

Town of Fairfax

GASB 75 OPEB Valuation Report as of June 30, 2017 for Disclosures for the Fiscal Year Ending June 30, 2018

March 27, 2019



GovInvest
Insights to your financial future



562A Filbert Street, Suite 4
San Francisco, California 94133
t: (415) 801-5987 f: (415) 358-8500

www.precisionactuarial.com



562A Filbert Street, Suite 4
San Francisco, CA 94133
www.precisionactuarial.com
(415) 801-5987

March 27, 2019

Michael Vivrette
Finance Director
Town of Fairfax
142 Bolinas Road
Fairfax, California 94930

Re: Town of Fairfax GASB 75 OPEB Valuation as of June 30, 2017

Dear Mr. Vivrette:

At your request, we completed an actuarial valuation of the retiree health and welfare benefits as of June 30, 2017, for the Town of Fairfax. Please use the information in this report for your financial statements for the fiscal year ending June 30, 2018. This valuation is based on input from the Town and from CalPERS, as well as our understanding of GASB Statement No. 75 "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" (GASB 75).

We greatly appreciate your business. If you have any questions, please feel free to call us at (415) 801-5987.

Best Regards,

A handwritten signature in blue ink that reads "Roger T. Burton".

Roger T. Burton, FSA, FCA, MAAA



Corporate Solutions for the Modern World
Healthcare • Pension • Valuations • Life & Disability • P&C • Financial Reporting
Risk Management • Reinsurance • M&A • Expert Witness

DUNS: 079861610 CAGE: 7EC83 CA Supplier: 1798304

Executive Summary

Overview	1
Accounting Summary	3
Reconciliation of Change in the Total OPEB Liability from Prior Year	4

Accounting Information

Statement of Fiduciary Net Position	5
Statement of Changes to the Fiduciary Net Position	6
Changes in the Net OPEB Liability	7
Development of Deferred Outflows and Inflows of Resources	8
Development of Projected Deferred Outflows and Inflows of Resources	9
Schedule of Deferred Outflows and Inflows of Resources	10
Calculation of Expense under GASB 75	11
Calculation of Projected Expense under GASB 75	12
Reconciliation of Expense	13
Amortization of Unfunded Actuarial Accrued Liability	14
Actuarially Determined Contribution (ADC)	15
Projection of ADC and Net OPEB Liability	16
OPEB Cash-Flow Projections	17
Ten Year Projection of Retiree Benefit Payments	18
Projection of Contributions	19
Projection of Contributions Charts	20
Projection of Fiduciary Net Position	21
Implicit Subsidy	22
Schedule of Changes in the Total OPEB Liability and Related Ratios	23
Schedule of Investment Returns	24
Schedule of Contributions	25
Draft Notes to the Financial Statements	26

Basis of Valuation

Substantive Plan	30
Participant Summary	31
Participant Summary Charts	34
Actuarial Assumptions	36

Appendix

About GASB 75	39
Decrement Tables	43

Purpose of the Report

Precision Actuarial prepared this report to meet employer financial accounting requirements under GASB Statement No. 75 "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" (GASB 75), issued in June 2015. This report includes information with respect to the obligation to provide future retiree health and welfare benefits for the fiscal year ending June 30, 2018.

Valuation Date: June 30, 2017
Measurement Date: June 30, 2018
Report Date: June 30, 2018

Application to Financials

This report provides assets, liabilities, and expenses for use in the Town's 2018 and 2019 financial reports. If significant changes, including to the discount rate, occur up to one year after the measurement date, a new valuation may be necessary.

Under GASB 75, the report date can be up to one year subsequent to the measurement date. This report uses this provision. The Town should use the liabilities and assets measured as of June 30, 2017, for its June 30, 2018, liabilities and assets, and it should use the expense for the measurement period ending June 30, 2017, as its expense in its financial statements for the year ending June 30, 2018.

The report also provides the actuarially determined contributions for funding purposes for reporting for the fiscal years ending June 30 for 2018, 2019, and 2020. The Town makes its contributions one year prior to the fiscal year in which it reports the contributions.

We recommend that the Town have an actuary provide an updated report for the June 30, 2019, financial statements using updated benefit payments, assets, and discount rate. However, barring significant changes, this is optional. Please confer with your auditor for guidance.

Changes Since the Prior Valuation

This valuation is a full valuation. This is the first report under GASB 75. The prior report was completed under GASB 45. We updated:

- Discount rate (from 7.00% to 7.28%)
- Census
- Benefit payments
- Contributions
- Assets
- Healthcare trend rates
- Payroll growth rate (from 3.00% to 2.875%)
- Mortality tables

The report uses the service and interest cost calculated in the GASB 45 report for June 30, 2017. It uses the annual required contribution (ARC) calculated in that report as the actuarially determined contribution (ADC) for the first year shown in this report. The total liability and fiduciary net position as of December 31, 2017 are as reported in the Town's financial statements.

Actuarial Certification

Our determinations reflect the provisions and methods prescribed by GASB 75. In preparing this report, we relied on employee census, plan design, premium rates, and administrative fees provided directly or indirectly by the plan sponsor, and demographic assumptions provided by CalPERS. CalPERS' actuaries set the premium rates using community rating. We did not attempt to verify that the community-rated premium rates represent the true cost of claims and administrative fees.

We based the results in this report on this information, along with the actuarial assumptions and methods used herein. In our opinion, the assumptions used represent reasonable expectations of anticipated plan experience. We reviewed the census information for reasonableness, but we did not audit it.

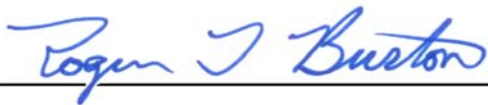
Actuarial computations under GASB 75 fulfill employer accounting and financial reporting requirements. The calculations are consistent with our understanding of GASB 75. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results in our report. Accordingly, additional determinations may be necessary for other purposes, such as judging benefit security at termination.

No third-party recipient of Precision Actuarial's work product should rely solely on Precision Actuarial's work product. Any third-party recipient should engage qualified professionals for advice appropriate to their own needs.

There is no relationship between Precision Actuarial, its owners, subcontractors, or staff; GovInvest; or the Town of Fairfax beyond the contractual services that we perform for the Town of Fairfax.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and that we prepared it in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable "Actuarial Standards of Practice" and "Actuarial Compliance Guidelines" as promulgated by the American Academy of Actuaries.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



March 27, 2019

Roger T. Burton, FSA, FCA, MAAA

Date

Fellow of the Society of Actuaries (FSA)

Member of the American Academy of Actuaries (MAAA)

Fellow of the Conference of Consulting Actuaries (FCA)

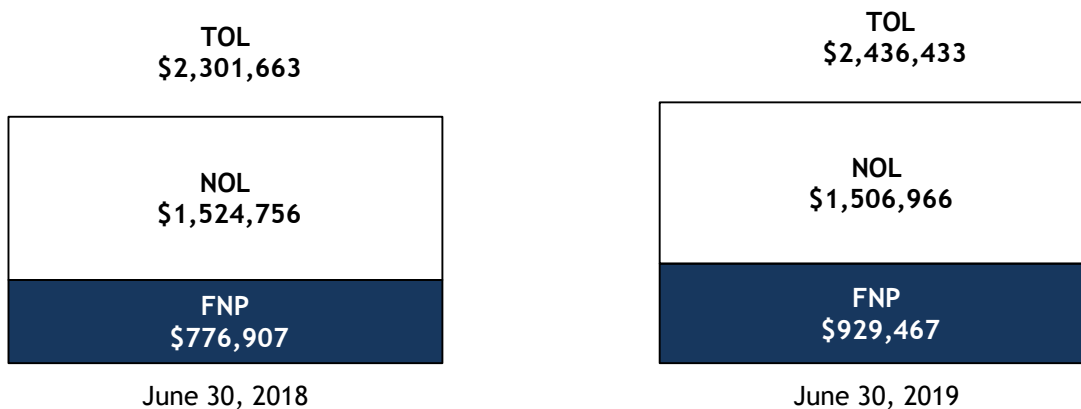
Executive Summary

Accounting Summary

A summary of the key valuation results follows.

	Valuation Date:	June 30, 2017	June 30, 2017
	Measurement Date:	June 30, 2017	June 30, 2018
	Report Date:	June 30, 2018	June 30, 2019
Present Value of Future Benefits			
Active Employees		\$ 1,398,976	\$ 1,500,821
Retirees	+	1,406,402	1,404,376
Total Present Value of Future Benefits	=	<u>\$ 2,805,378</u>	<u>\$ 2,905,197</u>
OPEB Liability			
Active Employees		\$ 895,261	\$ 1,032,057
Retirees	+	1,406,402	1,404,376
Total OPEB Liability (TOL)	=	<u>2,301,663</u>	<u>2,436,433</u>
Fiduciary Net Position (FNP)	-	<u>776,907</u>	<u>929,467</u>
Net OPEB Liability (NOL)	=	<u>\$ 1,524,756</u>	<u>\$ 1,506,966</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		33.75%	38.15%
Covered-Employee Payroll		\$ 1,983,474	\$ 2,040,499
Net OPEB Liability as a Percentage of Covered-Employee Payroll		76.87%	73.85%
Measurement Period		2016-2017	2017-2018
Reporting Period		<u>2017-2018</u>	<u>2018-2019</u>
Expense		\$ 203,686	\$ 220,118
Actuarially Determined Contribution (ADC), End of Year*		167,832	193,929

Net Position Chart



*The Actuarially Determined Contribution includes the implicit subsidy. It is not the amount that the Town contributes directly to the fund. See page 15 for the Town's direct contribution.

Executive Summary

Reconciliation of Change in the Total OPEB Liability from Prior Year

A reconciliation of the changes to the Total OPEB Liability since the prior valuation report follow.

Total OPEB Liability as of Measurement Date June 30, 2016*	\$ 1,905,187
Passage of Time	161,470
Change of Benefit Terms	-
Change in Census (Demographics)	331,651
Change in Premium Rates	(38,539)
Change in Discount Rate	(65,709)
Change in Healthcare Trend Rate	(57,886)
Change in Inflation Rate	-
Change in Payroll Growth Rate	4,502
Change in Mortality Rates	153,086
Change in Standards from GASB 45 to GASB 75 and Other Changes	(92,099)
Total OPEB Liability as of Measurement Date June 30, 2017	<u>\$ 2,301,663</u>

*Liability is as reported in the financial statements of the Town for June 30, 2017.

