 72:16
 72:21
moved 64:4
moves 23:22
moving 54:9 77:12
MPP 36:13
MRF 9:1 17:22 19:12
 21:9 62:2,9 64:18
 70:1,6
MRN 7:16
muted 4:22

N

NACPs 17:4
name 4:12 5:12 37:5
nay 27:3 64:10 73:5,17
nays 18:14

NCP 12:15 27:19 28:9
 28:17 29:11,14 30:5,6
 30:21,22 38:15 40:7
 43:10,11 46:6 60:10
 60:12
NCP's 29:4
NCPA 12:21
NCPs 12:16,22 13:1
 27:16,20 28:1 29:18
 29:20 55:13 64:14
 80:11
NDAA 31:8
nearly 38:22
necessarily 57:11
need 17:18 47:3 63:5
 73:7,7
needed 65:12
net 56:15,20 57:3 58:15
new 14:20 16:20 21:15
 21:16 22:4,4 24:17,18
 37:17 38:3 40:1 43:17
 43:17 54:10 60:2,3,15
 65:20 74:17 76:2,15
 77:1,8,22
newest 6:6
nice 35:21 78:12
nicely 24:4
nine 6:9
nominal 21:15 22:3,9
 22:17 24:16 26:5
non- 11:2 15:5 72:19
non-actuaries 38:10
non-COLA 68:19 72:11
non-CSP 55:10
non-disabled 10:12
 60:15,21
non-economic 2:15
 7:13 8:17 15:8 27:12
 63:22
non-regular 36:16
non-selected 9:11
normal 2:9,14 7:11 8:13
 8:18 11:22 12:9 17:2
 17:15 27:13 41:15
 48:7 62:5 63:6 67:16
normally 61:14
note 9:6 16:4 20:2,4
 30:4 45:17
noted 38:21
notes 66:16
notice 78:9
noting 38:19
NPC 28:9
number 11:11 60:2 61:4
 68:4
numbers 10:13,14 12:5
 21:7 25:12,15,16 38:9
 74:15 79:2

numeric 78:5

O

o'clock 4:4
O-V-E 5:15
OACT 15:6 37:6 75:13
 80:1
OACT's 76:8
OACTers 74:9 75:17
 78:14
objective 8:3
objectives 6:5 8:4
observed 39:1 69:17
October 2:8 7:3 26:13
 65:20 68:22 69:3
offer 38:18 48:6 50:9
offered 50:12
offering 50:3
office 1:1 2:4,13,15,18
 2:20 5:19 6:11,21
 37:9 43:7
office's 77:2
officer 40:4 44:20 45:1
officers 45:9 52:18
offset 2:21 14:10,20
 29:7 44:3 59:11 60:7
 60:13,14 64:2 65:18
 68:7,11 72:19
offsets 55:3 68:19
 69:19 70:9,16,19
 72:10,11,20
oh 73:6,9,21 79:10
okay 5:16,21 11:15 16:5
 20:9 21:3 26:11 27:7
 34:14 41:1,5 42:8,22
 47:12,17 48:16 49:7
 51:3,15 54:4,5,5 58:3
 58:4,13 59:6 62:15
 64:5,22 67:21 72:6,7
 73:9 74:6 77:12 79:18
 79:22
old 16:20
once 21:7 40:21
ones 19:13 66:1
ongoing 30:9
opening 60:17
operational 33:21
opinion 23:17 32:20
OPM 19:9,12
opportunity 49:14
opposed 77:8
option 51:2
optional 44:15
Options 56:13
orange 45:2
order 31:4
original 63:9
USD 57:10

outlined 12:4 74:21
outlook 20:19
outperformed 77:13
outweighs 60:17
over-projection 31:5
overall 61:16
overnights 66:18
overseas 33:3
overview 44:9 65:2
owned 76:5
owner 36:15

