

# City of Moreno Valley

## GASB 75 OPEB Valuation Report as of June 30, 2018 for Disclosures for the Fiscal Year Ending June 30, 2019

September 30, 2019



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September 30, 2019

Brigitta Bartha  
Principal Accountant  
City of Moreno Valley  
14177 Frederick Street  
Moreno Valley, California 92553

**Re: City of Moreno Valley GASB 75 OPEB Valuation as of June 30, 2018**

Dear Ms. Bartha :

At your request, we completed an actuarial valuation of the retiree health and welfare benefits as of June 30, 2018, for the City of Moreno Valley. Please use the information in this report for your financial statements for the fiscal year ending June 30, 2019. This valuation is based on input from the City 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).

The prior GASB 75 valuation had a valuation date of December 31, 2016 and was used for the City's financial reporting as of June 30, 2018. Because GASB 75 does not allow a report date more than 30 months into the future, the City is unable to use the prior valuation report for its June 30, 2019 financial reporting. GASB 75 requires a new full valuation. In this full valuation, we make a one-time change to the valuation approach to bring the census date in line with the measurement date, and to set the report date one year ahead of the measurement date to allow the City to complete reports ahead of the fiscal year-end. The prior report also used the same measurement date. This report updates the values as of the same measurement date, which is June 30, 2018, from the prior report. Some of the prior values were estimates, and some have been changed after the audited CERBT fund information became available. The values in the measurement period of July 1, 2017 to June 30, 2018, only measure the difference in values between the two reports for that measurement period.

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



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# Executive Summary

## Overview

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### 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, 2019.

This report changes the measurement date and report date approach. The report date is set one year after the measurement date, to allow the report to be completed ahead of the fiscal year-end. To do so, the same measurement date as was used in the prior report is used in this report, with the report date moving one year forward. Because the prior report used estimated values, in many cases, as of the measurement date, June 30, 2018, this report updates those values to use actual values as of the measurement date. Therefore, the first year shown throughout the report, for the report year ending June 30, 2019, records the differences between estimated and actual amounts as of the measurement date, and will appear quite different in magnitude from the values projected for the report year ending June 30, 2020.

	<u>Current Report</u>	<u>Prior Report</u>
<b>Valuation Date:</b>	June 30, 2018	December 31, 2016
<b>Measurement Date:</b>	June 30, 2018	June 30, 2018 (same as current report)
<b>Report Date:</b>	June 30, 2019	June 30, 2018

### Application to Financials

This report provides assets, liabilities, and expenses for use in the City's 2019 and 2020 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 City should use the liabilities and assets measured as of June 30, 2018, for its June 30, 2019, liabilities and assets, and it should use the expense for the measurement period ending June 30, 2018, as its expense in its financial statements for the year ending June 30, 2019.

The report also provides the actuarially determined contributions for funding purposes for reporting for the fiscal years ending June 30 for 2019, 2020, and 2021. The City makes its contributions one year prior to the fiscal year in which it reports the contributions.

We recommend that the City have an actuary provide an updated report for the June 30, 2020, 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. We updated:

- Discount rate (from 7.00% to 7.28%)
- Census
- Benefit payments
- Assets
- Payroll growth rate (from 3.00% to 2.75%)
- Mortality tables

### 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.

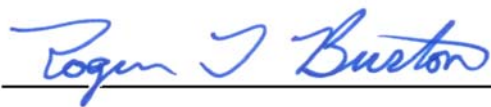
Actuarial computations under GASB 75 fulfill employer accounting and financial reporting requirements. The calculations are consistent with our understanding of GASB 75. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results 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 City of Moreno Valley beyond the contractual services that we perform for the City of Moreno Valley.

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.



September 30, 2019

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**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)*

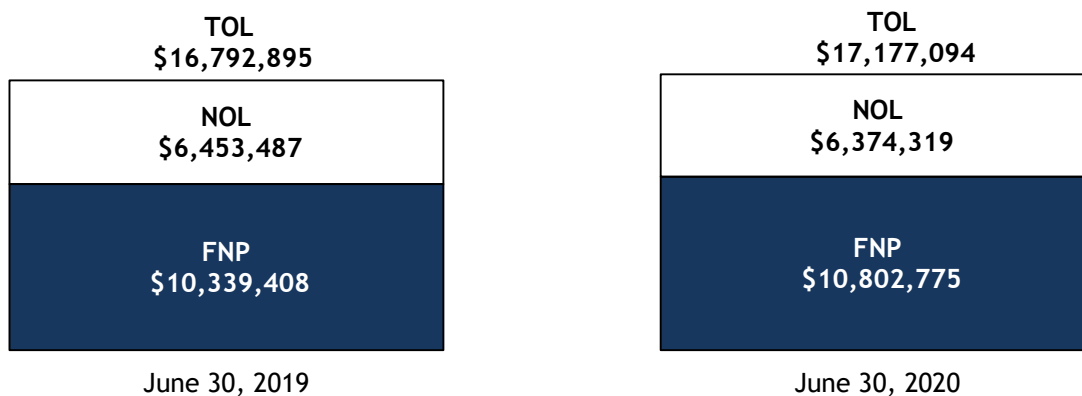
# Executive Summary

## Accounting Summary

A summary of the key valuation results follows.

	<i>Actual</i>	<i>Projected</i>
Valuation Date:	June 30, 2018	June 30, 2018
Measurement Date:	June 30, 2018	June 30, 2019
Report Date:	June 30, 2019	June 30, 2020
<b>Present Value of Future Benefits</b>		
Active Employees	\$ 8,644,736	\$ 9,274,073
Retirees	+ 10,981,373	10,555,314
<b>Total Present Value of Future Benefits</b>	<b>= \$ 19,626,109</b>	<b>\$ 19,829,387</b>
<b>OPEB Liability</b>		
Active Employees	\$ 5,811,522	\$ 6,621,780
Retirees	+ 10,981,373	10,555,314
<b>Total OPEB Liability (TOL)</b>	<b>= 16,792,895</b>	<b>17,177,094</b>
<b>Fiduciary Net Position (FNP)</b>	<b>- 10,339,408</b>	<b>10,802,775</b>
<b>Net OPEB Liability (NOL)</b>	<b>= \$ 6,453,487</b>	<b>\$ 6,374,319</b>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	61.57%	62.89%
Covered-Employee Payroll	\$ 20,129,158	\$ 20,682,710
Net OPEB Liability as a Percentage of Covered-Employee Payroll	32.06%	30.82%
Measurement Period	2017-2018	2018-2019
Reporting Period	2018-2019	2019-2020
Expense	\$ (208,809)	\$ 620,613
Actuarially Determined Contribution (ADC), End of Year*	659,902	908,656

### Net Position Chart



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

# Executive Summary

## Reconciliation of Change in the Total OPEB Liability from Prior Report

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

<b>Total OPEB Liability as of Measurement Date June 30, 2018 / Report Date June 30, 2018</b>	<b>\$ 17,484,881</b>
Passage of Time	26,466
Change of Benefit Terms	-
Change in Census (Demographics)	(900,276)
Change in Experience	1,035,874
Change in Discount Rate	(456,594)
Change in Healthcare Trend Rate	(329,794)
Change in Decrement Rates	(777,883)
Change in Salary Growth	710,221
Other Changes of Assumptions	-
<b>Total OPEB Liability as of Measurement Date June 30, 2018 / Report Date June 30, 2019</b>	<b>\$ 16,792,895</b>

# Accounting Information

## Statement of Fiduciary Net Position

Measurement Date: June 30, 2018

Report Date: June 30, 2019

### 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		10,339,408
International Equities		-
Real Estate		-
Total Investments		10,339,408
Total Assets	\$	10,339,408

