



STATE OF MAINE
STATE AND TEACHERS RETIREE HEALTHCARE PLAN

June 30, 2016 Actuarial Valuation
Final Valuation Results

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December 6, 2016

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BENEFIT SUMMARY

■ Eligibility

- **MainePERS normal retirement:**
 - **Regular Plan:**
 - Normal retirement age and 1 year of service¹:
 - 60 if ≥ 10 years of service on 7/1/93 (Tier 1)
 - 62 if < 10 years of service on 7/1/93 or hire $\geq 7/1/93$ (Tier 2)
 - 65 if < 5 years of service on 7/1/11 or hire $\geq 7/1/11$ (Tier 3)
 - 25 years of service if earlier
 - **Special Plans:**
 - 1998 Special Plan – 55&10 or 25 years
 - 25 & Out Plan – 25 years
 - State Police, Marine Resource Officers, and Inland Fisheries Wildlife Officers Plans – 20 years
 - State Prison Plan – 50 & 20
 - Forest Rangers Plan – 50 & 25
- **MainePERS disability retirement**
- **Former employees with 25 years of service at normal retirement age**
- **Part-time employees receive full benefits²**

¹ Service as used in this section is MainePERS creditable service.

² Substantive plan per State.



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BENEFIT SUMMARY

■ State Employees & Ancillary Group Service Retirement Medical Benefit

DOH $\leq 7/1/91$	7/1/91 < Hired < 7/1/11		DOH $\geq 7/1/11$	
100% of Retiree Premium	Years in Medical ³	% Retiree Premium	Years in Medical ³	% 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 retiree 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 $\geq 1/1/12$ (7/1/12 for Maine Educational Center for Deaf and Teachers in unorganized territories)**
- **Disability retirement benefits are 100% vested and cash subsidy begins at disability retirement**

³ Continuous years of group health plan participation before retirement.



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BENEFIT SUMMARY

<ul style="list-style-type: none"> ■ Teachers Medical Benefit 	<ul style="list-style-type: none"> ● 45% 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 retirements \geq 7/1/12
<ul style="list-style-type: none"> ■ Self-Pay 	<ul style="list-style-type: none"> ● Retirees eligible for State cash subsidy can pay additional premium for spouses and dependents ● Retirees not eligible for State cash subsidy can participate by paying full premium for themselves, spouses, and dependents ● Surviving spouses and surviving dependents can participate by paying full premium
<ul style="list-style-type: none"> ■ Waived Retirees 	<ul style="list-style-type: none"> ● Waived retirees not allowed to rejoin medical plan
<ul style="list-style-type: none"> ■ Other OPEB 	<ul style="list-style-type: none"> ● No State contribution for dental, vision, life insurance, Medicare Part B premium, or pre-retirement death benefit



BENEFIT SUMMARY

<ul style="list-style-type: none"> ■ Pay-As-You-Go Cost (000's) 	<ul style="list-style-type: none"> ● Benefit payments (excluding administrative expenses): <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="3" style="border-bottom: 1px solid black; text-align: center;">State Employees</th> <th style="border-bottom: 1px solid black; text-align: center;">Teachers</th> <th></th> </tr> <tr> <th style="text-align: left;"><u>Year</u></th> <th style="text-align: right;"><u>Cash</u></th> <th style="text-align: right;"><u>IS</u></th> <th style="text-align: right;"><u>Total</u></th> <th style="text-align: right;"><u>Cash</u></th> <th style="text-align: left;"><u>Source</u></th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td style="text-align: right;">\$48,142</td> <td style="text-align: right;">\$15,000</td> <td style="text-align: right;">\$63,142</td> <td style="text-align: right;">\$27,352</td> <td style="text-align: left;">State</td> </tr> <tr> <td>2014/15</td> <td style="text-align: right;">48,921</td> <td style="text-align: right;">14,000</td> <td style="text-align: right;">62,921</td> <td style="text-align: right;">26,402</td> <td style="text-align: left;">State</td> </tr> <tr> <td>2013/14</td> <td style="text-align: right;">47,932</td> <td style="text-align: right;">15,000</td> <td style="text-align: right;">62,932</td> <td style="text-align: right;">25,241</td> <td style="text-align: left;">State</td> </tr> </tbody> </table> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th colspan="6" style="text-align: center; border-bottom: 1px solid black;">Maine Educational Center for the Deaf and Hard of Hearing</th> </tr> <tr> <th style="text-align: left;"><u>Year</u></th> <th style="text-align: right;"><u>Cash</u></th> <th style="text-align: right;"><u>IS</u></th> <th style="text-align: right;"><u>Total</u></th> <th></th> <th style="text-align: left;"><u>Source</u></th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td style="text-align: right;">\$103</td> <td style="text-align: right;">\$63</td> <td style="text-align: right;">166</td> <td></td> <td style="text-align: left;">State</td> </tr> <tr> <td>2014/15</td> <td style="text-align: right;">91</td> <td style="text-align: right;">54</td> <td style="text-align: right;">145</td> <td></td> <td style="text-align: left;">State</td> </tr> <tr> <td>2013/14</td> <td style="text-align: right;">98</td> <td style="text-align: right;">27</td> <td style="text-align: right;">125</td> <td></td> <td style="text-align: left;">State</td> </tr> </tbody> </table> <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th colspan="6" style="text-align: center; border-bottom: 1px solid black;">Northern New England Rail Passenger Authority</th> </tr> <tr> <th style="text-align: left;"><u>Year</u></th> <th style="text-align: right;"><u>Cash</u></th> <th style="text-align: right;"><u>IS</u></th> <th style="text-align: right;"><u>Total</u></th> <th></th> <th style="text-align: left;"><u>Source</u></th> </tr> </thead> <tbody> <tr> <td>2015/16</td> <td style="text-align: right;">\$9</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$9</td> <td></td> <td style="text-align: left;">State</td> </tr> <tr> <td>2014/15</td> <td style="text-align: right;">7</td> <td style="text-align: right;">0</td> <td style="text-align: right;">7</td> <td></td> <td style="text-align: left;">State</td> </tr> <tr> <td>2013/14</td> <td style="text-align: right;">5</td> <td style="text-align: right;">0</td> <td style="text-align: right;">5</td> <td></td> <td style="text-align: left;">State</td> </tr> </tbody> </table>		State Employees			Teachers		<u>Year</u>	<u>Cash</u>	<u>IS</u>	<u>Total</u>	<u>Cash</u>	<u>Source</u>	2015/16	\$48,142	\$15,000	\$63,142	\$27,352	State	2014/15	48,921	14,000	62,921	26,402	State	2013/14	47,932	15,000	62,932	25,241	State	Maine Educational Center for the Deaf and Hard of Hearing						<u>Year</u>	<u>Cash</u>	<u>IS</u>	<u>Total</u>		<u>Source</u>	2015/16	\$103	\$63	166		State	2014/15	91	54	145		State	2013/14	98	27	125		State	Northern New England Rail Passenger Authority						<u>Year</u>	<u>Cash</u>	<u>IS</u>	<u>Total</u>		<u>Source</u>	2015/16	\$9	\$0	\$9		State	2014/15	7	0	7		State	2013/14	5	0	5		State
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FUNDING POLICY & BENEFIT COMMITMENT

State Employees State Funding Policy

- Initial prefunding contribution of \$100 million for 2007/08
- Phase into full Actuarially Determined Contribution (ADC)⁴ 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

⁴ Actuarially Determined Contribution (ADC) is the GASBS 45 Annual Required Contribution (ARC) for years before 2017/18.



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FUNDING POLICY & BENEFIT COMMITMENT

State Employees

State Funding Policy

- Benefit payments paid from State Cash Pool until 2027
- Amortizations:⁵
 - 1) Initial 6/30/07 unfunded liability amortized over 30 years
 - 2) Experience gains & losses amortized over fixed 10-year periods
 - 3) Contribution losses amortized over fixed 10-year periods
 - 4) Assumption changes amortized over fixed 21-year periods from 6/30/16
 - 5) Plan changes amortized over fixed 21-year periods from 6/30/16

State Benefit Commitment

- Public Law Chapter 368 §H-1: “The total premium increase for active and retired state employee health insurance is capped at the fiscal year 2010-11 funding level for the fiscal years ending June 30, 2012 and June 30, 2013. The total premium increase for the fiscal years ending June 30, 2014 and June 30, 2015 is limited to no more than 1.5 percentage points per year. 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%.”

⁵ (1) and (2) State appropriations per Title 5 MRSA §286-B.



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FUNDING POLICY & BENEFIT COMMITMENT

Teachers State Funding Policy

- Phase into full ADC funding over an 8-year period beginning with 2018/19:

Fiscal Year	Funding Policy Contribution
Prior to 2018/19	PayGo
2018/19	PayGo + 12.5% x (ADC – PayGo)
2019/20	PayGo + 25.0% x (ADC – PayGo)
2020/21	PayGo + 37.5% x (ADC – PayGo)
2021/22	PayGo + 50.0% x (ADC – PayGo)
2022/23	PayGo + 62.5% x (ADC – PayGo)
2023/24	PayGo + 75.0% x (ADC – PayGo)
2024/25	PayGo + 87.5% x (ADC – PayGo)
2025/26+	100% of ADC



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FUNDING POLICY & BENEFIT COMMITMENT

Teachers

State Funding Policy

- Benefit payments assumed paid from State Cash Pool until at least 2023
- Amortizations:⁶
 - 1) Initial 6/30/07 unfunded liability amortized over 30 years
 - 2) Experience gains & losses amortized over fixed 15-year periods
 - 3) Contribution losses amortized over fixed 15-year periods
 - 4) Assumption changes amortized over fixed 21-year periods from 6/30/16
 - 5) Plan changes amortized over fixed 21-year periods from 6/30/16

State Benefit Commitment

- Public Law Chapter 368 §H-3: “For fiscal years ending June 30, 2012, June 30, 2013, June 30, 2014, and June 30, 2015, the State’s total cost for retired teachers’ health insurance premiums is budgeted at the fiscal years 2010-11 funding level adjusted for projected membership growth. The increase in the State’s total cost for retired teachers’ health insurance premiums for fiscal years ending after June 30, 2015 is budgeted at no more than any percentage increase in the Consumer Price Index as defined in Title 5, section 17001, subsection 9 plus 3%.”

⁶ (1) State appropriation per Title 5 MRSA §286-B.



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PARTICIPANT SUMMARY

Participant Statistics June 30, 2016

	State Employees ⁷	Teachers ⁸	Maine Educational Center for the Deaf ⁹	Northern New England Passenger Rail Authority ¹⁰
■ Actives				
• Count	12,299	27,039	70	7
• Average Age	47.5	46.2	44.6	41.5
• Average Service	13.7	15.4	11.7	7.1
• Average Pay	\$46,724	\$41,623	\$44,284	\$64,331
• Total Payroll (\$000's)	574,663	1,125,444	3,100	450
■ Retirees				
• Count	10,160	10,386	39	3
• Average Age	72.0	71.9	71.5	71.8

⁷ Includes 177 Legislative and 62 Judicial active employees and 102 Legislative and 69 Judicial retirees. Retirees include 939 with missing employee group code in the State Medicare Advantage Plan.

⁸ Average age assumed for 328 retirees with missing birth dates.

⁹ Actives exclude substitute teachers not eligible for the retiree healthcare plan benefit. Actives include 14 employees who waived coverage.

¹⁰ Actives include 1 employee who waived coverage.



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PARTICIPANT SUMMARY

Participant Statistics June 30, 2014

	State Employees ¹¹	Teachers ¹²	Maine Educational Center for the Deaf ¹³	Northern New England Passenger Rail Authority ¹⁴
■ Actives				
• Count	12,416	27,733	70	7
• Average Age	47.9	46.5	46.6	45.5
• Average Service	14.0	15.3	12.1	7.3
• Average Pay	\$43,758	\$39,886	\$42,130	\$63,327
• Total Payroll (\$000's)	543,300	1,106,167	2,949	443
■ Retirees				
• Count	11,056	9,933	36	2
• Average Age	71.5	70.9	69.6	71.4

¹¹ Includes 181 Legislative and 60 Judicial active employees and 89 Legislative and 54 Judicial retirees. Retirees include 2,747 with missing employee group code, most (2,569) in the State Medicare Advantage Plan.

¹² Average age assumed for 1 retiree with missing birth date.

¹³ Actives exclude substitute teachers not eligible for the retiree healthcare plan benefit. Actives include 10 employees who waived coverage.

¹⁴ Actives include 1 employee who waived coverage.



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PARTICIPANT SUMMARY

Active Participant Statistics by Tier
State Employees and Teachers
June 30, 2016

	State Employees ¹⁵				Teachers			
	Tier 1	Tier 2	Tier 3	Total	Tier 1	Tier 2	Tier 3	Total
■ Actives								
• Counts								
➤ Covered	482	4,842	4,254	9,578	1,034	11,151	6,736	18,921
➤ Waived	<u>3</u>	<u>148</u>	<u>770</u>	<u>921</u>	<u>99</u>	<u>2,611</u>	<u>5,408</u>	<u>8,118</u>
➤ Total	485	4,990	5,024	10,499	1,133	13,762	12,144	27,039
• Tier Percent	5%	47%	48%	100%	4%	51%	45%	100%
• Waived Percent	1%	3%	15%	9%	9%	19%	45%	30%
• Average Age	60.5	53.2	42.4	48.4	61.0	50.9	39.5	46.2
• Average Service	37.0	20.5	5.0	13.9	37.2	21.5	6.4	15.4

¹⁵ Excludes 1,800 State employees in Special Plans.



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PARTICIPANT SUMMARY

Active Participant Statistics by Tier
State Employees and Teachers
June 30, 2014

	State Employees ¹⁶				Teachers			
	Tier 1	Tier 2	Tier 3	Total	Tier 1	Tier 2	Tier 3	Total
■ Actives								
• Counts								
➤ Covered	637	5,548	3,480	9,665	1,563	11,551	5,616	18,730
➤ Waived	<u>20</u>	<u>233</u>	<u>705</u>	<u>958</u>	<u>226</u>	<u>3,043</u>	<u>5,734</u>	<u>9,003</u>
➤ Total	657	5,781	4,185	10,623	1,789	14,594	11,350	27,733
• Tier Percent	6%	55%	39%	100%	6%	53%	41%	100%
• Waived Percent	3%	4%	17%	9%	13%	21%	51%	32%
• Average Age	59.3	52.1	42.2	48.6	60.0	50.5	39.4	46.5
• Average Service	35.6	18.7	4.7	14.2	34.7	19.9	6.4	15.3

¹⁶ Excludes 1,793 State employees in Special Plans.



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STATE PLAN ASSETS

State Employees Trust Fund - Market Value of Assets (MVA)

(Amounts in Thousands)

Market Value of Assets	2011/12	2012/13	2013/14	2014/15	2015/16
■ Market Value at Beg Year	\$133,007	\$139,897	\$160,350	\$189,829	\$196,705
• Adjustment	0	0	8	4	0
• Prefunding Contributions ¹⁷	6,000	1,840	0	1,585	4,000
• Paygo Contributions	44,607	51,988	47,932	48,921	48,142
• Investment Return	1,001	18,754	29,618	5,465	2,448
• Paygo Benefit Payments	(44,607)	(51,988)	(47,932)	(48,921)	(48,142)
• Investment Expenses	(42)	(47)	(53)	(59)	(60)
• Administrative Expenses	(69)	(94)	(94)	(118)	(5)
■ Market Value at End Year	139,897	160,350	189,829	196,705	203,088
■ Approximate Net Return	0.7%	13.3%	18.4%	2.8%	1.2%

¹⁷ Contribution receivable at end of fiscal year.