P

P-E-T-T-Y-G-R- 5:14
P-R-O-C-E-E-D-I-N-G-S
 4:1
PACT 29:9 59:16,17
 60:21 61:15
page 11:4,16,17 12:14
 13:2,8,20 15:3 16:7
 17:6 19:2 20:7,9,16
 21:5,12 22:10 23:5
 24:6,12 66:3,19 68:3
 68:14 71:16,21 72:1
 77:9
pages 71:5
paid 52:7 55:8 57:14
 58:20,21 61:21
pandemic 39:8
parallel 77:13
parameters 2:19,21
 14:21 43:8
pardon 35:13
part 9:10 27:17 28:19
 29:6,13,16,19 38:15
 40:7 56:2,14
part-time 2:14 27:20
 28:9 30:22 43:11
 60:12 64:16
participant 35:4
participants 35:2 45:20
participation 44:8,15
 45:3 46:3 51:17 52:21
particular 40:6
particularly 74:13
parties 80:11
parts 56:1
pass 66:1
passed 18:16 27:5
 34:16 59:17 62:2,12
 63:2 64:12 65:19
 73:20
pause 23:6
pay 10:2,6 11:12 12:18
 26:6,9,20 34:7 35:22
 36:9 44:16,17 52:10
 53:19,20 54:2,14,18
 54:20 55:5,7 56:5,8

56:20 57:3,13,19 58:2
58:15,21 65:17 68:7
payable 52:5 65:14
paying 30:8
payment 2:9,9 13:17
16:22 17:2 58:17 68:8
68:8 69:1,12,12 70:6
70:8,10 71:16 72:3,14
payments 3:6 7:4 8:7
16:8 30:11 53:22
61:14,17 62:10 68:5
71:12,14 72:4
Payne 34:5,6,14 35:12
35:12 42:6 46:8,9,11
47:12,17 48:5,16,19
49:1,7 50:2,17 51:3
51:12
pension 35:5
people 33:14 50:18
56:2,8 58:20 79:5
percent 9:20,22 10:6,6
10:21 11:21 12:1,2,13
13:4,5,5,18 14:3,4,8,9
14:12,13 19:7,7,8
22:2,3,3,5,8,8,14
23:4 24:15,16,16,16
26:4,5,14,15,16,17,19
27:16,17,19,20 28:10
28:18,19 29:5,12,13
29:15,15,16,18,19
30:6,22 31:2 32:2,11
37:14,14 38:14,15,17
39:13 40:6,7 43:9,11
43:13 52:14,15,17,18
52:20 55:13 60:4,9,11
60:12,18 61:1 64:15
64:16 65:16 66:7
68:18,18,19 71:11
72:10,11,18,18,19
79:7
percentage 10:2 71:13
percentages 2:14 7:11
8:14,19 27:14 41:15
62:6
perimeter 56:18,21
perimeters 12:20 17:5
28:21 29:3,8 43:2,15
43:19 44:4 54:8,19
55:8,9,17 56:1,10
57:4 59:11 60:7,14,15
64:2,2
period 2:7 7:3 16:17
31:8
periods 21:22 43:15
persist 33:19
person 32:22 36:7,10
personal 49:3
personally 34:15

perspective 63:10
pertaining 38:19
Pete 36:4 59:6
Pettygrove 5:5,9,14,17
38:6 40:13 42:3,7
75:3,5,7
Phil 2:13 3:3,7 7:8,16
8:1 18:20 24:5 27:10
64:20 66:2 74:3,4
75:3,5,7
phone 5:10 36:10
pier 37:13
place 16:13 36:17 39:13
51:11
plan 14:17 39:10,15
44:11,11 67:7 70:8,11
70:13
platform 7:21 75:1 76:4
76:7
please 4:21 6:17 9:6
11:15,16 20:8 21:3
29:19 68:1
plus 26:19
point 5:21 15:19 17:18
19:11 21:1 23:9 25:4
25:10 31:17 33:13
35:9 40:12 47:11,22
58:2 63:21 64:13
66:21 67:9,15 71:22
72:7 80:7,13
points 33:15 71:1
policies 34:21
policy 36:9,15 48:18
population 2:4 6:22 9:5
9:9 10:3,5,9,11,17
11:7 78:19,22
portion 14:19 69:10
possible 29:9 55:11
potential 44:1 63:1
pre-retirement 9:8
predicting 15:15
predictive 38:5
premium 43:18 47:8
54:10,17,21 55:1,3,6
56:17 58:15
premiums 58:21 59:3
present 1:10 7:7,9,10
7:12 11:20,22 12:8,9
presentation 7:19
74:16
presenting 6:13
presiding 1:9
previous 13:20 24:12
37:16
previously 76:21
primarily 54:21
prior 11:18 16:10 27:17
39:2