### 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** \$ 10,339,408



# Accounting Information

## Statement of Changes to the Fiduciary Net Position

	Measurement Date: June 30, 2018	June 30, 2019
	Report Date: <u>June 30, 2019</u>	<u>June 30, 2020</u>
<b>Additions</b>		
Investment Income:		
Net Appreciation in the Fair Value of Investments	\$ (68,656)	\$ 742,547
Interest and Dividends	-	-
Less Investment Expense, Other than from Securities Lending	(3,882)	-
Net Income from Investing, Other than from Securities Lending	<u>(72,538)</u>	<u>742,547</u>
Securities Lending Income	-	-
Less Securities Lending Expense	-	-
Net Income from Securities Lending	<u>-</u>	<u>-</u>
Net Investment Income (a)	<u><u>\$ (72,538)</u></u>	<u><u>\$ 742,547</u></u>
Contributions:		
Employer – City’s Contribution	\$ -	\$ 613,620
Employer – Implicit Subsidy	-	295,036
Employee	-	-
Total Contributions (b)	<u><u>\$ -</u></u>	<u><u>\$ 908,656</u></u>
<b>Total Additions (c) = (a) + (b)</b>	<b>\$ (72,538)</b>	<b>\$ 1,651,203</b>
<b>Deductions</b>		
Benefit Payments	\$ (26,466)	\$ 887,425
Implicit Rate Subsidy Fulfilled	-	295,036
Administrative Expense	66	5,375
Total Deductions (d)	<u><u>\$ (26,400)</u></u>	<u><u>\$ 1,187,836</u></u>
<b>Net Increase in Net Position = (c) – (d)</b>	<b>\$ (46,138)</b>	<b>\$ 463,367</b>
<b>Net Position Restricted for Postemployment Benefits Other than Pensions</b>		
Beginning of Year	\$ 10,385,546	\$ 10,339,408
Net Increase in Net Position	<u>(46,138)</u>	<u>463,367</u>
End of Year	<u><u>\$ 10,339,408</u></u>	<u><u>\$ 10,802,775</u></u>

Asset projections for fiscal year-end 2020 and beyond use an estimated expected rate of return, contributions, and benefit payments. We recommend that the City update these values for its 2020 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)
<b>Balance as of Measurement Date June 30, 2018 / Report Date June 30, 2018</b>	<b>\$ 17,484,881</b>	<b>\$ 10,385,546</b>	<b>\$ 7,099,335</b>
<b>Changes for the year:</b>			
Service Cost	-		-
Interest	-		-
Changes of Benefit Terms	-		-
Differences Between Expected and Actual Experience	135,598		135,598
Changes of Assumptions	(854,050)		(854,050)
Net Investment Income		(72,538)	72,538
Contributions			
Employer – City's Contribution		-	-
Employer – Implicit Subsidy		-	-
Employee		-	-
Benefit Payments, Including Refunds of Employee Contributions	26,466	26,466	-
Implicit Rate Subsidy Fulfilled	-	-	-
Administrative Expense		(66)	66
Other Changes		-	-
<b>Net Changes</b>	<b>(691,986)</b>	<b>(46,138)</b>	<b>(645,848)</b>
<b>Balance as of Measurement Date June 30, 2018 / Report Date June 30, 2019</b>	<b>\$ 16,792,895</b>	<b>\$ 10,339,408</b>	<b>\$ 6,453,487</b>

# Accounting Information

## Development of 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)
2018	\$ 135,598	\$ -	\$ 19,941	\$ 115,657	\$ -
Total				<u>\$ 115,657</u>	<u>\$ -</u>

### 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, 2019 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ -	\$ (854,050)	\$ (125,596)	\$ -	\$ (728,454)
Total				<u>\$ -</u>	<u>\$ (728,454)</u>

### 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, 2019 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (854,695)	\$ (512,817)	\$ -	\$ (341,878)
2018*	266,057	-	106,422	159,635	-
2018**	72,538	-	14,508	58,030	-
Total				<u>\$ 217,665</u>	<u>\$ (341,878)</u>

\*Report year ending June 30, 2018

\*\*Report year ending June 30, 2019

# Accounting Information

## Development of Projected Deferred Outflows and Inflows of Resources

All Balances at Report Date June 30, 2020

### 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, 2020 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ 135,598	\$ -	\$ 39,882	\$ 95,716	\$ -
2019	-	-	-	-	-
<b>Total</b>				<b>\$ 95,716</b>	<b>\$ -</b>

### 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, 2020 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ -	\$ (854,050)	\$ (251,192)	\$ -	\$ (602,858)
2019	-	-	-	-	-
<b>Total</b>				<b>\$ -</b>	<b>\$ (602,858)</b>

### 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, 2020 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ (854,695)	\$ (683,756)	\$ -	\$ (170,939)
2018*	266,057	-	159,633	106,424	-
2018**	72,538	-	29,016	43,522	-
2019	-	-	-	-	-
<b>Total</b>				<b>\$ 149,946</b>	<b>\$ (170,939)</b>

\*Report year ending June 30, 2018

\*\*Report year ending June 30, 2019

# 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
					2019	2020	2021	2022	2023	2024	2025	
Differences Between Expected and Actual Experience	2017-2018	\$ 135,598	6.8	6.8	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 15,952	\$ -
	2018-2019	-	6.8	6.8	-	-	-	-	-	-	-	-
Changes of Assumptions	2017-2018	(854,050)	6.8	6.8	(125,596)	(125,596)	(125,596)	(125,596)	(125,596)	(125,596)	(100,474)	-
	2018-2019	-	6.8	6.8	-	-	-	-	-	-	-	-
Differences Between Projected and Actual Earnings	2016-2017	(854,695)	5.0	3.0	(170,939)	(170,939)	(170,939)	-	-	-	-	-
	2017-2018*	266,057	5.0	4.0	53,211	53,211	53,211	53,213	-	-	-	-
	2017-2018**	72,538	5.0	5.0	14,508	14,508	14,508	14,508	14,506	-	-	-
	2018-2019	-	5.0	5.0	-	-	-	-	-	-	-	-

### 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	\$	19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 15,952
Changes of Assumptions		(125,596)	(125,596)	(125,596)	(125,596)	(125,596)	(125,596)	(100,474)
Differences Between Projected and Actual Earnings		(103,220)	(103,220)	(103,220)	67,721	14,506	-	-
<b>Total</b>	<b>\$</b>	<b>(208,875)</b>	<b>\$ (208,875)</b>	<b>\$ (208,875)</b>	<b>\$ (37,934)</b>	<b>\$ (91,149)</b>	<b>\$ (105,655)</b>	<b>\$ (84,522)</b>

### Summary of Deferred Outflows and Inflows of Resources – Reporting Period 2019-2020

	Report Year Ending June 30:	2020	2021	2022	2023	2024	2025	Remaining
Differences Between Expected and Actual Experience	\$	19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 19,941	\$ 15,952	\$ -
Changes of Assumptions		(125,596)	(125,596)	(125,596)	(125,596)	(125,596)	(100,474)	-
Differences Between Projected and Actual Earnings		(103,220)	(103,220)	67,721	14,506	-	-	-
<b>Total</b>	<b>\$</b>	<b>(208,875)</b>	<b>\$ (208,875)</b>	<b>\$ (37,934)</b>	<b>\$ (91,149)</b>	<b>\$ (105,655)</b>	<b>\$ (84,522)</b>	<b>\$ -</b>

\*Report year ending June 30, 2018

\*\*Report year ending June 30, 2019

# Accounting Information

## Calculation of Expense under GASB 75

	Measurement Period:	2017-2018
	Reporting Period:	2018-2019
<b>Expense</b>		
Service Cost	\$	-
Interest on Total OPEB Liability		-
Changes of Benefit Terms		-
Recognized Differences Between Expected and Actual Experience		19,941
Recognized Changes of Assumptions		(125,596)
Employee Contributions		-
Projected Earnings on OPEB Plan Investments		-
Recognized Differences Between Projected and Actual Earnings		(103,220)
Administrative expenses		66
<b>Total Expense</b>	\$	(208,809)

### Deferred Outflows and Inflows of Resources

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 115,657	\$ -
Changes of Assumptions	-	(728,454)
Net Difference Between Projected and Actual Earnings on Plan Investments	-	(124,213)
City Contributions Subsequent to the Measurement Date	956,519	-
<b>Total</b>	\$ 1,072,176	\$ (852,667)

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	\$ (208,875)
2021	(208,875)
2022	(37,934)
2023	(91,149)
2024	(105,655)
Remaining	(84,522)

# Accounting Information

## Calculation of Projected Expense under GASB 75

	<i>Actual</i>	<i>Projected</i>
Measurement Period:	2017-2018	2018-2019
Reporting Period:	2018-2019	2019-2020
<hr/>		
<b>Expense</b>		
Service Cost	\$ -	\$ 360,905
Interest on Total OPEB Liability	-	1,205,755
Changes of Benefit Terms	-	-
Recognized Changes of Assumptions	19,941	19,941
Recognized Differences Between Expected and Actual Experience	(125,596)	(125,596)
Employee Contributions	-	-
Projected Earnings on OPEB Plan Investments	-	(742,547)
Recognized Differences Between Projected and Actual Earnings	(103,220)	(103,220)
Administrative expenses	66	5,375
<b>Total Expense</b>	<b>\$ (208,809)</b>	<b>\$ 620,613</b>