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STATE PLAN ASSETS

State Employees Trust Fund - Actuarial Value of Assets

(Amounts in Thousands)

Actuarial Value of Assets (AVA)	2012/13	2013/14	2014/15	2016/17
■ Actuarial Value at Beginning of Year	\$135,865	\$150,114	\$166,764	\$183,692
• Contributions	54,184	47,932	50,506	52,142
• Benefit Payments	(52,344)	(47,932)	(48,921)	(48,142)
• Expected Investment Return	9,850	10,883	12,090	13,318
■ Expected AVA at End of Year	147,555	160,998	180,439	201,010
■ Market Value at End of Year	160,350	189,829	196,705	203,088
■ MVA - Expected AVA	12,795	28,831	16,266	2,078
■ 1/5 of (MVA - Expected AVA)	2,559	5,766	3,253	416
■ Preliminary AVA	150,114	166,764	183,692	201,426
■ Minimum AVA (80% of MVA)	128,280	151,863	157,364	162,470
■ Maximum AVA (120% of MVA)	192,420	227,795	236,046	243,706
■ Actuarial Value at End of Year	150,114	166,764	183,692	201,426
■ AVA Net Return	9.1%	11.1%	9.2%	7.5%
■ AVA/MVA	93.6%	87.8%	93.4%	99.2%



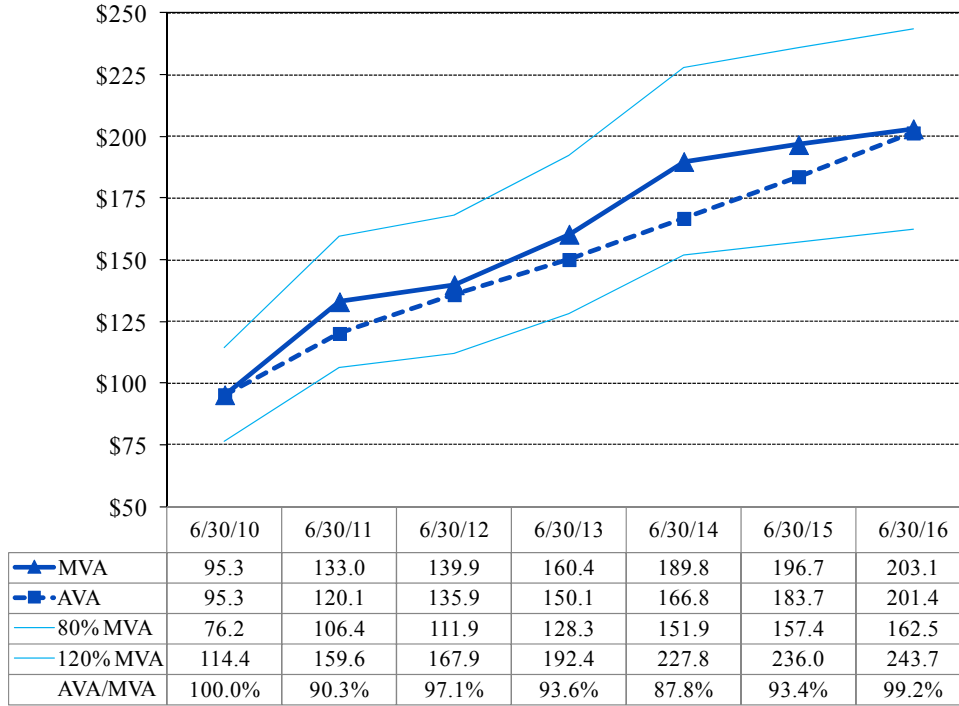
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STATE PLAN ASSETS

Historical Plan Assets



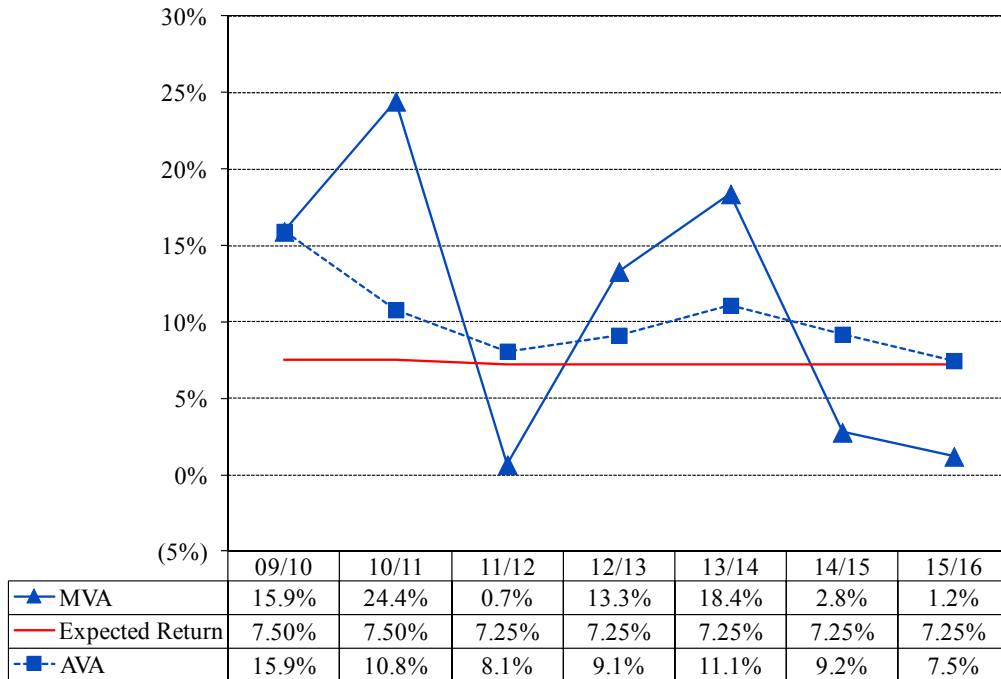
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STATE PLAN ASSETS

Historical Asset Returns



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STATE PLAN ASSETS

Asset Allocation
(Amounts in Thousands)

Asset Class	Target Allocation	6/30/16 Actual Allocation	
■ US Equity	45%	\$96,855	49%
■ International Equity	25%	41,266	21%
■ US Fixed Income	25%	49,515	25%
■ Real Estate	5%	11,515	6%
■ Cash	0%	0	0%
■ Total	100%	199,151 ¹⁸	100%

¹⁸ Differs from market value of plan assets of \$203,088,000 which includes a \$33,000 liability, \$30,000 in accrued investment management fees, and a \$4,000,000 contribution receivable.



STATE PLAN ASSETS



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STATE EMPLOYEES RESULTS

Actuarial Obligations

(Amounts in Millions)

Actuarial Obligations	6/30/14 Valuation			6/30/16 Valuation		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits						
• Actives	\$ 509	\$103	\$ 612	\$420	\$101	\$ 521
• Retirees	<u>574</u>	<u>164</u>	<u>738</u>	<u>524</u>	<u>207</u>	<u>731</u>
• Total	1,083	267	1,350	944	308	1,252
■ Actuarial Accrued Liability						
• Actives	395	91	486	335	91	426
• Retirees	<u>574</u>	<u>164</u>	<u>738</u>	<u>524</u>	<u>207</u>	<u>731</u>
• Total	969	255	1,224	859	298	1,157
■ Actuarial Value of Assets ¹⁹	<u>(132)</u>	<u>(35)</u>	<u>(167)</u>	<u>(149)</u>	<u>(52)</u>	<u>(201)</u>
■ Unfunded AAL	837	220	1,057	710	246	956
■ Funded %			13.6%			17.4%
■ Normal Cost	18	2	20	13	1	14
■ Normal Cost % Pay	3.3%	0.4%	3.7%	2.2%	0.2%	2.4%

¹⁹ Allocated in proportion to the Actuarial Accrued Liability.



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STATE EMPLOYEES RESULTS

Estimated Actuarial Gains & Losses

(Amounts in Millions)

Actuarial Gains & Losses	NC%	AAL	(AVA)	UAAL
■ 6/30/14 Actual	3.7%	\$1,224	(\$167)	\$ 1,057
■ 6/30/16 Expected	3.7%	1,275	(217)	1,058
■ Experience Losses (Gains):				
• Actual versus Expected Healthcare Costs	(0.3%)	(100)	-	(100)
• Demographic & Other	(0.5%)	(51)	-	(51)
• Asset Loss (Gain)	-	-	16	16
■ Assumption Changes:				
• 2012-2015 Experience Study ²⁰	(0.6%)	(16)	-	(16)
• Claims Cost Aging Factors	<u>0.1%</u>	<u>49</u>	<u>-</u>	<u>49</u>
■ Total Changes	(1.3%)	(118)	16	(102)
■ 6/30/16 Actual	2.4%	1,157	(201)	956

²⁰ (Gain)/loss by experience study assumption changes:

NC%: (0.3%) for retirement, (0.1%) for disability, 0.2% for mortality, (0.4%) for termination, and 0.0% for merit salary

AAL: (\$66) for retirement, (\$1) for disability, \$47 for mortality, \$3 for termination, and \$1 for merit salary



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STATE EMPLOYEES RESULTS

Unfunded Actuarial Accrued Liability Amortization Balances

(Amounts in Millions)

Amortization Base	Original Bases			Remaining Bases 6/30/2016		2016/17 Amortization Payment
	Date	Years	Amount	Years	Balance	
■ Initial UAAL	6/30/08	29	\$1,144	21	\$ 1,095	\$ 79
■ Experience Losses (Gains)	6/30/09	10	83	3	33	12
	6/30/10	10	99	4	50	14
	6/30/11	10	(34)	5	(21)	(5)
	6/30/12	10	(199)	6	(139)	(27)
	6/30/13	10	(146)	7	(116)	(20)
	6/30/14	10	56	8	49	8
	6/30/15	10	(25)	9	(24)	(3)
	6/30/16	10	(111)	10	(111)	(14)
■ Assumption Changes	6/30/10	27	35	21	31	2
	6/30/11	26	266	21	255	19
	6/30/12	25	(32)	21	(30)	(2)
	6/30/14	23	(16)	21	(16)	(1)
	6/30/16	21	33	21	33	2
■ Plan Changes	6/30/11	26	(139)	21	(133)	(10)
■ Unfunded AAL	6/30/16				956	54
■ Unfunded AAL ²¹	6/30/16			30	956	55

²¹ Total amortization payment cannot be less than the UAAL amortized over 30 years for GASBS 45.



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STATE EMPLOYEES RESULTS

Annual Required Contribution (ARC)

(Amounts in Millions)

Valuation Date	6/30/14 Valuation		6/30/16 Valuation	
	2014/15	2015/16	2016/17	2017/18 ²²
■ ARC - \$				
• Normal Cost	\$ 20	\$ 21	\$ 14	\$ 14
• UAAL Amortization	<u>64</u>	<u>67</u>	<u>55</u>	<u>57</u>
• ARC	84	88	69	71
■ Projected Payroll	543	561	575	594
■ ARC - %				
• Normal Cost	3.7%	3.7%	2.4%	2.4%
• UAAL Amortization	<u>11.8%</u>	<u>11.9%</u>	<u>9.6%</u>	<u>9.6%</u>
• ARC	15.5%	15.7%	12.0%	12.0%
■ Pay-As-You-Go Cost	67	71	66	69

²² Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.



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STATE EMPLOYEES RESULTS

Annual Required Contribution (ARC)

June 30, 2016 Valuation

(Amounts in Millions)

Annual Required Contribution	2016/17			2017/18 ²³		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$ 13	\$ 1	\$ 14	\$ 13	\$ 1	\$ 14
• UAAL Amortization ²⁴	<u>41</u>	<u>14</u>	<u>55</u>	<u>42</u>	<u>15</u>	<u>57</u>
• ARC	54	15	69	55	16	71
■ Projected Payroll	575	575	575	594	594	594
■ ARC - %						
• Normal Cost	2.2%	0.2%	2.4%	2.2%	0.2%	2.4%
• UAAL Amortization	<u>7.1%</u>	<u>2.5%</u>	<u>9.6%</u>	<u>7.1%</u>	<u>2.5%</u>	<u>9.6%</u>
• ARC	9.3%	2.7%	12.0%	9.3%	2.7%	12.0%
■ Pay-As-You-Go Cost	49	17	66	51	18	69

²³ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.

²⁴ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



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STATE EMPLOYEES RESULTS

Annual Required Contribution (ARC)

June 30, 2014 Valuation

(Amounts in Millions)

Annual Required Contribution	2014/15			2015/16		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$ 18	\$ 2	\$ 20	\$ 19	\$ 2	\$ 21
• UAAL Amortization ²⁵	<u>50</u>	<u>14</u>	<u>64</u>	<u>53</u>	<u>14</u>	<u>67</u>
• ARC	68	16	84	72	16	88
■ Projected Payroll	543	543	543	561	561	561
■ ARC - %						
• Normal Cost	3.3%	0.4%	3.7%	3.4%	0.4%	3.7%
• UAAL Amortization	<u>9.2%</u>	<u>2.5%</u>	<u>11.8%</u>	<u>9.4%</u>	<u>2.5%</u>	<u>11.9%</u>
• ARC	12.5%	2.9%	15.5%	12.8%	2.9%	15.7%
■ Pay-As-You-Go Cost	53	14	67	56	15	71

²⁵ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



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STATE EMPLOYEES RESULTS

Estimated Net OPEB Obligation (NOO) Illustration

(Amounts in Millions)

Estimated Net OPEB Obligation	CAFR 2012/13	CAFR 2013/14	CAFR 2014/15	CAFR 2015/16	Estimate 2016/17
■ Discount Rate	4.49%	5.63%	5.95%	6.28%	6.60%
■ NOO at Beginning of Year	\$ 92	\$ 111	\$ 140	\$ 148	\$ 160
■ Annual OPEB Cost (AOC)					
• Annual Required Contribution	94	99	84	88	69
• Interest on NOO	4	6	8	9	11
• NOO Adjustment	(11)	(13)	(17)	(18)	(20)
• Annual OPEB Cost	87	92	75	79	60
■ Contributions					
• Benefit Payments Outside Trust					
➤ Cash Subsidy Payments	(52)	(48)	n/a	(48)	(49) ²⁶
➤ Implied Subsidy Payments	(14)	(15)	n/a	(15)	(17)
• Trust Pre-Funding	(2)	(0)	n/a	(4)	(2)
• Total Contributions	(68)	(63)	(67)	(67)	(68)
■ NOO at End of Year	111	140	148	160	152
■ NOO Amortization Years	10	10	10	10	10
■ NOO Amortization Factor	8.52	8.30	8.19	8.10	8.01

²⁶ Estimated contributions for 2016/17. Estimated items other than the ARC must be revised when actual contributions are known.



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STATE EMPLOYEES RESULTS

Contribution Projection

(Amounts in Millions)

Fiscal Year	ADC	Contributions					ADC % of Payroll	Funded% Beginning of Year
		Benefit Payments			Pre Fund	Total Contrib		
		Cash Subsidy	Implied Subsidy	Total Pmts				
2016/17	\$69	\$49	\$17	\$66	\$2	\$68	12.0%	17.4%
2017/18	71	51	18	69	1	70	12.0%	18.4%
2018/19	72	53	19	72	0	72	11.8%	19.4%
2019/20	74	55	20	75	0	75	11.6%	20.4%
2020/21	76	57	20	77	0	77	11.6%	21.4%
2021/22	79	59	21	80	0	80	11.7%	22.5%
2022/23	85	61	22	83	2	85	12.2%	23.6%
2023/24	112	64	23	87	25	112	15.6%	24.9%
2024/25	107	66	23	89	18	107	14.3%	28.1%
2025/26	114	68	24	92	22	114	14.9%	30.8%



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TEACHERS RESULTS

Actuarial Obligations

(Amounts in Millions)

Actuarial Obligations	6/30/14 Valuation			6/30/16 Valuation		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits						
• Actives	\$389	n/a	\$389	\$421	n/a	\$421
• Retirees	<u>371</u>	<u>n/a</u>	<u>371</u>	<u>409</u>	<u>n/a</u>	<u>409</u>
• Total	760	n/a	760	830	n/a	830
■ Actuarial Accrued Liability						
• Actives	313	n/a	313	330	n/a	330
• Retirees	<u>371</u>	<u>n/a</u>	<u>371</u>	<u>409</u>	<u>n/a</u>	<u>409</u>
• Total	684	n/a	684	739	n/a	739
■ Actuarial Value of Assets	<u>0</u>	<u>n/a</u>	<u>0</u>	<u>0</u>	<u>n/a</u>	<u>0</u>
■ Unfunded AAL	684	n/a	684	739	n/a	739
■ Normal Cost	11	n/a	11	10	n/a	10
■ Normal Cost % Pay	1.0%	n/a	1.0%	0.9%	n/a	0.9%



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TEACHERS RESULTS

Estimated Actuarial Gains & Losses

(Amounts in Millions)

Actuarial Gains & Losses	NC%	AAL	(AVA)	UAAL
■ 6/30/14 Actual	1.0%	\$684	(\$ 0)	\$684
■ 6/30/16 Expected	1.0%	709	(39)	670
■ Experience Losses (Gains):				
• Actual versus Expected Healthcare Costs	(0.1%)	(20)	-	(20)
• Demographic & Other ²⁷	(0.2%)	25	-	25
• Asset Loss (Gain)	-	-	39	39
■ Assumption Changes:				
• 2012-2015 Experience Study ²⁸	0.1%	(18)	-	(18)
• Discount Rate	0.1%	43	-	43
■ Total Changes	(0.1%)	30	39	69
■ 6/30/16 Actual	0.9%	739	(0)	739

²⁷ Includes change in the discount rate to the ultimate rate between hire age and current age.

²⁸ (Gain)/loss by experience study assumption change:

NC%: (0.1%) for retirement, 0.0% for disability, 0.0% for mortality, 0.2% for termination, and 0% for merit salary

AAL: (\$27) for retirement, \$0 for disability, \$7 for mortality, \$3 for termination, and (\$1) for merit salary



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TEACHERS RESULTS

Unfunded Actuarial Accrued Liability Amortization Balances

(Amounts in Millions)

Amortization Base	Original Bases			Remaining Bases 6/30/2016		2016/17 Amortization Payment
	Date	Years	Amount	Years	Balance	
■ Initial UAAL	6/30/08	29	\$1,044	21	\$981	\$ 61
■ Experience Losses (Gains)	6/30/09	15	(62)	8	(43)	(6)
	6/30/10	15	(7)	9	(5)	(1)
	6/30/11	15	(10)	10	(8)	(1)
	6/30/12	15	(120)	11	(99)	(10)
	6/30/13	15	25	12	22	2
	6/30/14	15	(24)	13	(22)	(2)
	6/30/15	15	7	14	7	1
	6/30/16	15	37	15	37	3
■ Assumption Changes	6/30/10	27	6	21	6	0
	6/30/11	26	(133)	21	(122)	(8)
	6/30/12	25	(13)	21	(12)	(1)
	6/30/14	23	28	21	26	2
	6/30/16	21	25	21	25	2
■ Plan Changes	6/30/11	26	(59)	21	(54)	(3)
■ Unfunded AAL	6/30/16				739	39
■ Unfunded AAL ²⁹	6/30/16			30	739	37

²⁹ Total amortization payment cannot be less than the UAAL amortized over 30 years.