Accounting Information

Statement of Fiduciary Net Position

Measurement Date: June 30, 2017
Report Date: June 30, 2018

Assets

Cash and Deposits	\$	-
Securities Lending Cash Collateral		-
Total Cash		-
Receivables:		
Contributions		-
Due from Broker for Investments Sold		-
Investment Income (Interest on Investments)		-
Other		-
Total Receivables		-
Investments:		
Domestic Fixed Income Securities		-
Domestic Equities		-
Investment Funds		776,907
International Equities		-
Real Estate		-
Total Investments		776,907
Total Assets	\$	776,907

Liabilities

Payables:

Investment Management Fees	\$	-
Due to Broker for Investments Purchased		-
Collateral Payable for Securities Lending		-
Other		-
Total Liabilities	\$	-

Net Position Restricted for Postemployment Benefits Other than Pensions \$ 776,907

Accounting Information

Statement of Changes to the Fiduciary Net Position

	<i>Actual</i>	<i>Projected</i>
Measurement Date:	June 30, 2017	June 30, 2018
Report Date:	June 30, 2018	June 30, 2019
Additions		
Investment Income:		
Net Appreciation in the Fair Value of Investments	\$ 62,968	\$ 59,939
Interest and Dividends	-	-
Less Investment Expense, Other than from Securities Lending	(227)	(244)
Net Income from Investing, Other than from Securities Lending	62,741	59,695
Securities Lending Income	-	-
Less Securities Lending Expense	-	-
Net Income from Securities Lending	-	-
Net Investment Income (a)	\$ 62,741	\$ 59,695
Contributions:		
Employer – District's Contribution	\$ 160,109	\$ 168,142
Employer – Implicit Subsidy	5,453	25,787
Employee	-	-
Total Contributions (b)	\$ 165,562	\$ 193,929
Total Additions (c) = (a) + (b)	\$ 228,303	\$ 253,624
Deductions		
Benefit Payments	\$ 40,109	\$ 74,958
Implicit Rate Subsidy Fulfilled	5,453	25,787
Administrative Expense	310	319
Total Deductions (d)	\$ 45,872	\$ 101,064
Net Increase in Net Position = (c) – (d)	\$ 182,431	\$ 152,560
Net Position Restricted for Postemployment Benefits Other than Pensions		
Beginning of Year	\$ 594,476	\$ 776,907
Net Increase in Net Position	182,431	152,560
End of Year	\$ 776,907	\$ 929,467

Asset projections for fiscal year-end 2019 and beyond use an estimated expected rate of return, contributions, and benefit payments. We recommend that the Town update these values for its 2019 financial statements.

Accounting Information

Changes in the Net OPEB Liability

The funded status of the Plan as of the fiscal year-end, as well as other required disclosure information, follows.

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) – (b)
Balance as of Report Date June 30, 2017	\$ 1,905,187	\$ 594,476	\$ 1,310,711
Changes for the year:			
Service Cost	70,686		70,686
Interest	136,346		136,346
Changes of Benefit Terms	-		-
Differences Between Expected and Actual Experience	293,112		293,112
Changes of Assumptions	(58,106)		(58,106)
Net Investment Income		62,741	(62,741)
Contributions			
Employer – Town's Contribution		160,109	(160,109)
Employer – Implicit Subsidy		5,453	(5,453)
Employee		-	-
Benefit Payments, Including Refunds of Employee Contributions	(40,109)	(40,109)	-
Implicit Rate Subsidy Fulfilled	(5,453)	(5,453)	-
Administrative Expense		(310)	310
Other Changes		-	-
Net Changes	396,476	182,431	214,045
Balance as of Report Date June 30, 2018	\$ 2,301,663	\$ 776,907	\$ 1,524,756

Accounting Information

Development of Deferred Outflows and Inflows of Resources

All Balances at Report Date June 30, 2018

Deferred Outflows and Inflows of Resources Arising from Differences Between Expected and Actual Experience

Measurement Date – June 30:	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Expense Through June 30, 2018 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ 293,112	\$ -	\$ 58,623	\$ 234,489	\$ -
Total				\$ 234,489	\$ -

Deferred Outflows and Inflows of Resources Arising from Changes in Assumptions

Measurement Date – June 30:	Increase in Total Liability (a)	Decrease in Total Liability (b)	Amounts Recognized in Expense Through June 30, 2018 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (58,106)	\$ (11,622)	\$ -	\$ (46,484)
Total				\$ -	\$ (46,484)

Deferred Outflows and Inflows of Resources Arising from Differences Between Projected and Actual Earnings on Investments

Measurement Date – June 30:	Earnings Less than Projected (a)	Earnings Greater than Projected (b)	Amounts Recognized in Expense Through June 30, 2018 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (15,106)	\$ (3,022)	\$ -	\$ (12,084)
Total				\$ -	\$ (12,084)

Accounting Information

Development of Projected Deferred Outflows and Inflows of Resources

All Balances at Report Date June 30, 2019

Deferred Outflows and Inflows of Resources Arising from Differences Between Expected and Actual Experience

Measurement Date – June 30:	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Expense Through June 30, 2019 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ 293,112	\$ -	\$ 117,246	\$ 175,866	\$ -
2018	-	-	-	-	-
Total				\$ 175,866	\$ -

Deferred Outflows and Inflows of Resources Arising from Changes in Assumptions

Measurement Date – June 30:	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Expense Through June 30, 2019 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (58,106)	\$ (23,244)	\$ -	\$ (34,862)
2018	-	-	-	-	-
Total				\$ -	\$ (34,862)

Deferred Outflows and Inflows of Resources Arising from Differences Between Projected and Actual Earnings on Investments

Measurement Date – June 30:	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Expense Through June 30, 2019 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (15,106)	\$ (6,044)	\$ -	\$ (9,062)
2018	-	-	-	-	-
Total				\$ -	\$ (9,062)

Accounting Information

Schedule of Deferred Outflows and Inflows of Resources

Schedule of Deferred Outflows and Inflows of Resources

	Measurement Period	Original Amount	Recognition Period	Remaining Period	Increase/(Decrease) in Expense: Report Years Ending June 30:							Remaining
					2018	2019	2020	2021	2022	2023	2024	
Differences Between Expected and Actual Experience	2016-2017	\$ 293,112	5.0	4.0	\$ 58,623	\$ 58,623	\$ 58,623	\$ 58,623	\$ 58,620	\$ -	\$ -	\$ -
	2017-2018	-	5.0	5.0	-	-	-	-	-	-	-	-
Changes of Assumptions	2016-2017	(58,106)	5.0	4.0	(11,622)	(11,622)	(11,622)	(11,622)	(11,618)	-	-	-
	2017-2018	-	5.0	5.0	-	-	-	-	-	-	-	-
Differences Between Projected and Actual Earnings	2016-2017	(15,106)	5.0	4.0	(3,022)	(3,022)	(3,022)	(3,022)	(3,018)	-	-	-
	2017-2018	-	5.0	5.0	-	-	-	-	-	-	-	-

Summary of Deferred Outflows and Inflows of Resources – Reporting Period 2017-2018

	Report Year Ending June 30:	2018	2019	2020	2021	2022	2023	Remaining
Differences Between Expected and Actual Experience		\$ 58,623	\$ 58,623	\$ 58,623	\$ 58,623	\$ 58,620	\$ -	\$ -
Changes of Assumptions		(11,622)	(11,622)	(11,622)	(11,622)	(11,618)	-	-
Differences Between Projected and Actual Earnings		(3,022)	(3,022)	(3,022)	(3,022)	(3,018)	-	-
Total		\$ 43,979	\$ 43,979	\$ 43,979	\$ 43,979	\$ 43,984	\$ -	\$ -

Summary of Deferred Outflows and Inflows of Resources – Reporting Period 2018-2019

	Report Year Ending June 30:	2019	2020	2021	2022	2023	2024	Remaining
Differences Between Expected and Actual Experience		\$ 58,623	\$ 58,623	\$ 58,623	\$ 58,620	\$ -	\$ -	\$ -
Changes of Assumptions		(11,622)	(11,622)	(11,622)	(11,618)	-	-	-
Differences Between Projected and Actual Earnings		(3,022)	(3,022)	(3,022)	(3,018)	-	-	-
Total		\$ 43,979	\$ 43,979	\$ 43,979	\$ 43,984	\$ -	\$ -	\$ -

Accounting Information

Calculation of Expense under GASB 75

		<i>Actual</i>
	Measurement Period:	2016-2017
	Reporting Period:	<u>2017-2018</u>
Expense		
Service Cost	\$	70,686
Interest on Total OPEB Liability		136,346
Changes of Benefit Terms		-
Recognized Differences Between Expected and Actual Experience		58,623
Recognized Changes of Assumptions		(11,622)
Employee Contributions		-
Projected Earnings on OPEB Plan Investments		(47,635)
Recognized Differences Between Projected and Actual Earnings		(3,022)
Administrative expenses		310
Total Expense	\$	<u>203,686</u>

Deferred Outflows and Inflows of Resources

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 234,489	\$ -
Changes of Assumptions	-	(46,484)
Net Difference Between Projected and Actual Earnings on Plan Investments	-	(12,084)
Town Contributions Subsequent to the Measurement Date	120,000	-
Total	\$ 354,489	\$ (58,568)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Report Year Ending June 30		Amount
2019	\$	43,979
2020		43,979
2021		43,979
2022		43,984
2023		-
Remaining		-

Accounting Information

Calculation of Projected Expense under GASB 75

	<i>Actual</i>	<i>Projected</i>
Measurement Period:	2016-2017	2017-2018
Reporting Period:	2017-2018	2018-2019
Expense		
Service Cost	\$ 70,686	\$ 66,761
Interest on Total OPEB Liability	136,346	168,754
Changes of Benefit Terms	-	-
Recognized Changes of Assumptions	58,623	58,623
Recognized Differences Between Expected and Actual Experience	(11,622)	(11,622)
Employee Contributions	-	-
Projected Earnings on OPEB Plan Investments	(47,635)	(59,695)
Recognized Differences Between Projected and Actual Earnings	(3,022)	(3,022)
Administrative expenses	310	319
Total Expense	\$ 203,686	\$ 220,118

Deferred Outflows and Inflows of Resources

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 175,866	\$ -
Changes of Assumptions	-	(34,862)
Net Difference Between Projected and Actual Earnings on Plan Investments	-	(9,062)
Town Contributions Subsequent to the Measurement Date	<i>Town to Determine</i>	-
Total	\$ 175,866	\$ (43,924)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

<u>Report Year Ending June 30:</u>	<u>Amount</u>
2020	\$ 43,979
2021	43,979
2022	43,984
2023	-
2024	-
Remaining	-

Accounting Information

Reconciliation of Expense

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Net Investment (Inflows)/ Outflows				Net OPEB Liability plus Net Deferrals	Annual Expense
				Deferred Inflows	Deferred Outflows	Outflows	Net Deferrals		
Balance as of Measurement Date June 30, 2016	\$ (1,905,187)	\$ 594,476	\$ (1,310,711)	\$ 281,490	\$ 517	\$ (15,106)	\$ 266,901	\$ (1,043,810)	
Service Cost	(70,686)		(70,686)						\$ 70,686
Interest on Total OPEB Liability	(136,346)		(136,346)						136,346
Effect of Changes of Benefit Terms	-		-	-			-		
Effect of Liability Gains or Losses	(293,112)		(293,112)	-	293,112		293,112		
Effect of Assumption Changes or Inputs	58,106		58,106	(58,106)	-		(58,106)		
Expected Investment Income (Net of Investment Expenses)		47,635	47,635						(47,635)
Investment Gains or Losses on Expected Return		15,106	15,106			(15,106)	(15,106)	-	
Contributions									
Employer – Town's Contribution		160,109	160,109					160,109	
Employer – Implicit Subsidy		5,453	5,453					5,453	
Employee								-	
Benefit Payments, Including Refunds of Employee Contributions	40,109	(40,109)	-					-	
Implicit Rate Subsidy Fulfilled	5,453	(5,453)	-					-	
Administrative Expenses		(310)	(310)						310
Recognition of Liability Gains or Losses			-	-	(58,623)		(58,623)		58,623
Recognition of Assumption Changes or Inputs			-	11,622	-		11,622		(11,622)
Recognition of Investment Gains or Losses			-			3,022	3,022		(3,022)
Annual Expense								(203,686)	203,686
Balance as of Measurement Date June 30, 2017	\$ (2,301,663)	\$ 776,907	\$ (1,524,756)	\$ 235,006	\$ 235,006	\$ (27,190)	\$ 442,822	\$ (1,081,934)	

Accounting Information

Amortization of Unfunded Actuarial Accrued Liability

A summary of the information used to establish the amortization amount for the current year, with respect to the Unfunded Actuarial Accrued Liability (UAAL), follows. We recalculate the amortization of the UAAL each fiscal year.

