



State of Maine

State Retiree Healthcare Plan

Actuarial Valuation Report

June 30, 2017

Prepared by Deloitte Consulting LLP

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Actuarial Valuation Opinion

This report presents the results of the actuarial valuation of the "Other" Post-Employment Benefits (OPEB) provided under the State of Maine Retiree Healthcare Plan for State Employees ("State Employees"), Maine Educational Center for the Deaf and Hard of Hearing ("Baxter School"), and Northern New England Passenger Rail Authority ("NNEPRA") as of June 30, 2017. Throughout this report, the Baxter School and NNEPRA will be referred to collectively as the "Ancillary Groups". In our opinion, this report is complete and accurate and represents fairly the actuarial position of the Plan for the purposes stated herein.

The actuarial valuation has been prepared based on participant data, financial information, and plan descriptions as of June 30, 2017. The actuary has analyzed the data and other information provided for reasonableness but has not independently audited the data. Estimates were made where data was missing or unavailable. The actuary has no reason to believe the data and other information is not accurate and knows of no further information that is essential to the preparation of the actuarial valuation.

In our opinion, all costs, liabilities, rates of interest, and other factors underlying these actuarial computations have been determined on the basis of actuarial assumptions and methods, which are each reasonable (or consistent with authoritative guidance) for the purposes described herein taking into account the experience of the Plans and future expectations.

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 operations of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law.

Our scope did not include analyzing the potential range of such future measurements, and we did not perform that analysis.

The undersigned with actuarial credentials collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.


This report was prepared solely for the benefit and internal use of the plan sponsor. This report is not intended for the benefit of any other party and may not be relied upon by any third party for any purpose, and Deloitte Consulting accepts no responsibility or liability with respect to any party other than the plan sponsor.

To the best of our knowledge, no employee of the Deloitte U.S. Firms is an officer or director of the employer. In addition, we are not aware of any relationship between the Deloitte U.S. Firms and the employer that may impair or appear to impair the objectivity of the work detailed in this report.


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Section 1 - Background and Comments

The Governmental Accounting Standards Board released the Statement of Governmental Accounting Standards Nos. 74 and 75 in June 2015. GASB No. 74 establishes financial reporting requirements for OPEB plans that have assets accumulated in a trust or equivalent arrangement for the purpose of funding OPEB plans. GASB No. 75 requires employers and non-employer contributing entities to accrue the cost of post-employment benefits other than pensions ("OPEB") while eligible employees are providing services to the employer. State of Maine adopted GASB No. 74 for the fiscal year ending June 30, 2017 using a measurement date of June 30, 2017 and adopted GASB No. 75 for the fiscal year ending June 30, 2018 using a measurement date of June 30, 2017.

GASB No. 75 requires a reconciliation of liability during the fiscal year being measured; therefore, we prepared results as of June 30, 2016. These results will differ from those previously reported as of June 30, 2016 for purposes of GASB No. 45 due to the following:

- change in the accounting standard;
- change in assumptions; and
- prior results were prepared by a different actuary.

The purpose of this actuarial valuation report is to provide information that will serve as the basis for State of Maine's employer financial reporting for the fiscal year ended June 30, 2018 GASB Nos. 74 and 75 disclosures, which will be provided under separate cover.

Plan Overview

The State of Maine provides a Retiree Healthcare Plan for State and Ancillary Groups. To be eligible for reimbursement from the State, a retiree must be receiving a retirement benefit from the Maine Public Employees Retirement System (MainePERS). For employees retiring after January 1, 2012 (July 1, 2012 for Baxter School) the reimbursement from the State shall begin when the retiree reaches normal retirement age with at least one year of service under MainePERS; normal retirement age defined as:

Tier 1 - Be at least 60 years of age with at least 10 years of service on 7/1/1993

Tier 2 - Be at least 62 years of age with less than 10 years of service on 7/1/1993 or hired on/after 7/1/1993 but had 5 years of service on 7/1/2011

Tier 3 - Be at least 65 years of age with less than 5 years of service on 7/1/2011 or hired on/after 7/1/2011

Normal retirement eligibility occurs upon attainment of 25 years of service, if earlier.

Additional eligibility provisions for MainePERS special plans are discussed in Section 11 of this report.

Section 1 – Background and Comments (continued)

State of Maine Contributions

The State of Maine contributes the following towards retiree premiums.

Hire Date ≤ 7/1/91	7/1/91 < Hire Date < 7/1/11		Hire Date ≥ 7/1/11	
	Years in Medical	% Retiree Premium	Years in Medical	% Retiree Premium
100% of Retiree Premium	< 5	0%	< 10	0%
	5	50%	10-14	50%
	6	60%	15-19	75%
	7	70%	≥ 20	100%
	8	80%		
	9	90%		
	≥ 10	100%		

- Percent of the retiree-only medical premium above based on:
 - Single rate for single and employee + child(ren) coverage
 - 50% of 2-party rate for 2-party and family coverage
- No State cash subsidy until retiree reaches normal retirement age for non-special plan service retirements ≥ 1/1/12 (7/1/12 for Baxter School and teachers in unorganized territories)
- Disability retirement benefits are 100% vested and cash subsidy begins at disability retirement

Retirees pay the remaining portion of the retiree-only premium and/or the full additional premium for spouse and family coverage. There is no benefit for surviving spouses.

The substantive plan of benefits is described in Section 11 of this report.

Implicit Rate Subsidy

GASB Nos. 74 and 75 require that employers/non-employer contributing entities recognize the Implicit Rate Subsidy that exists in many postretirement medical plans provided by governmental employers. The Implicit Rate Subsidy refers to the concept that retirees under the age of 65 (i.e., not eligible for Medicare) generate higher claims on average than active participants.

When a medical plan is self-insured through a third-party administrator or fully insured, a premium is usually determined by analyzing the claims of the entire population in that plan and adjusting for administrative costs. The resulting premium is called a blended premium because it blends the claims of active and retired participants. Since individuals generally have more and higher claims as they get older, the blended premium paid for retirees is lower than their expected claims. Another way of considering this is that if the retirees were removed from the plan, the premium for the active group would be lower; therefore, the retirees' premiums are being subsidized by the active group. Since the employer generally pays a large portion or all of the premiums for the active group, this subsidy creates a liability for the employer. The difference between the expected claims for the retiree group and the blended premium is called the Implicit Rate Subsidy.

Section 1 – Background and Comments (continued)

Valuations for both State employees and Ancillary Groups include the implicit rate subsidy for retirees, spouses, and surviving spouses to age 65 if Medicare eligible and for life if not Medicare eligible.

Health Care Reform

The Patient Protection and Affordable Care Act (“PPACA”) was signed into law on March 23, 2010. The primary objective of the act is to increase the number of Americans with health insurance coverage. There are several provisions within PPACA with potentially significant short- and long-term cost implications for employers. The provisions of PPACA applicable to retiree health benefits were considered in this valuation. On December 18, 2015, the Consolidated Appropriations Act, 2016 became law. This legislation delayed the effective date of the high cost plan excise tax from 2018 to 2020 and made it tax deductible. On January 22, 2018, the Federal Register Printing Savings Act further delayed the effective date from 2020 to 2022. In future years, there may continue to be increased cost impact to the extent the health plans experience increased utilization due to these changes, all of which are assumed to be in place indefinitely.