private 34:22
probably 42:4 51:8 73:7
processes 36:16
produce 38:3
produced 76:18 78:8
79:3
produces 74:22
producing 74:13
production 77:15
program 35:1 51:1,18
51:19 64:19 65:6
programming 77:20,21
programs 75:12
project 74:9
projected 56:6 60:4
69:12 71:12
projection 21:10 38:3
39:11 66:4
projections 39:5 67:4
projects 37:8
Promise 59:19
promotion 19:13
promotional 26:9
promulgate 38:8
properly 37:3 59:5
proposal 17:19 34:3
38:13 43:9 54:9 59:11
67:2,8
proposals 7:7,13 15:18
27:11 28:1 29:14
51:15 59:9,13 60:6,9
proposed 2:11 3:2 7:9
7:10 8:11 11:2 25:12
31:3 38:1 43:8 44:4
55:8 56:3 57:5 66:8
proposing 31:7 37:11
43:14 45:8,14,20
52:16 60:6 61:1 70:20
protect 48:11,12
protected 46:19
protection 51:5
protective 76:11
provide 71:5
provided 51:5
providing 65:1
provisions 17:17
publish 21:7
published 42:12
pull 77:8
purpose 43:21
purposes 11:19 44:17
76:8
pursued 33:6
put 5:9 80:1
Python 78:1,5

Q

Qian 2:14 5:22 6:15 9:3

27:8 29:22 30:3,19
36:4 38:13 74:1
question 5:2 16:1 34:5
34:11 46:8 57:8,12
63:8,11
questions 11:4 13:7
15:3 17:5 20:6,16
22:9 30:1 34:3 36:21
40:11 49:5 51:7 57:4
59:8 65:22 66:19 77:9
79:19 80:3,4
quick 23:21 74:8

R

R 78:1
raise 36:15
rank 65:11
rate 2:12 3:4 19:8,18
20:11 22:19 23:12,16
26:3,5,14 30:20 31:3
31:19 32:1,11 37:17
37:21 40:1,4,9 44:8
45:3,8 66:4,6,8,10,11
67:1,3,6,17 70:21
72:9
rated 66:15
rates 2:16,21 21:20
25:18 28:3,4,6,22,22
29:1,8 30:18 31:15,20
32:3,4 33:11 38:9,22
42:19 44:7,18,20,21
45:1,13,13,15,16,20
51:17 52:22 56:13
60:8,20 61:2 64:1,3
67:13
ratings 70:14,15
rationale 32:12 43:21
raw 76:19 78:8
RCSBP 44:10 51:19
re-enroll 48:4
reach 35:21
reached 32:18,20 55:7
reaches 33:8
read 21:12 24:14 68:9
real 20:11 22:3,8,16,20
23:12,16 24:16 25:4
26:3,15 66:10,11
real-fund 21:15
reality 59:4
realize 40:16
really 20:18 23:19
24:21 25:2 30:3 41:6
45:10 50:21 51:7,11
61:16 63:13 69:22
76:14
reason 34:10 78:11
reasonable 32:9 41:18
41:22 67:9