	<i>Actual</i>	<i>Actual</i>	<i>Projected</i>
Measurement Period:	2016-2017	2017-2018	2018-2019
Reporting Period:	2017-2018	2018-2019	2019-2020
Actuarial Accrued Liability (AAL) – Entry Age Normal, Beginning of Fiscal Year	\$ 1,811,311	\$ 2,301,663	\$ 2,436,433
Actuarial Value of Plan Assets, Beginning of Fiscal Year	- 481,290	776,907	929,467
Unfunded Actuarial Accrued Liability (UAAL), Beginning of Fiscal Year	<u>= \$ 1,330,021</u>	<u>\$ 1,524,756</u>	<u>\$ 1,506,966</u>
Interest Rate Used to Determine Amortization Payment	7.00%	7.28%	7.28%
Assumed Rate of Payroll Growth	3.000%	2.875%	2.875%
Amortization Period	24 years	19 years	18 years
Amount Recognized (Principal & Interest), Beginning of Year	\$ 86,767 *	\$ 114,008	\$ 116,783
Amount Recognized (Principal & Interest), End of Year	\$ 92,841 *	\$ 122,308	\$ 125,285

**Based on a 24-year amortization period from prior GASB 45 report prior to transition to GASB 75. Assumes a 20-year amortization period starting with GASB 75. The 2018-2019 reporting year is the second year of GASB 75 and hence starts with 19 years remaining of the 20-year amortization period.*

Accounting Information

Actuarially Determined Contribution (ADC)

The calculation of the Actuarially Determined Contribution (ADC) follows. The ADC is based on the Town's funding policy.

	<i>Actual</i>	<i>Actual</i>	<i>Projected</i>
Measurement Period:	2016-2017	2017-2018	2018-2019
Reporting Period:	2017-2018	2018-2019	2019-2020
Service Cost – Entry Age Normal	\$ 70,686	\$ 66,761	\$ 68,680
Amortization of the Unfunded Actuarial Accrued Liability (UAAL)	86,767	114,008	116,783
Actuarially Determined Contribution (ADC), Beginning of Year	\$ 157,453	\$ 180,769	\$ 185,463
Actuarially Determined Contribution (ADC), End of Year	\$ 167,832 *	\$ 193,929	\$ 198,965
ADC as a Percentage of Payroll	8.46%	9.50%	9.48%
Discount Rate	7.00%	7.28%	7.28%
ADC Components			
Benefit Payments	\$ 40,109	\$ 74,958	\$ 89,084
Town's Contribution to Assets	122,270	93,184	72,819
Town's Total Contribution	162,379	168,142	161,903
Implied Contribution – Implicit Subsidy	5,453	25,787	37,062
Total ADC	\$ 167,832	\$ 193,929	\$ 198,965

Town's Funding Policy

The Town's funding policy is to contribute the full amount of the ADC each year.

The ADC is the sum of the service cost and the amortization of the unfunded liability. For payment of the ADC, however, it comprises three parts: the benefit payments made by the Town, the implicit subsidy, and the contribution to the assets. The contribution to the assets is the difference between the ADC and the sum of the other two components.

The Town is amortizing the UAAL on a closed basis. Remaining years of amortization as of the report date of June 30, 2018:

19

The discount rate assumed for ADC calculations after the 2017-2018 reporting year is the expected long-term rate of return:

7.28%

The UAAL is amortized using a level percent of pay method.

Projections for fiscal year-end 2019 use an estimated expected rate of return, contributions, and benefit payments. We recommend that the Town update these values for its 2019 financial statements.

*Set equal to the prior GASB 45 report amount.

Accounting Information

Projection of ADC and Net OPEB Liability

	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>
Measurement Date:	June 30, 2017	June 30, 2018	June 30, 2019
Report Date:	June 30, 2018	June 30, 2019	June 30, 2020
Estimated Liabilities			
OPEB Liability, Beginning of Year	\$ 1,905,187	\$ 2,301,663	\$ 2,436,433
Service Cost	70,686	66,761	68,680
Interest on Liabilities	136,346	168,754	177,861
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	293,112	-	-
Changes of Assumptions	(58,106)	-	-
Benefit Payments	(40,109)	(74,958)	(89,084)
Implicit Rate Subsidy Fulfilled	(5,453)	(25,787)	(37,062)
OPEB Liability, End of Year (a)	\$ 2,301,663	\$ 2,436,433	\$ 2,556,828
Estimated Assets			
Assets, Beginning of Year	\$ 594,476	\$ 776,907	\$ 929,467
Expected Earnings	62,741	59,695	70,258
Contributions			
Employer – Town’s Contribution	160,109	168,142	161,903
Employer – Implicit Subsidy	5,453	25,787	37,062
Employee	-	-	-
Total Contributions	165,562	193,929	198,965
Projected Benefit Payments			
Benefit Payments, Including Refunds of Employee Contributions	(40,109)	(74,958)	(89,084)
Implicit Rate Subsidy Fulfilled	(5,453)	(25,787)	(37,062)
Total Benefit Payments	(45,562)	(100,745)	(126,146)
Administrative Expenses	(310)	(319)	(328)
Assets, End of Year (b)	\$ 776,907	\$ 929,467	\$ 1,072,216
Net OPEB liability, End of Year = (a) – (b)	\$ 1,524,756	\$ 1,506,966	\$ 1,484,612
Expense	203,686	220,118	n/a
ADC	167,832	193,929	198,965

Projections for fiscal year-end 2019 and beyond use an estimated expected rate of return, contributions, and benefit payments. We recommend that the Town update these values for its 2019 financial statements.

Accounting Information

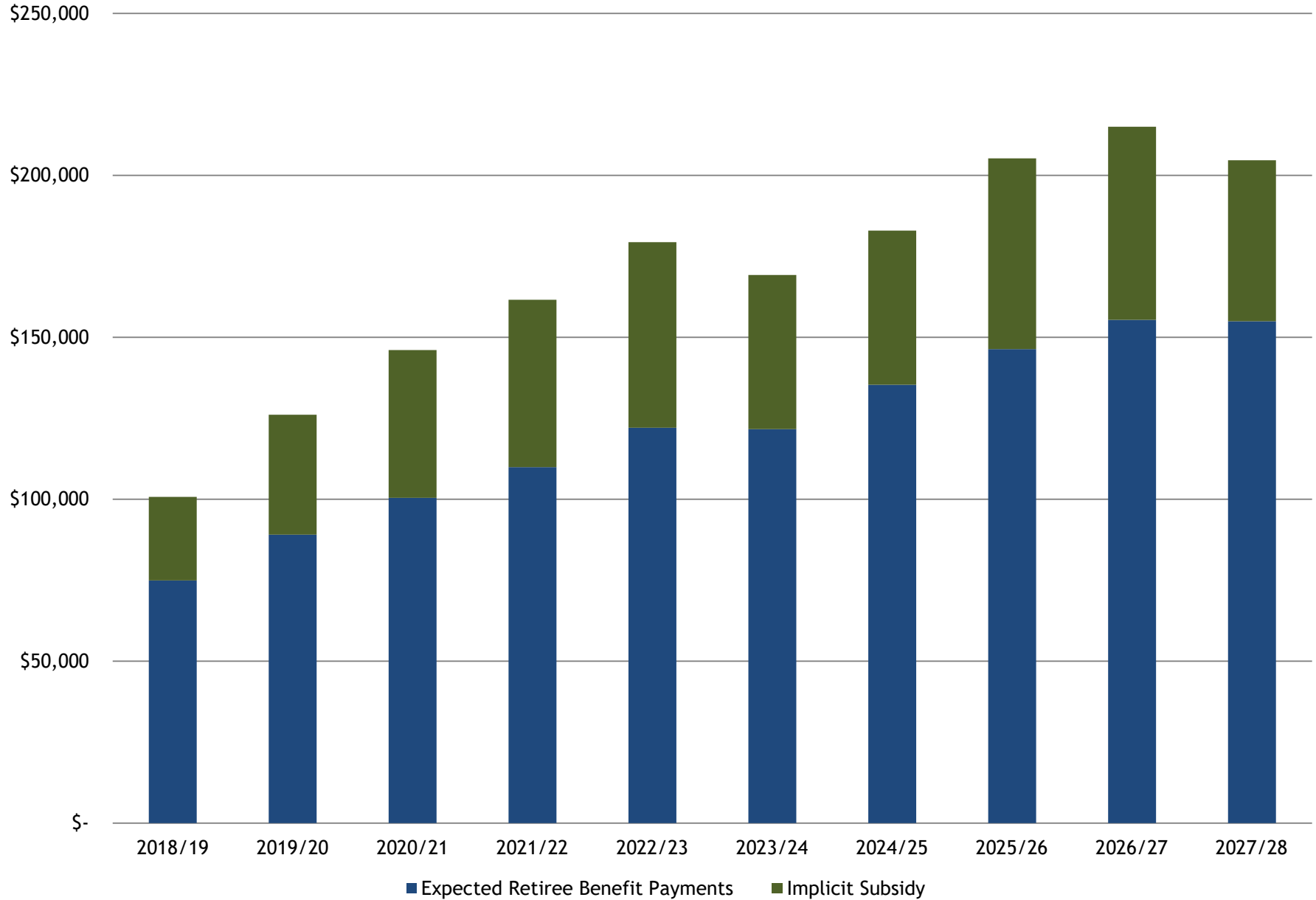
OPEB Cash-Flow Projections

OPEB cash-flow projections for existing participants for the next twenty-five years follow.

Measurement Period Ending June 30:	Expected Retiree Benefit Payments	Implicit Subsidy	Total Expected Benefit Payments
2018	\$ 74,958	\$ 25,787	\$ 100,745
2019	89,084	37,062	126,146
2020	100,463	45,652	146,115
2021	109,914	51,715	161,629
2022	122,093	57,315	179,408
2023	121,682	47,597	169,279
2024	135,364	47,621	182,985
2025	146,369	58,900	205,269
2026	155,443	59,560	215,003
2027	154,944	49,764	204,708
2028	153,969	37,345	191,314
2029	166,689	24,669	191,358
2030	162,923	13,643	176,566
2031	170,991	16,000	186,991
2032	185,736	13,211	198,947
2033	191,604	4,686	196,290
2034	201,396	6,348	207,744
2035	208,396	7,279	215,675
2036	217,301	12,780	230,081
2037	226,439	14,897	241,336
2038	238,891	17,078	255,969
2039	247,341	19,734	267,075
2040	254,268	27,848	282,116
2041	259,481	40,240	299,721
2042	264,630	44,898	309,528