The health plans are assumed to have implemented the PPACA provisions and the premiums are assumed to reflect the PPACA costs as follows:

- prohibiting lifetime and annual limits on the dollar value of coverage for “essential health benefits”;
- increasing the dependent child age limit to age 26;
- elimination of cost sharing for in-network preventative services;
- reflecting manufacturer discounts available to certain Medicare beneficiaries receiving applicable covered Part D drugs (mostly brand) while in the coverage gap;
- transitional reinsurance fee; and
- out-of-pocket limit includes both medical and Rx expenses.

We also considered the expected costs associated with the excise tax on “Cadillac Plans” effective in 2022. Due to the expectation that the medical trend rate will significantly exceed inflation over the long-term, most retiree health plans will be affected by the excise tax at some point in the future. The excise tax is projected to have an impact of less than 0.5% on the liabilities for the State of Maine.

Actuarial Methods and Assumptions

The actuarial methods and assumptions are described in Section 9 of this report.

The majority of the State and Ancillary Group Employees covered under this plan are participants in the MainePERS State and Teacher Retirement Program. For this reason, several demographic assumptions are selected to be consistent with the most recently available active lives actuarial valuation of that plan.

For the State Employees Plan, benefits are funded in the State Employees Trust Fund. The Trust is projected to have sufficient assets to meet projected benefit payments in all future years. As prescribed by GASB Nos. 74 and 75, the discount rate will be based on the expected long-term rate of future investment return on the assets that are expected to be used to finance the payment of benefits. State of Maine has elected to use a discount rate of 6.75%. Since the State of Maine has funded its liability with investments held in a separate trust, those assets should be used as the basis for the selection of the discount rate.

Section 1 – Background and Comments (continued)

To recommend a discount rate for the State of Maine, we used a “building block” method, as outlined in the Actuarial Standards of Practice (ASOP) for “Selection of Economic Assumptions for Measuring Pension Obligations” (No. 27). Under the “building block” method, the expected future investment of a portfolio is estimated using the following information and estimates:

1. The expected long-term inflation level;
2. The broad asset classes making up the portfolio and their proportion of total assets; and
3. For each asset class, the expected long-term real return (excess above inflation) of that asset class.

The expected future return of each asset class is then the sum of (1) and (3) above, and the expected future portfolio return is the weighted average of the asset class returns, where the weights are the proportions in (2) above.

Since the Ancillary Groups’ postretirement medical plans are not being funded by assets in a separate trust, GASB No. 75 requires that the discount rate be based on the index rate as of the measurement date of a 20-year tax-exempt general obligation municipal bond index with an average rating of AA/Aa or higher. The State of Maine elected to determine the discount rate using the Bond Buyer 20-Bond General Obligation Index. The discount rate was 3.58% as of the measurement date, June 30, 2017, (2.85% as of June 30, 2016).

Medical assumptions were developed with the assistance of Deloitte Consulting healthcare actuaries. Claim costs for non-Medicare-eligible retirees were developed with consideration of the 2018 premium rates developed by the State of Maine (adjusted back to the 2017 valuation date) and by applying appropriate age factors to average annual costs per member. Medicare-eligible retirees are eligible to participate in a Group Medicare Advantage Plan.

This is the first year Deloitte Consulting LLP is the actuary for this plan. The results presented as of June 30, 2016 and June 30, 2017 are based on the plan provisions and actuarial methods and assumptions disclosed in this report. There were no changes in assumptions reflected in Deloitte’s valuations. The Actuarially Determined Contribution for the State plan includes the impact of an assumption change amortization base, which is based on differences in assumptions used by the prior actuary and Deloitte.

The Actuarial Accrued Liability increased from \$1,148 million at June 30, 2016 to \$1,175 million at June 30, 2017. The increase was approximately \$10M greater than expected due to demographic changes.

Section 2 – Summary of Actuarial Valuation Results

This section provides a summary of the actuarial valuation results. All information is provided as of the measurement date. Dollar amounts are in thousands.

State Employees

	<u>June 30, 2017</u>	<u>June 30, 2016</u>
1. Actuarial Accrued Liability	\$1,175,459	\$1,147,800
2. Actuarial Value of Assets	<u>\$222,738</u>	<u>\$201,426</u>
3. Unfunded Actuarial Accrued Liability (UAAL): (1) – (2)	\$952,721	\$946,374
4. Funded Ratio: (2) / (1)	18.95%	17.55%
5. UAAL as a percentage of covered payroll (3) / (8b)	163.44%	164.68%
6. Normal Cost	\$16,917	\$16,446
7. Discount Rate	6.75%	6.75%
8. Actuarially Determined Contribution ¹	\$71,179	\$69,000
9. Census Data Used		
a. Count of Covered Participants		
Actives	12,076	12,299
Terminated Vested – Eligible for Participation	182	0
Retirees	<u>8,568</u>	<u>10,160</u>
Total	20,826	22,459
b. Covered Payroll	\$582,934	\$574,663
10. Expected Benefit Payments	\$70,994	\$72,426

¹ Actuarially Determined Contribution for June 30, 2016 determined by prior actuary.

Section 2 – Summary of Actuarial Valuation Results (continued)

This section provides a summary of the actuarial valuation results. All information is provided as of the measurement date. Dollar amounts are in thousands.

Baxter School

	<u>June 30, 2017</u>	<u>June 30, 2016</u>
1. Actuarial Accrued Liability	\$5,952	\$7,094
2. Actuarial Value of Assets	<u>\$0</u>	<u>\$0</u>
3. Unfunded Actuarial Accrued Liability (UAAL): (1) – (2)	\$5,952	\$7,094
4. Funded Ratio: (2) / (1)	0.00%	0.00%
5. UAAL as a percentage of covered payroll (3) / (8b)	171.68%	228.84%
6. Normal Cost	\$181	\$201
7. Discount Rate	3.58%	2.85%
8. Census Data Used		
a. Count of Covered Participants		
Actives	77	70
Retirees	<u>33</u>	<u>39</u>
Total	110	109
b. Covered Payroll	\$3,467	\$3,100
9. Expected Benefit Payments	\$280	\$319

Section 2 – Summary of Actuarial Valuation Results (continued)

This section provides a summary of the actuarial valuation results. All information is provided as of the measurement date. Dollar amounts are in thousands.

