
NMI Settlement Fund

Actuarial Valuation as of September 30, 2021

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December 28, 2022



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**NMI Settlement Fund –
Actuarial Valuation as of September 30, 2021**

As part of our engagement with the NMI Settlement Fund, we performed an actuarial valuation of the NMI Settlement Fund as of September 30, 2021. The purpose of the actuarial valuation is to project the minimum annual payments to be made by the Commonwealth of the Northern Mariana Islands (CNMI) to pay 75% of the Class Members' Full Benefits.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the Fund's staff. This information includes, but is not limited to, financial information, member census data, and plan provisions. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete the results may be different and the calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the Fund have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Fund.

This valuation report is only an estimate of the Fund's financial condition as of a single date. It can neither predict the Fund's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Fund benefits, only the timing of Fund contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

The results were developed using models that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in the compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Fund's funded status); and changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Fund. Determinations for other purposes may be significantly different from the results contained in this report. Therefore, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use and benefit of the NMI Settlement Fund. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) NMI Settlement Fund may provide a copy of Milliman's work, in its entirety, to its professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the NMI Settlement Fund.
- (b) NMI Settlement Fund may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Wright".

Richard A. Wright, FSA, MAAA
Principal, Consulting Actuary

Sincerely,

A handwritten signature in black ink, appearing to read "Reid Earnhardt".

Reid Earnhardt, ASA, MAAA
Consulting Actuary

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SECTION I. VALUATION SUMMARY**INTRODUCTION**

Milliman, Inc. has been retained by the NMI Settlement Fund to provide an actuarial valuation of the Fund. The NMI Settlement Fund was created to pay pension benefits to members of the Northern Mariana Islands Retirement Fund who opted to become members of the NMI Settlement Fund.

Section 4.0 of the settlement agreement that created the NMI Settlement Fund requires the Commonwealth of the Northern Mariana Islands (CNMI) to make minimum annual payments each year to pay 75% of the Class Members' Full Benefits. The payments for Fiscal Years Ending 2014 and 2015 were fixed at \$25,000,000 and \$27,000,000, respectively. The payments after Fiscal Year Ending September 30, 2015 are to be determined by an independent actuary.

In our valuation we:

- Summarize the membership data.
- Estimate the future annual benefits to be paid by the NMI Settlement Fund.
- Review the current Fund balance.
- Project the fund balance forward for the expected life of the NMI Settlement Fund.
- Determine the minimum annual payments to be made by CNMI.

The results contained in this report represent our best estimates. However, it is likely that actual experience will vary from these estimates. To the extent that actual experience differs from the anticipated experience, actual plan costs will vary as well.

HIGHLIGHTS

- Starting in FY 2018, the Settlement Fund essentially became a "pay as you go" entity, as the CNMI minimum payments are approximately equal to the pension payments (at 75%). A payment of \$40,000,000 was made for fiscal year 2021. We have determined that the minimum annual payment from CNMI should be \$38,000,000 for the fiscal year ending September 30, 2022.
- The minimum payment for fiscal year 2023 is estimated to be \$36,000,000 and is expected to decline each year thereafter as shown below:

Fiscal Year Ending September 30,	Estimated Minimum Payment
2023	\$ 36,000,000
2024	\$ 34,000,000
2025	\$ 32,000,000
2026	\$ 30,000,000
2027	\$ 28,000,000
2028	\$ 26,000,000
2029	\$ 24,000,000
2030	\$ 22,000,000
2031	\$ 20,000,000
2032	\$ 18,000,000
2033	\$ 16,000,000
2034	\$ 14,000,000

This work product was prepared solely for the NMI Settlement Fund for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties hire their own actuary or other qualified professional when reviewing this Milliman work product.