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TEACHERS RESULTS

Annual Required Contribution (ARC)

(Amounts in Millions)

Valuation Date	6/30/14 Valuation		6/30/16 Valuation	
	2014/15	2015/16	2016/17	2017/18 ³⁰
■ ARC - \$				
• Normal Cost	\$11	\$12	\$10	\$11
• UAAL Amortization	<u>35</u>	<u>36</u>	<u>39</u>	<u>41</u>
• ARC	46	48	49	52
■ Projected Payroll	1,106	1,142	1,125	1,162
■ ARC - %				
• Normal Cost	1.0%	1.0%	0.9%	0.9%
• UAAL Amortization	<u>3.2%</u>	<u>3.2%</u>	<u>3.5%</u>	<u>3.5%</u>
• ARC	4.2%	4.2%	4.4%	4.5%
■ Pay-As-You-Go Cost	26	29	29	31

³⁰ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.



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TEACHERS RESULTS

Annual Required Contribution (ARC)

June 30, 2016 Valuation

(Amounts in Millions)

Annual Required Contribution	2016/17			2017/18 ³¹		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$ 10	n/a	\$ 10	\$ 11	n/a	\$ 11
• UAAL Amortization	<u>39</u>	<u>n/a</u>	<u>39</u>	<u>41</u>	<u>n/a</u>	<u>41</u>
• ARC	49	n/a	49	52	n/a	52
■ Projected Payroll	1,125	n/a	1,125	1,162	n/a	1,162
■ ARC - %						
• Normal Cost	0.9%	n/a	0.9%	0.9%	n/a	0.9%
• UAAL Amortization	<u>3.5%</u>	<u>n/a</u>	<u>3.5%</u>	<u>3.5%</u>	<u>n/a</u>	<u>3.5%</u>
• ARC	4.4%	n/a	4.4%	4.5%	n/a	4.5%
■ Pay-As-You-Go Cost	29	n/a	29	31	n/a	31

³¹ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.



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TEACHERS RESULTS

Annual Required Contribution (ARC)

June 30, 2014 Valuation

(Amounts in Millions)

Annual Required Contribution	2014/15			2015/16		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$ 11	n/a	\$ 11	\$ 12	n/a	\$ 12
• UAAL Amortization	<u>35</u>	<u>n/a</u>	<u>35</u>	<u>36</u>	<u>n/a</u>	<u>36</u>
• ARC	46	n/a	46	48	n/a	48
■ Projected Payroll	1,106	n/a	1,106	1,142	n/a	1,142
■ ARC - %						
• Normal Cost	1.0%	n/a	1.0%	1.0%	n/a	1.0%
• UAAL Amortization	<u>3.2%</u>	<u>n/a</u>	<u>3.2%</u>	<u>3.2%</u>	<u>n/a</u>	<u>3.2%</u>
• ARC	4.2%	n/a	4.2%	4.2%	n/a	4.2%
■ Pay-As-You-Go Cost	26	n/a	26	29	n/a	29



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TEACHERS RESULTS

Estimated Net OPEB Obligation (NOO) Illustration

(Amounts in Millions)

Estimated Net OPEB Obligation	CAFR 2012/13	CAFR 2013/14	CAFR 2014/15	CAFR 2015/16	Estimate 2016/17
■ Discount Rate	4.00%	4.41%	4.00%	4.41%	4.00%
■ NOO at Beginning of Year	\$ 174	\$ 186	\$ 199	\$ 211	\$ 224
■ Annual OPEB Cost (AOC)					
• Annual Required Contribution	44	45	46	48	49
• Interest on NOO	7	8	8	9	9
• NOO Adjustment	<u>(14)</u>	<u>(15)</u>	<u>(16)</u>	<u>(17)</u>	<u>(18)</u>
• Annual OPEB Cost	37	38	38	40	40
■ Contributions					
• Benefit Payments Outside Trust					
➢ Cash Subsidy Payments	(25)	(25)	(26)	(27)	(29) ³²
➢ Implied Subsidy Payments	(0)	(0)	(0)	(0)	(0)
• Trust Pre-Funding	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>	<u>(0)</u>
• Total Contributions	(25)	(25)	(26)	(27)	(29)
■ NOO at End of Year	186	199	211	224	235
■ NOO Amortization Years	15	15	15	15	15
■ NOO Amortization Factor	12.41	12.11	12.41	12.11	12.63

³² Estimated contributions for 2016/17. Estimated items other than the ARC must be revised when actual contributions are known.



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TEACHERS RESULTS

Contribution Projection

(Amounts in Millions)

Fiscal Year	ADC	Contributions					ADC % of Payroll	Funded% Beginning of Year
		Benefit Payments			Pre Fund	Total Contrib		
		Cash Subsidy	Implied Subsidy	Total Pmts				
2016/17	\$49	\$29	n/a	\$29	\$0	\$29	4.4%	0.0%
2017/18	52	31	n/a	31	0	31	4.5%	0.0%
2018/19	54	32	n/a	32	3	35	4.5%	0.0%
2019/20	57	35	n/a	35	5	40	4.6%	0.4%
2020/21	59	36	n/a	36	9	45	4.6%	1.1%
2021/22	61	38	n/a	38	12	50	4.6%	2.2%
2022/23	63	41	n/a	41	14	55	4.6%	3.7%
2023/24	65	43	n/a	43	16	59	4.6%	5.6%
2024/25	74	45	n/a	45	26	71	5.1%	7.7%
2025/26	77	47	n/a	47	30	77	5.1%	10.9%



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MAINE EDUCATIONAL CENTER FOR THE DEAF

Actuarial Obligations

(Amounts in Thousands)

Actuarial Obligations	6/30/14 Valuation			6/30/16 Valuation		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits						
• Actives	\$4,104	\$ 677	\$4,781	\$3,639	\$ 616	\$4,255
• Retirees	<u>2,889</u>	<u>737</u>	<u>3,626</u>	<u>2,865</u>	<u>904</u>	<u>3,769</u>
• Total	6,993	1,414	8,407	6,504	1,520	8,024
■ Actuarial Accrued Liability						
• Actives	2,605	555	3,160	2,336	507	2,843
• Retirees	<u>2,889</u>	<u>737</u>	<u>3,626</u>	<u>2,865</u>	<u>904</u>	<u>3,769</u>
• Total	5,494	1,292	6,786	5,201	1,411	6,612
■ Actuarial Value of Assets	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
■ Unfunded AAL	5,494	1,292	6,786	5,201	1,411	6,612
■ Normal Cost	165	18	183	131	14	145
■ Normal Cost % Pay	5.6%	0.6%	6.2%	4.2%	0.5%	4.7%



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MAINE EDUCATIONAL CENTER FOR THE DEAF

Estimated Actuarial Gains & Losses

(Amounts in Thousands)

Actuarial Gains & Losses	NC%	AAL	(AVA)	UAAL
■ 6/30/14 Actual	6.2%	\$6,786	(\$ 0)	\$6,786
■ 6/30/16 Expected	6.2%	7,182	(634)	6,548
■ Experience Losses (Gains):				
• Actual versus Expected Healthcare Costs	(0.6%)	(726)	-	(726)
• Demographic & Other	(0.4%)	(140)	-	(140)
• Asset Loss (Gain)	-	-	634	634
■ Assumption Changes:				
• 2012-2015 Experience Study ³³	(0.7%)	15	-	15
• Claims Cost Aging Factors	0.2%	281	-	281
■ Total Changes	(1.5%)	(570)	634	64
■ 6/30/16 Actual	4.7%	6,612	(0)	6,612

³³ (Gain)/loss by experience study assumption change:

NC%: (0.4%) for retirement, (0.2%) for disability, 0.4% for mortality, (0.5)% for termination, and 0% for merit salary

AAL: (\$298) for retirement, (\$2) for disability, \$271 for mortality, \$36 for termination, and \$8 for merit salary



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MAINE EDUCATIONAL CENTER FOR THE DEAF

Unfunded Actuarial Accrued Liability Amortization Balances

(Amounts in Thousands)

Amortization Base	Original Bases			Remaining Bases 6/30/2016		2016/17 Amortization Payment
	Date	Years	Amount	Years	Balance	
■ Initial UAAL	6/30/07	30	\$3,814	21	\$3,758	\$200
■ Experience Losses (Gains)	6/30/08	15	(127)	7	(81)	(12)
	6/30/09	15	474	8	328	44
	6/30/10	15	597	9	444	53
	6/30/11	15	114	10	91	10
	6/30/12	15	(1,453)	11	(1,228)	(120)
	6/30/13	15	(381)	12	(339)	(31)
	6/30/14	15	2,618	13	2,436	203
	6/30/15	15	78	14	75	6
■ Assumption Changes	6/30/16	15	(307)	15	(307)	(23)
	6/30/08	29	511	21	476	25
	6/30/10	27	251	21	238	13
	6/30/11	26	1,218	21	1,175	62
	6/30/12	25	(184)	21	(178)	(9)
■ Plan Changes	6/30/14	23	(74)	21	(73)	(4)
	6/30/16	21	296	21	296	16
	6/30/11	26	(517)	21	(499)	(27)
	6/30/16				6,612	406
■ Unfunded AAL ³⁴	6/30/16			30	6,612	254

³⁴ Total amortization payment cannot be less than the UAAL amortized over 30 years.



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MAINE EDUCATIONAL CENTER FOR THE DEAF

Annual Required Contribution (ARC)

(Amounts in Thousands)

Valuation Date	6/30/14 Valuation		6/30/16 Valuation	
	2014/15	2015/16	2016/17	2017/18 ³⁵
■ ARC - \$				
• Normal Cost	\$183	\$189	\$ 145	\$ 149
• UAAL Amortization	<u>382</u>	<u>408</u>	<u>406</u>	<u>427</u>
• ARC	565	597	551	576
■ Projected Payroll	2,949	3,045	3,100	3,201
■ ARC - %				
• Normal Cost	6.2%	6.2%	4.7%	4.7%
• UAAL Amortization	<u>13.0%</u>	<u>13.4%</u>	<u>13.1%</u>	<u>13.3%</u>
• ARC	19.2%	19.6%	17.8%	18.0%
■ Pay-As-You-Go Cost	246	272	258	291

³⁵ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.



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Annual Required Contribution (ARC)

June 30, 2016 Valuation

(Amounts in Thousands)

Annual Required Contribution	2016/17			2017/18 ³⁶		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$131	\$ 14	\$145	\$135	\$ 14	\$149
• UAAL Amortization ³⁷	<u>320</u>	<u>87</u>	<u>406</u>	<u>336</u>	<u>91</u>	<u>427</u>
• Total ARC	451	101	551	471	105	576
■ Projected Payroll	3,100	3,100	3,100	3,201	3,201	3,201
■ ARC - %						
• Normal Cost	4.2%	0.5%	4.7%	4.2%	0.5%	4.7%
• UAAL Amortization	<u>10.3%</u>	<u>2.8%</u>	<u>13.1%</u>	<u>10.5%</u>	<u>2.8%</u>	<u>13.3%</u>
• Total ARC	14.5%	3.3%	17.8%	14.7%	3.3%	18.0%
■ Pay-As-You-Go Cost	192	66	258	212	79	291

³⁶ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.

³⁷ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



Annual Required Contribution (ARC)

June 30, 2014 Valuation

(Amounts in Thousands)

Annual Required Contribution	2014/15			2015/16		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$165	\$18	\$183	\$171	\$18	\$189
• UAAL Amortization ³⁸	<u>309</u>	<u>73</u>	<u>382</u>	<u>330</u>	<u>78</u>	<u>408</u>
• Total ARC	474	91	565	501	96	597
■ Projected Payroll	2,949	2,949	2,949	3,045	3,045	3,045
■ ARC - %						
• Normal Cost	5.6%	0.6%	6.2%	5.6%	0.6%	6.2%
• UAAL Amortization	<u>10.5%</u>	<u>2.5%</u>	<u>13.0%</u>	<u>10.8%</u>	<u>2.6%</u>	<u>13.4%</u>
• Total ARC	16.1%	3.1%	19.2%	16.4%	3.2%	19.6%
■ Pay-As-You-Go Cost	192	54	246	209	63	272

³⁸ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



MAINE EDUCATIONAL CENTER FOR THE DEAF

Estimated Net OPEB Obligation (NOO) Illustration

(Amounts in Thousands)

Estimated Net OPEB Obligation	Estimate 2012/13	Estimate 2013/14	Estimate 2014/15	Estimate 2015/16	Estimate 2016/17
■ Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%
■ NOO at Beginning of Year	\$1,678	\$1,891	\$2,129	\$2,479	\$2,828
■ Annual OPEB Cost (AOC)					
• Annual Required Contribution	396	425	565	597	551
• Interest on NOO	67	76	85	99	113
• NOO Adjustment	(123)	(138)	(155)	(181)	(206)
• Annual OPEB Cost	340	363	495	515	458
■ Contributions					
• Benefit Payments Outside Trust					
➢ Cash Subsidy Payments	(97)	(98)	(91)	(103)	(192) ³⁹
➢ Implied Subsidy Payments	(30)	(27)	(54)	(63)	(66)
• Trust Pre-Funding	(0)	(0)	(0)	(0)	(0)
• Total Contributions	(127)	(125)	(145)	(166)	(258)
■ NOO at End of Year	1,891	2,129	2,479	2,828	3,028
■ NOO Amortization Years	15	15	15	15	15
■ NOO Amortization Factor	13.72	13.72	13.72	13.72	13.72

³⁹ Estimated contributions for 2016/17. Estimated items other than the ARC must be revised when actual contributions are known.



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MAINE EDUCATIONAL CENTER FOR THE DEAF

Contribution Projection

(Amounts in Thousands)

Fiscal Year	ADC	Contributions					ADC % of Payroll	UAAL % of Payroll
		Benefit Payments			Pre Fund	Total Contrib		
		Cash Subsidy	Implied Subsidy	Total Pmts				
2016/17	\$551	\$192	\$66	\$258	\$0	\$258	17.8%	213%
2017/18	576	212	79	291	0	291	18.0%	211%
2018/19	602	212	77	289	0	289	18.2%	208%
2019/20	629	233	89	322	0	322	18.4%	206%
2020/21	655	229	77	306	0	306	18.6%	202%
2021/22	685	241	80	321	0	321	18.8%	200%
2022/23	715	254	85	339	0	339	19.0%	197%
2023/24	762	274	94	368	0	368	19.6%	194%
2024/25	738	276	91	367	0	367	18.4%	191%
2025/26	697	280	87	367	0	367	16.9%	187%



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Actuarial Obligations

(Amounts in Thousands)

Actuarial Obligations	6/30/14 Valuation			6/30/16 Valuation		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits						
• Actives	\$332	\$12	\$344	\$280	\$13	\$293
• Retirees	<u>121</u>	<u>0</u>	<u>121</u>	<u>185</u>	<u>0</u>	<u>185</u>
• Total	453	12	465	465	13	478
■ Actuarial Accrued Liability						
• Actives	160	4	164	131	6	137
• Retirees	<u>121</u>	<u>0</u>	<u>121</u>	<u>185</u>	<u>0</u>	<u>185</u>
• Total	281	4	285	316	6	322
■ Actuarial Value of Assets	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
■ Unfunded AAL	281	4	285	316	6	322
■ Normal Cost	20	1	21	12	1	13
■ Normal Cost % Pay	4.5%	0.2%	4.7%	2.7%	0.2%	2.9%



Estimated Actuarial Gains & Losses

(Amounts in Thousands)

Actuarial Gains & Losses	NC%	AAL	(AVA)	UAAL
■ 6/30/14 Actual	4.7%	\$285	(\$ 0)	\$285
■ 6/30/16 Expected	4.7%	334	(62)	272
■ Experience Losses (Gains):				
• Actual versus Expected Healthcare Costs	(0.4%)	(52)	-	(52)
• Demographic & Other	(1.2 %)	22	-	22
• Asset Loss (Gain)	-	-	62	62
■ Assumption Changes:				
• 2012-2015 Experience Study ⁴⁰	(0.3%)	14	-	14
• Claims Cost Aging Factors	0.1%	4	-	4
■ Total Changes	(1.8%)	(12)	62	50
■ 6/30/16 Actual	2.9%	322	(0)	322

⁴⁰ (Gain)/loss by experience study assumption change:

NC%: (0.2%) for retirement, (0.1%) for disability, 0.3% for mortality, (0.3)% for termination, and 0% for merit salary

AAL: (\$14) for retirement, (\$1) for disability, \$24 for mortality, \$4 for termination, and \$1 for merit salary



Unfunded Actuarial Accrued Liability Amortization Balances

(Amounts in Thousands)

Amortization Base	Original Bases			Remaining Bases 6/30/2016		2016/17 Amortization Payment
	Date	Years	Amount	Years	Balance	
■ Initial UAAL	6/30/07	30	\$130	21	\$127.8	\$ 6.8
■ Experience Losses (Gains)	6/30/08	15	119	7	75.8	11.5
	6/30/09	15	35	8	23.9	3.2
	6/30/10	15	(198)	9	(147.1)	(17.5)
	6/30/11	15	34	10	27.3	2.9
	6/30/12	15	72	11	60.8	6.0
	6/30/13	15	(23)	12	(20.2)	(1.8)
	6/30/14	15	38	13	35.2	2.9
	6/30/15	15	12	14	11.8	0.9
■ Assumption Changes	6/30/16	15	20	15	20.4	1.5
	6/30/08	29	60	21	55.9	3.0
	6/30/10	27	9	21	8.2	0.4
	6/30/11	26	29	21	27.3	1.5
	6/30/12	25	5	21	4.8	0.3
	6/30/14	23	(1)	21	(0.6)	(0.0)
■ Plan Changes	6/30/16	21	18	21	18.0	1.0
	6/30/11	26	(8)	21	(7.3)	(0.4)
■ Unfunded AAL	6/30/16				322.0	22.2
■ Unfunded AAL ⁴¹	6/30/16			30	322.0	12.4

⁴¹ Total amortization payment cannot be less than the UAAL amortized over 30 years.