NNEPRA

	<u>June 30, 2017</u>	<u>June 30, 2016</u>
1. Actuarial Accrued Liability	\$393	\$446
2. Actuarial Value of Assets	<u>\$0</u>	<u>\$0</u>
3. Unfunded Actuarial Accrued Liability (UAAL): (1) – (2)	\$393	\$446
4. Funded Ratio: (2) / (1)	0.00%	0.00%
5. UAAL as a percentage of covered payroll (3) / (8b)	84.52%	99.11%
6. Normal Cost	\$22	\$22
7. Discount Rate	3.58%	2.85%
8. Census Data Used		
a. Count of Covered Participants		
Actives	7	7
Retirees	<u>2</u>	<u>3</u>
Total	9	10
b. Covered Payroll	\$465	\$450
9. Expected Benefit Payments	\$7	\$11

Section 3 – Actuarial Value of Assets

This section provides a summary of the development of the actuarial value of assets. All information is provided as of the measurement date. This section is not applicable to the Baxter School or NNEPRA. Dollar amounts are in thousands.

State Employees

	<u>June 30, 2017</u>
1. Market value of assets ("MVA") at beginning of year	\$ 203,088
a. Contributions	78,746
b. Benefit payments	(74,746)
c. Administrative expenses	(6)
d. Expected investment earnings	<u>\$ 14,724</u>
2. Expected MVA at end of year	\$ 221,806
3. Actual MVA at end of year	\$ 233,596
4. Actuarial value of assets ("AVA") at beginning of year	\$ 201,426
a. Contributions	78,746
b. Benefit payments	(74,746)
c. Administrative expenses	(6)
d. Expected investment earnings	<u>\$ 14,603</u>
5. Expected AVA at end of year	\$ 220,023
6. MVA - Expected AVA: (3) - (4d)	13,573
7. 1/5 of (MVA - Expected AVA)	2,715
8. Preliminary AVA: (5) + (7)	<u>\$ 222,738</u>
9. Minimum AVA (80% of MVA)	186,877
10. Maximum AVA (120% of MVA)	280,315
11. Actuarial Value at End of Year	<u>\$ 222,738</u>

Section 4 – Actuarial Experience

Actuarial gains and losses arise from experience different from that assumed, changes in actuarial assumptions and methods, and changes in plan provisions. The following summarizes the changes in the Actuarial Accrued Liability due to these sources from June 30, 2016 to June 30 2017. Dollar amounts are in thousands.

State Employees

1. Actuarial Accrued Liability as of June 30, 2016	\$ 1,147,800
2. Normal Cost for the year ending June 30, 2017	16,446
3. Actual Benefit Payments for the year ending June 30, 2017	(74,746)
4. Interest at 6.75% on (1), (2) and (3)	<u>76,105</u>
5. Expected Actuarial Accrued Liability as of June 30, 2017 (1) + (2) + (3) + (4)	\$ 1,165,605
6. (Gain)/Loss for the year ending June 30, 2017:	
i. Demographic Experience	<u>9,854</u>
ii. Total (Gain)/Loss	<u>9,854</u>
7. Actual Actuarial Accrued Liability as of June 30, 2017 (5) + (6)(ii)	\$ 1,175,459

Baxter School

1. Actuarial Accrued Liability as of June 30, 2016	\$ 7,094
2. Normal Cost for the year ending June 30, 2017	201
3. Actual Benefit Payments for the year ending June 30, 2017	(213)
4. Interest at 2.85% on (1), (2) and (3)	<u>205</u>
5. Expected Actuarial Accrued Liability as of June 30, 2017 (1) + (2) + (3) + (4)	\$ 7,287
6. (Gain)/Loss for the year ending June 30, 2017:	
i. Demographic Experience	(715)
ii. Discount Rate	<u>(620)</u>
iii. Total (Gain)/Loss	<u>(1,335)</u>
7. Actual Actuarial Accrued Liability as of June 30, 2017 (5) + (6)(iii)	\$ 5,952

Section 4 – Actuarial Experience (continued)

NNEPRA

1. Actuarial Accrued Liability as of June 30, 2016	\$ 446
2. Normal Cost for the year ending June 30, 2017	22
3. Actual Benefit Payments for the year ending June 30, 2017	(10)
4. Interest at 2.85% on (1), (2) and (3)	<u>13</u>
5. Expected Actuarial Accrued Liability as of June 30, 2017 (1) + (2) + (3) + (4)	\$ 471
6. (Gain)/Loss for the year ending June 30, 2017:	
i. Demographic Experience	(58)
ii. Discount Rate	<u>(20)</u>
iii. Total (Gain)/Loss	<u>(78)</u>
7. Actual Actuarial Accrued Liability as of June 30, 2017 (5) + (6)(iii)	\$ 393

Section 5 – Development of Unfunded Actuarial Accrued Liability

Presented below is the development of the Unfunded Actuarial Accrued Liability as of June 30, 2017, which is the Actuarial Accrued Liability minus the Actuarial Value of Assets. The Actuarial Accrued Liability is the portion of the Present Value of Future Benefits accrued to date. The Present Value of Future Normal Costs represents the portion of the Present Value of Future Benefits expected to accrue in the future, based on the current population. Dollar amounts are in thousands.

State Employees

	Explicit Subsidy	Implicit Subsidy	Total
1. Present Value of Future Benefits			
Actives	\$491,663	\$62,084	\$553,747
Terminated Vested	8,011	1,256	9,267
Retirees	<u>522,558</u>	<u>214,663</u>	<u>737,221</u>
Total	\$1,022,232	\$278,003	\$1,300,235
2. Present Value of Future Normal Costs	(111,258)	(13,518)	(124,776)
3. Actuarial Accrued Liability			
Actives	\$380,405	\$48,566	\$428,971
Terminated Vested	8,011	1,256	9,267
Retirees	<u>522,558</u>	<u>214,663</u>	<u>737,221</u>
Total	\$910,974	\$265,485	\$1,175,459
4. Actuarial Value of Assets			\$222,738
5. Unfunded Actuarial Accrued Liability (3) – (4)			\$952,721

Baxter School

	Explicit Subsidy	Implicit Subsidy	Total
1. Present Value of Future Benefits			
Actives	\$3,974	\$357	\$4,331
Retirees	<u>2,622</u>	<u>837</u>	<u>3,459</u>
Total	\$6,596	\$1,194	\$7,790
2. Present Value of Future Normal Costs	(\$1,678)	(\$160)	(\$1,838)
3. Actuarial Accrued Liability			
Actives	\$2,295	\$197	\$2,493
Retirees	<u>2,622</u>	<u>837</u>	<u>3,459</u>
Total	\$4,917	\$1,035	\$5,952
4. Actuarial Value of Assets			\$0
5. Unfunded Actuarial Accrued Liability (3) – (4)			\$5,952

Section 5 – Development of Unfunded Actuarial Accrued Liability (continued)

NNEPRA

	Explicit Subsidy	Implicit Subsidy	Total
1. Present Value of Future Benefits			
Actives	\$508	\$40	\$549
Retirees	<u>112</u>	<u>0</u>	<u>112</u>
Total	\$621	\$40	\$661
2. Present Value of Future Normal Costs	(\$248)	(\$20)	(\$268)
3. Actuarial Accrued Liability			
Actives	\$261	\$20	\$281
Retirees	<u>112</u>	<u>0</u>	<u>112</u>
Total	\$373	\$20	\$393
4. Actuarial Value of Assets			\$0
5. Unfunded Actuarial Accrued Liability (3) – (4)			\$393