Accounting Information

Ten-Year Projection of Expected Benefit Payments for Existing Participants



Accounting Information

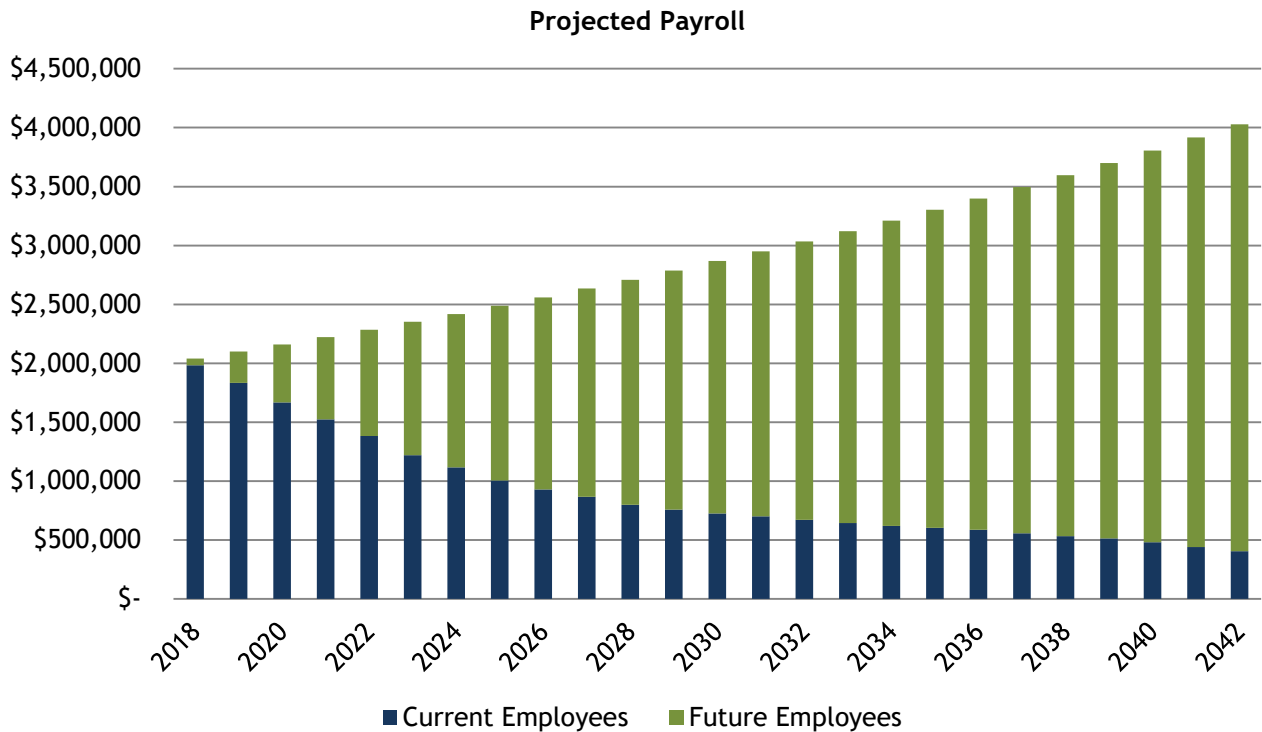
Projection of Contributions

Measurement Period Ending June 30:	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c)	Employer Contributions Related to Payroll of all Plan Members* (d) = (c) x 9.50% for 20 Years, 3.51% Thereafter	Employer Contributions Related to Payroll of Future Plan Members (e) = (b) x 3.51%	Portion of Employer Contribution for Current Plan Members* (f) = (d) - (e)
2018	\$ 1,983,475	\$ 57,025	\$ 2,040,499	\$ 193,929	\$ 2,002	\$ 191,927
2019	1,832,012	267,151	2,099,163	199,504	9,377	190,127
2020	1,667,485	492,029	2,159,514	205,240	17,270	187,970
2021	1,523,982	697,618	2,221,600	211,141	24,486	186,655
2022	1,382,200	903,272	2,285,471	217,211	31,705	185,506
2023	1,220,524	1,130,654	2,351,178	223,456	39,686	183,770
2024	1,115,046	1,303,728	2,418,774	229,880	45,761	184,119
2025	1,004,735	1,483,579	2,488,314	236,489	52,073	184,416
2026	928,257	1,631,596	2,559,853	243,288	57,269	186,019
2027	866,223	1,767,226	2,633,449	250,283	62,029	188,254
2028	799,397	1,909,764	2,709,161	257,479	67,032	190,447
2029	757,916	2,029,133	2,787,049	264,881	71,222	193,659
2030	725,584	2,141,593	2,867,177	272,496	75,170	197,326
2031	701,059	2,248,549	2,949,608	280,331	78,924	201,407
2032	670,207	2,364,202	3,034,409	288,390	82,983	205,407
2033	643,629	2,478,019	3,121,648	296,681	86,978	209,703
2034	619,840	2,591,555	3,211,395	305,211	90,963	214,248
2035	601,492	2,702,231	3,303,723	313,986	94,848	219,138
2036	586,363	2,812,342	3,398,705	323,013	98,713	224,300
2037	555,785	2,940,633	3,496,418	332,299	103,216	229,083
2038	532,679	3,064,261	3,596,940	126,252	107,555	18,697
2039	512,910	3,187,442	3,700,352	129,882	111,879	18,003
2040	481,248	3,325,489	3,806,737	133,616	116,724	16,892
2041	439,664	3,476,517	3,916,181	137,457	122,025	15,432
2042	404,584	3,624,187	4,028,771	141,409	127,208	14,201

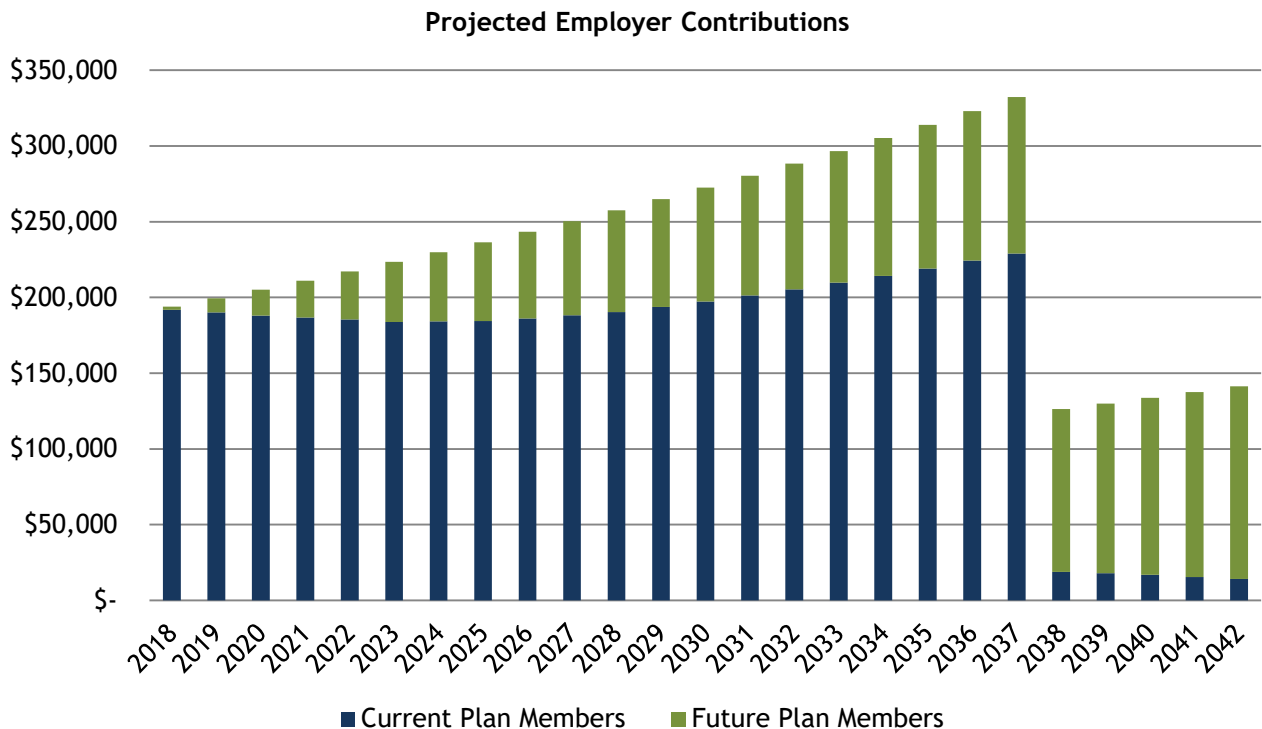
Accounting Information

Projection of Contributions Charts

Projected Payroll for Current and Future Employees



Projected Employer Contributions for Current and Future Plan Members



Accounting Information

Projection of Fiduciary Net Position

Existing Participants Only

Measurement Period Ending June 30:	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (Including Implicit Subsidy) (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2018	\$ 776,907	\$ 191,927	\$ 100,745	\$ 319	\$ 59,866	\$ 927,636
2019	927,636	190,127	126,146	328	69,849	1,061,138
2020	1,061,138	187,970	146,115	337	78,762	1,181,418
2021	1,181,418	186,655	161,629	346	86,906	1,293,004
2022	1,293,004	185,506	179,408	356	94,340	1,393,086
2023	1,393,086	183,770	169,279	366	101,931	1,509,142
2024	1,509,142	184,119	182,985	376	109,893	1,619,793
2025	1,619,793	184,416	205,269	386	117,148	1,715,702
2026	1,715,702	186,019	215,003	397	123,834	1,810,155
2027	1,810,155	188,254	204,708	408	131,166	1,924,459
2028	1,924,459	190,447	191,314	419	140,054	2,063,227
2029	2,063,227	193,659	191,358	431	150,271	2,215,368
2030	2,215,368	197,326	176,566	443	162,018	2,397,703
2031	2,397,703	201,407	186,991	455	175,061	2,586,725
2032	2,586,725	205,407	198,947	468	188,532	2,781,249
2033	2,781,249	209,703	196,290	481	202,946	2,997,127
2034	2,997,127	214,248	207,744	494	218,410	3,221,547
2035	3,221,547	219,138	215,675	508	234,636	3,459,138
2036	3,459,138	224,300	230,081	522	251,596	3,704,431
2037	3,704,431	229,083	241,336	536	269,217	3,960,859
2038	3,960,859	18,697	255,969	551	279,694	4,002,730
2039	4,002,730	18,003	267,075	566	282,312	4,035,404
2040	4,035,404	16,892	282,116	582	284,102	4,053,700
2041	4,053,700	15,432	299,721	598	284,739	4,053,552
2042	4,053,552	14,201	309,528	614	284,326	4,041,937

Accounting Information

Implicit Subsidy

Actuarial standard of practice (ASOP) number 6, "Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions", requires the inclusion of the implicit subsidy in OPEB valuations.

The implicit subsidy arises when an employer allows a retiree and their dependents to continue on the plans for active employees, and pay the active-employee premiums. Retirees are not paying the true cost of their benefits because they have higher costs than active employees, and therefore are partially subsidized by the active employees. Once a retiree reaches Medicare eligibility, the rates are set for Medicare retirees separately, and are set to be sufficient to cover the true costs of the Medicare retirees. Thus, there is no implicit subsidy for Medicare retirees.

	<i>Actual</i>	<i>Projected</i>
Measurement Date:	June 30, 2017	June 30, 2018
Report Date:	June 30, 2018	June 30, 2019
Discount Rate	7.28%	7.28%
Retiree Benefit Payments	\$ 1,934,810	\$ 2,043,205
Implicit Subsidy	366,853	393,228
Total OPEB Liability	\$ 2,301,663	\$ 2,436,433

Accounting Information

Schedule of Changes in the Total OPEB Liability and Related Ratios

GASB 75 requires a disclosure of the changes in Net OPEB Liability for the last ten fiscal years, or for as many years as are available.

	Measurement Date:	June 30, 2017
	Report Date:	June 30, 2018
<u>Total OPEB Liability</u>		
Service Cost	\$	70,686
Interest		136,346
Changes of Benefit Terms		-
Differences Between Expected and Actual Experience		293,112
Changes of Assumptions		(58,106)
Benefit Payments, Including Refunds of Employee Contributions		(40,109)
Implicit Rate Subsidy Fulfilled		(5,453)
Net Change in Total OPEB liability		396,476
Total OPEB Liability – Beginning of Year		1,905,187
Total OPEB Liability – End of Year (a)	\$	2,301,663
 <u>Plan Fiduciary Net Position</u>		
Net Investment Income	\$	62,741
Contributions		
Employer – Town’s Contribution		160,109
Employer – Implicit Subsidy		5,453
Employee		-
Benefit Payments, Including Refunds of Employee Contributions		(40,109)
Implicit Rate Subsidy Fulfilled		(5,453)
Administrative Expense		(310)
Other		-
Net Change in Plan Fiduciary Net Position		182,431
Plan Fiduciary Net Position – Beginning of Year		594,476
Plan Fiduciary Net Position – End of Year (b)	\$	776,907
 <u>Net OPEB Liability</u>		
Town’s Net OPEB liability – End of Year = (a) – (b)	\$	1,524,756
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		33.75%
Covered-Employee Payroll	\$	1,983,474
Town’s Net OPEB Liability as a Percentage of Covered-Employee Payroll		76.87%

Notes to schedule:

The Town adopted GASB 75 for the fiscal Year Ending June 30, 2018.