### Deferred Outflows and Inflows of Resources

	<u>June 30, 2020</u>	
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences Between Expected and Actual Experience	\$ 95,716	\$ -
Changes of Assumptions	-	(602,858)
Net Difference Between Projected and Actual Earnings on Plan Investments	-	(20,993)
City Contributions Subsequent to the Measurement Date	<i>City to Determine</i>	-
<b>Total</b>	<b>\$ 95,716</b>	<b>\$ (623,851)</b>

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>
2021	\$ (208,875)
2022	(37,934)
2023	(91,149)
2024	(105,655)
2025	(84,522)
Remaining	-

## Accounting Information

### Reconciliation of Expense

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Deferred Inflows	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
Balance as of Measurement Date June 30, 2019 / Report Date June 30, 2018	\$ (17,484,881)	\$ 10,385,546	\$ (7,099,335)	\$ -	\$ -	\$ (299,971)	\$ (299,971)	\$ (7,399,306)	
Service Cost	-		-						\$ -
Interest on Total OPEB Liability	-		-						-
Effect of Changes of Benefit Terms	-		-						-
Effect of Liability Gains or Losses	(135,598)		(135,598)	-	135,598		135,598		
Effect of Assumption Changes or Inputs	854,050		854,050	(854,050)	-		(854,050)		
Expected Investment Income (Net of Investment Expenses)		-	-				-		-
Investment Gains or Losses on Expected Return		(72,538)	(72,538)		-	72,538	72,538	-	
Contributions									
Employer – City's Contribution		-	-					-	
Employer – Implicit Subsidy		-	-					-	
Employee		-	-					-	
Benefit Payments, Including Refunds of Employee Contributions	(26,466)	26,466	-					-	
Implicit Rate Subsidy Fulfilled	-	-	-						
Administrative Expenses		(66)	(66)						66
Recognition of Liability Gains or Losses			-	-	(19,941)		(19,941)		19,941
Recognition of Assumption Changes or Inputs			-	125,596	-		125,596		(125,596)
Recognition of Investment Gains or Losses			-			103,220	103,220		(103,220)
Annual Expense								208,809	\$ (208,809)
Balance as of Measurement Date June 30, 2018 / Report Date June 30, 2019	\$ (16,792,895)	\$ 10,339,408	\$ (6,453,487)	\$ (728,454)	\$ 115,657	\$ (124,213)	\$ (737,010)	\$ (7,190,497)	



# 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>Projected</i>	<i>Projected</i>
<b>Measurement Period:</b>	<b>2017-2018*</b>	<b>2018-2019</b>	<b>2019-2020</b>
<b>Reporting Period:</b>	<b>2018-2019</b>	<b>2019-2020</b>	<b>2020-2021</b>
Actuarial Accrued Liability (AAL) – Entry Age Normal, Beginning of Fiscal Year	\$ 15,003,730	\$ 16,792,895	\$ 17,177,094
Actuarial Value of Plan Assets, Beginning of Fiscal Year	- 10,385,546	10,339,408	10,802,775
Unfunded Actuarial Accrued Liability (UAAL), Beginning of Fiscal Year	<u>= \$ 4,618,184</u>	<u>\$ 6,453,487</u>	<u>\$ 6,374,319</u>
Interest Rate Used to Determine Amortization Payment	7.00%	7.28%	7.28%
Assumed Rate of Payroll Growth	3.000%	2.750%	2.750%
Amortization Period	19 years	18 years	17 years
Amount Recognized, Beginning of Year	\$ 335,136	\$ 486,090	\$ 499,826
Amount Recognized, End of Year	\$ 358,596	\$ 521,477	\$ 536,213

\*Amounts determined in prior report.

# Accounting Information

## Actuarially Determined Contribution (ADC)

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

	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>
Measurement Period:	2017-2018*	2018-2019	2019-2020
Reporting Period:	2018-2019	2019-2020	2020-2021
Service Cost – Entry Age Normal	\$ 319,522	\$ 360,905	\$ 370,830
Amortization of the Unfunded Actuarial Accrued Liability (UAAL)	335,136	486,090	499,826
Actuarially Determined Contribution (ADC), Beginning of Year	\$ 659,902	\$ 846,995	\$ 870,656
<b>Actuarially Determined Contribution (ADC), End of Year</b>	<b>\$ 659,902</b>	<b>\$ 908,656</b>	<b>\$ 934,040</b>
ADC as a Percentage of Payroll	3.28%	4.39%	4.40%
Discount Rate	7.00%	7.28%	7.28%
<b>ADC Components</b>			
City's Contribution to Assets	374,241	613,620	631,564
Implied Contribution – Implicit Subsidy	285,661	295,036	302,476
<b>Total ADC</b>	<b>\$ 659,902</b>	<b>\$ 908,656</b>	<b>\$ 934,040</b>

### City's Funding Policy

The City'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 two parts: the contribution to the assets and the implicit subsidy credit. The contribution to the assets is the difference between the ADC and implicit subsidy credit.

The City is amortizing the UAAL on a closed basis. Remaining years of amortization as of the report date of June 30, 2019:

18

The discount rate assumed for ADC calculations 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 2020 use an estimated expected rate of return, contributions, and benefit payments. We recommend that the City update these values for its 2020 financial statements.

\*Amounts determined in prior report. Included estimated administrative expenses of \$5,244 and no adjustment for interest. This is the ADC from the prior report and it is not updated.

# Accounting Information

## Projection of ADC and Net OPEB Liability

	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>
Measurement Date:	June 30, 2018	June 30, 2019	June 30, 2020
Report Date:	June 30, 2019	June 30, 2020	June 30, 2021
<b>Estimated Liabilities</b>			
OPEB Liability, Beginning of Year	\$ 17,484,881	\$ 16,792,895	\$ 17,177,094
Service Cost	-	360,905	370,830
Interest on Liabilities	-	1,205,755	1,233,552
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	135,598	-	-
Changes of Assumptions	(854,050)	-	-
Benefit Payments	26,466	(887,425)	(926,171)
Implicit Rate Subsidy Fulfilled	-	(295,036)	(302,476)
<b>OPEB Liability, End of Year (a)</b>	<b>\$ 16,792,895</b>	<b>\$ 17,177,094</b>	<b>\$ 17,552,829</b>
<b>Estimated Assets</b>			
Assets, Beginning of Year	\$ 10,385,546	\$ 10,339,408	\$ 10,802,775
Expected Earnings	(72,538)	742,547	775,710
Contributions			
Employer – City's Contribution	-	613,620	631,564
Employer – Implicit Subsidy	-	295,036	302,476
Employee	-	-	-
<b>Total Contributions</b>	<b>-</b>	<b>908,656</b>	<b>934,040</b>
Projected Benefit Payments			
Benefit Payments, Including Refunds of Employee Contributions	26,466	(887,425)	(926,171)
Implicit Rate Subsidy Fulfilled	-	(295,036)	(302,476)
<b>Total Benefit Payments</b>	<b>26,466</b>	<b>(1,182,461)</b>	<b>(1,228,647)</b>
Administrative Expenses	(66)	(5,375)	(5,509)
<b>Assets, End of Year (b)</b>	<b>\$ 10,339,408</b>	<b>\$ 10,802,775</b>	<b>\$ 11,278,369</b>
<b>Net OPEB liability, End of Year = (a) – (b)</b>	<b>\$ 6,453,487</b>	<b>\$ 6,374,319</b>	<b>\$ 6,274,460</b>
<b>Expense</b>	<b>(208,809)</b>	<b>620,613</b>	<b>n/a</b>
<b>ADC</b>	<b>659,902</b>	<b>908,656</b>	<b>934,040</b>

Projections for fiscal year-end 2020 and beyond use an estimated expected rate of return, contributions, and benefit payments. We recommend that the City update these values for its 2020 financial statements.