Section 6 – Schedule of Amortization Balances for Actuarially Determined Contributions

State Employees

	Original Bases			Remaining Bases 6/30/2017		2017/18 End of Year Amortization Payment
	Date	Years	Amount ¹	Years	Balance	
Initial UAAL	6/30/08	29	\$ 1,144,000	20	\$ 1,076,759	\$ 79,032
Experience Losses (Gains)	6/30/09	10	83,000	2	20,381	11,073
	6/30/10	10	99,000	3	36,246	13,361
	6/30/11	10	(34,000)	4	(16,574)	(4,663)
	6/30/12	10	(199,000)	5	(115,661)	(26,491)
	6/30/13	10	(146,000)	6	(100,067)	(19,432)
	6/30/14	10	56,000	7	43,391	7,348
	6/30/15	10	(25,000)	8	(21,679)	(3,267)
	6/30/16	10	(33,000)	9	(101,838)	(13,877)
	6/30/17	10	7,139	10	7,139	890
Assumption Changes	6/30/10	27	35,000	20	30,484	2,237
	6/30/11	26	35,000	20	250,752	18,405
	6/30/12	25	(32,000)	20	(29,500)	(2,165)
	6/30/14	23	(16,000)	20	(15,733)	(1,155)
	6/30/16	21	33,000	20	32,450	2,382
	6/30/17	20	(13,044)	20	(13,044)	(957)
Plan Change	6/30/11	26	(139,000)	20	(130,785)	(9,599)
Unfunded AAL²					\$ 952,721	\$ 53,120

¹ All bases for years ending 6/30/2016 and earlier were determined by the prior plan actuary.

² The amortization amount is the equivalent of a 31.2-year amortization of the Unfunded AAL.

Section 7 – Determination of Actuarially Determined Contributions

GASB 75 requires the disclosure of the Actuarially Determined Contribution (ADC). The following is a brief explanation of the components of the ADC:

- **Normal Cost:** The portion of the total present value of benefits attributed to employee service during the current fiscal year.
- **Amortization Payments:** Total amortization payments detailed in Section 6.
 - Unfunded liability as of 6/30/2007 amortized over 30 years (fully recognized by 6/30/2037)
 - Experience losses amortized over 10 years
 - Assumptions changes, plan changes, and experience gains amortized over period to 6/30/2017 (20-year fixed period from 6/30/2017)
 - Actual contributions greater than or less than ADC are allocated to each existing amortization base

Presented below is an illustration of the ADC for the fiscal year ending June 30, 2018. Dollar amounts are in thousands.

State Employees

1. Normal Cost (with interest)	\$ 18,059
2. Sum of Amortizations from Section 6 (with interest)	<u>53,120</u>
3. Actuarially Determined Contribution: (1) + (2)	\$ 71,179
4. Expected Pay-as-you-go Cost for Fiscal Year Ending June 30, 2018	\$ 70,994

Section 8 – 10-Year Projection of Employer Benefit Payments

Presented below are the projected employer benefit payments for the next ten years based on the current plan design. These projected benefit payments are based on the actuarial assumptions shown in Section 6. If actual experience differs from that expected by the actuarial assumptions, the actual employer benefit payments will vary from those presented below. Dollar amounts are in thousands.

State Employees

Year Ending	Explicit Subsidy	Implicit Subsidy	Total Benefit Payments
6/30/2018	\$50,729	\$20,265	\$70,994
6/30/2019	50,320	20,305	70,624
6/30/2020	51,455	20,671	72,127
6/30/2021	53,343	20,904	74,247
6/30/2022	55,358	21,378	76,736
6/30/2023	57,561	21,637	79,197
6/30/2024	59,904	21,757	81,662
6/30/2025	62,116	22,059	84,175
6/30/2026	64,457	22,130	86,587
6/30/2027	66,787	22,141	88,928

Baxter Employees

Year Ending	Explicit Subsidy	Implicit Subsidy	Total Benefit Payments
6/30/2018	\$192	\$88	\$280
6/30/2019	176	90	265
6/30/2020	188	87	275
6/30/2021	189	81	270
6/30/2022	208	90	298
6/30/2023	215	94	309
6/30/2024	231	108	339
6/30/2025	233	81	313
6/30/2026	229	75	304
6/30/2027	237	59	296

NNEPRA Employees

Year Ending	Explicit Subsidy	Implicit Subsidy	Total Benefit Payments
6/30/2018	\$7	\$0	\$7
6/30/2019	7	0	7
6/30/2020	7	0	7
6/30/2021	7	0	7
6/30/2022	8	0	8
6/30/2023	8	0	8
6/30/2024	8	0	9
6/30/2025	9	1	9
6/30/2026	9	1	10
6/30/2027	17	4	21

Section 9 – Summary of Actuarial Methods & Assumptions

Actuarial Cost Method

The Actuarial Cost Method used in this valuation to determine the Actuarial Accrued Liability was the Entry Age Normal Percent of Pay method.

This method is one of the family of projected benefit cost methods. An estimate of the projected benefit payable at retirement is initially required to determine costs and liabilities under this method.

The Normal Cost is the annual allocation required for each participant from entry date to assumed retirement date so that the accumulated allocation at retirement is equal to the liability for the projected benefit. The projected benefits are based on estimates of future years of service and projected health benefit costs. The normal cost is developed as a level percentage of pay.

The Present Value of Future Benefits is equal to the value of the projected benefit payable at retirement discounted back to the participant's current age. Discounts include such items as interest and mortality. The Present Value of Future Normal Costs is equal to the discounted value of the normal costs allocated from the member's current age to retirement age.

The difference between the present value of future benefits and the present value of future normal costs represents the actuarial liability at the participant's current age.

The Actuarial Accrued Liability for vested terminated participants and participants currently receiving benefits is calculated as the actuarial present value of future benefits expected to be paid. No normal cost is allocated for these participants.

This actuarial cost method is required by GASB No. 75.

Actuarial Value of Assets

Investment gains and losses spread over a 5-year period, with the resulting Actuarial Value of Assets limited to be not less than 80% nor more than 120% of market value.