Accounting Information

Schedule of Investment Returns

GASB 75 requires a schedule of investment returns for the last ten fiscal years, or for as many years as are available if less than ten years are available.

Report Date: June 30, 2018

Annual Money-Weighted Rate of Return, Net of Investment Expense 9.59%

The annual money-weighted rate of return, net of investment expenses, is the net investment income for the year divided by the average net position for the year (less investment expenses).

Accounting Information

Schedule of Contributions

GASB 75 requires a schedule of contributions for the last ten fiscal years, or for as many years as are available if less than ten years are available.

	Measurement Period:	2016-2017
	Reporting Period:	2017-2018
	Report Date:	June 30, 2018
Actuarially Determined Contribution (ADC)	\$	167,832
Less: Contributions Made in Relation to the ADC	-	165,562
Contribution Deficiency (Excess)		2,270
Covered-Employee Payroll	\$	1,983,474
Contributions as a Percentage of Covered-Employee Payroll		8.35%

Notes to Schedule:

Assumptions and Methods

Actuarial Cost Method	Entry age normal, level percent of pay
Amortization Method	Closed period, level percent of pay
Amortization Period	20 years
Inflation	2.75%
Assumed Payroll Growth	2.875%
Healthcare Trend Rates	7.00%, trending down to 3.84%
Rate of Return on Assets	7.28%
Mortality Rate	CalPERS Rates. See appendix.
Retirement Rates	CalPERS Rates. See appendix.

Accounting Information

Draft Notes to the Financial Statements

A draft of the required notes to the Town's financial statements, based on the requirements of GASB 75 and our understanding of the Town's retiree health plan, follows.

Notes to the Financial Statements for the Year Ended June 30, 2018

Summary of Significant Accounting Policies

Other Postemployment Benefits Other Than Pensions (OPEB).

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense information about the fiduciary net position of the Town Retiree Benefits Plan (the Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms.

Note X – Other Post-employment Benefits (OPEB)

Plan Description.

The District administers an Agent Multiple-Employer defined-benefit post-employment healthcare plan. Dependents are eligible to enroll, and benefits continue to surviving spouses.

Benefits Provided.

All retirees are eligible for PEMHCA-only benefits if they retire at Age 50+, have 5+ years of Town service, and were enrolled in CalPERS plan upon retirement. The Town pays for up to 100% of premiums up to a maximum (\$757/month for 2017 retirees, reduced to \$308 upon Age 65) depending on the bargaining unit and years of service with the Town.

Employees covered by benefit terms.

At June 30, 2017 (the census date), the benefit terms covered the following employees:

Category	Count
Inactive employees, spouses, or beneficiaries currently receiving benefit payments:	11
Inactive employees entitled to but not yet receiving benefit payment:	15
Active Employees:	29
Total	55

Contributions.

The Town makes contributions based on an actuarially determined rate.

Accounting Information

Draft Notes to the Financial Statements

Net OPEB Liability

The Town's net OPEB liability was measured as of June 30, 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2017.

Actuarial Assumptions .

The total OPEB liability in the June 30, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation: 2.75%

Salary increases: 2.875%. Additional merit-based increases based on CalPERS merit salary increase tables.

Investment rate of return: 7.28%

Healthcare cost trend rates: 7.00% in the first year, trending down to 3.84% over 58 years.

Mortality rates were based on CalPERS tables.

Discount Rate.

The discount rate used to measure the total OPEB liability is 7.28%. This is the expected long-term rate of return on District assets using investment strategy 1 within the California Employers' Retiree Benefit Trust (CERBT). The projection of cash flows used to determine the discount rate assumed that the Town contribution will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position is projected to cover all future OPEB payments. Therefore, the discount rate was set equal to the long-term expected rate of return.

Accounting Information

Draft Notes to the Financial Statements

Changes in the Net OPEB Liability

	Increases (Decreases)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(c)
Balance as of Report Date June 30, 2017	\$ 1,905,187	\$ 594,476	\$ 1,310,711
Changes for the year:			
Service Cost	70,686		70,686
Interest	136,346		136,346
Changes of Benefit Terms	-		-
Differences Between Expected and Actual Experience	293,112		293,112
Changes of Assumptions	(58,106)		(58,106)
Contributions			
Employer – Town's Contribution		160,109	(160,109)
Employer – Implicit Subsidy		5,453	(5,453)
Employee		-	-
Net Investment Income		62,741	(62,741)
Benefit Payments, Including Refunds of Employee Contributions	(40,109)	(40,109)	-
Implicit Rate Subsidy Fulfilled	(5,453)	(5,453)	-
Administrative Expenses		(310)	310
Net Changes	396,476	182,431	214,045
Balance as of Report Date June 30, 2018	\$ 2,301,663	\$ 776,907	\$ 1,524,756

Sensitivity of the net OPEB liability to changes in the discount rate. The net OPEB liability of the Town, as well as what the Town's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.28%) or one percentage point higher (8.28%) follows:

	<u>1% Decrease</u>	<u>Discount Rate</u>	<u>1% Increase</u>
	6.28%	7.28%	8.28%
Net OPEB Liability (Asset)	\$ 1,820,523	\$ 1,524,756	\$ 1,280,158

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The net OPEB liability of the Town, as well as what the Town's net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.00%) or one percentage point higher (8.00%) than current healthcare cost trend rates follows:

	<u>1% Decrease</u>	<u>Trend Rate</u>	<u>1% Increase</u>
	6.00% Decreasing to 2.84%	7.00% Decreasing to 3.84%	8.00% Decreasing to 4.84%
Net OPEB Liability (Asset)	\$ 1,263,620	\$ 1,524,756	\$ 1,841,449

Accounting Information

Draft Notes to the Financial Statements

OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB

For the year ended June 30, 2018, the Town recognized an OPEB expense of \$203,686. At June 30, 2018, the Town reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences Between Actual and Expected Experience	234,489	-
Changes of Assumptions	-	(46,484)
Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	-	(12,084)
Town Contributions Subsequent to the Measurement Date	120,000	-
Total	\$ 234,489	\$ (58,568)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

<u>Report Year Ending June 30:</u>	<u>Amount</u>
2019	\$ 43,979
2020	43,979
2021	43,979
2022	43,984
2023	-

Basis of Valuation

Substantive Plan

A summary of the substantive plan used as the basis of the valuation follows.

All Retirees	
Duration of coverage	Retiree's lifetime.
Dependent coverage	None.
Survivor benefit	For spouses of employees who die while employed by the Town. Payment of PERS minimum benefit for life (PEMHCA).
Disability benefit	Equivalent to non-disabled retirees.
Payment Basis	Kaiser employee-only rate (Kaiser Senior Advantage rate, if over 65), or lowest-cost plan.
Medical plan choices	Same as actives.
Dental and vision	Paid in full by retiree; no implicit subsidy.

Management and Confidential hired before July 1, 2013	
Service	Percentage of Kaiser premium paid.
10 years	50%
15 years	75%
20 or more years	100%

SEIU hired before July 1, 2013	
Service	Percentage of Kaiser premium paid.
10 years	25%
15 years	50%
20 years	75%
25 or more years	100%

Police Officers' Association hired before July 1, 2013	
Service	Percentage of Kaiser premium paid.
10 years	25%
15 years	50%
20 years	75%
25 or more years	100%

Police Officers' Association hired on or after July 1, 2013	
Service	Percentage of Kaiser premium paid.
10 years	25%
20 or more years	50%

PEMHCA: all other employees	
Eligibility for PEMHCA-only benefits	Age 50 with 5 years of service (CalPERS eligibility) and retire directly from the agency.
Employer monthly contributions (full benefits)	City pays current PEMHCA rate for those retirees who enroll in a CalPERS Plan. 2017 rate: \$128.

Basis of Valuation

Participant Summary

Census Date: June 30, 2017

Age and service determined as of the census date.

Management							
Age	Years of Service						Total
	0-5	5-10	10-15	15-20	20-25	25+	
< 25							0
25-29							0
30-34							0
35-39							0
40-44							0
45-49							0
50-54	1						1
55-59	1					1	2
60-64		1	1				2
65+							0
Total	2	1	1	0	0	1	5

Police Officers' Association							
Age	Years of Service						Total
	0-5	5-10	10-15	15-20	20-25	25+	
< 25	2						2
25-29	4						4
30-34	1	1					2
35-39			1				1
40-44							0
45-49							0
50-54				1			1
55-59					1		1
60-64	1				1		2
65+							0
Total	8	1	1	1	2	0	13

Basis of Valuation

Participant Summary

Census Date:

June 30, 2017

Age and service determined as of the census date.

SEIU							
Age	Years of Service						Total
	0-5	5-10	10-15	15-20	20-25	25+	
< 25							0
25-29							0
30-34							0
35-39							0
40-44							0
45-49							0
50-54	1			1		1	3
55-59			1				1
60-64							0
65+			1				1
Total	1	0	2	1	0	1	5

Council Members & Eligible Part-Time Employees							
Age	Years of Service						Total
	0-5	5-10	10-15	15-20	20-25	25+	
< 25							0
25-29							0
30-34							0
35-39							0
40-44							0
45-49							0
50-54	1		1				2
55-59	1	1	1				3
60-64							0
65+	1						1
Total	3	1	2	0	0	0	6

Basis of Valuation

Participant Summary

Census Date:

June 30, 2017

Age and service determined as of the census date.

Inactives Receiving Benefits							
Age	Management		POA		SEIU		Total
	Retirees	Survivors	Retirees	Survivors	Retirees	Survivors	
< 50			1				1
50-54							0
55-59					2		2
60-64			1				1
65-69	1		1		1		3
70-74	1		2		1		4
75-79							0
80-84							0
85-89							0
90+							0
Total	2	0	5	0	4	0	11

Inactives Not Receiving Benefits				
Age	Management	POA	SEIU	Total
< 50		2		2
50-54		1		1
55-59		1		1
60-64		3	1	4
65-69		1	3	4
70-74				0
75-79			1	1
80-84		1	1	2
85-89				0
90+				0
Total	0	9	6	15

Basis of Valuation

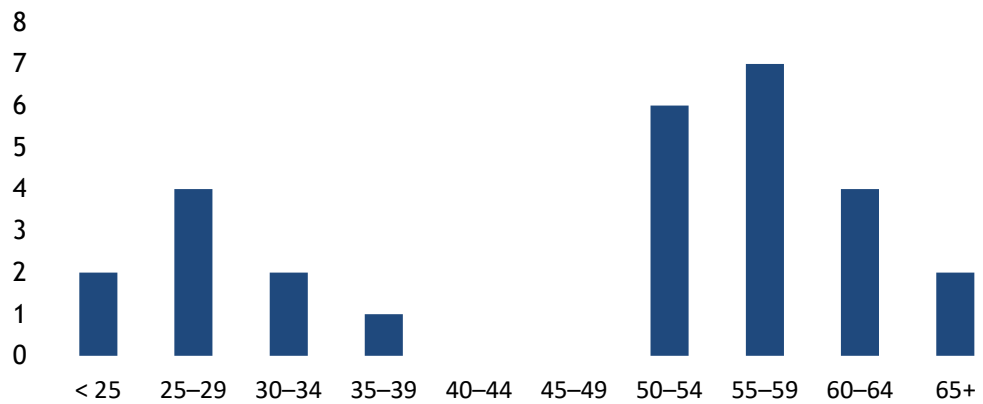
Participant Summary Charts

Census Date: June 30, 2017

Age and service determined as of the census date.