reasons 33:2 50:13
recall 15:17
receipt 17:8,16 30:10
 30:13 60:17 61:11
 62:1 70:3,5
receive 54:17 59:14
received 52:9 78:10
receiving 32:16 34:7
 53:20 58:2 60:2 68:13
 68:13
recognition 42:17
recognized 42:20
reconciliation 12:12
record 5:6 80:16
recorded 4:11
records 32:22 33:4
recruiting 9:15
recurring 61:11
red 45:7
reduce 33:21 70:10
reduction 43:18 44:16
 54:2,10,20 55:20
 57:15
redux 44:2
reference 55:19 56:12
 57:2
referred 4:10 9:13
 19:12
refers 38:11 54:19
reflect 12:5 29:9 40:9
 43:22 74:16
reflected 59:4
reflecting 39:8
reflective 37:8
regarding 62:1 63:22
reimbursed 58:16
reiterate 22:6
related 30:9
released 39:9
remaining 18:5 68:4
 71:14
remember 20:18 28:3
remembering 26:8
remit 59:1,2
removal 33:12 37:15
remove 31:7
removing 33:20 78:14
repeal 44:2
repercussions 61:11
reported 78:10
request 36:11
required 7:6
requirements 47:15
requires 35:1
research 28:14
reserve 2:16 10:4 28:3
 28:4,22 30:18,20 31:5
 31:10 32:15 33:13

51:17,20 64:1
reserves 31:22 32:13
 33:10 51:20 53:4 61:3
 65:13 78:20
reservists 9:10,11,11
 9:21 35:17
residual 69:21
respectively 12:16
response 18:15 27:4
 39:9 64:11 73:18
responsibility 17:15
rest 17:22
restate 64:13
restoral 55:5
result 12:19 26:15 34:1
 38:14 60:20,22 78:2
 78:17 80:10
resulted 14:4,14,21
resulting 72:14
results 8:6 9:1,4 12:10
 14:15,18 15:22 18:19
 26:5 30:20 43:9 72:7
 72:12,22
retire 29:1 31:22 32:10
 35:19
retired 11:6 33:1,1 40:8
 44:17 52:10 53:20
 54:14,18,20 55:4
 56:20 57:3 58:2
retiree 10:16 43:17,19
 50:15 52:8 54:10,12
 55:22 58:1,8
retiree's 52:6
retirees 10:12,12,21,22
 11:11,13 31:5 34:6
 35:18 44:12 51:1
 58:15 59:15 60:16,21
 78:20
retirement 2:2,3,11 4:8
 6:18 10:11 28:6 29:8
 31:19 32:16 36:16
 44:12 45:4 47:11 49:9
 49:13 53:6,9,11 54:22
 57:14,15 61:2,17,17
 61:21 74:14 77:15
retirements 31:8,10
retiring 33:9
retroactively 35:6
return 22:14 26:4 55:6
reversing 15:17
review 8:5,10,20
revisit 63:3 67:14
Rich 2:19 7:12 29:3
 43:3,5 53:3
Richard 43:6,7 46:2,10
 46:21 47:16,21 48:13
 48:17,22 49:3,8 50:11
 50:18 51:6,14 53:18

54:5
Rick 34:18 42:10
right 6:14 8:3 13:3,13
 15:12 18:14 19:9 21:4
 23:18 26:1 34:17 36:5
 36:8 40:15 49:4 50:2
 50:17 51:11,12 58:3
 63:20 67:13 68:1
 69:22 71:4 72:16
risk 33:21
Rolling 13:15
room 23:16
roughly 23:14
rules 50:1,7
runs 77:13
rush 38:18

S

safe 75:21
salary 2:13 13:5 14:12
 19:8,11,20 20:11
 26:16
sanctions 18:20
SAS 75:12 77:21 78:4
saw 41:9
saying 61:15 75:11
says 48:20 49:1 50:4
 51:3,4
SB 56:8
SBP 2:19 28:20 43:2,8
 43:15,16,17,19,22
 44:8,10 49:8 50:1
 51:15,18,20 52:21,22
 54:7,10,12,13,21,22
 55:1,3,21 56:13 57:3
 57:4 64:1
scale 38:3
scales 28:15
scaling 41:13
schedule 8:8 71:8
scheduled 40:20
school 49:22
Science 6:8,9
Scrolling 12:7
second 14:17 18:6,10
 26:22 33:12 37:3 54:9
 56:14 64:5,6 73:7,10
Seconding 73:12
Secondly 37:15
Secretary 61:9
sections 78:14
sector 34:22
Security 19:13,14 21:11
 24:8,22 25:13,16
see 6:12 12:19,22 15:13
 15:16,20 23:5 29:19
 36:16 42:1 44:7 45:1
 45:14 52:11 57:6 67:5