Investment Policy

Asset Class	<u>Target Allocation</u>	<u>June 30, 2017 Actual Allocation</u>
International Equity	25.00%	22.83%
US Fixed Income	25.00%	20.83%
US Equity	45.00%	51.75%
Real Estate	5.00%	4.59%
Cash	0.00%	0.00%
Total	100.00%	100.00%

Section 9 – Summary of Actuarial Methods & Assumptions (continued)

Funding Policy

For State employees:

- Initial prefunding contribution of \$100 million for 2007/08
- Phase into full Actuarially Determined Contribution (ADC) funding over 10-year period beginning with 2009/10:

Fiscal Year	Funding Policy Contribution
2007/08	PayGo + \$100 million
2008/09	PayGo
2009/10	PayGo + 10% x (ADC - PayGo)
2010/11	PayGo + 20% x (ADC - PayGo)
2011/12	PayGo + 30% x (ADC - PayGo)
2012/13	PayGo + 40% x (ADC - PayGo)
2013/14	PayGo + 50% x (ADC - PayGo)
2014/15	PayGo + 60% x (ADC - PayGo)
2015/16	PayGo + 70% x (ADC - PayGo)
2016/17	PayGo + 80% x (ADC - PayGo)
2017/18	PayGo + 90% x (ADC - PayGo)
2018/19+	100% of ADC

The State is currently funding the Ancillary plans on a pay-as-you-go basis. This valuation assumes the State will continue this policy.

Amortization Method and Periods

Amortization Method: Level percent of payroll

Amortization periods for determining the ADC for the State:

- Unfunded liability as of 6/30/2007 amortized over 30 years (fully recognized by 6/30/2037)
- Experience losses amortized over 10 years
- Assumptions changes, plan changes, and experience gains amortized over period to 6/30/2017 (20-year fixed period from 6/30/2017)
- Actual contributions greater than or less than ADC are allocated to each existing amortization base

Section 9 – Summary of Actuarial Methods & Assumptions

Discount Rate	<p><u>State</u></p> <p>6.75%, representing the expected long-term rate of return on the assets expected to be used to pay plan benefits.</p> <p><u>Ancillary</u></p> <p>3.58% as of June 30, 2017</p> <p>2.85% as of June 30, 2016</p> <p>Since the State funds the retiree health benefits for the Ancillary groups on a pay-as-you-go basis, GASB No. 75 prescribes that the discount rate be based on the index rate of a 20-year tax-exempt general obligation municipal bond index with an average rating of AA/Aa or higher as of the measurement date. The State elected to determine the discount rate using the Bond Buyer 20-Bond General Obligation Index.</p>																																																																		
Healthy Mortality	<p>Mortality rates were updated to use the same assumptions as the June 30, 2017 actuarial valuation for the MainePERS State and Teacher Retirement Program</p> <p>Rates are based on the RP-2014 Mortality Tables and MP-2015 Mortality Improvement Scale with the following adjustments:</p> <ul style="list-style-type: none"> • Adjustment of 104% for males and 120% for females applied to the RP-2014 Mortality Tables 2006 bases rates • MP-2015 Mortality Improvement Scale adjusted to use an ultimate rate of 0.85% for ages 20-85 grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020. 																																																																		
Disabled Mortality	<p>Mortality rates use the same assumptions as the June 30, 2017 actuarial valuation for the MainePERS. State and Teacher Retirement Program.</p> <p>Rates are based on the RP-2014 Total Dataset Disabled Annuitant Mortality Tables and MP-2015 Mortality Improvement Scale with the following adjustments:</p> <ul style="list-style-type: none"> • Adjustment of 108% for males and 105% for females applied to the RP-2014 Mortality Tables 2006 bases rates • MP-2015 Mortality Improvement Scale adjusted to use an ultimate rate of 0.85% for ages 20-85 grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020. 																																																																		
Termination	<p>Consistent with the MainePERS State and Teacher Retirement Program. Sample Rates of Termination at Selected Years of Service:</p> <table border="1"> <thead> <tr> <th><u>Service</u></th> <th><u>State</u></th> <th><u>Age</u></th> <th><u>Judicial</u></th> <th><u>Service</u></th> <th><u>Legislative</u></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>33.50%</td> <td>25</td> <td>7.0%</td> <td>0</td> <td>0.0%</td> </tr> <tr> <td>1</td> <td>22.00%</td> <td>30</td> <td>6.0%</td> <td>2</td> <td>30.0%</td> </tr> <tr> <td>2</td> <td>16.50%</td> <td>35</td> <td>5.0%</td> <td>4</td> <td>25.0%</td> </tr> <tr> <td>3</td> <td>13.25%</td> <td>40</td> <td>4.0%</td> <td>6</td> <td>10.0%</td> </tr> <tr> <td>4</td> <td>12.15%</td> <td>45</td> <td>3.0%</td> <td>8</td> <td>50.0%</td> </tr> <tr> <td>5</td> <td>10.50%</td> <td>50</td> <td>2.0%</td> <td>10</td> <td>25.0%</td> </tr> <tr> <td>10</td> <td>5.95%</td> <td>55</td> <td>1.0%</td> <td>16+</td> <td>50.0%</td> </tr> <tr> <td>15</td> <td>4.25%</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td>4.00%</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>25+</td> <td>4.00%</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	<u>Service</u>	<u>State</u>	<u>Age</u>	<u>Judicial</u>	<u>Service</u>	<u>Legislative</u>	0	33.50%	25	7.0%	0	0.0%	1	22.00%	30	6.0%	2	30.0%	2	16.50%	35	5.0%	4	25.0%	3	13.25%	40	4.0%	6	10.0%	4	12.15%	45	3.0%	8	50.0%	5	10.50%	50	2.0%	10	25.0%	10	5.95%	55	1.0%	16+	50.0%	15	4.25%					20	4.00%					25+	4.00%				
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Section 9 – Summary of Actuarial Methods & Assumptions (continued)

Retirement

Consistent with the MainePERS State and Teacher Retirement Program. Sample Rates of Retirement at Selected Ages:

Age	Tier 1	Tier 2	Tier 3
50	2.9%	n/a	n/a
55	4.0%	4.0%	4.0%
56	4.0%	4.0%	4.0%
57	4.0%	4.0%	4.0%
58	7.5%	4.0%	4.0%
59	15.0%	4.0%	4.0%
60	25.0%	7.5%	4.0%
61	20.0%	17.5%	4.0%
62	20.0%	25.0%	4.0%
63	20.0%	15.0%	7.5%
64	25.0%	20.0%	22.5%
65	35.0%	25.0%	30.0%
70	20.0%	20.0%	30.0%
75	100%	100%	100%

Legislative

- Tier 1: 25.0% starting at age 60
- Tier 2: 25.0% starting at age 62
- Tier 3: 25.0% starting at age 65
- 100% at age 70

Judicial

- Tier 1: age 60
- Tier 2: 50.0% starting at age 62
- Tier 3: 50.0% starting at age 65
- 100% at age 75 for Tiers 2 and 3

State 1998 Special Plan

Age	Service	
	<25	>=25
55	20.0%	25.0%
57	10.0%	25.0%
60	20.0%	30.0%
62	15.0%	30.0%
65	23.4%	30.0%
67	36.8%	50.0%
70	100.0%	100.0%

25 and Out Plan

Service	Rate
25	25.0%
30	50.0%
35	100.0%

All Other Special Plans

50% per year once eligibility for unreduced benefits is reached.