Annual Required Contribution (ARC)

(Amounts in Thousands)

Valuation Date	6/30/14 Valuation		6/30/16 Valuation	
	2014/15	2015/16	2016/17	2017/18 ⁴²
■ ARC - \$				
• Normal Cost	\$21	\$21	\$13	\$13
• UAAL Amortization	<u>17</u>	<u>20</u>	<u>22</u>	<u>24</u>
• ARC	38	41	35	37
■ Projected Payroll	443	457	450	465
■ ARC - %				
• Normal Cost	4.7%	4.6%	2.9%	2.8%
• UAAL Amortization	<u>3.8%</u>	<u>4.4%</u>	<u>4.9%</u>	<u>5.2%</u>
• ARC	8.5%	9.0%	7.8%	8.0%
■ Pay-As-You-Go Cost	8	9	11	12

⁴² Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.



Annual Required Contribution (ARC)

June 30, 2016 Valuation

(Amounts in Thousands)

Annual Required Contribution	2016/17			2017/18 ⁴³		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$12	\$1	\$13	\$12	\$1	\$13
• UAAL Amortization ⁴⁴	<u>22</u>	<u>0</u>	<u>22</u>	<u>24</u>	<u>0</u>	<u>24</u>
• Total ARC	34	1	35	36	1	37
■ Projected Payroll	450	450	450	465	465	465
■ ARC - %						
• Normal Cost	2.7%	0.2%	2.9%	2.6%	0.2%	2.8%
• UAAL Amortization	<u>4.9%</u>	<u>0.0%</u>	<u>4.9%</u>	<u>5.2%</u>	<u>0.0%</u>	<u>5.2%</u>
• Total ARC	7.6%	0.2%	7.8%	7.7%	0.2%	8.0%
• Pay-As-You-Go Cost	11	0	11	12	0	12

⁴³ Actuarial Determined Contribution for 2017/18. Financial statement information will be determined under GASBS 75 for 2017/18 and later years.

⁴⁴ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



Annual Required Contribution (ARC)

June 30, 2014 Valuation

(Amounts in Thousands)

Annual Required Contribution	2014/15			2015/16		
	Cash Subsidy	Implied Subsidy	Total	Cash Subsidy	Implied Subsidy	Total
■ ARC - \$						
• Normal Cost	\$20	\$1	\$21	\$20	\$1	\$21
• UAAL Amortization ⁴⁵	<u>17</u>	<u>0</u>	<u>17</u>	<u>20</u>	<u>0</u>	<u>20</u>
• Total ARC	37	1	38	40	1	41
■ Projected Payroll	443	443	443	457	457	457
■ ARC - %						
• Normal Cost	4.5%	0.2%	4.7%	4.4%	0.2%	4.6%
• UAAL Amortization	<u>3.8%</u>	<u>0.0%</u>	<u>3.8%</u>	<u>4.4%</u>	<u>0.0%</u>	<u>4.4%</u>
• Total ARC	8.3%	0.2%	8.5%	8.8%	0.2%	9.0%
• Pay-As-You-Go Cost	8	0	8	9	0	9

⁴⁵ Allocated to Cash Subsidy and Implied Subsidy based on UAAL.



Estimated Net OPEB Obligation (NOO) Illustration

(Amounts in Thousands)

Estimated Net OPEB Obligation	Audit 2012/13	Audit 2013/14	Audit 2014/15	Audit 2015/16	Estimate 2016/17
■ Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%
■ NOO at Beginning of Year	\$105	\$129	\$161	\$186	\$213
■ Annual OPEB Cost (AOC)					
• Annual Required Contribution	37	41	38	41	35
• Interest on NOO	3	5	7	7	8
• NOO Adjustment	(8)	(9)	(12)	(14)	(15)
• Annual OPEB Cost	32	37	33	34	28
■ Contributions					
• Benefit Payments Outside Trust					
➢ Cash Subsidy Payments	(8)	(5)	(8)	(7)	(11) ⁴⁶
➢ Implied Subsidy Payments	(0)	(0)	(0)	(0)	(0)
• Trust Pre-Funding	(0)	(0)	(0)	(0)	(0)
• Total Contributions	(8)	(5)	(8)	(9)	(11)
■ NOO at End of Year	129	161	186	213	230
■ NOO Amortization Years	15	15	15	15	15
■ NOO Amortization Factor	13.72	13.72	13.72	13.72	13.72

⁴⁶ Estimated contributions for 2016/17. Estimated items other than the ARC must be revised when actual contributions are known.



Contribution Projection

(Amounts in Thousands)

Fiscal Year	ADC	Contributions					ADC % of Payroll	UAAL % of Payroll
		Benefit Payments			Pre Fund	Total Contrib		
		Cash Subsidy	Implied Subsidy	Total Pmts				
2016/17	\$35	\$11	\$0	\$11	\$0	\$11	7.8%	72%
2017/18	37	12	0	12	0	12	8.0%	73%
2018/19	39	12	0	12	0	12	8.1%	73%
2019/20	41	13	0	13	0	13	8.3%	74%
2020/21	43	13	0	13	0	13	8.4%	75%
2021/22	45	13	0	13	0	13	8.5%	76%
2022/23	48	14	0	14	0	14	8.8%	77%
2023/24	36	14	0	14	0	14	6.4%	77%
2024/25	34	14	0	14	0	14	5.9%	78%
2025/26	57	15	0	15	0	15	9.5%	79%



ACTUARIAL CERTIFICATION

This report presents the State of Maine Retiree Healthcare Plan for State Employees and Teachers ("Plan") June 30, 2016 actuarial valuation. The purpose of this valuation is to:

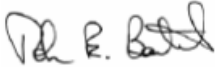
- Determine the Governmental Accounting Standards Board Statement Nos. 43 and 45 June 30, 2016 Benefit Obligations,
- Determine the Plan's June 30, 2016 funded status,
- Calculate the 2016/17 Annual Required Contribution, and
- Calculate the 2016/17 and 2017/18 estimated prefunding amounts per the State's current funding policy.

The report provides information intended for reporting under GASBS 43 and 45, but may not be appropriate for other purposes. Information provided in this report may be useful to the State for the Plan's financial management. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, premiums, asset information, and contribution policy provided by the State as summarized in this report, which we relied on and did not audit.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASBS 43 and 45. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

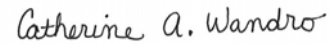
Respectfully submitted,



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December 6, 2016



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December 6, 2016

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EXHIBITS

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PREMIUMS

State Employees' Health Plans
Monthly Premiums

Actives and Non-Medicare Eligible Retirees

Medical Plan	Year	Single	2-Party	Family	Participant w/Child(ren)
HMO Choice	2008/09	\$648.10	\$1,355.00	\$1,612.10	\$1,065.84
	2009/10	686.66	1,435.96	1,708.50	1,129.46
	2010/11	727.54	1,521.78	1,810.70	1,196.90
	2011/12	727.54	1,521.78	1,810.70	1,196.90
	2012/13	727.54	1,521.78	1,810.70	1,196.90
	2013/14	727.54	1,521.78	1,810.70	1,196.90
	2014/15	750.20	1,569.16	1,867.08	1,234.16
	2015/16	795.22	1,663.32	1,979.12	1,308.22
	2016/17	830.22	1,736.48	2,066.18	1,365.78



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PREMIUMS

State Employees' Health Plans
Monthly Premiums

Medicare Eligible Retirees

Medical Plan	Year	Single	2-Party	Family	Participant w/Child(ren)
Group Companion	2008/09	\$320.10	\$634.70	\$988.14	\$673.54
Advantra Freedom PFFS	2009	237.42	469.34	n/a	n/a
Anthem SmartValue PFFS	2010	269.28	533.06	n/a	n/a
Anthem Medicare PPO	2011	290.07	574.64	n/a	n/a
	2012	290.07	574.64	n/a	n/a
Aetna Medicare Advantage PPO ⁴⁷	2013	259.02	510.54	n/a	n/a
	2014	300.69	593.88	n/a	n/a
	2015	300.60	593.70	n/a	n/a
	2016	293.81	580.12	n/a	n/a

⁴⁷ Aetna Medicare Advantage ESA PPO Plan assumed to have the same premiums for valuation.



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PREMIUMS

Teachers' Health Plans
Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums

Medical Plan	Coverage	Rate Band CR	Rate Band 1	Rate Band 7	Rate Band 9	Rate Band 13	Rate Band 14
% Relative to Rate Band 1		22.8%	0.0%	3.1%	4.1%	6.1%	6.6%
MEA Choice Plus (HMO Choice)	Single	\$718.12	\$585.02	\$602.93	\$608.90	\$620.84	\$623.82
	2-Party	1,618.49	1,318.53	1,358.89	1,372.35	1,399.26	1,405.98
	Family	1,969.93	1,604.83	1,653.96	1,670.33	1,703.08	1,711.27
	Part & Child	1,270.90	1,035.36	1,067.05	1,077.62	1,098.75	1,104.03
MEA Standard Plan (Blue Choice \$15)	Single	775.47	631.75	651.09	657.53	670.43	673.65
	2-Party	1,747.98	1,424.01	1,467.60	1,482.13	1,511.19	1,518.46
	Family	2,127.52	1,733.22	1,786.28	1,803.96	1,839.33	1,848.18
	Part & Child	1,372.56	1,118.18	1,152.41	1,163.82	1,186.64	1,192.35
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	682.20	555.77	572.78	578.45	589.79	592.63
	2-Party	1,537.57	1,252.61	1,290.95	1,303.73	1,329.30	1,335.69
	Family	1,871.43	1,524.59	1,571.26	1,586.81	1,617.93	1,625.71
	Part & Child	1,207.36	983.60	1,013.71	1,023.74	1,043.82	1,048.84
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	650.62	530.03	546.26	551.67	562.48	565.19
	2-Party	1,466.36	1,194.59	1,231.16	1,243.35	1,267.73	1,273.82
	Family	1,784.75	1,453.98	1,498.49	1,513.32	1,543.00	1,550.41
	Part & Child	1,151.44	938.04	966.75	976.32	995.47	1,000.25



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PREMIUMS

Teachers' Health Plans
Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 15	Rate Band 16	Rate Band 18	Rate Band 20	Rate Band 23	Rate Band 24
% Relative to Rate Band 1		7.1%	7.7%	8.7%	9.7%	11.2%	11.7%
MEA Choice Plus (HMO Choice)	Single	\$626.81	\$629.79	\$635.76	\$641.73	\$650.69	\$653.67
	2-Party	1,412.71	1,419.44	1,432.89	1,446.35	1,466.53	1,473.26
	Family	1,719.46	1,727.65	1,744.02	1,760.40	1,784.96	1,793.15
	Part & Child	1,109.31	1,114.60	1,125.16	1,135.73	1,151.57	1,156.86
MEA Standard Plan (Blue Choice \$15)	Single	676.87	680.10	686.54	692.99	702.66	705.88
	2-Party	1,525.72	1,532.99	1,547.52	1,562.05	1,583.85	1,591.11
	Family	1,857.02	1,865.86	1,883.55	1,901.23	1,927.76	1,936.61
	Part & Child	1,198.05	1,203.76	1,215.17	1,226.58	1,243.69	1,249.40
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	595.47	598.30	603.97	609.64	618.15	620.99
	2-Party	1,342.08	1,348.47	1,361.25	1,374.03	1,393.21	1,399.60
	Family	1,633.49	1,641.26	1,656.82	1,672.38	1,695.71	1,703.49
	Part & Child	1,053.85	1,058.87	1,068.91	1,078.95	1,094.00	1,099.02
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	567.89	570.60	576.01	581.41	589.53	592.23
	2-Party	1,279.92	1,286.01	1,298.20	1,310.39	1,328.68	1,334.77
	Family	1,557.83	1,565.25	1,580.09	1,594.92	1,617.18	1,624.60
	Part & Child	1,005.04	1,009.82	1,019.40	1,028.97	1,043.33	1,048.11



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PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 25	Rate Band 27	Rate Band 28	Rate Band 29	Rate Band 31	Rate Band 32
% Relative to Rate Band 1		12.2%	13.3%	13.8%	14.3%	15.3%	15.8%
MEA Choice Plus (HMO Choice)	Single	\$656.66	\$662.63	\$665.61	\$668.60	\$674.56	\$677.55
	2-Party	1,479.98	1,493.44	1,500.17	1,506.89	1,520.35	1,527.07
	Family	1,801.34	1,817.71	1,825.90	1,834.09	1,850.47	1,858.65
	Part & Child	1,162.14	1,172.70	1,177.99	1,183.27	1,193.83	1,199.12
MEA Standard Plan (Blue Choice \$15)	Single	709.10	715.55	718.77	722.00	728.44	731.67
	2-Party	1,598.38	1,612.91	1,620.17	1,627.44	1,641.97	1,649.23
	Family	1,945.45	1,963.13	1,971.98	1,980.82	1,998.51	2,007.35
	Part & Child	1,255.10	1,266.51	1,272.22	1,277.92	1,289.33	1,295.04
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	623.82	629.49	632.33	635.16	640.83	643.67
	2-Party	1,405.99	1,418.77	1,425.16	1,431.55	1,444.33	1,450.72
	Family	1,711.27	1,726.83	1,734.61	1,742.38	1,757.94	1,765.72
	Part & Child	1,104.04	1,114.07	1,119.09	1,124.11	1,134.15	1,139.17
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	594.94	600.34	603.05	605.75	611.16	613.86
	2-Party	1,340.87	1,353.06	1,359.15	1,365.25	1,377.44	1,383.53
	Family	1,632.02	1,646.85	1,654.27	1,661.69	1,676.52	1,683.94
	Part & Child	1,052.90	1,062.47	1,067.26	1,072.04	1,081.61	1,086.40



December 6, 2016

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PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 33	Rate Band 34	Rate Band 35	Rate Band 36	Rate Band 37	Rate Band 38
% Relative to Rate Band 1		16.3%	16.8%	17.3%	17.9%	18.4%	18.9%
MEA Choice Plus (HMO Choice)	Single	\$680.53	\$683.52	\$686.50	\$689.49	\$692.47	\$695.46
	2-Party	1,533.80	1,540.53	1,547.26	1,553.98	1,560.71	1,567.44
	Family	1,866.84	1,875.03	1,883.22	1,891.40	1,899.59	1,907.78
	Part & Child	1,204.40	1,209.68	1,214.96	1,220.25	1,225.53	1,230.81
MEA Standard Plan (Blue Choice \$15)	Single	734.89	738.11	741.34	744.56	747.78	751.01
	2-Party	1,656.50	1,663.77	1,671.03	1,678.30	1,685.56	1,692.83
	Family	2,016.19	2,025.04	2,033.88	2,042.72	2,051.56	2,060.41
	Part & Child	1,300.74	1,306.45	1,312.15	1,317.86	1,323.56	1,329.27
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	646.51	649.34	652.18	655.01	657.85	660.68
	2-Party	1,457.11	1,463.50	1,469.90	1,476.29	1,482.68	1,489.07
	Family	1,773.50	1,781.28	1,789.06	1,796.83	1,804.61	1,812.39
	Part & Child	1,144.18	1,149.20	1,154.22	1,159.24	1,164.26	1,169.28
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	616.57	619.27	621.98	624.68	627.39	630.09
	2-Party	1,389.63	1,395.72	1,401.82	1,407.91	1,414.01	1,420.10
	Family	1,691.36	1,698.78	1,706.20	1,713.62	1,721.03	1,728.45
	Part & Child	1,091.19	1,095.97	1,100.76	1,105.54	1,110.33	1,115.11



December 6, 2016

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PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 39	Rate Band 40	Rate Band 41	Rate Band 42	Rate Band 43	Rate Band 44
% Relative to Rate Band 1		19.4%	19.9%	20.4%	20.9%	21.4%	21.9%
MEA Choice Plus (HMO Choice)	Single	\$698.44	\$701.43	\$704.41	\$707.40	\$710.38	\$713.37
	2-Party	1,574.16	1,580.89	1,587.62	1,594.35	1,601.07	1,607.80
	Family	1,915.97	1,924.16	1,932.34	1,940.53	1,948.72	1,956.91
	Part & Child	1,236.09	1,241.38	1,246.66	1,251.94	1,257.22	1,262.51
MEA Standard Plan (Blue Choice \$15)	Single	754.23	757.45	760.68	763.90	767.12	770.34
	2-Party	1,700.09	1,707.36	1,714.62	1,721.89	1,729.15	1,736.42
	Family	2,069.25	2,078.09	2,086.94	2,095.78	2,104.62	2,113.47
	Part & Child	1,334.97	1,340.68	1,346.38	1,352.09	1,357.79	1,363.50
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	663.52	666.35	669.19	672.03	674.86	677.70
	2-Party	1,495.46	1,501.85	1,508.24	1,514.63	1,521.02	1,527.41
	Family	1,820.17	1,827.95	1,835.73	1,843.50	1,851.28	1,859.06
	Part & Child	1,174.29	1,179.31	1,184.33	1,189.35	1,194.37	1,199.39
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	632.79	635.50	638.20	640.91	643.61	646.32
	2-Party	1,426.19	1,432.29	1,438.38	1,444.48	1,450.57	1,456.67
	Family	1,735.87	1,743.29	1,750.71	1,758.13	1,765.54	1,772.96
	Part & Child	1,119.90	1,124.69	1,129.47	1,134.26	1,139.04	1,143.83