# Accounting Information

## OPEB Cash-Flow Projections

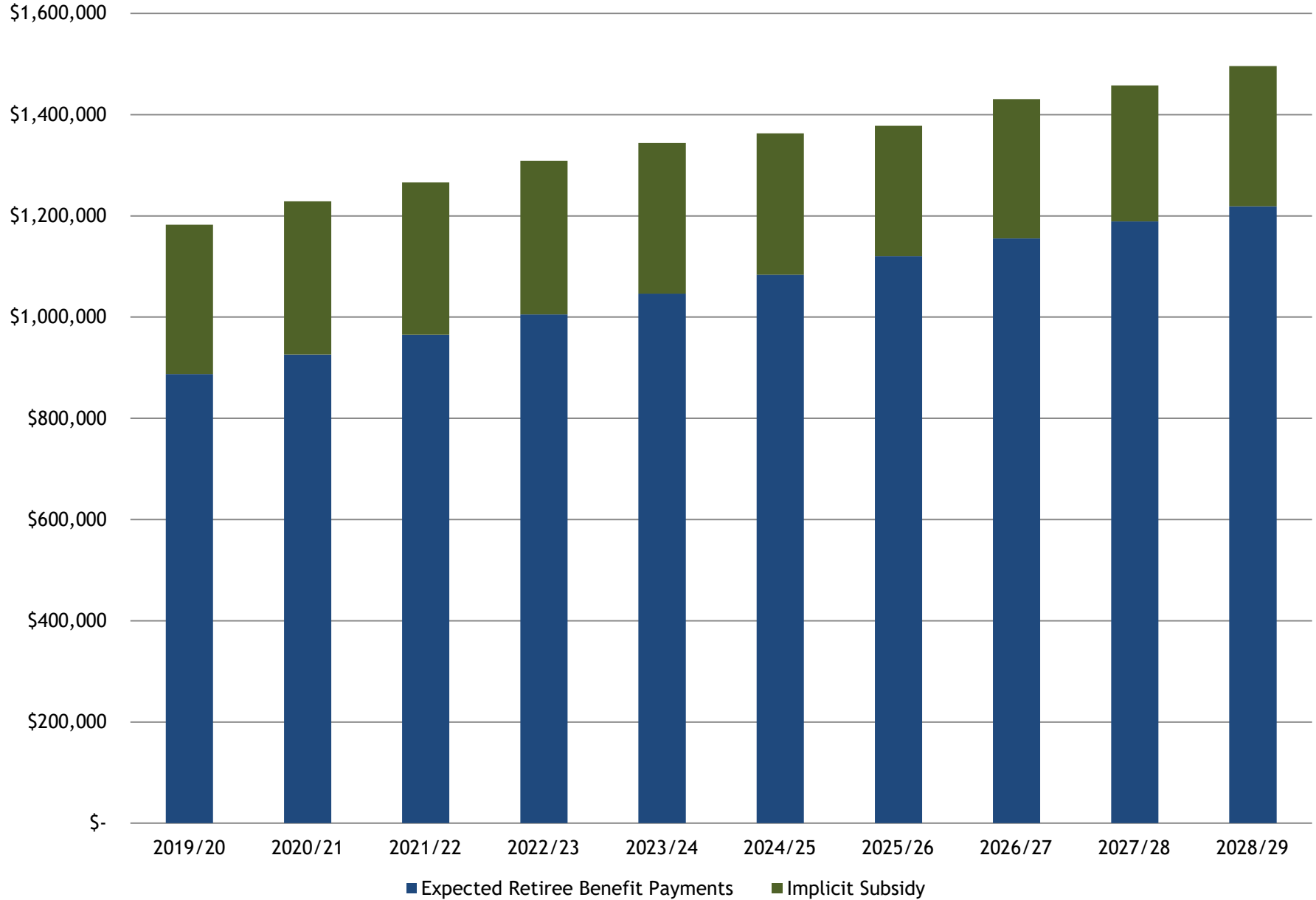
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OPEB cash-flow projections for existing participants for the next twenty-five years follow.

<b>Measurement Period Ending June 30:</b>	<b>Expected Retiree Benefit Payments</b>	<b>Implicit Subsidy</b>	<b>Total Expected Benefit Payments</b>
2019	\$ 887,425	\$ 295,036	\$ 1,182,461
2020	926,171	302,476	1,228,647
2021	965,337	300,577	1,265,914
2022	1,005,553	303,351	1,308,904
2023	1,046,237	297,659	1,343,896
2024	1,083,685	279,420	1,363,105
2025	1,120,670	257,396	1,378,066
2026	1,155,471	275,288	1,430,759
2027	1,189,093	268,812	1,457,905
2028	1,219,042	277,051	1,496,093
2029	1,247,794	277,923	1,525,717
2030	1,274,503	314,887	1,589,390
2031	1,299,351	320,285	1,619,636
2032	1,324,002	332,869	1,656,871
2033	1,344,904	346,850	1,691,754
2034	1,361,918	366,652	1,728,570
2035	1,375,804	362,533	1,738,337
2036	1,386,046	344,228	1,730,274
2037	1,393,608	355,501	1,749,109
2038	1,394,180	334,768	1,728,948
2039	1,390,815	341,529	1,732,344
2040	1,382,630	371,097	1,753,727
2041	1,368,273	330,885	1,699,158
2042	1,351,639	351,382	1,703,021
2043	1,328,765	377,994	1,706,759