69:15 70:18 72:3
seeing 10:5 11:6,7
 15:13 17:10,14 31:6
 37:4 41:14 53:14
seeks 59:20
seen 9:19 16:3
select 54:13
selected 9:10 10:4
selector 9:21
send 5:4
sense 58:16
separ 65:3
separate 44:20,21
 75:18
separation 3:1 4:9
 64:19 65:11
September 2:2,4,6,10
 3:2 6:19 7:1,7,14,18
 8:6,12,21 9:1,5 11:18
 13:6 27:18
Sequel 78:1
service 11:14 31:11,13
 31:21 32:5,9,16 33:1
 33:5,9 60:1 65:9,10
 65:15,17
services 9:15 10:8
 34:12 35:15 36:14
set 8:15 18:4 19:3,6,17
 22:7,13 56:22 59:9
 66:7
sets 55:17
setting 15:7
settling 39:6
shift 17:3,14
shifted 12:21
short 66:22 67:12
show 37:9 52:21 69:3
 78:21
showing 68:4
shown 32:4 56:3 66:8
 74:15
shows 32:3
shut 76:1
side 4:16 25:16 45:4
 65:1
sign 80:7,13
significant 6:10
significantly 47:8 52:19
similarities 37:20
similarly 69:20
simple 77:19
simplification 55:12
simplify 33:20 55:9
simply 33:2 49:22
 57:22
six 20:15 65:8
six-year 31:8
skills 28:12,13

slide 51:16
slight 19:20 53:2 78:3
slightly 32:6
slipped 30:5
small 15:5,10 42:11
smooth 45:8
SOA 38:2,7
SOA's 37:21 40:10
Social 19:13,14 21:10
 24:8,21 25:13,16
Society 38:8,21 42:12
somebody 47:5 50:14
somewhat 75:15
sorry 18:8 40:15 42:18
 61:6 62:14 73:6
sort 63:9 74:16
sought 59:13
speak 5:1
speaking 4:22 19:14
split 56:1
spoke 65:5
spouse 49:10 50:16
 53:7,16 56:4
spouse's 53:11
spouse/child 45:17
 56:4
spouses 45:17
stands 51:19
start 6:18 30:17 44:22
 53:20 66:3
started 65:6
starting 2:4 9:5 68:21
state 38:19
stated 24:3 53:16 63:17
 71:7
statements 20:1
STATES 1:1
status 2:5 6:22 11:17
 55:8,10 56:5,8 58:20
 68:7
stay 33:16 71:15 80:9
stays 61:18
steadily 39:15
steps 67:19
store 78:6
stores 78:4
straight 77:4
strange 23:17 67:13
strategies 66:17
streamlined 77:6
strictly 35:4
stuck 63:9
study 40:20
subject 43:1 61:22
 62:18 65:18
subjects 6:13
subsidized 46:3,4
subsidy 45:21

substances 59:22
subtracting 20:12
sum 26:19 55:4
summary 27:13
sunsetting 44:1
support 25:12 47:3
 63:21
supports 42:12 72:8
sure 23:10,19 49:4 58:4
 79:16
surprised 63:3
survey 21:6
surviving 10:13
survivor 40:9 43:20
 44:11 50:20 54:16
 56:12,19 57:2,13 58:9
 58:17
survivor's 56:17
survivors 10:17 29:3
 37:18 40:2 65:19
 68:12,13 78:20
system 76:3
systems 19:4