December 6, 2016

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PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 46	Rate Band 47	Rate Band 48	Rate Band 49	Rate Band 51	Rate Band 52
% Relative to Rate Band 1		23.0%	23.5%	24.0%	24.5%	25.5%	26.0%
MEA Choice Plus (HMO Choice)	Single	\$719.34	\$722.32	\$725.31	\$728.29	\$734.26	\$737.25
	2-Party	1,621.26	1,627.98	1,634.71	1,641.44	1,654.89	1,661.62
	Family	1,973.28	1,981.47	1,989.66	1,997.85	2,014.22	2,022.41
	Part & Child	1,273.07	1,278.35	1,283.64	1,288.92	1,299.48	1,304.77
MEA Standard Plan (Blue Choice \$15)	Single	776.79	780.01	783.24	786.46	792.91	796.13
	2-Party	1,750.95	1,758.21	1,765.48	1,772.75	1,787.28	1,794.54
	Family	2,131.15	2,139.99	2,148.84	2,157.68	2,175.37	2,184.21
	Part & Child	1,374.91	1,380.61	1,386.32	1,392.02	1,403.43	1,409.14
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	683.37	686.20	689.04	691.87	697.55	700.38
	2-Party	1,540.19	1,546.59	1,552.98	1,559.37	1,572.15	1,578.54
	Family	1,874.62	1,882.40	1,890.18	1,897.95	1,913.51	1,921.29
	Part & Child	1,209.42	1,214.44	1,219.46	1,224.48	1,234.51	1,239.53
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	651.72	654.43	657.13	659.84	665.25	667.95
	2-Party	1,468.86	1,474.95	1,481.05	1,487.14	1,499.33	1,505.43
	Family	1,787.80	1,795.22	1,802.63	1,810.05	1,824.89	1,832.31
	Part & Child	1,153.40	1,158.19	1,162.97	1,167.76	1,177.33	1,182.12



December 6, 2016

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PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 53	Rate Band 54	Rate Band 55	Rate Band 56	Rate Band 57	Rate Band 58
% Relative to Rate Band 1		26.5%	27.0%	27.6%	28.1%	28.6%	29.1%
MEA Choice Plus (HMO Choice)	Single	\$740.23	\$743.22	\$746.20	\$749.18	\$752.17	\$755.15
	2-Party	1,668.35	1,675.07	1,681.80	1,688.53	1,695.25	1,701.98
	Family	2,030.60	2,038.79	2,046.98	2,055.16	2,063.35	2,071.54
	Part & Child	1,310.05	1,315.33	1,320.61	1,325.89	1,331.18	1,336.46
MEA Standard Plan (Blue Choice \$15)	Single	799.35	802.58	805.80	809.02	812.25	815.47
	2-Party	1,801.81	1,809.07	1,816.34	1,823.60	1,830.87	1,838.13
	Family	2,193.05	2,201.89	2,210.74	2,219.58	2,228.42	2,237.27
	Part & Child	1,414.84	1,420.55	1,426.25	1,431.96	1,437.66	1,443.37
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	703.22	706.05	708.89	711.72	714.56	717.39
	2-Party	1,584.93	1,591.32	1,597.71	1,604.10	1,610.49	1,616.89
	Family	1,929.07	1,936.85	1,944.63	1,952.40	1,960.18	1,967.96
	Part & Child	1,244.55	1,249.57	1,254.59	1,259.61	1,264.62	1,269.64
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	670.65	673.36	676.06	678.77	681.47	684.18
	2-Party	1,511.52	1,517.62	1,523.71	1,529.81	1,535.90	1,542.00
	Family	1,839.73	1,847.14	1,854.56	1,861.98	1,869.40	1,876.82
	Part & Child	1,186.90	1,191.69	1,196.48	1,201.26	1,206.05	1,210.83



PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 59	Rate Band 60	Rate Band 61	Rate Band 62	Rate Band 63	Rate Band 64
% Relative to Rate Band 1		29.6%	30.1%	30.6%	31.1%	31.6%	32.1%
MEA Choice Plus (HMO Choice)	Single	\$758.14	\$761.12	\$764.11	\$767.09	\$770.08	\$773.06
	2-Party	1,708.71	1,715.44	1,722.16	1,728.89	1,735.62	1,742.34
	Family	2,079.73	2,087.91	2,096.10	2,104.29	2,112.48	2,120.67
	Part & Child	1,341.74	1,347.02	1,352.31	1,357.59	1,362.87	1,368.15
MEA Standard Plan (Blue Choice \$15)	Single	818.69	821.92	825.14	828.36	831.59	834.81
	2-Party	1,845.40	1,852.66	1,859.93	1,867.19	1,874.46	1,881.73
	Family	2,246.11	2,254.95	2,263.80	2,272.64	2,281.48	2,290.32
	Part & Child	1,449.07	1,454.78	1,460.48	1,466.19	1,471.89	1,477.60
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	720.23	723.07	725.90	728.74	731.57	734.41
	2-Party	1,623.28	1,629.67	1,636.06	1,642.45	1,648.84	1,655.23
	Family	1,975.74	1,983.52	1,991.30	1,999.07	2,006.85	2,014.63
	Part & Child	1,274.66	1,279.68	1,284.70	1,289.72	1,294.73	1,299.75
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	686.88	689.58	692.29	694.99	697.70	700.40
	2-Party	1,548.09	1,554.19	1,560.28	1,566.38	1,572.47	1,578.57
	Family	1,884.24	1,891.65	1,899.07	1,906.49	1,913.91	1,921.33
	Part & Child	1,215.62	1,220.40	1,225.19	1,229.98	1,234.76	1,239.55



PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 65	Rate Band 68	Rate Band 69	Rate Band 75	Rate Band 76	Rate Band 78
% Relative to Rate Band 1		32.7%	34.2%	34.7%	37.8%	38.3%	39.3%
MEA Choice Plus (HMO Choice)	Single	\$776.05	\$785.00	\$787.99	\$805.90	\$808.88	\$814.85
	2-Party	1,749.07	1,769.25	1,775.98	1,816.34	1,823.07	1,836.53
	Family	2,128.85	2,153.42	2,161.61	2,210.73	2,218.92	2,235.30
	Part & Child	1,373.44	1,389.28	1,394.57	1,426.26	1,431.54	1,442.11
MEA Standard Plan (Blue Choice \$15)	Single	838.03	847.70	850.92	870.26	873.49	879.93
	2-Party	1,888.99	1,910.79	1,918.05	1,961.64	1,968.91	1,983.44
	Family	2,299.17	2,325.70	2,334.54	2,387.60	2,396.44	2,414.13
	Part & Child	1,483.30	1,500.42	1,506.12	1,540.35	1,546.06	1,557.47
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	737.24	745.75	748.59	765.60	768.43	774.11
	2-Party	1,661.62	1,680.79	1,687.18	1,725.53	1,731.92	1,744.70
	Family	2,022.41	2,045.75	2,053.52	2,100.20	2,107.97	2,123.53
	Part & Child	1,304.77	1,319.83	1,324.84	1,354.95	1,359.97	1,370.01
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	703.11	711.22	713.92	730.15	732.85	738.26
	2-Party	1,584.66	1,602.95	1,609.04	1,645.61	1,651.70	1,663.89
	Family	1,928.75	1,951.00	1,958.42	2,002.93	2,010.35	2,025.18
	Part & Child	1,244.33	1,258.69	1,263.48	1,292.19	1,296.98	1,306.55



PREMIUMS

Teachers' Health Plans

Active and Non-Medicare Eligible Retirees 2016/17 Monthly Premiums (Continued)

Medical Plan	Coverage	Rate Band 80	Rate Band 88
% Relative to Rate Band 1		40.3%	44.4%
MEA Choice Plus (HMO Choice)	Single	\$820.82	\$844.70
	2-Party	1,849.98	1,903.80
	Family	2,251.67	2,317.18
	Part & Child	1,452.67	1,494.93
MEA Standard Plan (Blue Choice \$15)	Single	886.38	912.17
	2-Party	1,997.97	2,056.09
	Family	2,431.81	2,502.55
	Part & Child	1,568.88	1,614.52
MEA Standard 500 Plan \$500 Deductible (Blue Choice \$20)	Single	779.78	802.46
	2-Party	1,757.48	1,808.61
	Family	2,139.09	2,201.32
	Part & Child	1,380.05	1,420.19
MEA Standard 1000 Plan \$1,000 Deductible (Blue Choice \$20)	Single	743.67	765.30
	2-Party	1,676.08	1,724.84
	Family	2,040.02	2,099.36
	Part & Child	1,316.12	1,354.41



PREMIUMS

**Teachers' Health Plans
Monthly Premiums**

Medicare Eligible Retirees

Medical Plan	Year	Single	2-Party	Family	Participant w/Child(ren)
Group Companion ⁴⁸	2008/09	\$321.36	\$674.55	n/a	n/a
	2009/10	321.36	674.55	n/a	n/a
	2010/11	321.36	674.55	n/a	n/a
	2011/12	327.79	688.04	n/a	n/a
	2012/13	340.90	715.56	n/a	n/a
	2013/14	368.17	772.80	n/a	n/a
	2014/15	386.58	811.44	n/a	n/a
	2015/16	405.91	852.01	n/a	n/a
2016/17	436.35	915.91	n/a	n/a	

⁴⁸ Medigap B, Harvard Pilgrim, and MSMA assumed to have the same premiums for valuation.



PREMIUMS



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PARTICIPANT STATISTICS

Active Employee Plan & Coverage Elections

June 30, 2016

State Employees

Medical Plan	Single⁴⁹	2-Party	Family	EE+ Child(ren)	FLES⁵⁰	Waived	Total
HMO Choice	5,701	1,400	2,177	1,577	368	n/a	11,223
Waived	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1,076</u>	<u>1,076</u>
Total	5,701	1,400	2,177	1,577	368	1,076	12,299

Teachers

Medical Plan	Single	2-Party	Family	EE + Child(ren)	FLES	Waived	Total
HMO Choice	6,483	1,809	4,259	3,112	n/a	n/a	15,663
Blue Choice \$15	1,333	445	569	373	n/a	n/a	2,720
Blue Choice \$20	242	56	156	84	n/a	n/a	538
Waived	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>8,118</u>	<u>8,118</u>
Total	8,058	2,310	4,984	3,569	n/a	8,118	27,039

⁴⁹ Includes 171 new hires in May and June 2016 who are participating in health insurance (based on paycheck deduction information) but not in Aetna data used by State for determining medical plan and coverage for valuation census data.

⁵⁰ State employees or retirees married to other State employees or retirees and valued as single coverage.



December 6, 2016

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PARTICIPANT STATISTICS

Active Employee Plan & Coverage Elections

June 30, 2014

State Employees

Medical Plan	Single	2-Party	Family	EE+ Child(ren)	FLES⁵¹	Waived	Total
HMO Choice	5,701	1,422	2,292	1,633	315	n/a	11,363
Waived	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1,053</u>	<u>1,053</u>
Total	5,701	1,422	2,292	1,633	315	1,053	12,416

Teachers

Medical Plan	Single	2-Party	Family	EE + Child(ren)	FLES	Waived	Total
HMO Choice	6,215	2,001	4,373	2,874	n/a	n/a	15,463
Blue Choice \$15	1,399	559	716	405	n/a	n/a	3,079
Blue Choice \$20	80	26	49	33	n/a	n/a	188
Waived	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>9,003</u>	<u>9,003</u>
Total	7,694	2,586	5,138	3,312	n/a	9,003	27,733

⁵¹ State employees or retirees married to other State employees or retirees and valued as single coverage.



December 6, 2016

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PARTICIPANT STATISTICS

Retiree Plan & Coverage Elections

June 30, 2016

State Employees

Medical Plan	Single	2-Party	Family	EE+ Child(ren)	Total
HMO Choice	2,713	149	14	33	2,909
Medicare Advantage 100 PPO Plan	n/a	n/a	n/a	n/a	6,116
Medicare Advantage 100 ESA PPO Plan	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1,135</u>
Total	2,713	149	14	33	10,160

Teachers

Medical Plan	Single	2-Party	Family	EE + Child(ren)	Other	Total
HMO Choice	1,320	129	11	11	-	1,471
Blue Choice \$15	1,248	73	6	3	-	1,330
Blue Choice \$20	33	12	2	2	-	49
Group Companion	6,288	1,101	-	-	-	7,389
Medigap B	2	-	-	-	-	2
Harvard Pilgrim	n/a	n/a	n/a	n/a	92	92
MSMA	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>53</u>	<u>53</u>
Total	8,891	1,315	19	16	145	10,386



December 6, 2016

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PARTICIPANT STATISTICS

Retiree Plan & Coverage Elections

June 30, 2014

State Employees

Medical Plan	Single	2-Party	Family	EE+ Child(ren)	Total
HMO Choice	3,167	202	20	48	3,437
Medicare Advantage 100 PPO Plan	n/a	n/a	n/a	n/a	5,875
Medicare Advantage 100 ESA PPO Plan	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>1,744</u>
Total	3,167	202	20	48	11,056

Teachers

Medical Plan	Single	2-Party	Family	EE + Child(ren)	Other	Total
HMO Choice	1,450	182	15	11	-	1,658
Blue Choice \$15	1,461	97	9	8	-	1,575
Blue Choice \$20	19	8	3	-	-	30
Group Companion	5,387	1,128	-	-	-	6,515
Medigap B	5	-	-	-	-	5
Harvard Pilgrim	n/a	n/a	n/a	n/a	100	100
MSMA	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>50</u>	<u>50</u>
Total	8,322	1,415	27	19	150	9,933



December 6, 2016

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PARTICIPANT STATISTICS

State Actives by Age and Service
June 30, 2016

Age	Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	275	247	5	-	-	-	-	527
25-29	202	495	115	11	-	-	-	823
30-34	166	379	275	150	10	-	-	980
35-39	112	281	253	319	157	3	-	1,125
40-44	105	249	194	232	356	90	8	1,234
45-49	113	258	237	255	337	220	285	1,705
50-54	86	241	217	248	304	185	628	1,909
55-59	64	244	234	270	301	170	833	2,116
60-64	34	156	162	180	190	102	477	1,301
≥ 65	16	65	85	88	69	50	206	579
Total	1,173	2,615	1,777	1,753	1,724	820	2,437	12,299



PARTICIPANT STATISTICS

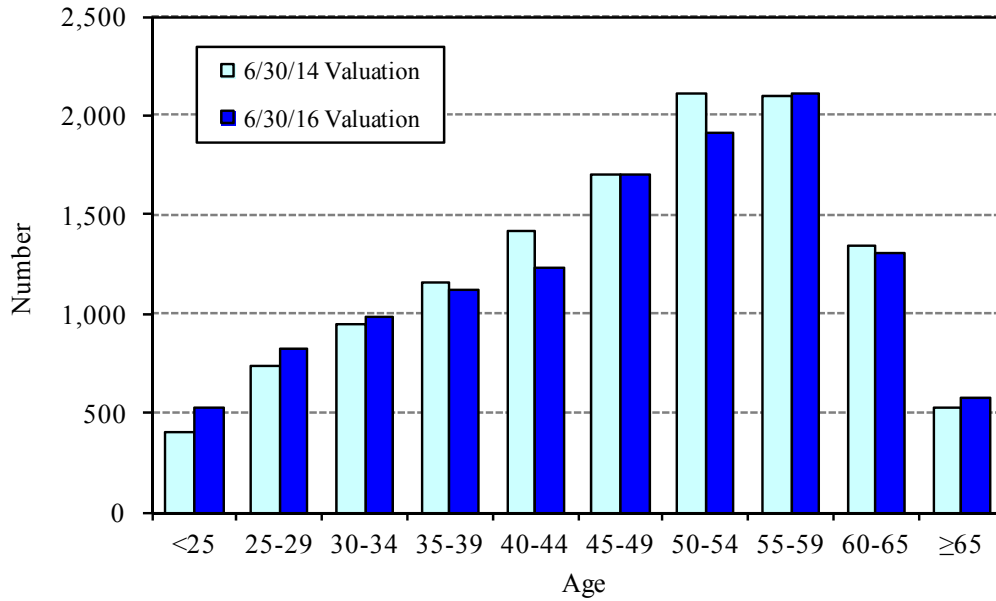
Teacher Actives by Age and Service
June 30, 2016

Age	Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	365	520	14	-	-	-	-	899
25-29	319	1,269	515	39	-	-	-	2,142
30-34	236	675	843	801	51	-	-	2,606
35-39	215	597	459	937	941	33	-	3,182
40-44	185	578	450	504	826	804	6	3,353
45-49	149	494	478	553	529	1,126	385	3,714
50-54	122	326	319	491	533	498	1,246	3,535
55-59	83	244	235	415	568	561	1,740	3,846
60-64	49	151	154	251	323	503	1,316	2,747
≥ 65	32	119	75	118	110	141	420	1,015
Total	1,755	4,973	3,542	4,109	3,881	3,666	5,113	27,039