# Accounting Information

## Ten-Year Projection of Expected Benefit Payments for Existing Participants



## Accounting Information

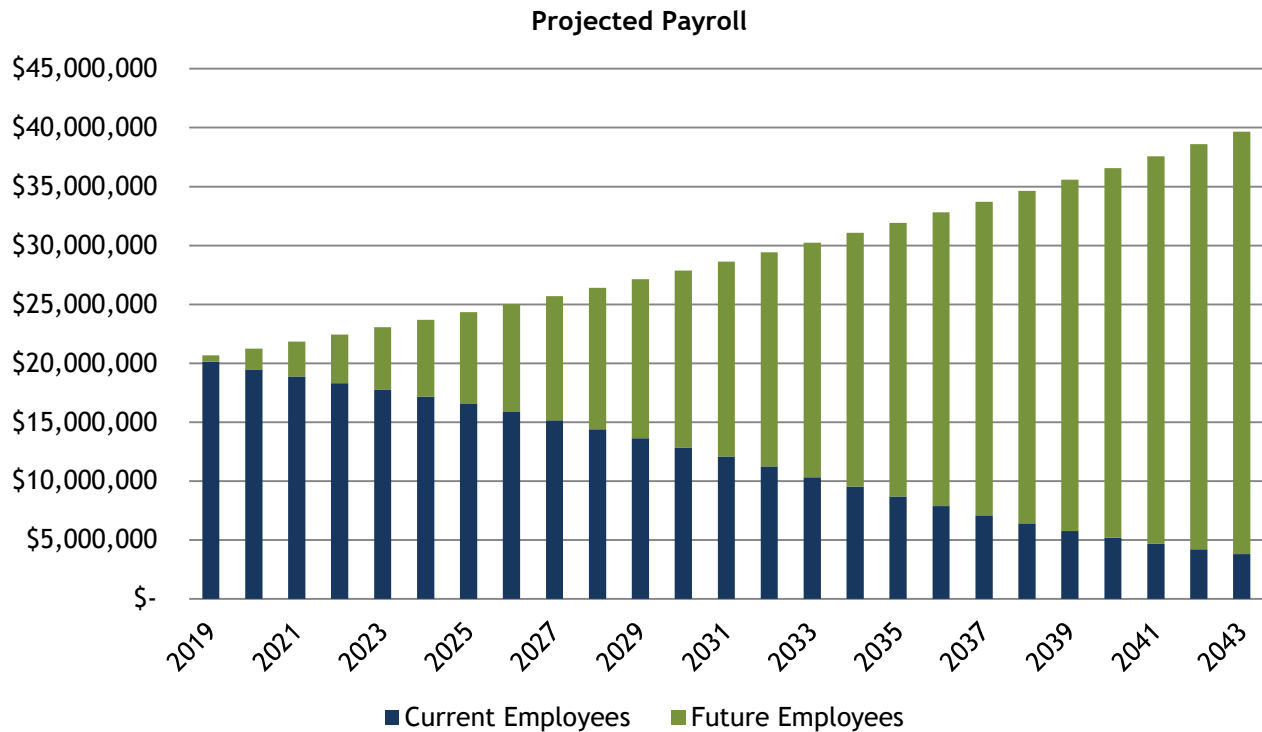
## Projection of Contributions

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 4.39% for 20 Years, 1.87% Thereafter	Employer Contributions Related to Payroll of Future Plan Members (e) = (b) x 1.87%	Portion of Employer Contribution for Current Plan Members* (f) = (d) - (e)
2019	\$ 20,129,158	\$ 553,552	\$ 20,682,710	\$ 908,656	\$ 10,362	\$ 898,294
2020	19,464,601	1,786,884	21,251,485	933,644	33,450	900,194
2021	18,879,326	2,956,575	21,835,901	959,320	55,347	903,973
2022	18,310,040	4,126,348	22,436,388	985,701	77,245	908,456
2023	17,743,089	5,310,300	23,053,389	1,012,808	99,408	913,400
2024	17,159,426	6,527,931	23,687,357	1,040,660	122,202	918,458
2025	16,548,045	7,790,714	24,338,759	1,069,278	145,842	923,436
2026	15,858,730	9,149,345	25,008,075	1,098,683	171,275	927,408
2027	15,144,088	10,551,709	25,695,797	1,128,897	197,527	931,370
2028	14,388,754	12,013,677	26,402,431	1,159,941	224,895	935,046
2029	13,635,430	13,493,068	27,128,498	1,191,840	252,589	939,251
2030	12,850,935	15,023,597	27,874,532	1,224,616	281,241	943,375
2031	12,076,223	16,564,859	28,641,082	1,258,292	310,093	948,199
2032	11,230,930	18,197,782	29,428,712	1,292,895	340,661	952,234
2033	10,327,396	19,910,606	30,238,002	1,328,450	372,725	955,725
2034	9,520,087	21,549,460	31,069,547	1,364,983	403,404	961,579
2035	8,688,934	23,235,026	31,923,960	1,402,520	434,958	967,562
2036	7,865,470	24,936,399	32,801,869	1,441,089	466,808	974,281
2037	7,089,753	26,614,167	33,703,920	1,480,719	498,215	982,504
2038	6,400,089	28,230,689	34,630,778	1,521,439	528,477	992,962
2039	5,768,390	29,814,734	35,583,124	666,114	558,130	107,984
2040	5,186,446	31,375,214	36,561,660	684,432	587,342	97,090
2041	4,678,175	32,888,931	37,567,106	703,254	615,678	87,576
2042	4,219,264	34,380,937	38,600,201	722,593	643,609	78,984
2043	3,785,908	35,875,799	39,661,707	742,464	671,592	70,872

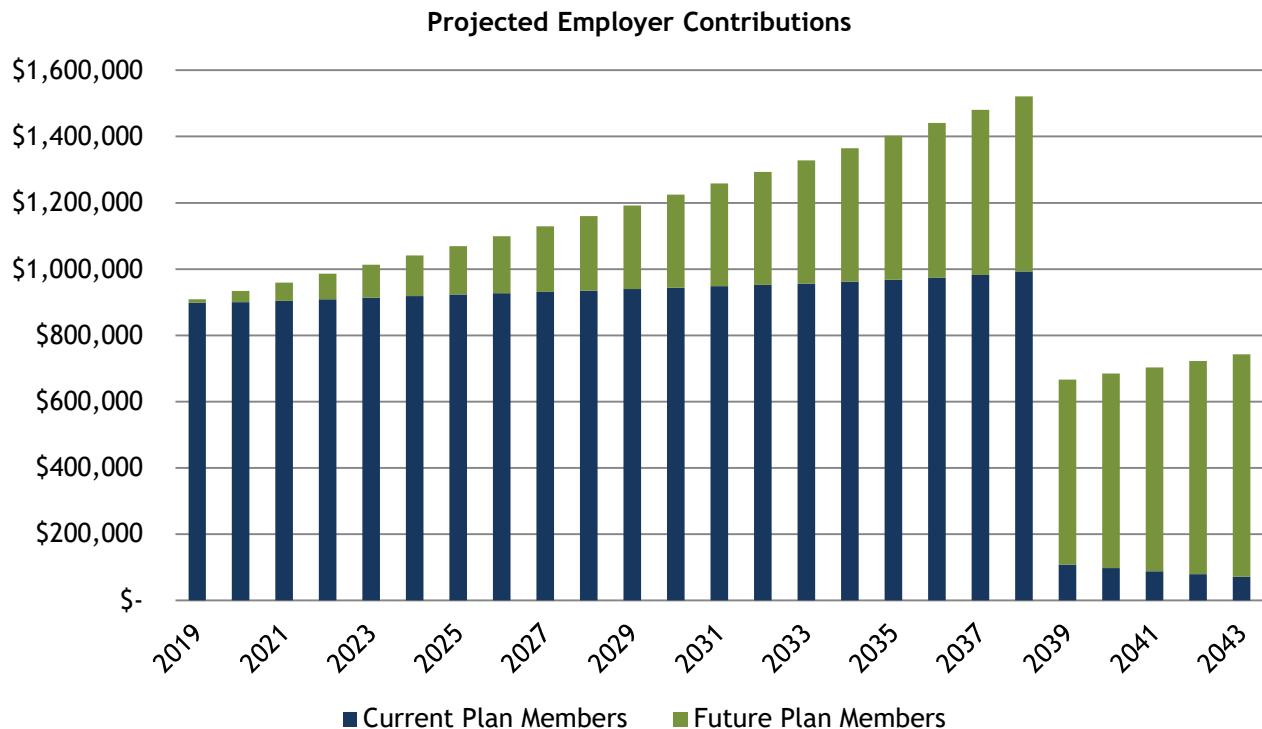
# Accounting Information

## 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)
2019	\$ 10,339,408	\$ 898,294	\$ 1,182,461	\$ 5,375	\$ 742,170	\$ 10,792,036
2020	10,792,036	900,194	1,228,647	5,509	773,504	11,231,578
2021	11,231,578	903,973	1,265,914	5,647	804,279	11,668,269
2022	11,668,269	908,456	1,308,904	5,788	834,663	12,096,696
2023	12,096,696	913,400	1,343,896	5,933	864,753	12,525,020
2024	12,525,020	918,458	1,363,105	6,081	895,415	12,969,707
2025	12,969,707	923,436	1,378,066	6,233	927,419	13,436,263
2026	13,436,263	927,408	1,430,759	6,389	959,605	13,886,128
2027	13,886,128	931,370	1,457,905	6,549	991,506	14,344,550
2028	14,344,550	935,046	1,496,093	6,713	1,023,617	14,800,407
2029	14,800,407	939,251	1,525,717	6,881	1,055,872	15,262,932
2030	15,262,932	943,375	1,589,390	7,053	1,087,370	15,697,234
2031	15,697,234	948,199	1,619,636	7,229	1,118,055	16,136,623
2032	16,136,623	952,234	1,656,871	7,410	1,148,828	16,573,404
2033	16,573,404	955,725	1,691,754	7,595	1,179,476	17,009,256
2034	17,009,256	961,579	1,728,570	7,785	1,210,072	17,444,552
2035	17,444,552	967,562	1,738,337	7,980	1,241,617	17,907,414
2036	17,907,414	974,281	1,730,274	8,180	1,275,844	18,419,085
2037	18,419,085	982,504	1,749,109	8,385	1,312,700	18,956,795
2038	18,956,795	992,962	1,728,948	8,595	1,352,952	19,565,166
2039	19,565,166	107,984	1,732,344	8,810	1,364,897	19,296,893
2040	19,296,893	97,090	1,753,727	9,030	1,344,184	18,975,410
2041	18,975,410	87,576	1,699,158	9,256	1,322,411	18,676,983
2042	18,676,983	78,984	1,703,021	9,487	1,300,224	18,343,683
2043	18,343,683	70,872	1,706,759	9,724	1,275,520	17,973,592



# Accounting Information

## Implicit Subsidy

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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, 2018	June 30, 2019
Report Date:	June 30, 2019	June 30, 2020
Discount Rate	7.28%	7.28%
Retiree Benefit Payments	\$ 13,916,285	\$ 14,264,928
Implicit Subsidy	2,876,610	2,912,166
<b>Total OPEB Liability</b>	<b>\$ 16,792,895</b>	<b>\$ 17,177,094</b>

# 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, 2018
	Report Date:	June 30, 2019
<b><u>Total OPEB Liability</u></b>		
Service Cost	\$	-
Interest		-
Changes of Benefit Terms		-
Differences Between Expected and Actual Experience		135,598
Changes of Assumptions		(854,050)
Benefit Payments, Including Refunds of Employee Contributions		26,466
Implicit Rate Subsidy Fulfilled		-
Net Change in Total OPEB liability		(691,986)
Total OPEB Liability – Beginning of Year		17,484,881
<b>Total OPEB Liability – End of Year (a)</b>	<b>\$</b>	<b>16,792,895</b>
 <b><u>Plan Fiduciary Net Position</u></b>		
Net Investment Income	\$	(72,538)
Contributions		
Employer – City's Contribution		-
Employer – Implicit Subsidy		-
Employee		-
Benefit Payments, Including Refunds of Employee Contributions		26,466
Implicit Rate Subsidy Fulfilled		-
Administrative Expense		(66)
Other		-
Net Change in Plan Fiduciary Net Position		(46,138)
Plan Fiduciary Net Position – Beginning of Year		10,385,546
<b>Plan Fiduciary Net Position – End of Year (b)</b>	<b>\$</b>	<b>10,339,408</b>
 <b><u>Net OPEB Liability</u></b>		
City's Net OPEB liability – End of Year = (a) – (b)	\$	6,453,487
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		61.57%
Covered-Employee Payroll	\$	20,129,158
City's Net OPEB Liability as a Percentage of Covered-Employee Payroll		32.06%

**Notes to schedule:**

The City adopted GASB 75 for the fiscal Year Ending June 30, 2017.