SECTION I. VALUATION SUMMARY

- From the fiscal year ending September 30, 2035, to the fiscal year ending September 30, 2044, CNMI payments are expected to be \$13,000,000 per year. For fiscal years ending September 30, 2045 and later, CNMI payments are estimated to be equal to the benefits and expenses paid by the NMI Settlement Fund. Exhibit 6 shows the projected Fund balance for the next 40 years.
- In the prior actuarial valuation as of September 30, 2020, the COLA assumption was 2% per year, up to \$600 annually. In this actuarial valuation as of September 30, 2021, no COLAs are assumed. This assumption change reflects that the Fund does not anticipate COLAs in future years and has not paid COLAs in prior years. This assumption change causes a decrease in expected benefit payments.
- The Fund likely experienced losses in investment markets for the period October 1, 2021 to September 30, 2022, which are not being reflected in this actuarial valuation as of September 30, 2021. The investment experience for the period October 1, 2021 to September 30, 2022 will be reflected in the next actuarial valuation as of September 30, 2022.

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SECTION I. VALUATION SUMMARY

RESULTS OF VALUATION

	September 30, 2021	September 30, 2020
Participant Counts		
Active Employees (Class I)	45	45
Active Employees (Class II)	<u>4</u>	<u>3</u>
Total Active Employees	49	48
Retirees	2,653	2,724
Vested Terminees	<u>51</u>	<u>58</u>
Total Participants	2,753	2,830
Market Value of Assets		
	\$141,200,366	\$130,784,550
Benefit Payments from NMI Settlement Fund		
	\$40,688,018	\$42,514,174
CNMI Annual Payments		
FYE September 30, 2014	\$25,000,000	\$25,000,000
FYE September 30, 2015	27,000,000	27,000,000
FYE September 30, 2016	30,000,000	30,000,000
FYE September 30, 2017	33,000,000	33,000,000
FYE September 30, 2018	45,000,000	45,000,000
FYE September 30, 2019	44,000,000	44,000,000
FYE September 30, 2020	42,000,000	42,000,000
FYE September 30, 2021	40,000,000	40,000,000
Projected CNMI Payments		
FYE September 30, 2022	38,000,000	38,000,000
FYE September 30, 2023	36,000,000	36,000,000
FYE September 30, 2024	34,000,000	34,000,000
FYE September 30, 2025	32,000,000	33,000,000
FYE September 30, 2026	30,000,000	32,000,000

(see Exhibit 6 for fiscal years ending September 30, 2027 and later)

SECTION I. VALUATION SUMMARY**ACTUARIAL ASSUMPTIONS**

The following are the major assumptions used in the actuarial valuation. The assumptions are generally the same as those used in the 2012 actuarial valuation performed by the prior actuary, as stated in the audited financial statements of the Northern Mariana Islands Retirement Fund for the fiscal year ending September 30, 2012, except where indicated below. To the extent that actual experience differs from the assumptions below, future pension costs will differ.

Expected Investment Return: We have used the investment return assumption provided by the investment consultant of 4.37%.

Mortality: The mortality table used is the Pub-2010 table set forward 5 years for males and females, using 130% of the rates for ages 60 to 75, and 50% of the MP-2020 projection scale from 2020 onward.

Salary Increases: Salaries are not assumed to increase in future years.

Retirement Age: The earlier of age 62, if eligible, or 25 years of vesting service.

Administrative Expenses: Administrative expenses and fees are assumed to be \$1,456,582 for fiscal year ending September 30, 2022, and are assumed to remain at that level until the fiscal year ending September 30, 2040, after which they are assumed to be 7.3% of benefit payments.

Rates of Withdrawal and Disability: The assumed rates of withdrawal and disability are shown in Appendix B.

Probability of Marriage: We have assumed that 94% of participants are married and that males are 5 years older than their female spouses.

A complete summary of actuarial assumptions is in Appendix B.