Section 9 – Summary of Actuarial Methods & Assumptions (continued)

Disability	<p>Consistent with the MainePERS State and Teacher Retirement Program. Sample Rates of Disability at Selected Ages:</p> <table border="1"> <thead> <tr> <th><u>Age</u></th> <th><u>State</u></th> <th><u>Special Plans</u></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>25</td> <td>0.050%</td> <td>0.054%</td> <td></td> <td></td> </tr> <tr> <td>30</td> <td>0.061%</td> <td>0.065%</td> <td></td> <td></td> </tr> <tr> <td>35</td> <td>0.093%</td> <td>0.099%</td> <td></td> <td></td> </tr> <tr> <td>40</td> <td>0.148%</td> <td>0.158%</td> <td></td> <td></td> </tr> <tr> <td>45</td> <td>0.228%</td> <td>0.244%</td> <td></td> <td></td> </tr> <tr> <td>50</td> <td>0.340%</td> <td>0.364%</td> <td></td> <td></td> </tr> <tr> <td>55</td> <td>0.399%</td> <td>0.426%</td> <td></td> <td></td> </tr> <tr> <td>60</td> <td>0.434%</td> <td>0.464%</td> <td></td> <td></td> </tr> </tbody> </table> <p>Legislative and Judicial: no disability assumed.</p>				<u>Age</u>	<u>State</u>	<u>Special Plans</u>			25	0.050%	0.054%			30	0.061%	0.065%			35	0.093%	0.099%			40	0.148%	0.158%			45	0.228%	0.244%			50	0.340%	0.364%			55	0.399%	0.426%			60	0.434%	0.464%																																													
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Healthcare Cost Increases	<p>Medical trend rates were developed using a combination of trend surveys and the SOA-Getzen trend rate model. Initial trend rates start at 6.60% in 2018 based on survey data and client market expectations. The SOA-Getzen model was then used to determine the trend rates beginning in year 2022 and thereafter based on reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy.</p> <table border="1"> <thead> <tr> <th><u>Plan Year*</u></th> <th><u>Rate</u></th> <th><u>Plan Year*</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>6.60%**</td> <td>2055</td> <td>5.15%</td> </tr> <tr> <td>2019</td> <td>6.40%</td> <td>2056</td> <td>5.13%</td> </tr> <tr> <td>2020</td> <td>6.20%</td> <td>2057</td> <td>5.11%</td> </tr> <tr> <td>2021</td> <td>6.00%</td> <td>2058</td> <td>5.10%</td> </tr> <tr> <td>2022</td> <td>5.92%</td> <td>2059</td> <td>5.08%</td> </tr> <tr> <td>2023</td> <td>5.85%</td> <td>2060</td> <td>5.07%</td> </tr> <tr> <td>2024</td> <td>5.77%</td> <td>2061</td> <td>5.05%</td> </tr> <tr> <td>2025</td> <td>5.70%</td> <td>2062</td> <td>5.04%</td> </tr> <tr> <td>2026</td> <td>5.62%</td> <td>2063</td> <td>5.03%</td> </tr> <tr> <td>2027 - 2045</td> <td>5.54%</td> <td>2064</td> <td>5.02%</td> </tr> <tr> <td>2046</td> <td>5.41%</td> <td>2065</td> <td>5.00%</td> </tr> <tr> <td>2047</td> <td>5.36%</td> <td>2066</td> <td>4.92%</td> </tr> <tr> <td>2048</td> <td>5.32%</td> <td>2067</td> <td>4.84%</td> </tr> <tr> <td>2049</td> <td>5.28%</td> <td>2068</td> <td>4.77%</td> </tr> <tr> <td>2050</td> <td>5.26%</td> <td>2069</td> <td>4.70%</td> </tr> <tr> <td>2051</td> <td>5.23%</td> <td>2070</td> <td>4.63%</td> </tr> <tr> <td>2050</td> <td>5.21%</td> <td>2071</td> <td>4.56%</td> </tr> <tr> <td>2051</td> <td>5.19%</td> <td>2072</td> <td>4.49%</td> </tr> <tr> <td>2052</td> <td>5.21%</td> <td>2073</td> <td>4.42%</td> </tr> <tr> <td>2053</td> <td>5.19%</td> <td>2074</td> <td>4.36%</td> </tr> <tr> <td>2054</td> <td>5.17%</td> <td>2075+</td> <td>4.29%</td> </tr> </tbody> </table> <p>*Year ending June 30 **Adjusted to reflect known premium increases from July 1, 2017 to July 1, 2018.</p>				<u>Plan Year*</u>	<u>Rate</u>	<u>Plan Year*</u>	<u>Rate</u>	2018	6.60%**	2055	5.15%	2019	6.40%	2056	5.13%	2020	6.20%	2057	5.11%	2021	6.00%	2058	5.10%	2022	5.92%	2059	5.08%	2023	5.85%	2060	5.07%	2024	5.77%	2061	5.05%	2025	5.70%	2062	5.04%	2026	5.62%	2063	5.03%	2027 - 2045	5.54%	2064	5.02%	2046	5.41%	2065	5.00%	2047	5.36%	2066	4.92%	2048	5.32%	2067	4.84%	2049	5.28%	2068	4.77%	2050	5.26%	2069	4.70%	2051	5.23%	2070	4.63%	2050	5.21%	2071	4.56%	2051	5.19%	2072	4.49%	2052	5.21%	2073	4.42%	2053	5.19%	2074	4.36%	2054	5.17%	2075+	4.29%
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Section 9 – Summary of Actuarial Methods & Assumptions (continued)