# Accounting Information

## Schedule of Investment Returns

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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, 2019

Annual Money-Weighted Rate of Return, Net of Investment Expense -0.70%

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.

	<b>Measurement Period:</b>	<b>2017-2018</b>
	<b>Reporting Period:</b>	<b>2018-2019</b>
	<b>Report Date:</b>	<b>June 30, 2019</b>
Actuarially Determined Contribution (ADC)	\$	659,902
Less: Contributions Made in Relation to the ADC	-	927,877
Contribution Deficiency (Excess)		(267,975)
Covered-Employee Payroll	\$	20,129,158
Contributions as a Percentage of Covered-Employee Payroll		4.61%

### 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	2.50%
Assumed Payroll Growth	2.750%
Healthcare Trend Rates	6.50%, 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

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

### Notes to the Financial Statements for the Year Ended June 30, 2019

#### 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 City 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 City administers a single-employer defined-benefit post-employment healthcare plan. Benefits vary by hire date and employment status (Management or Non-Management). Benefits continue to the surviving

*Benefits Provided.*

The PEMHCA minimum amount for retirees participating in PEMHCA is \$133 month for 2018. PEMHCA amounts are adjusted on an annual basis.

An additional \$318.73 per month will be paid for medical, dental, and vision for full-time employees hired and for City Council elected before September 30, 2011. The total subsidy will not be greater than the premium for the retiree and spouse. Coverage is allowed under any medical plan.

*Employees covered by benefit terms.*

At June 30, 2018 (the census date), the benefit terms covered the following employees:

<b>Category</b>	<b>Count</b>
Inactive employees, spouses, or beneficiaries currently receiving benefit payments:	270
Inactive employees entitled to but not yet receiving benefit payment:	0
Active employees:	296
<b>Total</b>	<b>566</b>

*Contributions.*

The District makes contributions based on an actuarially determined rate.

# Accounting Information

## Draft Notes to the Financial Statements

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### Net OPEB Liability

The City's net OPEB liability was measured as of June 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2018.

#### *Actuarial Assumptions .*

The total OPEB liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation: 2.50%

Salary increases: 2.750%. Additional merit-based increases based on CalPERS merit salary increase tables.

Investment rate of return: 7.28%

Healthcare cost trend rates: 6.50% in the first year, trending down to 3.84% over 58 years.

Mortality rates were based on CalPERS tables.

The City's funds are invested in CERBT, in CERBT's Asset Allocation Strategy 1. We determined the long-term expected rate of return on OPEB plan investments using a building-block method in which we use best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) developed for each major asset class. We combine these ranges to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

#### *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 City 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, 2018	\$ 17,484,881	\$ 10,385,546	\$ 7,099,335
Changes for the year:			
Service Cost	-	-	-
Interest	-	-	-
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	135,598		135,598
Changes of Assumptions	(854,050)		(854,050)
Contributions			
Employer – City's Contribution		-	-
Employer – Implicit Subsidy		-	-
Employee		-	-
Net Investment Income		(72,538)	72,538
Benefit Payments, Including Refunds of Employee Contributions	26,466	26,466	-
Implicit Rate Subsidy Fulfilled	-	-	-
Administrative Expenses		(66)	66
Net Changes	(691,986)	(46,138)	(645,848)
Balance as of Report Date June 30, 2019	<u>\$ 16,792,895</u>	<u>\$ 10,339,408</u>	<u>\$ 6,453,487</u>

Sensitivity of the net OPEB liability to changes in the discount rate. The net OPEB liability of the City, as well as what the City'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)	\$ 8,183,997	\$ 6,453,487	\$ 4,977,564

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The net OPEB liability of the City, as well as what the City's net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (5.50%) or one percentage point higher (7.50%) than current healthcare cost trend rates follows:

	<u>1% Decrease</u>	<u>Trend Rate</u>	<u>1% Increase</u>
	5.50% Decreasing to 2.84%	6.50% Decreasing to 3.84%	7.50% Decreasing to 4.84%
Net OPEB Liability (Asset)	\$ 6,218,627	\$ 6,453,487	\$ 6,723,153

# Accounting Information

## Draft Notes to the Financial Statements

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

For the year ended June 30, 2019, the City recognized an OPEB expense of -\$208,809. At June 30, 2019, the City 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	\$ 115,657	\$ -
Changes of Assumptions	-	(728,454)
Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	-	(124,213)
City Contributions Subsequent to the Measurement Date	<u>956,519</u>	<u>-</u>
<b>Total</b>	<b>\$ 1,072,176</b>	<b>\$ (852,667)</b>

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	\$ (208,875)
2021	(208,875)
2022	(37,934)
2023	(91,149)
2024	(105,655)



## Substantive Plan

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

All Retirees	
Duration of coverage	Retiree's lifetime.
Conditions of coverage	Retire directly from the City under CalPERS (service or disability).
Dependent coverage	Benefit continues to surviving spouse of retiree or on death of active employee while eligible for retirement.
Medical plan choices	Same as actives

Management hired/elected before September 30, 2011 and Non-Management hired before July 1, 2009	
Eligibility for additional retiree benefits	Age 50 with 5 years of service
Eligibility for PEMHCA-only benefits	Age 50 with 5 years of service
Employer monthly contributions (full benefits)	
<ul style="list-style-type: none"> <li>• Additional amount</li> <li>• PEMHCA amount</li> </ul>	\$318.73 monthly, no future increases \$133 monthly (2018 amount) with annual increase

Non-Management Full-Time Employees Hired between July 1, 2009 and September 30, 2011	
Eligibility for additional retiree benefits	Age 50 with 10 years of service
Eligibility for PEMHCA-only benefits	Age 50 with 5 years of service
Employer monthly contributions (full benefits)	
<ul style="list-style-type: none"> <li>• Additional amount</li> <li>• PEMHCA amount</li> </ul>	\$318.73 monthly, no future increases \$133 monthly (2018 amount) with annual increase

All Full-Time Employees hired after September 30, 2011	
Eligibility for PEMHCA-only benefits	Age 50 with 5 years of service
Employer monthly contributions (full benefits)	
<ul style="list-style-type: none"> <li>• Retiree only</li> </ul>	\$133 monthly (2018 amount) with annual increase

Excluded Employees	
Temporary employees	Unless participating in PEMHCA
Crossing guards	Unless participating in PEMHCA
Seasonal employees	Unless participating in PEMHCA

# Basis of Valuation

## Participant Summary

Census Date: June 30, 2018  
Age and service determined as of the census date.