FUNDING METHOD

Section 4.0 of the settlement agreement that created the NMI Settlement Fund requires the Commonwealth of the Northern Mariana Islands (CNMI) to make minimum annual payments each year to pay 75% of the Class Members' Full Benefits. The payments for fiscal years ending 2014 and 2015 were fixed at \$25,000,000 and \$27,000,000, respectively. The payments after fiscal years ending 2015 are to be determined by an independent actuary. For fiscal years ending 2016, 2017, 2018, 2019, 2020, and 2021, CNMI made payments of \$30,000,000, \$33,000,000, \$45,000,000, \$44,000,000, \$42,000,000, and \$40,000,000 respectively. The payment for fiscal year ending 2022 is \$38,000,000.

SECTION II. VALUATION EXHIBITS

EXHIBIT 1. SUMMARY OF FUND ASSETS

Listed below are the assets reported for the NMI Settlement Fund in the Fund's financial statements.

	September 30, 2021	September 30, 2020
ASSETS		
Current Assets		
Cash	\$ 11,040,020	\$ 10,203,460
Receivables, net	139,891	148,267
Due from CNMI Government	0	0
CNMI judicial building loan receivable	492,875	1,303,939
Investments	129,563,486	119,080,802
Prepaid expenses	<u>68,234</u>	<u>68,170</u>
Total current assets	\$ 141,304,506	\$ 130,804,638
Property and equipment	<u>\$ 276,695</u>	<u>\$ 306,781</u>
Total Assets	\$ 141,581,201	\$ 131,111,419
LIABILITIES		
Current Liabilities		
Accounts payable and accrued expenses	<u>380,835</u>	<u>326,869</u>
TOTAL NET ASSETS	\$ 141,200,366	\$ 130,784,550
Assets Temporarily Restricted	<u>30,325</u>	<u>30,797</u>
UNRESTRICTED NET ASSETS	<u>\$ 141,170,041</u>	<u>\$ 130,753,753</u>

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SECTION II. VALUATION EXHIBITS

EXHIBIT 2. CHANGES IN FUND ASSETS

Assets increase or decrease each year due to employer contributions, investment income, benefit payments to retiring participants, plan expenses paid by the trust fund, and any realized and unrealized gains and losses from investments.

	FISCAL YEAR ENDING	
	September 30, 2021	September 30, 2020
Beginning Balance	\$ 130,753,753	\$ 124,943,040
Contributions and Payments		
CNMI Government Contribution	40,000,000	42,000,000
Employer supplemental payments	1,421,435	1,579,111
Active Settlement Class Member contributions	<u>459,920</u>	<u>509,027</u>
Total contributions	41,881,355	44,088,138
Investment Income		
Interest and dividends	4,863,591	3,485,886
Net appreciation in fair value of investments	<u>5,630,681</u>	<u>2,153,273</u>
Total investment income	10,494,272	5,639,159
Other Additions		
CNMI Government Contribution (APGA)	0	0
Local interest income	73,918	130,274
Rental and other income	111,343	164,507
Net assets released from restriction	<u>13,561,428</u>	<u>13,980,427</u>
Total other additions	13,746,689	14,275,208
TOTAL ADDITIONS	66,122,316	64,002,505
Benefit Payments		
Retirement benefits	45,497,849	47,101,196
Survivors benefits	8,415,369	8,329,087
Disability benefits	278,510	372,171
Death lump sum distributions	52,238	41,331
Refunds	<u>5,480</u>	<u>650,816</u>
Total benefit and refund payments	54,249,446	56,494,601
Other Deductions		
Personnel expenses	812,787	807,407
Professional expenses	310,453	435,134
General and administrative expenses	<u>333,342</u>	<u>454,650</u>
Total other deductions	1,456,582	1,697,191
TOTAL DEDUCTIONS	55,706,028	58,191,792
Ending Balance	\$ 141,170,041	\$ 130,753,753

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SECTION II. VALUATION EXHIBITS