PARTICIPANT STATISTICS

Active Age Distribution State Employees



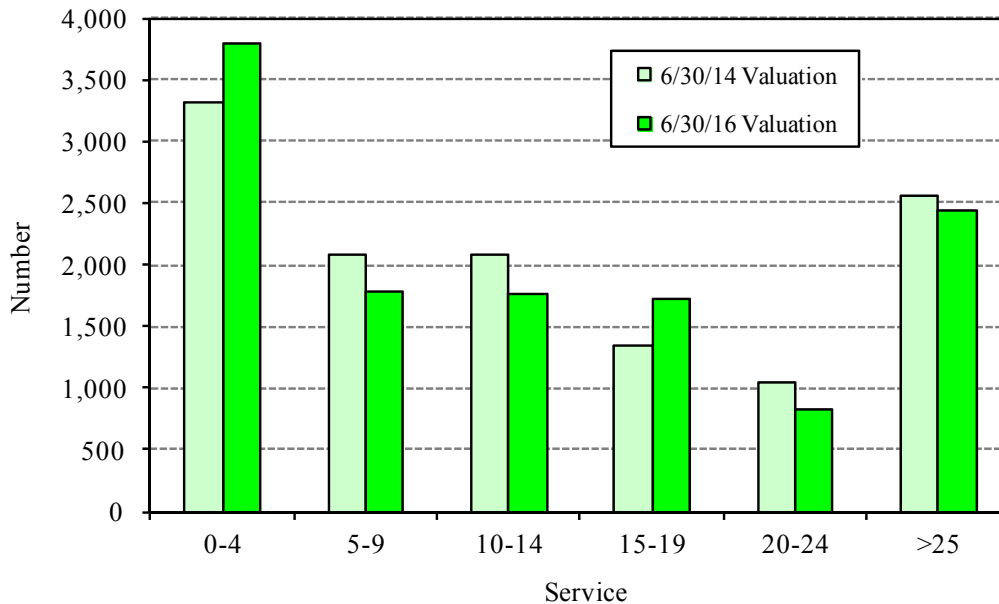
December 6, 2016

E-21



PARTICIPANT STATISTICS

Active Service Distribution State Employees



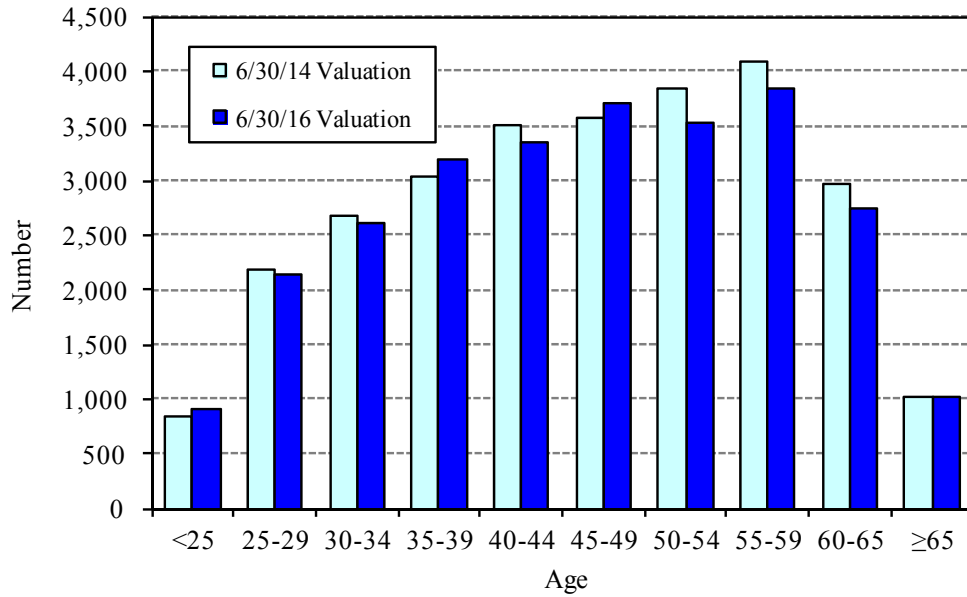
December 6, 2016

E-22



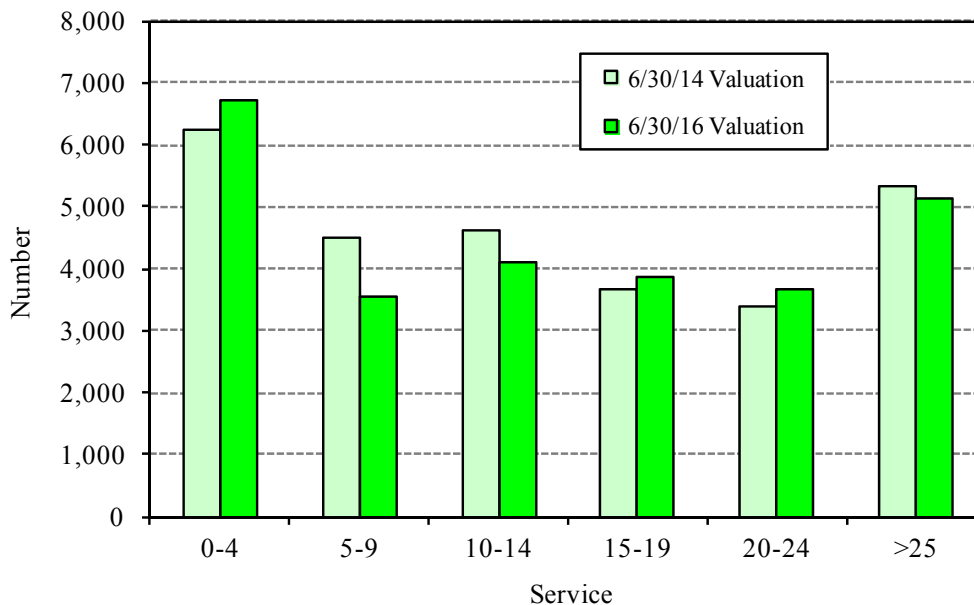
PARTICIPANT STATISTICS

Active Age Distribution Teachers



PARTICIPANT STATISTICS

Active Service Distribution Teachers



PARTICIPANT STATISTICS

State Retiree Healthcare Coverage by Age Group

June 30, 2016

Age	Single	2-Party	Family	EE+Ch	MA PPO ⁵²	Total
Under 50	40	-	1	3	10	54
50-54	139	3	3	6	4	155
55-59	523	22	3	12	26	586
60-64	1,321	82	5	10	155	1,573
65-69	258	18	1	2	2,211	2,490
70-74	142	7	1	-	1,700	1,850
75-79	141	7	-	-	1,195	1,343
80-84	92	7	-	-	959	1,058
Over 85	57	3	-	-	991	1,051
Total	2,713	149	14	33	7,251	10,160

Average Age	64.0	64.9	59.2	57.5	75.2	72.0
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⁵² Medical coverage election not provided for State retirees in Medicare Advantage PPO Plans.



December 6, 2016

E-25



PARTICIPANT STATISTICS

State Retiree Healthcare Coverage by Age Group

June 30, 2014

Age	Single	2-Party	Family	EE+Ch	MA PPO ⁵³	Total
Under 50	67	-	-	6	11	84
50-54	231	9	4	13	9	266
55-59	714	47	5	12	32	810
60-64	1,489	105	10	16	112	1,732
65-69	212	14	1	1	2,225	2,453
70-74	167	11	-	-	1,711	1,889
75-79	150	8	-	-	1,331	1,489
80-84	73	5	-	-	1,097	1,175
Over 85	64	3	-	-	1,091	1,158
Total	3,167	202	20	48	7,619	11,056

Average Age	63.0	63.6	59.7	54.9	75.4	71.5
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⁵³ Medical coverage election not provided for State retirees in Medicare Advantage PPO Plans.



December 6, 2016

E-26



PARTICIPANT STATISTICS

Teachers Retiree Healthcare Coverage by Age Group
June 30, 2016

Age	Single	2-Party	Family	EE+Ch	HP/MSMA	Total
Under 50	8	-	-	-	-	8
50-54	11	1	2	-	-	14
55-59	113	9	4	3	1	130
60-64	1,475	175	11	10	27	1,698
65-69	2,756	321	-	3	45	3,125
70-74	2,178	305	2	-	33	2,518
75-79	1,091	251	-	-	16	1,358
80-84	656	154	-	-	9	819
Over 85	603	99	-	-	14	716
Total	8,891	1,315	19	16	145	10,386

Average Age	71.7	73.3	61.6	62.5	71.8	71.9
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December 6, 2016

E-27



PARTICIPANT STATISTICS

Teachers Retiree Healthcare Coverage by Age Group
June 30, 2014

Age	Single	2-Party	Family	EE+Ch	HP/MSMA	Total
Under 50	12	-	-	1	-	13
50-54	34	-	6	1	-	41
55-59	222	28	5	-	2	257
60-64	1,836	221	14	17	45	2,133
65-69	2,483	321	1	-	43	2,848
70-74	1,674	338	1	-	27	2,040
75-79	932	263	-	-	9	1,204
80-84	605	151	-	-	12	768
Over 85	524	93	-	-	12	629
Total	8,322	1,415	27	19	150	9,933

Average Age	70.7	72.6	60.2	59.4	70.6	70.9
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December 6, 2016

E-28



PARTICIPANT STATISTICS

State Employees Retiree Healthcare Cash Subsidy Percent
June 30, 2016

Age	0%	50%	60%	70%	80%	90%	100%	Total
Under 50	10	-	-	3	1	2	38	54
50-54	6	-	-	1	1	-	147	155
55-59	25	1	1	2	1	1	555	586
60-64	84	-	2	2	6	2	1,477	1,573
65-69	297	13	16	15	22	17	2,110	2,490
70-74	354	8	9	16	25	10	1,428	1,850
75-79	339	2	7	3	12	2	978	1,343
80-84	287	1	3	-	6	-	761	1,058
Over 85	326	-	1	-	4	-	720	1,051
Total	1,728	25	39	42	78	34	8,214	10,160
Percent	17.0%	0.2%	0.4%	0.4%	0.8%	0.3%	80.8%	100%



PARTICIPANT STATISTICS

State Employees Retiree Healthcare Cash Subsidy Percent
June 30, 2014

Age	0%	50%	60%	70%	80%	90%	100%	Total
Under 50	10	0	0	5	1	1	67	84
50-54	8	0	1	2	1	1	253	266
55-59	27	2	2	1	0	1	777	810
60-64	65	2	6	3	6	9	1,641	1,732
65-69	453	12	13	17	13	19	1,926	2,453
70-74	457	3	6	14	24	6	1,379	1,889
75-79	412	5	5	1	8	3	1,055	1,489
80-84	374	0	1	0	4	0	796	1,175
Over 85	386	0	1	0	1	1	769	1,158
Total	2,192	24	35	43	58	41	8,663	11,056
Percent	19.8%	0.2%	0.3%	0.4%	0.5%	0.4%	78.4%	100%



PARTICIPANT STATISTICS

Teachers Retirees Percent
June 30, 2016

Age⁵⁴	0%	45%	Total
Under 50	-	8	8
50-54	2	12	14
55-59	21	109	130
60-64	18	1,680	1,698
65-69	26	3,099	3,125
70-74	288	2,230	2,518
75-79	4	1,354	1,358
80-84	4	815	819
Over 85	8	708	716
Total	371	10,015	10,386
Percent	3.6%	96.4%	100%

⁵⁴ 328 Teacher retirees with missing birth date were assigned the average retiree age of 71.9.



PARTICIPANT STATISTICS

Teachers Retiree Healthcare Cash Subsidy Percent
June 30, 2014

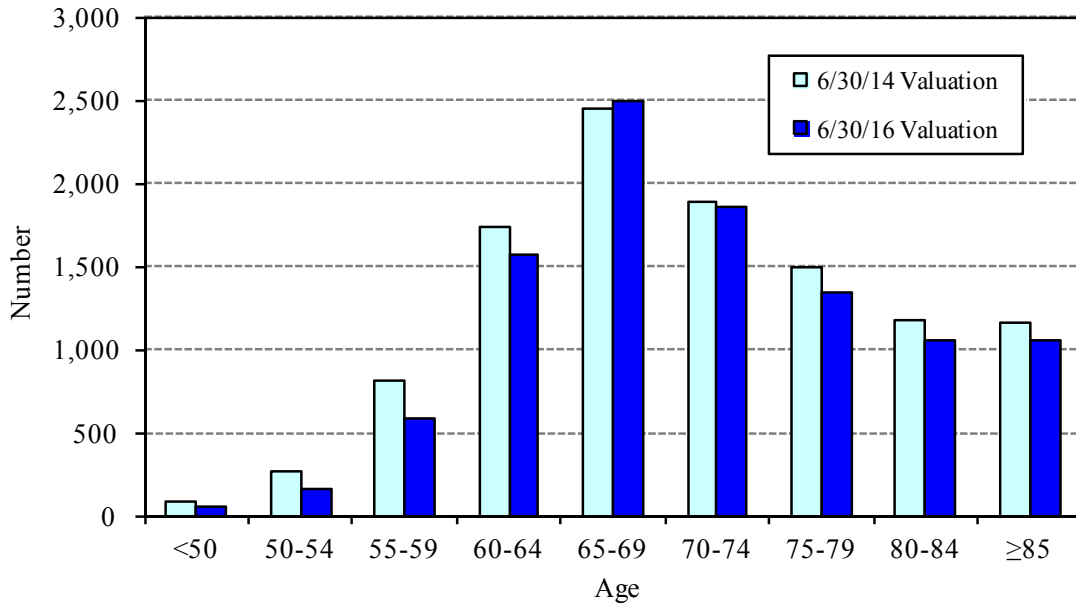
Age⁵⁵	0%	45%	Total
Under 50	7	6	13
50-54	5	36	41
55-59	17	240	257
60-64	140	1,993	2,133
65-69	76	2,772	2,848
70-74	31	2,009	2,040
75-79	12	1,192	1,204
80-84	7	761	768
Over 85	14	615	629
Total	309	9,624	9,933
Percent	3.1%	96.9%	100%

⁵⁵ 1 Teacher retiree with missing birth date was assigned the average retiree age of 70.9



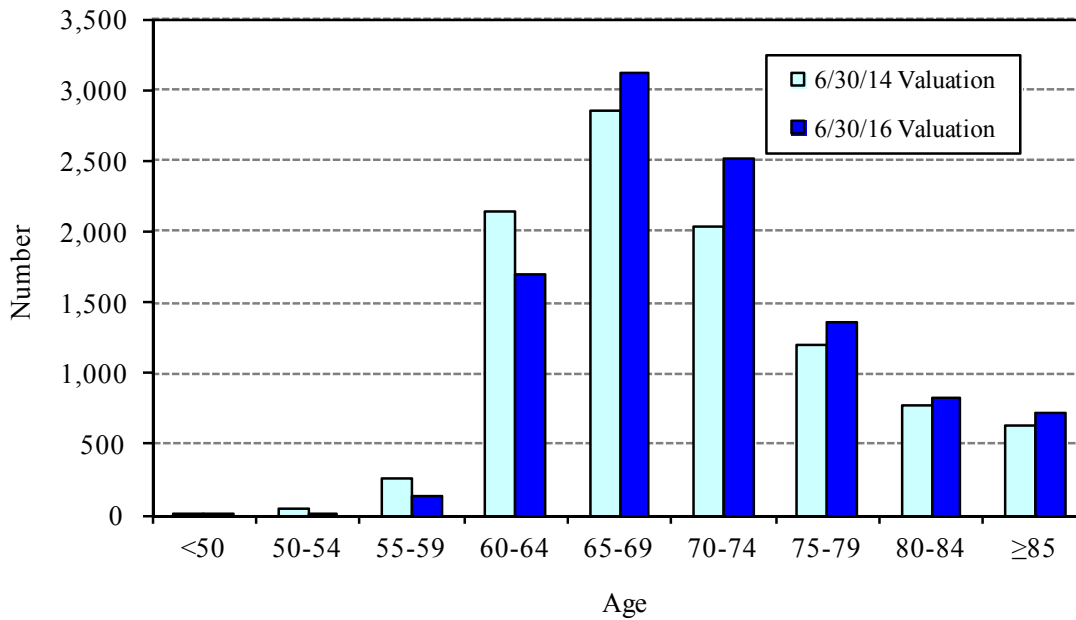
PARTICIPANT STATISTICS

**Retiree Age Distribution
State Employees**



PARTICIPANT STATISTICS

**Retiree Age Distribution
Teachers**



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Valuation Date	<ul style="list-style-type: none"> • June 30, 2014 • 2014/15 and 2015/16 ARCs • ARC calculated as of beginning of the year with interest to end of year 	<ul style="list-style-type: none"> • June 30, 2016 • 2016/17 ARC and 2017/18 State Employees ADC • ARC/ADC calculated as of beginning of the year with interest to end of year • 2017/18 and later year accounting information will be calculated in accordance with GASBS 75
■ Valuation Data	<ul style="list-style-type: none"> • 6/30/14 census data • 6/30/14 assets • 2014/15 premiums 	<ul style="list-style-type: none"> • 6/30/16 census data • 6/30/16 assets • 2016/17 premiums
■ General Inflation	<ul style="list-style-type: none"> • 3% annually • Basis for aggregate payroll and discount rate assumptions 	<ul style="list-style-type: none"> • Same