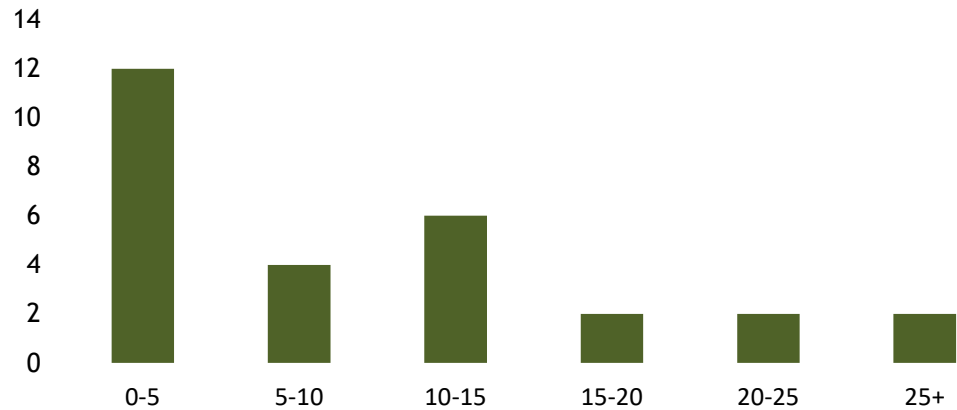
Count of Actives by Age Bracket

Average Employee Age: 48.8



Count of Actives by Years of Service

Average Years of Service: 9.2



Basis of Valuation

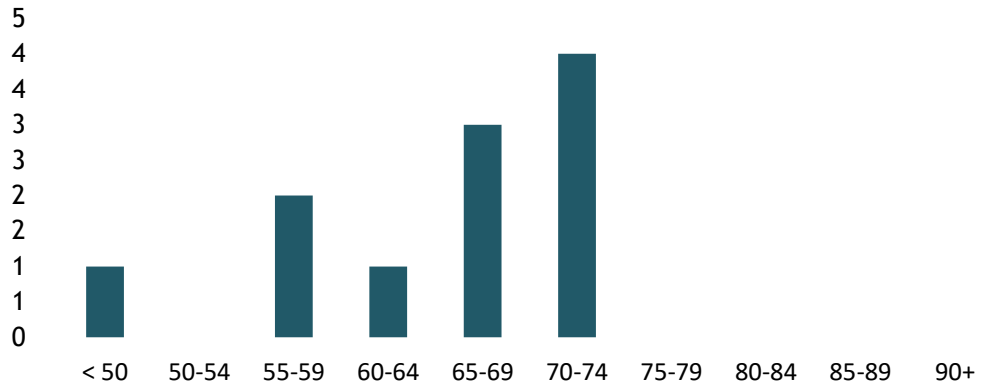
Participant Summary Charts

Census Date: June 30, 2017

Age and service determined as of the census date.

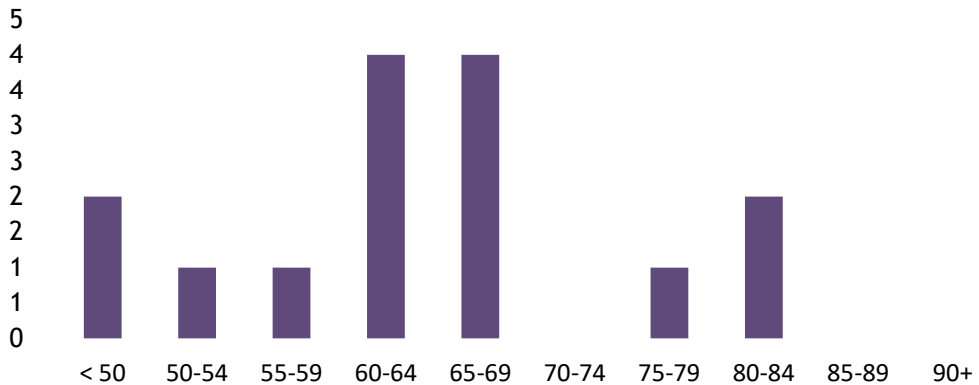
Average Age of Retirees Receiving Benefits: 65.4

Count of Retirees Receiving Benefits by Age Bracket



Average Age of Retirees Not Receiving Benefits: 64.2

Count of Retirees Not Receiving Benefits by Age Bracket



Basis of Valuation

Actuarial Assumptions

A summary of the actuarial assumptions used for this valuation follows. We considered the reasonableness of each assumption independently based on its own merits, consistent with each other assumption, and the combined impact of all assumptions.

Assumption	Rates												
Actuarial Cost Method	Entry Age Normal Level Percentage of Salary												
Measurement Date	June 30, 2017												
Valuation Date	June 30, 2017												
Report Date	June 30, 2018												
Discount Rate	The discount rate selected is 7.28%. The discount rate is the long-term rate of return for the plan's assets, as our projections show that the assets will be sufficient to cover the projected benefit payments should the District continue to contribute to the plan with an amount of at least the ADC each year. Should the assets not be sufficient to cover the projected benefit payments at any time in the future, we would employ a discount rate reflecting the 20-year tax-exempt municipal bond yield or index rate to the period after which we project assets to run out. We would then use a single, blended discount rate equivalent to the long-term rate of return and the 20-year tax-exempt municipal bond yield. If there are no assets, we would use only the 20-year tax-exempt municipal bond yield for the valuation.												
Mortality	Same as CalPERS. See appendix.												
Termination Rates	Same as CalPERS. See appendix. Also known as "turnover".												
Disability	Same as CalPERS. See appendix.												
Retirement	Same as CalPERS. See appendix.												
Annual Per Capita Claims Cost	Developed using CalPERS experience to calculate age-related risk scores, but using the Town's actual premiums for all other purposes. Assumed annual per capita claims costs follow:												
	<table border="1"> <thead> <tr> <th>Age</th> <th>Males</th> <th>Females</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>\$ 11,371</td> <td>\$ 11,686</td> </tr> <tr> <td>55</td> <td>13,130</td> <td>12,544</td> </tr> <tr> <td>60-64</td> <td>16,180</td> <td>14,025</td> </tr> </tbody> </table>	Age	Males	Females	50	\$ 11,371	\$ 11,686	55	13,130	12,544	60-64	16,180	14,025
Age	Males	Females											
50	\$ 11,371	\$ 11,686											
55	13,130	12,544											
60-64	16,180	14,025											
Average Per Capita Cost for Implicit Subsidy Calculation	Developed based on premiums for the Town's enrollment by plan, family demographics from CalPERS plans, and risk scores (both HMO and PPO) for the CalPERS population.												

Basis of Valuation

Actuarial Assumptions

Assumption	Rates								
Aging or Morbidity Factors	Based on actual CalPERS HMO and PPO population data.								
Participant Contributions	Retiree pays any difference between premiums and the benefit cap for the retiree (which varies by bargaining group).								
Salary Increases	2.875% (same as CalPERS). The salary increase is used to determine the growth in the aggregate payroll. Individual Salary Increases: 2018 CalPERS Merit Salary Increases.								
Inflation Rate	2.75%								
Marital Status	25% of retirees will have a spouse eligible and electing the continuation of benefits if the retiree predeceases the spouse or for preretirement death.								
Spouse Gender	Assumes spouse of opposite gender for current and future retirees.								
Spouse Age Difference	Assumes males are three years older than females for future retirees.								
Participation	For newly eligible retirees: <table border="1"> <thead> <tr> <th>100% Benefit</th> <th>75% Benefit</th> <th>50% Benefit</th> <th>PEMHCA Amount</th> </tr> </thead> <tbody> <tr> <td>99%</td> <td>95%</td> <td>90%</td> <td>90%</td> </tr> </tbody> </table>	100% Benefit	75% Benefit	50% Benefit	PEMHCA Amount	99%	95%	90%	90%
100% Benefit	75% Benefit	50% Benefit	PEMHCA Amount						
99%	95%	90%	90%						
ACA Excise Tax	Assumed that the Town will pass the ACA Excise Tax on to the retirees.								
Retiree Re-Entry Rate	Assumes that 5% of current retirees who are eligible to enroll but who are not currently enrolled in a CalPERS health plan will enroll in a CalPERS health plan during the remainder of their lives.								

Basis of Valuation

Actuarial Assumptions

Assumption	Rates																																												
Premiums	<p>A single premium was developed based on current enrollment patterns for Pre-Medicare and Medicare group participants using Kaiser Permanente California Bay Area and Kaiser Senior Advantage premium rates.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Rates for the Fiscal Year Ending 2018</th> <th style="text-align: right;">Employee</th> </tr> </thead> <tbody> <tr> <td>Pre-Medicare Plans</td> <td style="text-align: right;">\$ 9,080</td> </tr> <tr> <td>Medicare Plans</td> <td style="text-align: right;">3,701</td> </tr> </tbody> </table>	Rates for the Fiscal Year Ending 2018	Employee	Pre-Medicare Plans	\$ 9,080	Medicare Plans	3,701																																						
Rates for the Fiscal Year Ending 2018	Employee																																												
Pre-Medicare Plans	\$ 9,080																																												
Medicare Plans	3,701																																												
Trend Rates	<p>Medical Long-Term Trends from Society of Actuaries "Long Term Healthcare Cost Trends Model v2018_c" using baseline assumptions.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="border-bottom: 1px solid black;">Year</th> <th style="border-bottom: 1px solid black;">Pre-Medicare Trend</th> <th style="border-bottom: 1px solid black;">Medicare Trend</th> <th style="border-bottom: 1px solid black;">PEMHCA Trend</th> </tr> </thead> <tbody> <tr><td>2018</td><td>7.00%</td><td>6.00%</td><td>3.00%</td></tr> <tr><td>2019</td><td>6.50%</td><td>5.50%</td><td>3.00%</td></tr> <tr><td>2020</td><td>6.00%</td><td>5.50%</td><td>3.00%</td></tr> <tr><td>2021</td><td>5.50%</td><td>5.30%</td><td>3.00%</td></tr> <tr><td>2022</td><td>5.20%</td><td>5.20%</td><td>3.00%</td></tr> <tr><td>2023</td><td>5.20%</td><td>5.20%</td><td>3.00%</td></tr> <tr><td>2024</td><td>5.20%</td><td>5.20%</td><td>3.00%</td></tr> <tr><td>2025</td><td>5.19%</td><td>5.19%</td><td>3.00%</td></tr> <tr><td>2026-2074</td><td>...</td><td>...</td><td>...</td></tr> <tr><td>2075+</td><td>3.84%</td><td>3.84%</td><td>3.00%</td></tr> </tbody> </table>	Year	Pre-Medicare Trend	Medicare Trend	PEMHCA Trend	2018	7.00%	6.00%	3.00%	2019	6.50%	5.50%	3.00%	2020	6.00%	5.50%	3.00%	2021	5.50%	5.30%	3.00%	2022	5.20%	5.20%	3.00%	2023	5.20%	5.20%	3.00%	2024	5.20%	5.20%	3.00%	2025	5.19%	5.19%	3.00%	2026-2074	2075+	3.84%	3.84%	3.00%
Year	Pre-Medicare Trend	Medicare Trend	PEMHCA Trend																																										
2018	7.00%	6.00%	3.00%																																										
2019	6.50%	5.50%	3.00%																																										
2020	6.00%	5.50%	3.00%																																										
2021	5.50%	5.30%	3.00%																																										
2022	5.20%	5.20%	3.00%																																										
2023	5.20%	5.20%	3.00%																																										
2024	5.20%	5.20%	3.00%																																										
2025	5.19%	5.19%	3.00%																																										
2026-2074																																										
2075+	3.84%	3.84%	3.00%																																										
PEMHCA Administration Fee	0.33% of retiree premium.																																												
PEMHCA Information	All retiree medical enrollees eligible for PEMHCA statutory minimum, which is embedded in the premium or benefit cap for each enrollee.																																												

This section includes a brief summary of GASB 75, as well as definitions of some of the key terminology used in this report.