EXHIBIT 3. SUMMARY OF CENSUS DATA

	September 30, 2021	September 30, 2020
Active Employees		
Class 1	45	45
Class 2	<u>4</u>	<u>3</u>
Total	49	48
Average age	53.2	53.4
Average service	23.5	24.0
Total salary	\$ 2,440,502	\$ 2,488,704
Retirees		
Healthy retiree	1,833	1,901
Disabled retiree	19	23
Back to service retirees	22	22
Surviving spouse	694	689
Child pensioner	<u>85</u>	<u>89</u>
Total	2,653	2,724
Vested Terminées	51	58
Average age ¹	65.8	64.8
Average remaining life expectancy (years) ¹	16.8	17.2
Annual benefit payments at 100%	\$ 54,754,306	\$ 56,917,736
Annual benefit payments at 75%	\$ 41,065,730	\$ 42,688,302

¹ Average age and average remaining life expectancy are averaged over healthy retirees, disabled retirees, back to service retirees, surviving spouses, child pensioners, and vested terminées.

SECTION II. VALUATION EXHIBITS

EXHIBIT 4. RECONCILIATION OF CENSUS DATA

	Actives	Healthy Retirees ¹	Disabled Retirees	Surviving Spouses	Child Pensioners	Vested Terminees	Total
As of 9/30/20	48	1,923	23	689	89	58	2,830
New Participants					14		14
Return to Work	6					(3)	3
Termination	(1)					1	0
Retirement	(4)	9				(5)	0
Disabled Retiree to Healthy Retiree		2	(2)				0
Deaths with Beneficiary		(40)		40			0
Deaths without Beneficiary		(39)	(2)	(29)			(70)
Benefits Expired/Lapsed	—	—	—	(6)	(18)	—	(24)
As of 9/30/21	49	1,855	19	694	85	51	2,753

¹ Includes healthy retirees and back to service retirees.

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SECTION II. VALUATION EXHIBITS

EXHIBIT 5. PROJECTED BENEFIT PAYMENTS

Fiscal Year Ending 9/30	Active Employee Count*	Active Employee Salary	Current Retirees and VTs*	Future Retirees from Active	Total Retirees and VTs*	Benefit Payments at 75%
2022	49.0	\$2,440,502	2,704.0	-	2,704.0	\$41,065,730
2023	19.4	729,522	2,675.8	29.5	2,705.2	40,258,393
2024	17.0	667,252	2,641.0	31.8	2,672.8	39,406,776
2025	14.7	563,780	2,599.2	34.0	2,633.2	38,496,926
2026	13.5	529,995	2,550.8	35.1	2,585.9	37,473,989
2027	12.3	465,813	2,494.9	36.2	2,531.0	36,278,546
2028	11.2	395,144	2,427.8	37.2	2,465.0	35,148,619
2029	10.2	345,736	2,361.7	38.1	2,399.8	34,024,804
2030	5.7	193,970	2,292.8	42.4	2,335.2	32,842,400
2031	4.9	166,903	2,225.3	43.0	2,268.3	31,635,467
2032	4.1	145,498	2,156.3	43.6	2,199.9	30,389,942
2033	3.2	112,039	2,087.2	44.2	2,131.3	29,129,285
2034	1.6	56,604	2,014.0	45.5	2,059.5	27,831,291
2035	1.6	56,205	1,939.1	45.1	1,984.2	26,527,754
2036	1.6	55,796	1,859.7	44.7	1,904.4	25,197,543
2037	0.7	35,115	1,780.2	45.0	1,825.2	23,855,124
2038	0.7	34,913	1,698.9	44.5	1,743.4	22,527,860
2039	0.7	34,705	1,615.1	43.9	1,658.9	21,192,604
2040	0.7	34,462	1,531.1	43.2	1,574.4	19,887,038
2041	0.7	34,209	1,446.6	42.5	1,489.1	18,595,973
2042	-	-	1,361.9	42.4	1,404.3	17,298,278
2043	-	-	1,277.5	41.5	1,318.9	16,032,050
2044	-	-	1,193.8	40.5	1,234.3	14,795,782
2045	-	-	1,111.4	39.4	1,150.8	13,596,354
2046	-	-	1,030.5	38.3	1,068.8	12,441,776
2047	-	-	951.8	37.1	988.9	11,336,480
2048	-	-	875.6	35.8	911.4	10,283,750
2049	-	-	802.2	34.4	836.6	9,286,030
2050	-	-	731.8	33.0	764.7	8,345,293
2051	-	-	664.6	31.4	696.0	7,462,857
2052	-	-	600.8	29.9	630.7	6,639,466
2053	-	-	540.5	28.2	568.7	5,875,176
2054	-	-	483.7	26.6	510.3	5,169,508
2055	-	-	430.5	24.9	455.4	4,521,494
2056	-	-	380.8	23.2	404.0	3,929,714
2057	-	-	334.7	21.5	356.2	3,392,534
2058	-	-	292.1	19.8	311.9	2,908,052
2059	-	-	253.1	18.2	271.2	2,474,127
2060	-	-	217.5	16.6	234.1	2,088,346
2061	-	-	185.4	15.0	200.4	1,748,048