Statutory Limit to Premium Increases	<p>Per Public Law Chapter 368 SH-1: “The total premium increase for fiscal years ending after June 30, 2015 is limited to no more than any percentage increase in the Consumer Price Index as defined in section 17001, subsection 9 plus 3%.” It is our understanding the State actively manages premium increases within this cap, so healthcare cost increases noted above are limited to no more than inflation plus 3% in any year.</p>																					
Annual Claims Costs: Non-Medicare Eligible	<p>Based on the 2018 premium rates for actives and non-Medicare-eligible retirees developed by the State of Maine (adjusted back to the 2017 valuation date) and by applying appropriate age factors to average annual costs per member.</p> <p>Sample Costs at Selected Ages:</p> <table border="1" data-bbox="597 680 1003 890"> <thead> <tr> <th>Age</th> <th>Males</th> <th>Females</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>\$7,976</td> <td>\$10,058</td> </tr> <tr> <td>55</td> <td>10,496</td> <td>11,731</td> </tr> <tr> <td>60</td> <td>13,556</td> <td>13,664</td> </tr> <tr> <td>65</td> <td>17,330</td> <td>16,316</td> </tr> <tr> <td>70</td> <td>20,977</td> <td>19,441</td> </tr> <tr> <td>80</td> <td>29,013</td> <td>26,244</td> </tr> </tbody> </table>	Age	Males	Females	50	\$7,976	\$10,058	55	10,496	11,731	60	13,556	13,664	65	17,330	16,316	70	20,977	19,441	80	29,013	26,244
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Annual Claims Costs: Medicare Advantage Plan	<p>Costs for Medicare-eligible retirees are projected by applying age-grading factors to the current year Medicare Advantage premium.</p> <p>Medicare Advantage Premium: \$287</p> <p>Sample Age Graded Rates at Selected Ages:</p> <table border="1" data-bbox="597 1136 824 1373"> <thead> <tr> <th>Age</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td><65</td> <td>0.8620</td> </tr> <tr> <td>70</td> <td>0.9507</td> </tr> <tr> <td>75</td> <td>1.0252</td> </tr> <tr> <td>80</td> <td>1.0798</td> </tr> <tr> <td>85</td> <td>1.1035</td> </tr> <tr> <td>90</td> <td>1.0986</td> </tr> <tr> <td>95</td> <td>1.0689</td> </tr> </tbody> </table>	Age	Rate	<65	0.8620	70	0.9507	75	1.0252	80	1.0798	85	1.1035	90	1.0986	95	1.0689					
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Salary Increases (State Employees)	<p>Consistent with the MainePERS State and Teacher Retirement Program.</p> <p>Sample Rates:</p> <table border="1" data-bbox="646 1465 831 1682"> <thead> <tr> <th>Service</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>7.75%</td> </tr> <tr> <td>5</td> <td>5.00%</td> </tr> <tr> <td>10</td> <td>3.75%</td> </tr> <tr> <td>15</td> <td>3.20%</td> </tr> <tr> <td>20</td> <td>2.95%</td> </tr> <tr> <td>25+</td> <td>2.75%</td> </tr> </tbody> </table> <p>2.75% for Legislative and Judicial</p>	Service	Rate	0	7.75%	5	5.00%	10	3.75%	15	3.20%	20	2.95%	25+	2.75%							
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Inflation Rate	<p>2.75% annually</p>																					
Aggregate Payroll Increases	<p>3.00% annually</p>																					

Section 9 – Summary of Actuarial Methods & Assumptions (continued)

Future New Participants	Closed Group – no future new participants assumed.
Coverage Election	<p>95% of active participants currently with coverage continue coverage at retirement; 20% cover a spouse at retirement</p> <p>20% of active participants who have currently waived coverage elect coverage at retirement.</p> <p>Same assumptions apply to vested terminated participants who have maintained eligibility for coverage at retirement.</p>

Section 10 - Rationale for Assumptions

<p>Discount Rate</p>	<p>State employees – Selected by the State of Maine based on the expected long-term rate of return on the assets expected to be used to pay plan benefits. The selected rate was corroborated based on an analysis of the target asset allocations and benchmark returns by asset class as forecast by Horizon Actuarial Services, LLC:</p> <table border="1" data-bbox="609 338 1422 583"> <thead> <tr> <th><u>Asset Class</u></th> <th><u>Target Allocation</u></th> <th><u>Return Expectation</u></th> </tr> </thead> <tbody> <tr> <td>US Equity</td> <td>45%</td> <td>9.73%</td> </tr> <tr> <td>International Equity</td> <td>25%</td> <td>9.42%</td> </tr> <tr> <td>Real Estate</td> <td>5%</td> <td>7.82%</td> </tr> <tr> <td>Traditional Credit</td> <td>16%</td> <td>4.59%</td> </tr> <tr> <td>US Government Securities</td> <td>9%</td> <td>3.25%</td> </tr> <tr> <td>Total</td> <td>100%</td> <td>8.15%</td> </tr> </tbody> </table> <p>Ancillary Plans - Based on a broad 20-year municipal bond index (Bond Buyer GO 20) as of the Measurement Date.</p>	<u>Asset Class</u>	<u>Target Allocation</u>	<u>Return Expectation</u>	US Equity	45%	9.73%	International Equity	25%	9.42%	Real Estate	5%	7.82%	Traditional Credit	16%	4.59%	US Government Securities	9%	3.25%	Total	100%	8.15%
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US Government Securities	9%	3.25%																				
Total	100%	8.15%																				
<p>Inflation</p>	<p>Inflation is updated with the assumption used in the June 30, 2017 MainePERS actuarial valuation.</p>																					
<p>Mortality, Withdrawal, Retirement, and Salary Scale</p>	<p>The assumptions prescribed in the actuarial valuation are based on the last experience study prepared for MainePERS that covered the four-year period from 2012 to 2015.</p>																					
<p>Plan Participation</p>	<p>Based on recent experience of the plan.</p>																					
<p>Annual Medical Trend</p>	<p>Rationale described in Section 6.</p>																					
<p>Health Care Reform</p>	<p>Rationale described in Section 6.</p>																					

Section 11 – Summary of Substantive Plan Provisions

Eligibility

Retire with a retirement benefit from the Maine Public Employees Retirement System (MainePERS). For teachers retiring after July 1, 2012 the reimbursement from the State shall begin when the retiree reaches normal retirement age with at least one year of service under MainePERS; normal retirement age defined as:

Tier 1 - Be at least 60 years of age; with at least 10 years of service on 7/1/1993

Tier 2 - Be at least 62 years of age; with less than 10 years of service on 7/1/1993 or hired on/after 7/1/1993 but had 5 years of service on 7/1/2011

Tier 3 - Be at least 65 years of age; with less than 5 years of service on 7/1/2011 or hired on/after 7/1/2011

Special Plans:

1998 Special Plan – 55&10 or 25 years

25 & Out Plan – 25 years

State Police, Marine Resources Officers, and Inland Fisheries Wildlife Officers Plans – 20 years