About GASB 75

In General. In June 2015 the Governmental Accounting Standards Board released GASB 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions". GASB 75 replaced GASB 45 for fiscal years beginning after June 15, 2017, for employers that sponsor OPEB plans. The provisions in GASB 75 are similar to the provisions of GASB 68 for pensions.

Accounting. GASB 75 requires a liability known as the Net OPEB Liability (NOL). The employer recognizes the NOL on its balance sheet. The employer also recognizes an OPEB expense in the income statement. GASB 45 recorded the Unfunded Accrued Actuarial Liability (UAAL) in the notes to the financial statement, whereas GASB 75 records the NOL, which is very similar to the UAAL with just a few technical differences, on the balance sheet.

Financial Statement Impact (Employers). One of the biggest changes to the financial statements of governmental employers that provide OPEB is the reporting of the OPEB liability on the face of the statements rather than in the footnotes. Governments that do not provide OPEB through a trust are required to recognize the entire OPEB liability in the financial statements. For governments that provide OPEB through an OPEB plan that is administered through a trust, the government's OPEB liability is recognized net of the amount of the OPEB plan's fiduciary net position.

Changes to the Measurement of the Total OPEB Liability. Measurement of the OPEB liability includes discounting future benefit payments for current and former employees and their beneficiaries to their present value and allocating the present value over past and future periods of the employee service (total OPEB liability), less the amount of the OPEB plan's fiduciary net position. The calculation continues to include employee-related events, such as projected salary increases and projected years of service, if they affect the amount of OPEB payments employees will receive, as well as provisions for automatic cost-of-living adjustments (COLAs) and other automatic benefits. Additionally, ad hoc COLAs and other ad hoc benefit changes, which are made at the discretion of the government, are included in projections as well, if they routinely recur.

GASB 75 requires governments to discount projected OPEB payments to their present value. Under the new standard, governments discount the projected OPEB payments to be made in each year and the amount of plan assets (if a government administers the OPEB through a trust) available for providing those benefits to current active and inactive employees and their beneficiaries. Similar to the pension standards, the discount rate used is based on whether the plan assets are projected to be sufficient to make future payments. If the plan assets are sufficient, governments discount future payments using the long-term expected rate of return. If projected plan assets are insufficient to make all future payments to current and inactive employees and their beneficiaries, or if there are no plan assets held in trust, the discount rate is based on a high-quality 20-year tax-exempt general obligation municipal bond yield or index rate. "High-quality" is defined as being rated AA or higher (or an equivalent rating).

Cost Method. The Entry Age Normal Cost method must be used.

About GASB 75 (continued)

Factors that affect a government's OPEB liability, such as actual earnings on plan investments when the OPEB plan is administered as a trust, employee compensation changes, interest on the outstanding OPEB liability, contributions from employees and employers, and actual demographic and economic changes that are not in line with assumptions made in the actuarial calculations, are considered when determining the government's OPEB expense. A government's annual OPEB expense is calculated with consideration for factors affecting the OPEB liability within the reporting period. Several causes of changes in OPEB liability are immediately factored into the calculation of OPEB expense for the period, such as benefits earned each year, interest on the total OPEB liability, changes in benefit terms, and projected earnings on plan investments, if administered through a trust.

Governments are required to recognize deferred outflows of resources or deferred inflows of resources and then introduce into the expense calculation, systematically and rationally over the average remaining years of employment (active employees and inactive employees, including retirees), the effect on the total OPEB liability of differences between assumptions and actual experience.

Key Terminology

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Actuarial Present Value of Projected Benefit Payments	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Agent Employer	An employer whose employees are provided with OPEB through an agent multiple-employer defined-benefit OPEB plan.
Closed Period	A specific number of years that is counted from one date, which declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth until no years remain.
Contributions	Additions to an OPEB plan's fiduciary net position for amounts from employers, non-employer contributing entities, or employees.
Dates and Periods	
• Census Date	The date of the census. It is usually the same as the Valuation Date .
• Measurement Date	The date on which assets are measured. The liabilities are rolled forward to this date from the Valuation Date , should it differ, using actuarial roll-forward techniques.
• Measurement Period	The year ending on the Measurement Date .
• Report Date	The date on which the amounts are reported in the financial statements. It is the same as the fiscal year-end. It may be up to one year ahead of the Measurement Date, with no roll-forward of liabilities or assets required.
• Reporting Period	The year ending on the Report Date . It is the same as the fiscal year.
• Valuation Date	The date on which the liabilities are valued.
Defined-Benefit OPEB	OPEB for which the benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The OPEB may be stated as (a) a specified dollar amount (b) an amount that is calculated based on one or more factors such as age, years of service, and compensation, or (c) a type or level of coverage such a prescription drug coverage or a percentage of health insurance premiums. OPEB that does not have all of the terms of defined contribution OPEB is classified as defined-benefit OPEB.

Key Terminology (continued)

Discount Rate	<p>The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:</p> <ul style="list-style-type: none">a. The actuarial present value of benefit payments projected to be made in future periods in which (1) the amount of the OPEB plan's fiduciary net position is projected to be greater than the benefit payments that are projected to be made in that period and (2) OPEB plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on OPEB plan investments.b. The actuarial present value of projected benefit payments not included in (a), calculated using a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale).
Net OPEB Liability	<p>The liability of employers and non-employer contributing entities to employees for benefits provided through a defined-benefit OPEB plan that is administered through a trust that meets the criteria in paragraph 4 of GASB 75.</p>
Normal Cost	<p>See Service Cost.</p>
Other Postemployment Benefits (OPEB)	<p>Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payment for sick leave.</p>
Projected Benefit Payments	<p>All benefits estimated to be payable through OPEB plan to current active and inactive employees as a result of their past service and their expected future service.</p>
Service Cost	<p>The portions of the actuarial present value of projected benefit payments that are attributed to valuation years. Also called Normal Cost.</p>
Substantive Plan	<p>The plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees.</p>

Appendix

Decrement Tables

The valuation used the following decrement tables from the CalPERS OPEB Assumption Model, revised December 20, 2017.

Mortality

Miscellaneous Employees
Police Employees

Source Table

Mort and Disb Rates_PA Misc
Mort and Disb Rates_PA Police

Disability Rates

Miscellaneous Employees
Police Employees

Mort and Disb Rates_PA Misc
Mort and Disb Rates_PA Police

Terminated Vested Rates

Miscellaneous Employees
Police Employees

Terminated Refund Rates_Misc + Terminated Vested Rates_PA Misc
Terminated Refund Rates_Police + Terminated Vested Rates_PA Police

Salary Scale Rates

Miscellaneous Employees
Police Employees

Salary Scale Rates_PA Misc
Salary Scale Rates_PA Police

Service Retirement Rates

Miscellaneous Employees

- 2.0% at 55 Rx PA Misc 2% @ 55
- 2.0% at 60 Rx PA Misc 2% @ 60
- 2.0% at 62 Rx PA Misc 2% @ 62
- 2.5% at 55 Rx PA Misc 2.5% @ 55

Police Employees

- 2% at 50 Rx Safety Police 2% @ 50
- 2.7% at 57 Rx Safety Police 2.7% @ 57
- 3% at 50 Rx Safety Police 3% @ 50

Sample Mortality and Disability Rates

Attained Age	Public Agency Miscellaneous													
	Pre-Retirement Mortality				Post-Retirement Mortality						Disability			
	Male Assumptions		Female Assumptions		Male Assumptions			Female Assumptions			Male Assumptions		Female Assumptions	
	Non Industrial Death	Industrial Death	Non Industrial Death	Industrial Death	Healthy Recipients	Non Industrially Disabled	Industrially Disabled	Healthy Recipients	Non Industrially Disabled	Industrially Disabled	Non Industrial Disability	Industrial Disability	Non Industrial Disability	Industrial Disability
1	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000	0.000000
10	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000	0.000000
15	0.000155	0.000000	0.000034	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000170	0.000000	0.000100	0.000000
20	0.000216	0.000000	0.000069	0.000000	0.000216	0.000216	0.000040	0.000069	0.000069	0.000040	0.000170	0.000000	0.000100	0.000000
25	0.000289	0.000000	0.000109	0.000000	0.000289	0.000289	0.000060	0.000109	0.000109	0.000060	0.000170	0.000000	0.000100	0.000000
30	0.000379	0.000000	0.000155	0.000000	0.000379	0.000379	0.000070	0.000155	0.000155	0.000070	0.000190	0.000000	0.000240	0.000000
35	0.000491	0.000000	0.000270	0.000000	0.000491	0.000491	0.000090	0.000270	0.000270	0.000090	0.000390	0.000000	0.000710	0.000000
40	0.000637	0.000000	0.000366	0.000000	0.000637	0.000637	0.000100	0.000366	0.000366	0.000100	0.001020	0.000000	0.001350	0.000000
45	0.000795	0.000000	0.000543	0.000000	0.000795	0.000795	0.000120	0.000543	0.000543	0.000120	0.001510	0.000000	0.001880	0.000000
50	0.001161	0.000000	0.000794	0.000000	0.003716	0.011831	0.003716	0.003458	0.010830	0.003458	0.001580	0.000000	0.001990	0.000000
55	0.001717	0.000000	0.001204	0.000000	0.004369	0.016132	0.004369	0.004097	0.011777	0.004097	0.001580	0.000000	0.001490	0.000000
60	0.002550	0.000000	0.001657	0.000000	0.006712	0.021658	0.006712	0.004763	0.014036	0.004763	0.001530	0.000000	0.001050	0.000000
65	0.003626	0.000000	0.002329	0.000000	0.009275	0.027330	0.011130	0.006372	0.017570	0.007647	0.001280	0.000000	0.000880	0.000000
70	0.006227	0.000000	0.003883	0.000000	0.013389	0.033583	0.016067	0.009262	0.021835	0.011115	0.001020	0.000000	0.000840	0.000000
75	0.010572	0.000000	0.006228	0.000000	0.023161	0.042774	0.027794	0.016348	0.029693	0.019617	0.001020	0.000000	0.000880	0.000000
80	0.016593	0.000000	0.009391	0.000000	0.039774	0.062721	0.047729	0.030072	0.046406	0.036086	0.001020	0.000000	0.000880	0.000000
85	0.000000	0.000000	0.000000	0.000000	0.071221	0.097926	0.085465	0.054179	0.078465	0.065014	0.000000	0.000000	0.000000	0.000000
90	0.000000	0.000000	0.000000	0.000000	0.130438	0.146163	0.143482	0.100892	0.132204	0.110981	0.000000	0.000000	0.000000	0.000000
95	0.000000	0.000000	0.000000	0.000000	0.216577	0.216577	0.216577	0.176976	0.210147	0.176976	0.000000	0.000000	0.000000	0.000000
100	0.000000	0.000000	0.000000	0.000000	0.322218	0.322218	0.322218	0.281511	0.322263	0.281511	0.000000	0.000000	0.000000	0.000000
105	0.000000	0.000000	0.000000	0.000000	0.466914	0.466914	0.466914	0.434914	0.434914	0.434914	0.000000	0.000000	0.000000	0.000000
110	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000
115	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000
120	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000

Notes:

- 1) Pre-Retirement and Post-Retirement mortality rates include 20 years of projected on-going mortality improvement using Scale BB published by the Society of Actuaries.
- 2) Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components: 99% will become the Non-Industrial Death rate and 1% will become the Industrial Death rate.
- 3) The Miscellaneous Non-Industrial Disability rates are used for Council Members, Management, Members of Service Employees International Union, and Part-Time employees eligible to be classified as active participants of the plan.
- 4) Normally, Industrial Disability rates are zero for miscellaneous plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each miscellaneous non-industrial disability rate will be split into two components: 50% will become the Non-Industrial Disability rate and 50% will become the Industrial Disability rate.