T

table 40:17,21 42:13,16
 55:20 56:12 57:2 66:9
 68:4,9,10,12 72:2
tables 42:20 55:18
take 6:1 17:12 36:2 37:3
 67:4
taken 57:16,19
tale 25:7
talk 43:8 51:17
talking 17:7 25:2 58:19
 78:18
targets 9:16
technical 55:19 56:12
 57:2
technically 52:13
tell 48:8
temporary 42:18,19
ten 21:19 25:1,3 40:21
 40:22 42:14
ten-year 20:2,3,19
tend 33:14
term 37:17 40:11 41:21
terminate 47:13,19 48:6
 48:9
terminated 46:18 47:22
terminates 46:22
terms 20:12
thank 5:11,16 6:3,15,16
 9:3 13:11 15:11 18:7
 18:18,21,22 27:9,10
 30:15,19 31:19 34:17
 35:8 36:3,19 37:1
 38:12 42:7 43:1 46:7

51:12 54:4 59:6,10
 79:15 80:14
Thanks 66:2 71:4
things 24:3 41:3
think 11:5 15:9,16,20
 16:1,2,3,5 17:9,18
 22:11 23:4,6 24:3,6
 25:6,17 27:5 29:22
 30:3 33:18 34:12 35:6
 41:7,18,22 42:3,11
 58:19 59:2 62:22
 63:13 64:20 66:20,21
 67:2,5,8,11,14,18,20
 73:20,20 79:9,13
thinking 24:8
third 55:22 56:10
thought 20:22
thoughts 23:9 25:10
 41:17
three 14:1 16:13 17:20
 18:5 19:15 35:6 74:9
 79:5
throat 35:14
tie 17:21
tied 14:11
time 9:10,10 21:22
 27:16,17 28:5,18,19
 29:2,5,6,12,13,15,16
 29:18,19 30:5,15
 35:17 37:4 38:14,15
 39:17 40:7,7,19 42:17
 43:22 48:10 65:10
 67:10 72:18
times 65:17
tips 14:7 66:18
today 4:7 6:2,17
today's 17:9
told 32:21
Tom 36:12
tools 76:7
topic 8:2
total 9:19,21 11:9 12:21
 30:6 62:9 70:4,6 79:4
toxic 59:22
Toxics 59:20
traced 78:7,14
Tracy 34:6 35:12 42:2,4
 42:7 46:9,10
traditionally 15:9
transfer 75:13,19,21
transferring 79:12
TRANSITION 3:7
transitory 23:19
transmission 80:10
Treasurer 29:20
treasury 2:8 7:4 8:7
 12:16,21 13:1 17:4,16
 20:2,4,14 29:17 30:8

62:3,12 63:7
tremendous 17:14
trends 39:18
trillion 11:21 12:3
trouble 9:15
try 35:1 49:5 63:1
trying 22:19 63:17
TSO 75:2,12
turn 5:22 30:17 54:1
turned 52:8
turning 8:22 27:8 47:4
 65:4 79:20
turns 49:21
twice 65:15
two 4:13 28:21 31:4
 56:1 65:16 69:7 71:5
 76:8 77:13 79:8
types 56:7
Typically 32:17

U

UC-Santa 6:7
ultimate 22:1 24:14
un-fund 14:18 16:16
uncertainty 38:19
unchanged 19:10,19
underage 47:20
underlying 40:17
understand 46:11
 54:11
unfunded 2:6 3:5 12:8
 12:11,13 13:14,19,21
 16:8,14 17:20,22 18:4
 57:20 68:16,21 69:2,4
UNITED 1:1
unmanaged 32:21
unmarried 48:21 50:4
unpaid 16:10
update 3:4 28:2,8,11,16
 28:20 30:20 33:12
 40:20 42:16 43:14,21
 56:14,15 70:20
updated 15:13 28:3,22
 29:7 31:14 44:18
 70:14
updates 11:2 29:4 31:4
updating 29:2 55:15
uploading 77:1
upped 28:12
use 26:3 38:18 40:3
 77:20 78:1