State Prison Plan – 50 & 20

Forest Rangers Plan – 50 & 25

MainePERS disability retirement

Section 11 – Summary of Substantive Plan Provisions

<p>Benefit</p>	<p>The State of Maine provides access to postretirement medical benefits for eligible participants. Prior to Medicare-eligibility, premiums for retirees are equal to the active member premium rates. In addition to access, the State provides an explicit subsidy to cover some of the premium cost based on the tables below.</p> <p>Once eligible for Medicare, the State continues to provide the same explicit subsidy to retirees.</p> <table border="1" data-bbox="609 493 1442 850"> <thead> <tr> <th data-bbox="609 493 776 556">Hire Date ≤ 7/1/91</th> <th colspan="2" data-bbox="878 493 1101 556">7/1/91 < Hire Date < 7/1/11</th> <th colspan="2" data-bbox="1203 525 1404 556">Hire Date ≥ 7/1/11</th> </tr> <tr> <th data-bbox="609 556 776 619">100% of Retiree Premium</th> <th data-bbox="878 556 971 619">Years in Medical</th> <th data-bbox="1036 556 1133 619">% Retiree Premium</th> <th data-bbox="1203 556 1295 619">Years in Medical</th> <th data-bbox="1339 556 1437 619">% Retiree Premium</th> </tr> </thead> <tbody> <tr> <td></td> <td data-bbox="878 619 971 646">< 5</td> <td data-bbox="1036 619 1133 646">0%</td> <td data-bbox="1203 619 1295 646">< 10</td> <td data-bbox="1339 619 1437 646">0%</td> </tr> <tr> <td></td> <td data-bbox="878 646 971 674">5</td> <td data-bbox="1036 646 1133 674">50%</td> <td data-bbox="1203 646 1295 674">10-14</td> <td data-bbox="1339 646 1437 674">50%</td> </tr> <tr> <td></td> <td data-bbox="878 674 971 701">6</td> <td data-bbox="1036 674 1133 701">60%</td> <td data-bbox="1203 674 1295 701">15-19</td> <td data-bbox="1339 674 1437 701">75%</td> </tr> <tr> <td></td> <td data-bbox="878 701 971 728">7</td> <td data-bbox="1036 701 1133 728">70%</td> <td data-bbox="1203 701 1295 728">≥ 20</td> <td data-bbox="1339 701 1437 728">100%</td> </tr> <tr> <td></td> <td data-bbox="878 728 971 756">8</td> <td data-bbox="1036 728 1133 756">80%</td> <td></td> <td></td> </tr> <tr> <td></td> <td data-bbox="878 756 971 783">9</td> <td data-bbox="1036 756 1133 783">90%</td> <td></td> <td></td> </tr> <tr> <td></td> <td data-bbox="878 783 971 810">≥ 10</td> <td data-bbox="1036 783 1133 810">100%</td> <td></td> <td></td> </tr> </tbody> </table> <ul data-bbox="600 850 1437 1081" style="list-style-type: none"> • Cash subsidy is 45% percent of retiree premium based on: <ul style="list-style-type: none"> ○ Single rate for single and employee + child(ren) coverage ○ 50% of 2-party rate for 2-party and family coverage • No State cash subsidy until retiree reaches normal retirement age for non-special plan service retirements ≥ 1/1/12 (7/1/12 for Baxter School and Teachers in unorganized territories) <p>Disability retirement benefits are 100% vested and cash subsidy begins at disability retirement</p>	Hire Date ≤ 7/1/91	7/1/91 < Hire Date < 7/1/11		Hire Date ≥ 7/1/11		100% of Retiree Premium	Years in Medical	% Retiree Premium	Years in Medical	% Retiree Premium		< 5	0%	< 10	0%		5	50%	10-14	50%		6	60%	15-19	75%		7	70%	≥ 20	100%		8	80%				9	90%				≥ 10	100%		
Hire Date ≤ 7/1/91	7/1/91 < Hire Date < 7/1/11		Hire Date ≥ 7/1/11																																											
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	5	50%	10-14	50%																																										
	6	60%	15-19	75%																																										
	7	70%	≥ 20	100%																																										
	8	80%																																												
	9	90%																																												
	≥ 10	100%																																												
<p>Surviving Spouse Benefit</p>	<p>None</p>																																													
<p>Dependent Benefits</p>	<p>No cash subsidy for spouse or dependents</p> <p>Retiree must pay full cost to cover spouse and/or dependents</p>																																													
<p>Dental, Vision, Life</p>	<p>None</p>																																													

Section 12 – Monthly Premiums

2018 premiums were used in order to reflect the most up to date information (adjusted to the valuation date of 7/1/2017).

Retirees Monthly Premiums Effective 7/1/2018

HMO Choice	Premiums
Single	\$889.36
2-Adult	1,860.16
Family	2,213.32
Adult w/ Child(ren)	1,463.06
Retiree on Medicare	287.02

Medicare Advantage	Premiums
Retiree on Medicare	\$287.02

Section 13 – Summary of Participant Demographic Information

The table below presents a summary of the basic participant information as of June 30, 2017 for the active and inactive participants covered under the terms of the Plan. The participant data used in the valuation was provided by the State of Maine.

	<u>State</u>	<u>Baxter</u>	<u>NNEPRA</u>
Active participants			
Count	12,076	77	7
Average age	47.70	44.68	42.54
Average past service	13.55	9.40	8.14
Terminated vested participants			
Count	182	0	0
Average age	54.30	N/A	N/A
Retirees			
Count	8,568	33	2
Average age	71.53	71.29	72.98

Distribution of Inactive Participants by Age

<u>Ages</u>	<u>State - Terminated</u>			
	<u>Vested</u>	<u>State - Retirees</u>	<u>Baxter School</u>	<u>NNEPRA</u>
<45	24	8	-	-
45-49	18	29	1	-
50-54	44	120	-	-
55-59	49	483	3	-
60-64	39	1,411	5	-
65+	<u>8</u>	<u>6,517</u>	<u>24</u>	<u>2</u>
Total	182	8,568	33	2

Section 13 – Summary of Participant Demographic Information (continued)

Distribution by Age and Service – State Actives

Service Groups											
Age Group	Under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35-39	40+	All Years
0-24	183	294	9	0	0	0	0	0	0	0	486
25-29	92	547	140	7	0	0	0	0	0	0	786
30-34	77	465	282	136	13	0	0	0	0	0	973
35-39	62	368	226	293	143	7	0	0	0	0	1,099
40-44	61	321	207	227	359	83	8	0	0	0	1,266
45-49	50	343	228	245	364	200	166	34	0	0	1,630
50-54	63	310	219	229	348	147	256	255	30	0	1,857
55-59	44	271	240	248	347	149	241	285	189	38	2,052
60-64	14	153	154	174	245	114	128	152	93	107	1,334
65-69	9	58	61	74	80	23	31	28	27	69	460
70+	4	21	17	19	28	8	11	7	4	14	133
Total	659	3,151	1,783	1,652	1,927	731	841	761	343	228	12,076

Distribution by Age and Service – Baxter Actives

Service Groups											
Age Group	Under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35-39	40+	All Years
0-24	2	0	1	0	0	0	0	0	0	0	3
25-29	2	8	1	0	0	0	0	0	0	0	11
30-34	2	6	2	0	0	0	0	0	0	0	10
35-39	1	3	1	0	1	0	0	0	0	0	6
40-44	2	2	2	2	0	0	0	0	0	0	8
45-49	1	2	2	1	2	1	0	0	0	0	9
50-54	1	3	2	0	0	1	1	0	0	0	8
55-59	1	0	1	0	2	1	3	1	0	0	9
60-64	1	2	2	2	1	1	1	1	2	0	13
65-69	0	0	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0	0	0
Total	13	26	14	5	6	4	5	2	2	-	77

Section 13 – Summary of Participant Demographic Information (continued)

Distribution by Age and Service – NNEPRA Actives

Service Groups											
Age Group	Under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35-39	40+	All Years
0-24	0	0	0	0	0	0	0	0	0	0	0
25-29	0	1	0	0	0	0	0	0	0	0	1
30-34	0	0	0	1	0	0	0	0	0	0	1
35-39	0	1	0	0	0	0	0	0	0	0	1
40-44	0	0	1	0	0	0	0	0	0	0	1
45-49	0	0	0	0	0	0	0	0	0	0	0
50-54	0	0	1	1	1	0	0	0	0	0	3
55-59	0	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	2	1	0	0	0	0	0	7