* Counts are as of the beginning of the fiscal year.

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SECTION II. VALUATION EXHIBITS

EXHIBIT 6. PROJECTED FUND BALANCE

Fiscal Year Ending 9/30	Beginning Balance	CNMI Payments	Other Contribs	Investment Earnings	Benefit Payments at 75%	Expenses & Fees	Ending Balance
2022	\$141,170,041	\$38,000,000	\$993,236	\$6,092,020	(\$41,065,730)	(\$1,456,582)	\$143,732,985
2023	143,732,985	36,000,000	296,901	6,162,747	(40,258,393)	(1,456,582)	144,477,658
2024	144,477,658	34,000,000	271,558	6,169,643	(39,406,776)	(1,456,582)	144,055,501
2025	144,055,501	32,000,000	229,447	6,126,455	(38,496,926)	(1,456,582)	142,457,896
2026	142,457,896	30,000,000	215,697	6,034,990	(37,473,989)	(1,456,582)	139,778,013
2027	139,778,013	28,000,000	189,577	5,899,729	(36,278,546)	(1,456,582)	136,132,191
2028	136,132,191	26,000,000	160,816	5,720,767	(35,148,619)	(1,456,582)	131,408,573
2029	131,408,573	24,000,000	140,708	5,494,761	(34,024,804)	(1,456,582)	125,562,656
2030	125,562,656	22,000,000	78,942	5,220,080	(32,842,400)	(1,456,582)	118,562,696
2031	118,562,696	20,000,000	67,926	4,896,613	(31,635,467)	(1,456,582)	110,435,186
2032	110,435,186	18,000,000	59,215	4,524,765	(30,389,942)	(1,456,582)	101,172,642
2033	101,172,642	16,000,000	45,598	4,103,540	(29,129,285)	(1,456,582)	90,735,912
2034	90,735,912	14,000,000	23,037	3,631,623	(27,831,291)	(1,456,582)	79,102,699
2035	79,102,699	13,000,000	22,874	3,129,880	(26,527,754)	(1,456,582)	67,271,118
2036	67,271,118	13,000,000	22,708	2,641,901	(25,197,543)	(1,456,582)	56,281,602
2037	56,281,602	13,000,000	14,291	2,190,807	(23,855,124)	(1,456,582)	46,174,994
2038	46,174,994	13,000,000	14,209	1,778,148	(22,527,860)	(1,456,582)	36,982,909
2039	36,982,909	13,000,000	14,124	1,405,627	(21,192,604)	(1,456,582)	28,753,474
2040	28,753,474	13,000,000	14,025	1,074,525	(19,887,038)	(1,456,582)	21,498,405
2041	21,498,405	13,000,000	13,922	787,752	(18,595,973)	(1,362,021)	15,342,086
2042	15,342,086	13,000,000	-	548,848	(17,298,278)	(1,266,974)	10,325,682
2043	10,325,682	13,000,000	-	359,325	(16,032,050)	(1,174,232)	6,478,725
2044	6,478,725	13,000,000	-	220,204	(14,795,782)	(1,083,684)	3,819,463
2045	3,819,463	12,000,000	-	110,271	(13,596,354)	(995,835)	1,337,545
2046	1,337,545	12,015,501	-	29,225	(12,441,776)	(911,270)	29,225
2047	29,225	12,137,570	-	-	(11,336,480)	(830,315)	-
2048	-	11,036,960	-	-	(10,283,750)	(753,210)	-
2049	-	9,966,164	-	-	(9,286,030)	(680,135)	-
2050	-	8,956,525	-	-	(8,345,293)	(611,232)	-
2051	-	8,009,457	-	-	(7,462,857)	(546,600)	-
2052	-	7,125,759	-	-	(6,639,466)	(486,293)	-
2053	-	6,305,490	-	-	(5,875,176)	(430,314)	-
2054	-	5,548,137	-	-	(5,169,508)	(378,629)	-
2055	-	4,852,660	-	-	(4,521,494)	(331,167)	-
2056	-	4,217,537	-	-	(3,929,714)	(287,823)	-
2057	-	3,641,013	-	-	(3,392,534)	(248,479)	-
2058	-	3,121,045	-	-	(2,908,052)	(212,994)	-
2059	-	2,655,339	-	-	(2,474,127)	(181,212)	-
2060	-	2,241,302	-	-	(2,088,346)	(152,956)	-
2061	-	1,876,080	-	-	(1,748,048)	(128,032)	-