V

VA 2:21 12:19 14:20
 17:8 29:7 55:3 59:20
 60:7,13,14 61:13,20
 62:4 64:2 65:18 68:8
 68:11,19,20 70:2,7,8

70:11,15,19 72:10,11
72:19,20
valuation 2:2,10 3:2,4
6:20 7:8,17,18,22 8:6
8:13 9:1,4 12:15 13:4
13:7 14:8,13 15:17
18:19 22:21 26:3
41:10 60:8 64:18 72:9
72:13,22 80:2
valuations 4:8 34:2
value 11:20,22 12:8,9
12:10 66:14,15 68:7
values 16:12
variables 78:5
variety 50:12
various 6:13 27:11 68:5
80:11
version 39:10
Veterans 59:21 60:2
Videoconference 1:8
Virgil 34:18,18 42:10,10
visual 72:2
voluntary 3:1 4:9 64:19
65:3
VRS 10:4
VSI 3:2 4:10 7:18 8:21
65:3,6,19 66:3 68:8
68:10,14 71:5 72:2
73:1

W

wait 35:7 73:6
waiting 41:20
want 6:5 8:4 19:11 48:4
50:19 51:20 58:4 71:2
wanted 61:7
wasn't 38:4
way 34:7 36:1 62:6
we'll 4:7 12:12 15:16
17:7 23:5 36:21 41:2
59:8 63:11 67:5,14
75:13 80:9
we're 5:4 11:5 17:10
23:2,3,19 27:11 29:2
34:21 40:13,18 41:6
41:13,14 43:14 44:7
45:7,14,20 52:16
53:14 61:15 63:9 71:8
76:14
we've 16:3 25:13 31:6
32:3 35:9 63:14 65:20
70:1 76:8
website 46:14
weight 39:13,16
weighted 16:20 23:3
weights 37:13 38:18
welcome 51:14
went 80:16

weren't 38:22
Wong 2:18,21 3:4,5,6
6:6 7:12 29:10 36:22
37:1,5 38:12 59:9,10
61:7 62:13,14,16 65:4
66:2 68:3 71:4,19,21
72:1
words 71:13
work 10:7 79:14 80:1
working 74:10 75:14
79:14
works 54:12
workspace 77:3
world 35:20
worry 74:7
worth 14:6 38:2,18
written 62:7
wrote 63:14

X

Y

year 9:14 11:18 12:20
13:16 15:2,12 16:10
19:3,7,11,17,19 21:20
22:7 23:22 27:21 28:2
28:13 30:21 31:10
33:9 37:7,22 41:3,13
42:13,15 55:8 60:18
63:14 64:14 66:7,12
69:12 71:10,11 72:15
74:18,21
year's 12:17 37:16 41:9
years 9:12 16:13,19,21
17:11,21 18:5 21:13
21:19 25:3 28:4,13,21
31:6,13,21 32:5,8,15
35:7 38:20 39:2 40:21
40:22 42:14 53:5 63:4
63:12 65:9,9,15,17
yield 14:7 21:9,15,15
22:16,17 25:5 26:15
66:11 67:12
yields 22:20
youngest 49:21

Z

zero 37:13 71:15 72:5
zoom 21:12
Zouras 36:4,5,8 40:22
41:2 43:4 58:11,14

0

0.1 30:21 55:13
0.8 31:2
004 79:6
01 60:12
03 40:7

04 40:6
09 43:17

1

1 2:8 14:2 28:18 29:19
38:14 43:13 52:19
68:19 72:11,19
1.02 69:7
1.279 12:3
1.39 9:20
1.4 29:12 60:11
1.49 25:5
1.5 22:8 23:13 25:5 26:3
26:15 43:12
1.7 38:17
1.88 24:15
10 4:3 10:5 52:14 60:18
61:1
10-1-2023 8:7
10:00 1:8 4:2
100 32:1,11
11 2:6 12:13
11:30 80:16
12 2:7
14 1:6 2:8 11:21
14th 4:4
15 12:1
16 10:6 12:2 78:5
17 2:9
17.8 31:2
173.3 13:22
18 2:13 46:22 49:21
50:20
18.4 16:19
1992 65:7
1st 7:4 26:13 68:22 69:1
69:3 71:10