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																								
■ Discount Rate Basis	<ul style="list-style-type: none"> • No prefunding rate - 4.00% • Full prefunding rate - 7.25% 	<ul style="list-style-type: none"> • Same 																								
■ Discount Rate State Employees	<ul style="list-style-type: none"> • Select & ultimate discount rates based on ADC phase-in funding policy: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th><u>Year</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>2014/15</td> <td>5.95%</td> </tr> <tr> <td>2015/16</td> <td>6.28%</td> </tr> <tr> <td>2016/17</td> <td>6.60%</td> </tr> <tr> <td>2017/18</td> <td>6.93%</td> </tr> <tr> <td>2018/19+</td> <td>7.25%</td> </tr> </tbody> </table>	<u>Year</u>	<u>Rate</u>	2014/15	5.95%	2015/16	6.28%	2016/17	6.60%	2017/18	6.93%	2018/19+	7.25%	<ul style="list-style-type: none"> • Select & ultimate discount rates based on ADC phase-in funding policy: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th><u>Year</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>2014/15</td> <td>n/a</td> </tr> <tr> <td>2015/16</td> <td>n/a</td> </tr> <tr> <td>2016/17</td> <td>6.60%</td> </tr> <tr> <td>2017/18</td> <td>6.93%</td> </tr> <tr> <td>2018/19+</td> <td>7.25%</td> </tr> </tbody> </table>	<u>Year</u>	<u>Rate</u>	2014/15	n/a	2015/16	n/a	2016/17	6.60%	2017/18	6.93%	2018/19+	7.25%
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																																																				
■ Discount Rate Teachers	<ul style="list-style-type: none"> Select & ultimate discount rates based on ADC phase-in funding policy starting 2015/16: <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr><td>2014/15</td><td>4.00%</td></tr> <tr><td>2015/16</td><td>4.41%</td></tr> <tr><td>2016/17</td><td>4.81%</td></tr> <tr><td>2017/18</td><td>5.22%</td></tr> <tr><td>2018/19</td><td>5.63%</td></tr> <tr><td>2019/20</td><td>6.03%</td></tr> <tr><td>2020/21</td><td>6.44%</td></tr> <tr><td>2021/22</td><td>6.84%</td></tr> <tr><td>2022/23</td><td>7.25%</td></tr> <tr><td>2023/24</td><td>7.25%</td></tr> <tr><td>2024/25</td><td>7.25%</td></tr> <tr><td>2025/26+</td><td>7.25%</td></tr> </tbody> </table>	<u>Year</u>	<u>Rate</u>	2014/15	4.00%	2015/16	4.41%	2016/17	4.81%	2017/18	5.22%	2018/19	5.63%	2019/20	6.03%	2020/21	6.44%	2021/22	6.84%	2022/23	7.25%	2023/24	7.25%	2024/25	7.25%	2025/26+	7.25%	<ul style="list-style-type: none"> Select & ultimate discount rates based on ADC phase-in funding policy starting 2018/19: <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr><td>2014/15</td><td>n/a</td></tr> <tr><td>2015/16</td><td>n/a</td></tr> <tr><td>2016/17</td><td>4.00%</td></tr> <tr><td>2017/18</td><td>4.00%</td></tr> <tr><td>2018/19</td><td>4.41%</td></tr> <tr><td>2019/20</td><td>4.81%</td></tr> <tr><td>2020/21</td><td>5.22%</td></tr> <tr><td>2021/22</td><td>5.63%</td></tr> <tr><td>2022/23</td><td>6.03%</td></tr> <tr><td>2023/24</td><td>6.44%</td></tr> <tr><td>2024/25</td><td>6.84%</td></tr> <tr><td>2025/26+</td><td>7.25%</td></tr> </tbody> </table>	<u>Year</u>	<u>Rate</u>	2014/15	n/a	2015/16	n/a	2016/17	4.00%	2017/18	4.00%	2018/19	4.41%	2019/20	4.81%	2020/21	5.22%	2021/22	5.63%	2022/23	6.03%	2023/24	6.44%	2024/25	6.84%	2025/26+	7.25%
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Discount Rate Ancillary Groups	<ul style="list-style-type: none"> 4.0% 	<ul style="list-style-type: none"> Same
■ Aggregate Payroll Increases	<ul style="list-style-type: none"> 3.25% Inflation plus 0.25% For Normal Cost calculation and UAAL amortization 	<ul style="list-style-type: none"> Same



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																																										
■ Merit Pay Increases	<ul style="list-style-type: none"> MainePERS 6/30/13 Valuation <table border="1"> <thead> <tr> <th><u>Service</u></th> <th><u>State</u></th> <th><u>Teachers</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>7.00%</td><td>10.00%</td></tr> <tr><td>5</td><td>2.50%</td><td>2.75%</td></tr> <tr><td>10</td><td>1.00%</td><td>1.50%</td></tr> <tr><td>15</td><td>0.45%</td><td>1.00%</td></tr> <tr><td>20</td><td>0.20%</td><td>0.20%</td></tr> <tr><td>25+</td><td>0.00%</td><td>0.00%</td></tr> </tbody> </table> <ul style="list-style-type: none"> 0.0% for Legislative 0.0% for Judicial Added to aggregate payroll increase assumption and used for Normal Cost calculation 	<u>Service</u>	<u>State</u>	<u>Teachers</u>	0	7.00%	10.00%	5	2.50%	2.75%	10	1.00%	1.50%	15	0.45%	1.00%	20	0.20%	0.20%	25+	0.00%	0.00%	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) <table border="1"> <thead> <tr> <th><u>Service</u></th> <th><u>State</u></th> <th><u>Teachers</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>6.00%</td><td>11.75%</td></tr> <tr><td>5</td><td>2.25%</td><td>3.00%</td></tr> <tr><td>10</td><td>1.00%</td><td>2.00%</td></tr> <tr><td>15</td><td>0.45%</td><td>1.25%</td></tr> <tr><td>20</td><td>0.20%</td><td>0.00%</td></tr> <tr><td>25+</td><td>0.00%</td><td>0.00%</td></tr> </tbody> </table> <ul style="list-style-type: none"> 0.0% for Legislative 0.0% for Judicial Added to aggregate payroll increase assumption and used for Normal Cost calculation 	<u>Service</u>	<u>State</u>	<u>Teachers</u>	0	6.00%	11.75%	5	2.25%	3.00%	10	1.00%	2.00%	15	0.45%	1.25%	20	0.20%	0.00%	25+	0.00%	0.00%
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ACTUARIAL ASSUMPTIONS

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■ Healthcare Cost Increases State Employees Ancillary Groups	<p align="center">Increase from Prior Year</p> <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>HMO Choice</u></th> <th><u>Year</u></th> <th><u>Medicare Plan</u></th> </tr> </thead> <tbody> <tr> <td>2014/15</td> <td>Premium</td> <td>2014</td> <td>Premium</td> </tr> <tr><td>2015/16</td><td>6.0%</td><td>2015</td><td>7.8%</td></tr> <tr><td>2016/17</td><td>6.0%</td><td>2016</td><td>7.2%</td></tr> <tr><td>2017/18</td><td>6.0%</td><td>2017</td><td>6.7%</td></tr> <tr><td>2018/19</td><td>6.0%</td><td>2018</td><td>6.1%</td></tr> <tr><td>2019/20</td><td>5.5%</td><td>2019</td><td>5.6%</td></tr> <tr><td>2020/21+</td><td>5.0%</td><td>2020+</td><td>5.0%</td></tr> </tbody> </table> <ul style="list-style-type: none"> HMO Choice premium increases for fiscal years ending after 6/30/15 limited to CPI plus 3% per Public Law Chapter 368 §H-1 	<u>Year</u>	<u>HMO Choice</u>	<u>Year</u>	<u>Medicare Plan</u>	2014/15	Premium	2014	Premium	2015/16	6.0%	2015	7.8%	2016/17	6.0%	2016	7.2%	2017/18	6.0%	2017	6.7%	2018/19	6.0%	2018	6.1%	2019/20	5.5%	2019	5.6%	2020/21+	5.0%	2020+	5.0%	<p align="center">Increase from Prior Year</p> <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>HMO Choice</u></th> <th><u>Year</u></th> <th><u>Medicare Plan</u></th> </tr> </thead> <tbody> <tr> <td>2014/15</td> <td>n/a</td> <td>2014</td> <td>n/a</td> </tr> <tr> <td>2015/16</td> <td>n/a</td> <td>2015</td> <td>n/a</td> </tr> <tr> <td>2016/17</td> <td>Premium</td> <td>2016</td> <td>Premium</td> </tr> <tr><td>2017/18</td><td>6.0%</td><td>2017</td><td>6.7%</td></tr> <tr><td>2018/19</td><td>6.0%</td><td>2018</td><td>6.1%</td></tr> <tr><td>2019/20</td><td>5.5%</td><td>2019</td><td>5.6%</td></tr> <tr><td>2020/21+</td><td>5.0%</td><td>2020+</td><td>5.0%</td></tr> </tbody> </table> <ul style="list-style-type: none"> HMO Choice premium increases for fiscal years ending after 6/30/15 limited to CPI plus 3% per Public Law Chapter 368 §H-1 	<u>Year</u>	<u>HMO Choice</u>	<u>Year</u>	<u>Medicare Plan</u>	2014/15	n/a	2014	n/a	2015/16	n/a	2015	n/a	2016/17	Premium	2016	Premium	2017/18	6.0%	2017	6.7%	2018/19	6.0%	2018	6.1%	2019/20	5.5%	2019	5.6%	2020/21+	5.0%	2020+	5.0%
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2019/20	5.5%	2019	5.6%																																																															
2020/21+	5.0%	2020+	5.0%																																																															
<u>Year</u>	<u>HMO Choice</u>	<u>Year</u>	<u>Medicare Plan</u>																																																															
2014/15	n/a	2014	n/a																																																															
2015/16	n/a	2015	n/a																																																															
2016/17	Premium	2016	Premium																																																															
2017/18	6.0%	2017	6.7%																																																															
2018/19	6.0%	2018	6.1%																																																															
2019/20	5.5%	2019	5.6%																																																															
2020/21+	5.0%	2020+	5.0%																																																															



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation			June 30, 2016 Valuation				
■ Healthcare Cost Increases Teachers	Increase from Prior Year			Increase from Prior Year				
		HMO	Blue	Medicare		HMO	Blue	Medicare
	<u>Year</u>	<u>Choice</u>	<u>Choice</u>	<u>Plan</u>	<u>Year</u>	<u>Choice</u>	<u>Choice</u>	<u>Plan</u>
		Premium	Premium	Premium		n/a	n/a	n/a
	2014/15				2014/15			
	2015/16	7.5%	7.5%	7.8%	2015/16	n/a	n/a	n/a
	2016/17	7.0%	7.0%	7.2%	2016/17	Premium	Premium	Premium
	2017/18	6.5%	6.5%	6.7%	2017/18	6.5%	6.5%	6.7%
	2018/19	6.0%	6.0%	6.1%	2018/19	6.0%	6.0%	6.1%
	2019/20	5.5%	5.5%	5.6%	2019/20	5.5%	5.5%	5.6%
2020/21+	5.0%	5.0%	5.0%	2020/21+	5.0%	5.0%	5.0%	
	<ul style="list-style-type: none"> State cash subsidy increases for fiscal years ending after 6/30/15 limited to CPI plus 3% per Public Law Chapter 368 §H-3 			<ul style="list-style-type: none"> State cash subsidy increases for fiscal years ending after 6/30/15 limited to CPI plus 3% per Public Law Chapter 368 §H-3 				



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation			June 30, 2016 Valuation				
■ State Average Monthly Net Claims Cost	<ul style="list-style-type: none"> 2014/15 claims cost by age: 			<ul style="list-style-type: none"> 2016/17 claims cost by age: 				
	HMO Choice			HMO Choice				
	<u>Retiree Monthly Claims</u>			<u>Retiree Monthly Claims</u>				
		<u>Age</u>	<u>Male</u>	<u>Female</u>		<u>Age</u>	<u>Male</u>	<u>Female</u>
		50	\$ 603	\$ 784		50	\$ 685	\$ 747
		55	780	799		55	888	895
		60	990	853		60	1,135	1,067
		65	1,211	1,015		65	1,408	1,265
		70	1,535	1,250		70	1,700	1,494
		75	1,853	1,495		75	2,018	1,745
	<ul style="list-style-type: none"> Increases with healthcare trend assumption 			<ul style="list-style-type: none"> Increases with healthcare trend assumption 				



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation	
■ State Relative Age-Related Claims Cost Factors	HMO Choice Retiree and Spouse		
	<u>Age</u> <u>Male</u> <u>Female</u>	HMO Choice Retiree and Spouse	
	50-55	51% 71%	<u>Age</u> <u>Male</u> <u>Female</u>
	55-60	66% 73%	50-55 50% 59%
	60-65	83% 80%	55-60 64% 71%
	65-70	100% 100%	60-65 82% 84%
	70-75	130% 122%	65-70 100% 100%
	75-80	151% 144%	70-75 120% 118%
	80-85	160% 160%	75-80 142% 137%
	<ul style="list-style-type: none"> • Used to allocate claims cost by age and gender 	<ul style="list-style-type: none"> • Used to allocate claims cost by age and gender 	



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Active Mortality State Employees Legislative Judicial Ancillary Groups	<ul style="list-style-type: none"> • MainePERS 6/30/13 valuation assumption • RP-2000 projected to 2015 using Scale AA 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) • RP-2014 Total Dataset Healthy Employee Mortality Table (104% for males and 120% for females) projected from 2006 base values using the RPEC 2015 with MP-2015 with an ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 and convergence to the ultimate rates in 2020. Healthy annuitant mortality assumption is used for ages after 80.



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation				
■ Active Mortality State Employees Legislative Judicial Ancillary Groups	<ul style="list-style-type: none"> Sample rates: 	<ul style="list-style-type: none"> Sample rates: 				
	<u>State</u>		<u>State 2015 Rates</u>			
	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
	20	0.03%	0.02%	20	0.04%	0.02%
	25	0.03%	0.02%	25	0.05%	0.02%
	30	0.04%	0.02%	30	0.04%	0.03%
	35	0.07%	0.04%	35	0.05%	0.04%
	40	0.10%	0.06%	40	0.06%	0.05%
	45	0.12%	0.09%	45	0.10%	0.08%
	50	0.16%	0.13%	50	0.18%	0.13%
	55	0.27%	0.24%	55	0.29%	0.20%
60	0.53%	0.47%	60	0.48%	0.30%	
65	1.03%	0.90%	65	0.86%	0.45%	



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Active Mortality Teachers	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption RP-2000 projected to 2015 using Scale AA, setback 2 years 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) RP-2014 Total Dataset Healthy Employee Mortality Table (99% males and females) projected from 2006 base values using the RPEC 2015 with MP-2015 with an ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 and convergence to the ultimate rates in 2020. Healthy annuitant mortality assumption is used for ages after 80.



ACTUARIAL ASSUMPTIONS

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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Healthy Annuitant Mortality State Employees Legislative Judicial Ancillary Groups	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption RP-2000 projected to 2015 using Scale AA 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) RP-2014 Total Dataset Healthy Annuitant Mortality Table (104% for males and 120% for females) projected from 2006 base values using the RPEC 2015 with MP-2015 with an ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 and convergence to the ultimate rates in 2020. Healthy active mortality assumption is used for ages before age 50.



ACTUARIAL ASSUMPTIONS

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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Healthy Annuitant Mortality Teachers	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption RP-2000 projected to 2015 using Scale AA, setback 2 years 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) RP-2014 Total Dataset Healthy Annuitant Mortality Table (99% males and females) projected from 2006 base values using the RPEC 2015 with MP-2015 with an ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 and convergence to the ultimate rates in 2020. Healthy active mortality assumption is used for ages before age 50.



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Healthy Annuitant Mortality Teachers	<ul style="list-style-type: none"> Sample rates: 	<ul style="list-style-type: none"> Sample rates:
	<u>State</u>	<u>State 2015 Rates</u>
	<u>Age</u> <u>Male</u> <u>Female</u>	<u>Age</u> <u>Male</u> <u>Female</u>
	50 0.14% 0.11%	50 0.40% 0.27%
	55 0.22% 0.20%	55 0.57% 0.36%
	60 0.41% 0.36%	60 0.76% 0.52%
	65 0.81% 0.71%	65 1.08% 0.81%
	70 1.42% 1.25%	70 1.69% 1.30%
	75 2.46% 2.04%	75 2.75% 2.14%
	80 4.48% 3.38%	80 4.62% 3.61%
85 8.07% 5.71%	85 8.04% 6.38%	
90 14.18% 10.26%	90 14.08% 11.34%	
95 22.67% 16.54%	95 22.15% 18.59%	



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
■ Disabled Mortality All Plans	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption IRS Revenue Ruling 97-7 Disabled Mortality Table for males and females 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) RP-2014 Total Dataset Disabled Annuitant Mortality Table (108% for males and 105% for females) projected from 2006 base values using the RPEC 2015 with MP-2015 with an ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 and convergence to the ultimate rates in 2020. Healthy active mortality assumption is used for ages before age 50.