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APPENDIX A. SUMMARY OF PLAN PROVISIONS

The following description is a brief summary of the provisions of the Northern Marinas Islands Retirement Plan, as shown in the audited financial statements for the NMI Retirement Fund for the Fiscal Year Ending September 30, 2012.

Membership: Class II members are all persons who were Fund members prior to the effective date of Public Law 6-17 and who did not choose to become Class I members.

Membership Service: Service is earned for actual compensated government employment after becoming a Fund member. 1/12 year of service is earned for each month of employment.

Benefit Formulas:

Class I Formula: The sum of (i) and (ii) below, but not less than \$6,000 nor greater than 85% of average annual salary.

- (i) The sum of 2.5% of average annual salary for each of the first 25 years of service with a maximum of 50% of average annual salary, plus
- (ii) 2.5% of average annual salary for each year of service in excess of 25 years.

The minimum amount of service retirement annuity payable by the Fund is \$6,000 per year. The maximum retirement annuity is 85% of "average annual salary."

Class II Formula: The sum of (i) and (ii) below, but not less than \$6,000 nor greater than 85% of average annual salary.

- (i) The sum of 2% of average annual salary for each of the first 10 years of service and 2.5% of average annual salary for each year of service in excess of 10 years, plus
- (ii) Twenty dollars (\$20) for each year of service reduced by 1/100th of 1% for each dollar that average annual salary exceeds \$6,000.

The minimum amount of service retirement annuity payable by the Fund is \$6,000 per year. The maximum retirement annuity is 85% of "average annual salary."

Class II members receive the greater of the benefit determined using the Class II formula or the benefit determined using the Class I formula as if all service had been rendered as a Class I member.

Average Annual Salary: Average of three highest annual salaries, or \$6,000, whichever is greater.

Normal Retirement:

Eligibility: Eligibility for Class I benefit is age 62 and 10 years of contributing membership after May 7, 1989. Eligibility for Class II benefit is age 60 or 25 years of membership service.

Form of Benefit: Payment is in the form of a life annuity.

SECTION III. APPENDICES**Early Retirement:**

Eligibility: Eligibility for Class I early retirement is age 52 and 10 years of membership service or 25 years of membership service. At least 10 years of membership service must be earned after May 7, 1989. Class II members are not eligible for early retirement.