Active Participants												
Age	Years of Service										Total	
	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
< 25	3	4										7
25-29	4	15	1	1								21
30-34	4	12	5	4								25
35-39	4	21	6	8	5							44
40-44	7	6		14	4	4						35
45-49	6	14	5	22	8	2	1					58
50-54	2	5	3	8	18	6	1					43
55-59	3	1	4	8	7	5	5					33
60-64		2	2	3	8	4	6					25
65-69		1		2			1					4
70+					1							1
<b>Total</b>	<b>33</b>	<b>81</b>	<b>26</b>	<b>70</b>	<b>51</b>	<b>21</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>296</b>

Average Employee Age: 45.7  
Average Years of Service: 10.2

Inactive Participants				
Age	Retiree	Spouse	Surviving Spouse	Total
< 50				0
50-54	4		1	5
55-59	36	2	1	39
60-64	64	3	6	73
65-69	50	2	15	67
70-74	28	2	11	41
75-79	16	2	4	22
80-84	13	2	2	17
85-89	2		1	3
90+	2	1		3
<b>Total</b>	<b>215</b>	<b>14</b>	<b>41</b>	<b>270</b>

Average Inactive Age: 66.2

# Basis of Valuation

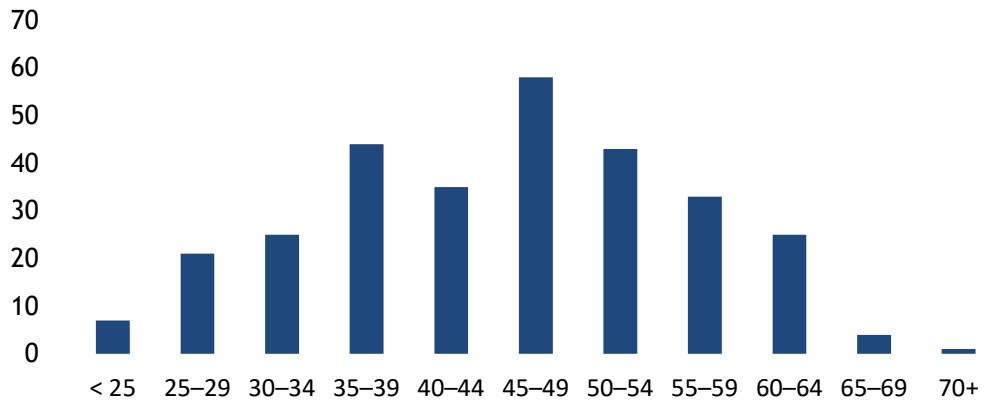
## Participant Summary Charts

Census Date: June 30, 2018

Age and service determined as of the census date.

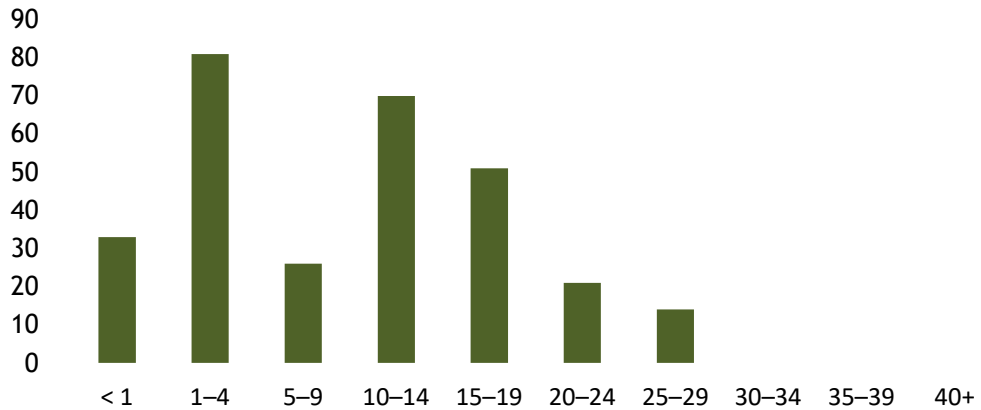
### Count of Actives by Age Bracket

Average Employee Age: 45.7



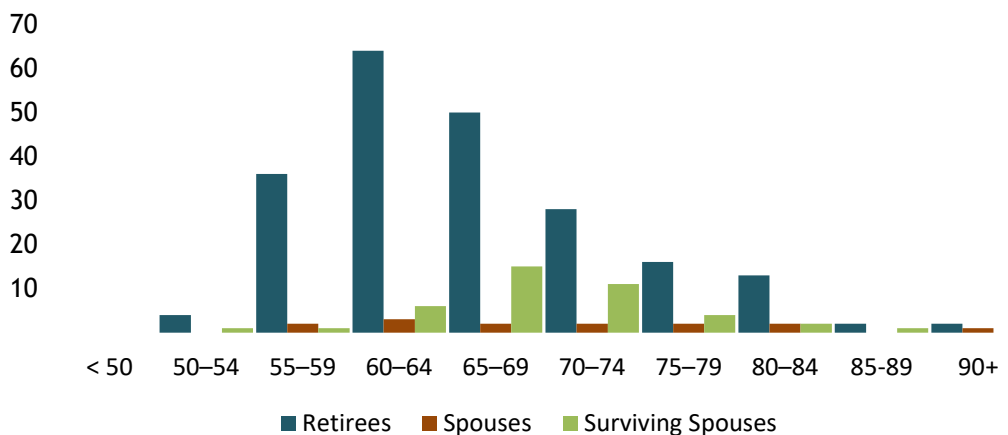
### Count of Actives by Years of Service

Average Years of Service: 10.2



### Count of Inactives by Age Bracket

Average Inactive Age: 66.2



# 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												
<b>Actuarial Cost Method</b>	Entry Age Normal Level Percentage of Salary												
<b>Measurement Date</b>	June 30, 2018												
<b>Valuation Date</b>	June 30, 2018												
<b>Report Date</b>	June 30, 2019												
<b>Discount Rate</b>	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.												
<b>Mortality</b>	Same as CalPERS. See appendix.												
<b>Termination Rates</b>	Same as CalPERS. See appendix. Also known as "turnover".												
<b>Disability</b>	Same as CalPERS. See appendix.												
<b>Retirement</b>	Same as CalPERS. See appendix.												
<b>Annual Per Capita Claims Cost</b>	Developed using CalPERS experience to calculate age-related risk scores, but using the City'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>\$ 9,503</td> <td>\$ 9,766</td> </tr> <tr> <td>55</td> <td>10,973</td> <td>10,483</td> </tr> <tr> <td>60-64</td> <td>13,522</td> <td>11,721</td> </tr> </tbody> </table>	Age	Males	Females	50	\$ 9,503	\$ 9,766	55	10,973	10,483	60-64	13,522	11,721
Age	Males	Females											
50	\$ 9,503	\$ 9,766											
55	10,973	10,483											
60-64	13,522	11,721											
<b>Average Per Capita Cost for Implicit Subsidy Calculation</b>	Developed based on premiums for the City'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												
<b>Aging or Morbidity Factors</b>	Based on actual CalPERS HMO and PPO population data.												
<b>Participant Contributions</b>	Retiree pays any difference between premiums and the benefit cap for the retiree (which varies by bargaining group).												
<b>Salary Increases</b>	2.75% (same as CalPERS). The salary increase is used to determine the growth in the aggregate payroll.  Individual Salary Increases: 2018 CalPERS Merit Salary Increases.												
<b>Inflation Rate</b>	2.50%												
<b>Marital Status</b>	Current Retirees: Actual spouse coverage is used.  Future retirees: 50% assumed to be married.												
<b>Spouse Gender</b>	Assumes spouse of opposite gender for current and future retirees.												
<b>Spouse Age Difference</b>	Assumes males are three years older than females.												
<b>Participation</b>	Current Retirees: Assume current elections continue until decrement. Future Retiree election assumptions summarized below*:												
	<table border="1"> <thead> <tr> <th>Healthcare Plan</th> <th>Hired before 9/30/2011</th> <th>Hired after 9/30/2011</th> </tr> </thead> <tbody> <tr> <td>PEMHCA</td> <td>60.0%</td> <td>70.0%</td> </tr> <tr> <td>Non-PEMHCA</td> <td>30.0%</td> <td></td> </tr> <tr> <td>Waived</td> <td>10.0%</td> <td>30.0%</td> </tr> </tbody> </table>	Healthcare Plan	Hired before 9/30/2011	Hired after 9/30/2011	PEMHCA	60.0%	70.0%	Non-PEMHCA	30.0%		Waived	10.0%	30.0%
Healthcare Plan	Hired before 9/30/2011	Hired after 9/30/2011											
PEMHCA	60.0%	70.0%											
Non-PEMHCA	30.0%												
Waived	10.0%	30.0%											
	*Assumed all covered spouses elect survivor spouse benefits.												
<b>PEMHCA Administration Fee</b>	0.31% of retiree premium.												
<b>Annual PEMHCA Amount</b>	\$1,614 for the period June 30, 2018 through June 30, 2019  \$3,824.76 for both Medicare-eligibles and Medicare-ineligibles.												
<b>Annual Additional City Contribution (see substantive plan for details on eligibility)</b>													

# Basis of Valuation

## Actuarial Assumptions

Assumption	Rates
------------	-------

**Premiums**

A single premium was developed based on current enrollment patterns.