ACTUARIAL ASSUMPTIONS

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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																																																							
■ Termination State Employees Teachers	• MainePERS 6/30/13 valuation assumption • Sample rates: <table border="1"> <thead> <tr> <th><u>Service</u></th> <th><u>State</u></th> <th><u>Teachers</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>30.0%</td><td>37.0%</td></tr> <tr><td>1</td><td>19.0%</td><td>27.0%</td></tr> <tr><td>2</td><td>14.0%</td><td>20.5%</td></tr> <tr><td>3</td><td>11.0%</td><td>16.5%</td></tr> <tr><td>4</td><td>9.0%</td><td>14.3%</td></tr> <tr><td>5</td><td>7.5%</td><td>12.0%</td></tr> <tr><td>10</td><td>4.4%</td><td>6.9%</td></tr> <tr><td>15</td><td>4.0%</td><td>5.5%</td></tr> <tr><td>20</td><td>4.0%</td><td>5.5%</td></tr> <tr><td>25+</td><td>4.0%</td><td>5.5%</td></tr> </tbody> </table>	<u>Service</u>	<u>State</u>	<u>Teachers</u>	0	30.0%	37.0%	1	19.0%	27.0%	2	14.0%	20.5%	3	11.0%	16.5%	4	9.0%	14.3%	5	7.5%	12.0%	10	4.4%	6.9%	15	4.0%	5.5%	20	4.0%	5.5%	25+	4.0%	5.5%	• MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) • Sample rates: <table border="1"> <thead> <tr> <th><u>Service</u></th> <th><u>State & Teachers</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>33.50%</td></tr> <tr><td>1</td><td>22.00%</td></tr> <tr><td>2</td><td>16.50%</td></tr> <tr><td>3</td><td>13.25%</td></tr> <tr><td>4</td><td>12.15%</td></tr> <tr><td>5</td><td>10.50%</td></tr> <tr><td>10</td><td>5.95%</td></tr> <tr><td>15</td><td>4.25%</td></tr> <tr><td>20</td><td>4.00%</td></tr> <tr><td>25+</td><td>4.00%</td></tr> </tbody> </table>	<u>Service</u>	<u>State & Teachers</u>	0	33.50%	1	22.00%	2	16.50%	3	13.25%	4	12.15%	5	10.50%	10	5.95%	15	4.25%	20	4.00%	25+	4.00%
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																																																								
■ Termination Legislative Judicial	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption Sample rates: 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) Sample rates: 																																																								
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																																																																								
■ Disability Incidence	<ul style="list-style-type: none"> MainePERS 6/30/13 valuation assumption Sample rates: 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) Sample rates: 																																																																								
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																			
■ Service Retirement State Employees	<ul style="list-style-type: none"> • MainePERS 2010 Experience Study Tier 1 assumption • Tier 1 rates set back 2 years for Tier 2 and 5 years for Tier 3 and adjusted for OPEB 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) 																			
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	50	7.5%	7.5%	7.5%	1.0%	50	2.9%	n/a	n/a												
	55	7.5%	6.6%	6.5%	7.5%	55	4.0%	4.0%	4.0%												
	56	10.0%	9.0%	6.2%	7.1%	56	4.0%	4.0%	4.0%												
	57	14.0%	12.7%	5.8%	6.6%	57	4.0%	4.0%	4.0%												
	58	15.0%	13.6%	8.0%	6.1%	58	7.5%	4.0%	4.0%												
	59	23.0%	21.0%	11.4%	5.5%	59	15.0%	4.0%	4.0%												
	60	30.0%	36.3%	12.4%	5.0%	60	25.0%	7.5%	4.0%												
	61	30.0%	30.0%	19.3%	7.0%	61	20.0%	17.5%	4.0%												
	62	27.0%	27.0%	41.6%	10.3%	62	20.0%	25.0%	4.0%												
	63	27.0%	27.0%	30.0%	11.3%	63	20.0%	15.0%	7.5%												
64	25.0%	25.0%	27.0%	17.8%	64	25.0%	20.0%	22.5%													
65	25.0%	25.0%	27.0%	46.1%	65	35.0%	25.0%	30.0%													
70	100%	100%	100%	100%	70	20.0%	20.0%	30.0%													
75	100%	100%	100%	100%	75	100%	100%	100%													



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																			
■ Service Retirement Teachers	<ul style="list-style-type: none"> • MainePERS 2010 Experience Study Tier 1 assumption • Tier 1 rates set back 2 years for Tier 2 and 5 years for Tier 3 and adjusted for OPEB 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) • Same as State Employees Plan 																			
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ACTUARIAL ASSUMPTIONS

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<ul style="list-style-type: none"> Service Retirement OPEB Adjustment State Employees Teachers 	<ul style="list-style-type: none"> OPEB retirement rates include an additional percentage of retirees deferring retirement until NRA since no cash subsidy before NRA <table border="1"> <thead> <tr> <th><u>Age</u></th> <th><u>Tier 1</u></th> <th><u>Tier 2</u></th> <th><u>Tier 3</u></th> </tr> </thead> <tbody> <tr><td>51</td><td>2%</td><td>0%</td><td>0%</td></tr> <tr><td>52</td><td>4%</td><td>0%</td><td>0%</td></tr> <tr><td>53</td><td>6%</td><td>4%</td><td>0%</td></tr> <tr><td>54</td><td>8%</td><td>8%</td><td>0%</td></tr> <tr><td>55</td><td>10%</td><td>12%</td><td>0%</td></tr> <tr><td>56</td><td>8%</td><td>16%</td><td>6%</td></tr> <tr><td>57</td><td>6%</td><td>20%</td><td>12%</td></tr> <tr><td>58</td><td>4%</td><td>16%</td><td>18%</td></tr> <tr><td>59</td><td>2%</td><td>12%</td><td>24%</td></tr> <tr><td>60</td><td>n/a</td><td>8%</td><td>30%</td></tr> <tr><td>61</td><td>n/a</td><td>4%</td><td>24%</td></tr> <tr><td>62</td><td>n/a</td><td>n/a</td><td>18%</td></tr> <tr><td>63</td><td>n/a</td><td>n/a</td><td>12%</td></tr> <tr><td>64</td><td>n/a</td><td>n/a</td><td>6%</td></tr> </tbody> </table>	<u>Age</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	51	2%	0%	0%	52	4%	0%	0%	53	6%	4%	0%	54	8%	8%	0%	55	10%	12%	0%	56	8%	16%	6%	57	6%	20%	12%	58	4%	16%	18%	59	2%	12%	24%	60	n/a	8%	30%	61	n/a	4%	24%	62	n/a	n/a	18%	63	n/a	n/a	12%	64	n/a	n/a	6%	<ul style="list-style-type: none"> n/a
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<ul style="list-style-type: none"> Service Retirement Legislative Judicial 	<ul style="list-style-type: none"> Maine Legislative and Judicial 6/30/13 valuation assumptions Legislative: <ul style="list-style-type: none"> Tier 1 - Age 60 Tier 2 - Age 62 Tier 3 - Age 65 Judicial: <ul style="list-style-type: none"> Tier 1 - Age 60 Tier 2 - 50%/year starting at 62 Tier 3 - 50%/year starting at 65 100% at age 70 for Tiers 2 & 3 	<ul style="list-style-type: none"> MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) Legislative - only applies in years following biennial term: <ul style="list-style-type: none"> Tier 1 - 25%/year starting at 60 Tier 2 - 25%/year starting at 62 Tier 3 - 25%/year starting at 65 100% at age 70 Judicial: <ul style="list-style-type: none"> Tier 1 - Age 60 Tier 2 - 50%/year starting at 62 Tier 3 - 50%/year starting at 65 100% at age 75 for Tiers 2 & 3



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<ul style="list-style-type: none"> ■ Service Retirement Special Plans Except 1998 Special Plan and 25 & Out Plan 	<ul style="list-style-type: none"> • MainePERS 6/30/13 valuation assumption • 50% per year once eligibility for unreduced benefits is reached 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) • 50% per year once eligibility for unreduced benefits is reached



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation																											
<ul style="list-style-type: none"> ■ Service Retirement State 1998 Special Plan 	<ul style="list-style-type: none"> • MainePERS 6/30/13 valuation assumption • 50% per year once eligibility for unreduced benefits is reached 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td align="center" colspan="2"><u>Service</u></td> </tr> <tr> <td><u>Age</u></td> <td align="center"><u>< 25</u></td> <td align="center"><u>>= 25</u></td> </tr> <tr> <td>55</td> <td align="center">20.0%</td> <td align="center">25.0%</td> </tr> <tr> <td>57</td> <td align="center">10.0%</td> <td align="center">25.0%</td> </tr> <tr> <td>60</td> <td align="center">20.0%</td> <td align="center">30.0%</td> </tr> <tr> <td>62</td> <td align="center">15.0%</td> <td align="center">30.0%</td> </tr> <tr> <td>65</td> <td align="center">23.4%</td> <td align="center">30.0%</td> </tr> <tr> <td>67</td> <td align="center">36.8%</td> <td align="center">50.0%</td> </tr> <tr> <td>70</td> <td align="center">100%</td> <td align="center">100%</td> </tr> </table>		<u>Service</u>		<u>Age</u>	<u>< 25</u>	<u>>= 25</u>	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%	100%
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ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation								
<ul style="list-style-type: none"> ■ Service Retirement State Special 25 & Out Plan 	<ul style="list-style-type: none"> • MainePERS 6/30/13 valuation assumption • 50% per year once eligibility for unreduced benefits is reached 	<ul style="list-style-type: none"> • MainePERS 6/30/16 valuation assumption (per 2012-2015 Experience Study) <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Service</u></th> <th style="text-align: center;"><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">25%</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">50%</td> </tr> <tr> <td style="text-align: center;">35</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table>	<u>Service</u>	<u>Rate</u>	25	25%	30	50%	35	100%
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25	25%									
30	50%									
35	100%									



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<ul style="list-style-type: none"> ■ Participation at Retirement 	<ul style="list-style-type: none"> • State: <ul style="list-style-type: none"> ➢ Currently covered - 95% for future retirees and 20% for spouses ➢ Currently waived: <ul style="list-style-type: none"> - Hired \leq 7/1/91 - 20% will elect medical coverage before retirement - Hired $>$ 7/1/91 - 20% will elect medical coverage before retirement and receive 50% cash subsidy, 10% will elect medical and have only implied subsidy • Teachers: <ul style="list-style-type: none"> ➢ Currently covered - 75% for future retirees ➢ Currently waived - $\frac{1}{3}$ will elect medical coverage 	<ul style="list-style-type: none"> • Same



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<ul style="list-style-type: none"> ■ Medical Plan at Retirement 	<ul style="list-style-type: none"> • Medicare eligible: <ul style="list-style-type: none"> ➢ Current plan election < 65 ➢ Medicare plan ≥ 65 • Non-Medicare eligible <ul style="list-style-type: none"> ➢ Current plan election • State employees have one plan option 	<ul style="list-style-type: none"> • Same
<ul style="list-style-type: none"> ■ Medicare Eligible Rate 	<ul style="list-style-type: none"> • Future retirees: <ul style="list-style-type: none"> ➢ Hired < 4/1/86 - 75% ➢ Hired ≥ 4/1/86 - 100% • Current retirees < 65 - 94% • Current retirees ≥ 65 - actual data 	<ul style="list-style-type: none"> • Same
<ul style="list-style-type: none"> ■ Marital Status 	<ul style="list-style-type: none"> • Currently covered - based on current coverage election • Currently waived - 80% 	<ul style="list-style-type: none"> • Same



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<ul style="list-style-type: none"> ■ Ineligible Teachers 	<ul style="list-style-type: none"> • Ineligible Teachers assumed equal to 10% of all Teachers • 1/3 of ineligible Teachers assumed to receive State contribution at retirement • Assumption per State 	<ul style="list-style-type: none"> • Same
<ul style="list-style-type: none"> ■ Spouse Age 	<ul style="list-style-type: none"> • Current actives - males 3 years older than females • Current retirees - males 3 years older than females if no retiree spouse birth date provided 	<ul style="list-style-type: none"> • Same



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2014 Valuation	June 30, 2016 Valuation
<p>■ Data Assumptions</p>	<ul style="list-style-type: none"> • Ineligible State elected officials <ul style="list-style-type: none"> ➢ Assume none in data • Active employees with waived health insurance coverage included in valuation • 1 Teacher retiree missing birth date - assigned average age 	<ul style="list-style-type: none"> • Ineligible State elected officials <ul style="list-style-type: none"> ➢ Assume none in data • Active employees with waived health insurance coverage included in valuation • 328 Teacher retirees missing birth date - assigned average age



ACTUARIAL METHODS

Method	June 30, 2014 Valuation	June 30, 2016 Valuation
<p>■ Cost Method</p>	<ul style="list-style-type: none"> • Entry Age Normal • Normal Cost is a level percentage of payroll 	<ul style="list-style-type: none"> • Same
<p>■ Actuarial Value of Assets</p>	<ul style="list-style-type: none"> • Investment gains and losses spread over a 5-year period • Not less than 80% nor more than 120% of market value 	<ul style="list-style-type: none"> • Same
<p>■ Amortization Method</p>	<ul style="list-style-type: none"> • Level percent of payroll 	<ul style="list-style-type: none"> • Same



ACTUARIAL METHODS

Method	June 30, 2014 Valuation	June 30, 2016 Valuation
<p>■ Amortization Periods State Employees</p>	<ul style="list-style-type: none"> • 30-year fixed (closed) period from 6/30/07 for initial UAAL, assumption and plan changes (23 years remaining on 6/30/14) • 10-year fixed (closed) periods for gains and losses • Maximum 30-year combined period 	<ul style="list-style-type: none"> • 30-year fixed (closed) period from 6/30/07 for initial UAAL, assumption and plan changes (21 years remaining on 6/30/16) • 10-year fixed (closed) periods for gains and losses • Maximum 30-year combined period
<p>■ Amortization Periods Teachers and Ancillary Groups</p>	<ul style="list-style-type: none"> • 30-year fixed (closed) period from 6/30/07 for initial UAAL, assumption and plan changes (23 years remaining on 6/30/14) • 15-year fixed (closed) periods for gains and losses • Maximum 30-year combined period 	<ul style="list-style-type: none"> • 30-year fixed (closed) period from 6/30/07 for initial UAAL, assumption and plan changes (21 years remaining on 6/30/16) • 15-year fixed (closed) periods for gains and losses • Maximum 30-year combined period



ACTUARIAL METHODS

Method	June 30, 2014 Valuation	June 30, 2016 Valuation
<p>■ Implied Subsidy</p>	<ul style="list-style-type: none"> • Retirees pay blended medical premiums rather than expected medical costs by age and gender • Active premiums subsidize non-Medicare eligible retiree medical costs (“implied subsidy”) • State Employees and Ancillary Groups - Valuation includes an implied subsidy for retirees, spouses, and surviving spouses to age 65 if Medicare eligible and for life if not Medicare eligible • Teachers – Valuation does not include an implied subsidy assuming State is not responsible for Teachers’ implied subsidy as Public Education General Purpose Aid payments do not directly pay for active Teachers’ premiums 	
<p>■ Future New Entrants</p>	<ul style="list-style-type: none"> • Valuation Results – closed group, no new hires • Projections – simplified open group projection: <ul style="list-style-type: none"> ➢ Actives – Total pay increased with aggregate payroll assumption ➢ Retirees – No additional retirees from new hires over projection period 	



DEFINITIONS

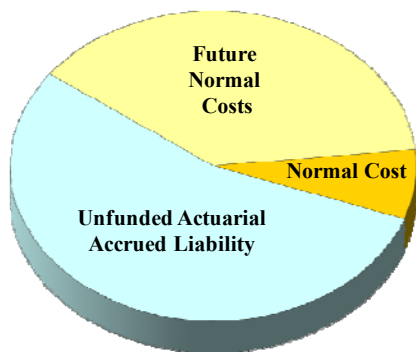
<p>■ GASBS 45 Accrual Accounting</p>	<ul style="list-style-type: none"> ● Project future employer-provided benefit cash flow for current active employees and current retirees ● Discount projected cash flow to valuation date using discount rate and actuarial assumptions to determine present value of benefits (PVB) ● Discount rate is expected long-term return on plan assets ● Allocate PVB to past, current, and future periods ● Normal Cost (NC) is portion of PVB allocated to current fiscal year ● Actuarial cost method used for valuation is Entry Age Normal (EAN) Cost method which determines Normal Cost as a level percent of payroll ● Actuarial Accrued Liability (AAL) is portion of PVB allocated to prior service with the employer ● Unfunded AAL (UAAL) is AAL less Plan Assets ● Assets must be in segregated and restricted trust to be considered Plan Assets for GASBS 45
<p>■ PayGo Cost</p>	<ul style="list-style-type: none"> ● Cash subsidy is employer pay-as-you-go benefit payments for retirees ● Implied subsidy is difference between actual cost of retiree benefits and retiree premiums subsidized by active employee premiums



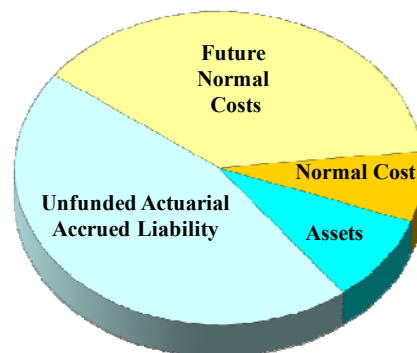
DEFINITIONS

Present Value of Benefits

**Present Value of Benefits
(Without Plan Assets)**



**Present Value of Benefits
(With Plan Assets)**



DEFINITIONS

<p>■ Annual Required Contribution (ARC)</p>	<ul style="list-style-type: none"> ● GASBS 45 contribution is Normal Cost plus amortization of: <ul style="list-style-type: none"> ➢ Initial UAAL and AAL for plan, assumption, and method changes ➢ Experience gains and losses (difference between actual experience and that expected from assumptions) ➢ Contribution gains and losses (difference between ARC and actual contributions)
<p>■ Net OPEB Obligation (NOO)</p>	<ul style="list-style-type: none"> ● NOO is accumulated amounts expensed but not funded ● Net OPEB Asset if amounts funded exceed those expensed
<p>■ Annual OPEB Cost (AOC)</p>	<ul style="list-style-type: none"> ● Expense for current period including: <ul style="list-style-type: none"> ➢ ARC ➢ Interest on NOO ➢ Adjustment of NOO ● Adjustment of NOO prevents double counting of expense since ARCs include amortization of prior contribution gains and losses previously expensed



DEFINITIONS

<p>■ Terminology Used in Report</p>	<ul style="list-style-type: none"> ● AAL - Actuarial Accrued Liability ● ADC - Actuarially Determined Contribution ● AOC - Annual OPEB Cost ● ARC - Annual Required Contribution ● AVA - Actuarial Value of Assets ● EAN - Entry Age Normal Cost Method ● GASBS 45 - Governmental Accounting Standards Board Statement No. 45 ● GASBS 75 - Governmental Accounting Standards Board Statement No. 75 ● MVA - Market Value of Assets ● NC - Normal Cost ● NOO - Net OPEB Obligation ● OPEB - Other (than pensions) Post Employment Benefits ● PVB - Present Value of Projected Benefits ● UAAL - Unfunded Actuarial Accrued Liability
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