Amount of Benefit: Same as normal retirement benefit, except reduced by an actuarially determined amount (3%) for each month the member is under 62 years of age.

Form of Benefit: Same as normal retirement benefit.

Termination:

Eligibility: Eligibility for Class I termination benefit is 10 years of contributing membership service. Eligibility for Class II termination benefit is 3 years of vesting service.

Amount of Benefit: Same as normal retirement benefit.

Form of Benefit: Same as normal retirement benefit, except the annuity commences at age 62 for Class I members and age 60 for Class II members.

Disability Retirement:

Eligibility: Members who are less than age 62, who are totally and permanently disabled and, in the case of non-occupational causes, who accumulate at least 5 years of membership service.

Amount of Benefit: 50% of the member's salary in effect as of the date of disability or 66 2/3% of member's salary in effect if individual became a member prior to December 5, 2003. At age 62, the member will receive a normal retirement benefit calculated assuming service had continued to age 62 at the same salary received at the time of disability and the Class I formula is used. Disability benefits will be reduced by the U.S. Social Security System, Workers' Compensation or other disability insurance payments.

Form of Benefit: Same as normal retirement benefit.

Survivor's Benefits:

Eligibility: Members who were active employees with at least 18 months of service for Class I and at least 3 years of service for Class II, or members who were receiving retirement or disability benefits.

Amount of Benefit: A surviving spouse will receive 50% of the member's normal retirement benefit, or benefit being paid at death, but not less than \$6,000 per year. Each surviving minor child (with a maximum of three children) will receive the greater of \$1,080 and 16 2/3% of the member's normal retirement benefit or the benefit being paid at death.

Form of Benefit: The surviving spouse benefit will commence immediately if there are minor children, otherwise at the spouse's attainment of age 35, and continues until remarriage or death. Payment will be in the form of a life annuity.

SECTION III. APPENDICES

The children's benefit commences immediately and continues until the respective child's attainment of age 18 (age 22 if a full-time student) unless the child is disabled.

Lump Sum Death Benefit:

Eligibility: Members who were active employees or members who were receiving retirement or disability benefits.

Amount of Benefit: A lump sum of \$1,000 plus, if there is no surviving spouse or children, a refund, reduced by pension payments already received, of 1/3rd of the accumulated employee contributions with interest.

Contributions: Class I members who are active employees contribute 10.5% per year. Class II members who are active employees contribute 11% per year.