Grouping	Employee	Two-Party
Pre-Medicare Plans	\$ 7,738	\$ 15,476
Medicare Plans	3,989	7,978

**Trend Rates**

Medical Long-Term Trends from Society of Actuaries "Long Term Healthcare Cost Trends Model v2018\_c" using baseline assumptions.

Year	Medical Trend	PEMHCA Trend
2018	6.50%	3.00%
2019	6.00%	3.00%
2020	5.50%	3.00%
2021	5.20%	3.00%
2022	5.20%	3.00%
2023	5.20%	3.00%
2024	5.19%	3.00%
2025	5.19%	3.00%
2026-2074	...	...
2075+	3.84%	3.00%

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)

<b>Discount Rate</b>	<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"><li>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.</li><li>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).</li></ul>
<b>Net OPEB Liability</b>	<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>
<b>Normal Cost</b>	<p>See <b>Service Cost</b>.</p>
<b>Other Postemployment Benefits (OPEB)</b>	<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>
<b>Projected Benefit Payments</b>	<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>
<b>Service Cost</b>	<p>The portions of the actuarial present value of projected benefit payments that are attributed to valuation years. Also called <b>Normal Cost</b>.</p>
<b>Substantive Plan</b>	<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

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

<b>Mortality</b>	<b><u>Source Table</u></b>
Miscellaneous Employees	Mort and Disb Rates_PA Misc
<b>Disability Rates</b>	
Miscellaneous Employees	Mort and Disb Rates_PA Misc
<b>Terminated Vested Rates</b>	
Miscellaneous Employees	Terminated Refund Rates_Misc + Terminated Vested Rates_PA Misc
<b>Salary Scale Rates</b>	
Miscellaneous Employees	Salary Scale Rates_PA Misc
<b>Service Retirement Rates</b>	
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
• 2.7% at 55	Rx PA Misc 2.7% @ 55

**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 Local Prosecutors.
- 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.

# Appendix

## Sample Termination Rates

		Sample Terminated Refund Rates Public Agency Miscellaneous									
Entry Ages											
Service		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

		Sample Terminated Vested Rates Public Agency Miscellaneous									
Entry Ages											
Service		15	20	25	30	35	40	45	50	55	59
0		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5		0.04220	0.04220	0.04220	0.03930	0.03640	0.03440	0.03250	0.02710	0.02180	0.02180
10		0.02780	0.02780	0.02780	0.02710	0.02630	0.02150	0.01670	0.01590	0.01500	0.01500
15		0.01920	0.01920	0.01920	0.01740	0.01560	0.01200	0.00850	0.00430	0.00000	0.00000
20		0.01390	0.01390	0.01390	0.01090	0.00790	0.00470	0.00140	0.00070	0.00000	0.00000
25		0.00830	0.00830	0.00830	0.00480	0.00140	0.00070	0.00000	0.00000	0.00000	0.00000
30		0.00150	0.00150	0.00150	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
35		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
40		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
45		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
50		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

When a member is eligible to retire, the termination with vested benefits probability is set to zero

Sample Salary Scale Rates

Public Agency Miscellaneous

Service	Entry Ages													
	15	20	25	30	35	40	45	50	55	60	65	70	75	79
0	0.08500	0.08500	0.08500	0.07750	0.07000	0.06500	0.06000	0.06000	0.06000	0.06000	0.0600	0.0600	0.0600	0.0600
5	0.03400	0.03400	0.03400	0.02950	0.02500	0.02150	0.01800	0.01800	0.01800	0.01800	0.0180	0.0180	0.0180	0.0180
10	0.01600	0.01600	0.01600	0.01350	0.01100	0.00900	0.00700	0.00700	0.00700	0.00700	0.0070	0.0070	0.0070	0.0070
15	0.01200	0.01200	0.01200	0.01000	0.00800	0.00600	0.00400	0.00400	0.00400	0.00400	0.0040	0.0040	0.0040	0.0040
20	0.00900	0.00900	0.00900	0.00750	0.00600	0.00450	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
25	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
30	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
35	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
40	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
45	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030
50	0.00800	0.00800	0.00800	0.00650	0.00500	0.00400	0.00300	0.00300	0.00300	0.00300	0.0030	0.0030	0.0030	0.0030

# Appendix

## Matrix of Sample Service Retirement Assumption Rates

Service	Attained Ages				Public Agency Miscellaneous 2% @ 55			
	50	55	60	65	70	75	79	
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	0.0080	0.0400	0.0580	0.1450	0.1500	1.0000	1.0000	
10	0.0130	0.0400	0.0750	0.1730	0.1710	1.0000	1.0000	
15	0.0180	0.0560	0.0930	0.2010	0.1920	1.0000	1.0000	
20	0.0210	0.0930	0.1260	0.2330	0.2390	1.0000	1.0000	
25	0.0220	0.1090	0.1430	0.2660	0.3040	1.0000	1.0000	
30	0.0330	0.1540	0.1690	0.2890	0.3300	1.0000	1.0000	
35	0.0500	0.2100	0.2070	0.3160	0.3300	1.0000	1.0000	
40	0.0000	0.2400	0.2800	0.3300	0.3300	1.0000	1.0000	
45	0.0000	0.0000	0.2800	0.3300	0.3300	1.0000	1.0000	
50	0.0000	0.0000	0.0000	0.3300	0.3300	1.0000	1.0000	

Service	Attained Ages				Public Agency Miscellaneous 2% @ 60			
	50	55	60	65	70	75	79	
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	0.0200	0.0190	0.0700	0.1400	0.1400	1.0000	1.0000	
10	0.0200	0.0260	0.0740	0.1780	0.1780	1.0000	1.0000	
15	0.0200	0.0330	0.0890	0.2150	0.2150	1.0000	1.0000	
20	0.0200	0.0920	0.1130	0.2640	0.2640	1.0000	1.0000	
25	0.0200	0.1360	0.1370	0.3210	0.3210	1.0000	1.0000	
30	0.1500	0.1460	0.1610	0.3770	0.3770	1.0000	1.0000	
35	0.1500	0.1500	0.2460	0.4120	0.4120	1.0000	1.0000	
40	0.0000	0.1500	0.2960	0.4200	0.4200	1.0000	1.0000	
45	0.0000	0.0000	0.2960	0.4200	0.4200	1.0000	1.0000	
50	0.0000	0.0000	0.0000	0.4200	0.4200	1.0000	1.0000	

# Appendix

## Matrix of Sample Service Retirement Assumption Rates

Service	Attained Ages				Public Agency Miscellaneous 2% @ 62			
	50	55	60	65	70	75	79	
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	0.0000	0.0100	0.0310	0.1080	0.1200	1.0000	1.0000	
10	0.0000	0.0190	0.0510	0.1410	0.1560	1.0000	1.0000	
15	0.0000	0.0280	0.0710	0.1730	0.1930	1.0000	1.0000	
20	0.0000	0.0360	0.0910	0.2060	0.2290	1.0000	1.0000	
25	0.0000	0.0610	0.1110	0.2390	0.2650	1.0000	1.0000	
30	0.0000	0.0960	0.1380	0.3000	0.3330	1.0000	1.0000	
35	0.0000	0.1520	0.1830	0.3480	0.3870	1.0000	1.0000	
40	0.0000	0.1800	0.2040	0.3600	0.4000	1.0000	1.0000	
45	0.0000	0.0000	0.2040	0.3600	0.4000	1.0000	1.0000	
50	0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	

Service	Attained Ages				Public Agency Miscellaneous 2.7% @ 55			
	50	55	60	65	70	75	79	
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
5	0.00300	0.03300	0.06000	0.14000	0.15000	1.00000	1.00000	
10	0.01000	0.05500	0.08600	0.17400	0.18100	1.00000	1.00000	
15	0.01600	0.07800	0.11200	0.20800	0.21200	1.00000	1.00000	
20	0.03400	0.11300	0.15000	0.25400	0.24300	1.00000	1.00000	
25	0.03300	0.15600	0.18200	0.30600	0.29100	1.00000	1.00000	
30	0.04500	0.23400	0.23800	0.38900	0.35000	1.00000	1.00000	
35	0.12000	0.36100	0.30200	0.42200	0.39000	1.00000	1.00000	
40	0.00000	0.42500	0.33000	0.42200	0.40000	1.00000	1.00000	
45	0.00000	0.00000	0.33000	0.42200	0.40000	1.00000	1.00000	
50	0.00000	0.00000	0.00000	0.42200	0.40000	1.00000	1.00000	