Sample Mortality and Disability Rates

Public Agency Police

Attained Age	Pre-Retirement Mortality				Post-Retirement Mortality						Disability			
	Male Assumptions		Female Assumptions		Male Assumptions			Female Assumptions			Male Assumptions		Female Assumptions	
	Non Industrial Death	Industrial Death	Non Industrial Death	Industrial Death	Healthy Recipients	Non Industrially Disabled	Industrially Disabled	Healthy Recipients	Non Industrially Disabled	Industrially Disabled	Non Industrial Disability	Industrial Disability	Non Industrial Disability	Industrial Disability
	1	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000
5	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000	0.000000
10	0.000000	0.000000	0.000000	0.000000	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000000	0.000000	0.000000	0.000000
15	0.000155	0.000030	0.000034	0.000030	0.000155	0.000155	0.000030	0.000034	0.000034	0.000030	0.000120	0.000000	0.000120	0.000000
20	0.000216	0.000040	0.000069	0.000040	0.000216	0.000216	0.000040	0.000069	0.000069	0.000040	0.000120	0.000000	0.000120	0.000000
25	0.000289	0.000060	0.000109	0.000060	0.000289	0.000289	0.000060	0.000109	0.000109	0.000060	0.001750	0.000000	0.001750	0.000000
30	0.000379	0.000070	0.000155	0.000070	0.000379	0.000379	0.000070	0.000155	0.000155	0.000070	0.004960	0.000000	0.004960	0.000000
35	0.000491	0.000090	0.000270	0.000090	0.000491	0.000491	0.000090	0.000270	0.000270	0.000090	0.008180	0.000000	0.008180	0.000000
40	0.000637	0.000100	0.000366	0.000100	0.000637	0.000637	0.000100	0.000366	0.000366	0.000100	0.011400	0.000000	0.011400	0.000000
45	0.000795	0.000120	0.000543	0.000120	0.000795	0.000795	0.000120	0.000543	0.000543	0.000120	0.014620	0.000000	0.014620	0.000000
50	0.001161	0.000130	0.000794	0.000130	0.003716	0.011831	0.003716	0.003458	0.010830	0.003458	0.019260	0.000000	0.019260	0.000000
55	0.001717	0.000150	0.001204	0.000150	0.004369	0.016132	0.004369	0.004097	0.011777	0.004097	0.049150	0.000000	0.049150	0.000000
60	0.002550	0.000160	0.001657	0.000160	0.006712	0.021658	0.006712	0.004763	0.014036	0.004763	0.062240	0.000000	0.062240	0.000000
65	0.003626	0.000180	0.002329	0.000180	0.009275	0.027330	0.011130	0.006372	0.017570	0.007647	0.074770	0.000000	0.074770	0.000000
70	0.006227	0.000190	0.003883	0.000190	0.013389	0.033583	0.016067	0.009262	0.021835	0.011115	0.087490	0.000000	0.087490	0.000000
75	0.010572	0.000210	0.006228	0.000210	0.023161	0.042774	0.027794	0.016348	0.029693	0.019617	0.100420	0.000000	0.100420	0.000000
80	0.016593	0.000220	0.009391	0.000220	0.039774	0.062721	0.047729	0.030072	0.046406	0.036086	0.113610	0.000000	0.113610	0.000000
85	0.000000	0.000000	0.000000	0.000000	0.071221	0.097926	0.085465	0.054179	0.078465	0.065014	0.000000	0.000000	0.000000	0.000000
90	0.000000	0.000000	0.000000	0.000000	0.130438	0.146163	0.143482	0.100892	0.132204	0.110981	0.000000	0.000000	0.000000	0.000000
95	0.000000	0.000000	0.000000	0.000000	0.216577	0.216577	0.216577	0.176976	0.210147	0.176976	0.000000	0.000000	0.000000	0.000000
100	0.000000	0.000000	0.000000	0.000000	0.322218	0.322218	0.322218	0.281511	0.322263	0.281511	0.000000	0.000000	0.000000	0.000000
105	0.000000	0.000000	0.000000	0.000000	0.466914	0.466914	0.466914	0.434914	0.434914	0.434914	0.000000	0.000000	0.000000	0.000000
110	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000
115	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000
120	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000

Notes:

- 1) Pre-Retirement and Post-Retirement mortality rates include 15 years of projected on-going mortality improvement using MP2016 published by the Society of Actuaries.
- 2) The Police Non-Industrial Disability rates are used for all Members of the Police Officer's Association

Sample Termination Rates

Service	Sample Terminated Vested Rates Public Agency Miscellaneous									
	Entry Ages									
	15	20	25	30	35	40	45	50	55	59
0	0.18120	0.17420	0.16740	0.16060	0.15370	0.14680	0.14000	0.13320	0.12620	0.12080
5	0.02320	0.02120	0.01930	0.01740	0.01550	0.01360	0.01160	0.00970	0.00780	0.00620
10	0.01550	0.01380	0.01210	0.01040	0.00880	0.00710	0.00550	0.00380	0.00210	0.00080
15	0.00700	0.00600	0.00510	0.00420	0.00320	0.00230	0.00140	0.00040	0.00020	0.00020
20	0.00450	0.00370	0.00290	0.00210	0.00130	0.00050	0.00010	0.00010	0.00010	0.00010
25	0.00240	0.00170	0.00110	0.00050	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
30	0.00110	0.00050	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000
35	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000
40	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000
45	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Matrix of Sample Service Retirement Assumption Rates

Service	Attained Ages				Public Agency Miscellaneous 2% @ 55		
	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00800	0.04000	0.05800	0.14500	0.15000	1.00000	1.00000
10	0.01300	0.04000	0.07500	0.17300	0.17100	1.00000	1.00000
15	0.01800	0.05600	0.09300	0.20100	0.19200	1.00000	1.00000
20	0.02100	0.09300	0.12600	0.23300	0.23900	1.00000	1.00000
25	0.02200	0.10900	0.14300	0.26600	0.30400	1.00000	1.00000
30	0.03300	0.15400	0.16900	0.28900	0.33000	1.00000	1.00000
35	0.05000	0.21000	0.20700	0.31600	0.33000	1.00000	1.00000
40	0.00000	0.24000	0.28000	0.33000	0.33000	1.00000	1.00000
45	0.00000	0.00000	0.28000	0.33000	0.33000	1.00000	1.00000
50	0.00000	0.00000	0.00000	0.33000	0.33000	1.00000	1.00000

Service	Attained Ages				Public Agency Miscellaneous 2% @ 62		
	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.01000	0.03100	0.10800	0.12000	1.00000	1.00000
10	0.00000	0.01900	0.05100	0.14100	0.15600	1.00000	1.00000
15	0.00000	0.02800	0.07100	0.17300	0.19300	1.00000	1.00000
20	0.00000	0.03600	0.09100	0.20600	0.22900	1.00000	1.00000
25	0.00000	0.06100	0.11100	0.23900	0.26500	1.00000	1.00000
30	0.00000	0.09600	0.13800	0.30000	0.33300	1.00000	1.00000
35	0.00000	0.15200	0.18300	0.34800	0.38700	1.00000	1.00000
40	0.00000	0.18000	0.20400	0.36000	0.40000	1.00000	1.00000
45	0.00000	0.00000	0.20400	0.36000	0.40000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Matrix of Sample Service Retirement Assumption Rates

Attained Ages		Public Agency Police 2% @ 50					
Service	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
10	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
15	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
20	0.05000	0.09600	0.15000	1.00000	1.00000	1.00000	1.00000
25	0.05000	0.14100	0.15000	1.00000	1.00000	1.00000	1.00000
30	0.10000	0.25500	0.22800	1.00000	1.00000	1.00000	1.00000
35	0.11000	0.40800	0.35000	1.00000	1.00000	1.00000	1.00000
40	0.00000	0.40800	0.35000	1.00000	1.00000	1.00000	1.00000
45	0.00000	0.00000	0.35000	1.00000	1.00000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Attained Ages		Public Agency Police 3% @ 55					
Service	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.03500	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
10	0.03500	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
15	0.03500	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
20	0.03500	0.12000	0.15000	1.00000	1.00000	1.00000	1.00000
25	0.07000	0.17500	0.18500	1.00000	1.00000	1.00000	1.00000
30	0.09000	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
35	0.15400	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
40	0.00000	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
45	0.00000	0.00000	0.35000	1.00000	1.00000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Matrix of Sample Service Retirement Assumption Rates

Attained Ages		Public Agency Police 2% @ 50					
Service	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
10	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
15	0.05000	0.07200	0.15000	1.00000	1.00000	1.00000	1.00000
20	0.05000	0.09600	0.15000	1.00000	1.00000	1.00000	1.00000
25	0.05000	0.14100	0.15000	1.00000	1.00000	1.00000	1.00000
30	0.10000	0.25500	0.22800	1.00000	1.00000	1.00000	1.00000
35	0.11000	0.40800	0.35000	1.00000	1.00000	1.00000	1.00000
40	0.00000	0.40800	0.35000	1.00000	1.00000	1.00000	1.00000
45	0.00000	0.00000	0.35000	1.00000	1.00000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Attained Ages		Public Agency Safety Police 2.7% @ 57					
Service	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.05000	0.06840	0.15000	1.00000	1.00000	1.00000	1.00000
10	0.05000	0.06840	0.15000	1.00000	1.00000	1.00000	1.00000
15	0.05000	0.06840	0.15000	1.00000	1.00000	1.00000	1.00000
20	0.05000	0.09120	0.15000	1.00000	1.00000	1.00000	1.00000
25	0.05000	0.13395	0.15000	1.00000	1.00000	1.00000	1.00000
30	0.10000	0.24225	0.22750	1.00000	1.00000	1.00000	1.00000
35	0.11000	0.38760	0.35000	1.00000	1.00000	1.00000	1.00000
40	0.00000	0.38760	0.35000	1.00000	1.00000	1.00000	1.00000
45	0.00000	0.00000	0.35000	1.00000	1.00000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Attained Ages		Public Agency Police 3.0% @ 50					
Service	50	55	60	65	70	75	79
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.05000	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
10	0.05000	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
15	0.05000	0.07000	0.15000	1.00000	1.00000	1.00000	1.00000
20	0.10000	0.12000	0.15000	1.00000	1.00000	1.00000	1.00000
25	0.15500	0.17500	0.18500	1.00000	1.00000	1.00000	1.00000
30	0.40000	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
35	0.40000	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
40	0.00000	0.34000	0.35000	1.00000	1.00000	1.00000	1.00000
45	0.00000	0.00000	0.35000	1.00000	1.00000	1.00000	1.00000
50	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000

Notes:

These rates apply to Members of the Police Officer's Association.