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APPENDIX B. ACTUARIAL COST METHOD AND ASSUMPTIONS

	September 30, 2021	September 30, 2020																																				
Actuarial Cost Method	n/a	n/a																																				
Investment Return	4.37% for all future years	3.50% for Fiscal Years Ending September 30, 2021 through 2030, then 5.14% for each Fiscal Year Ending thereafter.																																				
Salary Increases	No future salary increases	No future salary increases																																				
Mortality	Pub-2010 set forward 5 years for Males and Females, using 130% of the rates for ages 60 to 75, and 50% of the MP-2020 projection scale from 2020 onward	Pub-2010 set forward 5 years for Males and Females, using 130% of the rates for ages 60 to 75, and 50% of the MP-2020 projection scale from 2020 onward																																				
Retirement Age	Class I Members Earlier of age 62, if eligible, or 25 years of vesting service. Class II Members Earlier of age 60, if eligible, or 25 years of vesting service.	Class I Members Earlier of age 62, if eligible, or 25 years of vesting service. Class II Members Earlier of age 60, if eligible, or 25 years of vesting service.																																				
Marital Status	94% of participants are assumed to be married and males are assumed to be 5 years older than female spouses.	94% of participants are assumed to be married and males are assumed to be 5 years older than female spouses.																																				
Survivor Benefit – Minor Children	Married retirees are assumed to have two minor children aged 13. Married employees are assumed to have two minor children aged 13 upon death from active status.	Married retirees are assumed to have two minor children aged 13. Married employees are assumed to have two minor children aged 13 upon death from active status.																																				
Turnover	<table><tr><th>Age</th><th>Rate</th></tr><tr><td>20</td><td>.1303</td></tr><tr><td>25</td><td>.1078</td></tr><tr><td>30</td><td>.0858</td></tr><tr><td>35</td><td>.0683</td></tr><tr><td>40</td><td>.0508</td></tr><tr><td>45</td><td>.0333</td></tr><tr><td>50</td><td>.0158</td></tr><tr><td>55 & up</td><td>.0000</td></tr></table>	Age	Rate	20	.1303	25	.1078	30	.0858	35	.0683	40	.0508	45	.0333	50	.0158	55 & up	.0000	<table><tr><th>Age</th><th>Rate</th></tr><tr><td>20</td><td>.1303</td></tr><tr><td>25</td><td>.1078</td></tr><tr><td>30</td><td>.0858</td></tr><tr><td>35</td><td>.0683</td></tr><tr><td>40</td><td>.0508</td></tr><tr><td>45</td><td>.0333</td></tr><tr><td>50</td><td>.0158</td></tr><tr><td>55 & up</td><td>.0000</td></tr></table>	Age	Rate	20	.1303	25	.1078	30	.0858	35	.0683	40	.0508	45	.0333	50	.0158	55 & up	.0000
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	September 30, 2021			September 30, 2020		
Disability	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
	25	.00020	.00021	25	.00020	.00021
	30	.00023	.00036	30	.00023	.00036
	35	.00035	.00061	35	.00035	.00061
	40	.00060	.00093	40	.00060	.00093
	45	.00112	.00135	45	.00112	.00135
	50	.00310	.00185	50	.00310	.00185
	55	.00334	.00261	55	.00334	.00261
	60	.00441	.00352	60	.00441	.00352
Cost of Living Adjustment	None		2% per year, up to a maximum of \$600 annually			
Administrative Expenses	\$1,456,582 per year from Fiscal Year Ending September 30, 2022 to Fiscal Year Ending September 30, 2040, then remaining a constant percentage of benefit payments.		\$1,697,191 per year from Fiscal Year Ending September 30, 2021 to Fiscal Year Ending September 30, 2040, then remaining a constant percentage of benefit payments.			
Disability Benefit Amount	For disabled members under age 62, the benefit amount after age 62 is assumed to be equal to the benefit amount before age 62.		For disabled members under age 62, the benefit amount after age 62 is assumed to be equal to the benefit amount before age 62.			

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SECTION III. APPENDICES**APPENDIX C. RISK DISCLOSURE**

The purpose of this appendix is to identify, assess, and provide illustrations of risks that are significant to the Settlement Fund, and in some cases to the Fund participants.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, life expectancies may be longer or shorter than anticipated. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the Settlement Fund.

In addition, investment returns may differ from the assumption. The larger the pool of assets, the more difficult it becomes to recover from unfavorable investment results. As an example, it is more difficult for a plan sponsor to deal with the effects of a 10% investment loss on a plan with \$1 billion in assets and liabilities than if the same plan sponsor is responsible for a 10% investment loss on a plan with \$1 million in assets and liabilities. Since plans make long-term promises and rely on long-term funding, it is important to consider how mature the Fund is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

Identify risks that may be significant to the Plan.

Assess the risks identified as significant to the Plan. The assessment does not need to include numerical calculations.

Disclose plan maturity measures and historical information that are significant to understanding the Plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the Plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This appendix uses the framework of ASOP 51 to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical plan data.

Investment Risk

Definition: The potential that investment returns will be different than expected.

Identification: To the extent that actual investment returns differ from the assumed investment return, the Plan's future assets, funding contributions, and funded status may differ significantly from those presented in this valuation.

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Demographic Risks

Definition: The potential that mortality or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that participants will follow patterns of demographic experience (e.g., mortality, withdrawal, disability, retirement, form of payment election, etc.) as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, funding contributions, and funded status may differ significantly from those presented in this valuation.