2

2 8:15 23:13 28:19
31:18 38:15 52:19
57:2
2,600 32:13
2.1 24:15
2.2 9:20 68:18 72:10,18
2.25 66:7 67:9 70:21
2.26 22:3
2.4 22:2
2.5 13:4 14:4 19:7 22:7
26:4,14,19
2.526 11:21
2.75 13:5 14:13 19:7
26:6,16,18 66:8 67:9
68:18 70:21 72:9,18
2.84 69:8
20 9:11 16:21 21:19
25:3 32:15 53:5 60:4
20- 23:12 24:20

20-year 25:4
2001 65:20
2007 43:17,18
2008 31:9 43:20
2009 43:18 44:19
2017 44:2
2020 20:15 39:1 44:3
2021 9:8 10:2,14,18,20
13:7 37:12,14 39:3
45:6,9 68:22 69:1
77:13
2022 2:2,4,6,7 3:2 6:19
7:1,2,18 8:6 9:1,5,6
9:17 10:2,13,18,19
11:18 12:15 13:16
27:18 37:12,14 38:3
39:4,11,14 59:18 69:3
69:13 72:22 77:14
2023 1:6 2:8,10 4:4 7:4
7:7,14 8:12,21 14:2
21:13 22:16 26:13
66:12 68:13
2024 27:15
2025 7:11 8:13,18 29:14
29:17 30:21 39:17
71:10 72:22
2031 60:3
2035 22:14
2039 71:16
2066 21:14
21 29:15
21.5 29:15 64:15
22 47:1,4 49:21 50:20
22.8 27:20
23.1 27:17
24 29:5
25 26:19 37:14 39:13
43:10 64:14 72:15
26.6 29:14 64:15
27 2:15,15
28 78:6
29.6 27:19

3

3 8:16 12:4 37:20 69:17
3.3 29:11 60:9
3.8 9:22
3.86 69:5
3.98 24:16,16,18
30 2:2,4,6,10,16 3:2
6:19 7:1,7,14,18 8:6
8:12,21 9:1,5 13:7
21:19 27:16,18 55:7
55:17 60:18
30- 24:20
30-year 20:14 23:1,2
30.1 69:13
30.8 29:18

30th 11:18
31.1 69:13
322 68:14
35.5 38:17
37 2:18

4

4 8:17 13:5,18 14:8 19:8
 22:8,13 23:3 26:5,14
 39:21 43:9,10
4.1 28:9
4.6 14:12
4.66 22:3,3
4.7 22:5
40 14:9 60:18
400,000 69:18,20
41 31:13,20 32:5,8
418 12:1
423 68:12
43 2:20
44.9 71:11
45 52:13
45.1 14:15
481 68:10
49 69:4

5

5 56:12
50 21:19 30:5 71:1
50-year 23:12 24:20
52.9 69:3
55.7 15:1
58.8 14:21
59 2:21 32:8
59.7 14:19

6

6 12:14 44:6 55:20
60 32:10,18 34:6,16,16
 35:7 52:8,22 53:13,15
 54:1
600 9:22
62 52:17
63 31:13,20 32:14
65 3:3
655.9 13:19
66 3:4
67 3:5 55:5
68 3:6

7

7 12:15 44:6 54:8 55:18
 56:11,22
7.7 14:7
7.8 71:9 72:15 73:1
70 52:18
74 3:7
745.1 13:15

75 21:20
76,000 9:22
76.2 14:4

8

8 12:15 61:8
8.7 14:3
8.9 14:14
829.3 12:11 13:21

9

9 2:5
9-1-22 15:13
9-1-23 26:3
9-30- 72:21
9-30-2021 13:15 15:1
9-30-2022 31:1
9-30-2023 27:22
9-30-22 43:12 72:12
9.8 29:18

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In the matter of: Board of Actuaries Meeting

Before: U.S. DoD

Date: 07-14-23

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