

# Tiburon Fire Protection District

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

November 26, 2018



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November 26, 2018

Heidi Rosevear  
Finance Officer  
Tiburon Fire Protection District  
1679 Tiburon Boulevard  
Tiburon, California 94920

**Re: Tiburon Fire Protection District GASB 75 OPEB Valuation as of June 30, 2018**

Dear Ms. Rosevear:

At your request, we completed an actuarial valuation of the retiree health and welfare benefits as of June 30, 2018, for the Tiburon Fire Protection District. This is a roll-forward of the valuation produced for the fiscal year ending June 30, 2017. 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 District 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



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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, 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 District's 2018 financial reports.

The District should use the liabilities and assets measured as of June 30, 2018, for its June 30, 2018, 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, 2018.

The report also provides the actuarially determined contributions for funding purposes for reporting for the fiscal years ending June 30 for 2017, 2018, and 2019.

### Changes Since the Prior Valuation

This valuation is a roll-forward of the valuation produced for the prior fiscal year. We updated:

- Discount rate from 7.00% to 7.28%
- Payroll growth rate from 3.00% to 2.75%
- Benefit payments
- Contributions
- Assets

### 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.

# Executive Summary

## Overview

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### Actuarial Certification *(continued)*

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 Tiburon Fire Protection District beyond the contractual services that we perform for the Tiburon Fire Protection District.

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.



November 26, 2018

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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)*

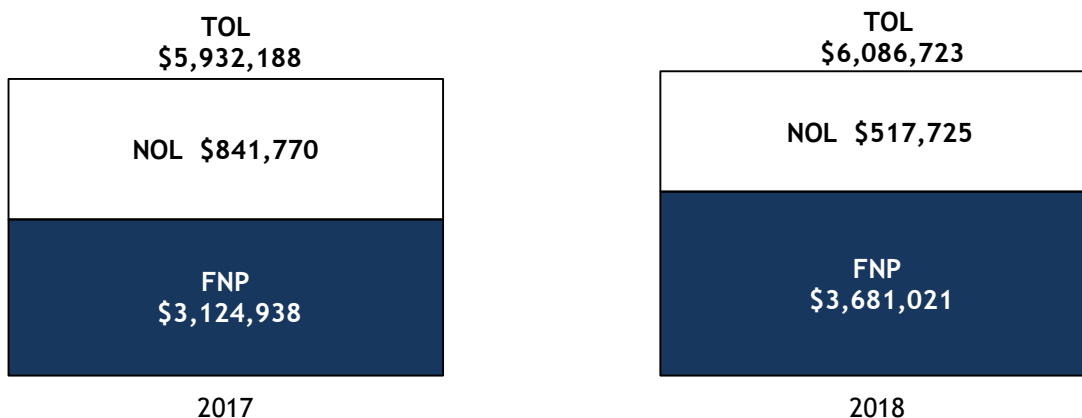
# Executive Summary

## Accounting Summary

A summary of the key valuation results follows.

	Valuation Date:	June 30, 2017	June 30, 2017
	Measurement Date:	June 30, 2017	June 30, 2018
	Report Date:	June 30, 2017	June 30, 2018
<b>Present Value of Future Benefits</b>			
Active Employees		\$ 4,686,732	\$ 4,730,702
Retirees	+	3,783,226	3,633,650
<b>Total Present Value of Future Benefits</b>	=	<u><u>\$ 8,469,958</u></u>	<u><u>\$ 8,364,352</u></u>
<b>OPEB Liability</b>			
Active Employees		\$ 2,148,962	\$ 2,453,073
Retirees	+	3,783,226	3,633,650
<b>Total OPEB Liability (TOL)</b>	=	<u><u>5,932,188</u></u>	<u><u>6,086,723</u></u>
<b>Fiduciary Net Position (FNP)</b>	-	<u><u>3,124,938</u></u>	<u><u>3,681,021</u></u>
<b>Net OPEB Liability (NOL)</b>	=	<u><u>\$ 2,807,250</u></u>	<u><u>\$ 2,405,702</u></u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		52.68%	60.48%
Covered-Employee Payroll		\$ 2,599,322	\$ 2,670,803
Net OPEB Liability as a Percentage of Covered-Employee Payroll		108.0%	90.1%
<b>Measurement Period</b>		<u>2016-2017</u>	<u>2017-2018</u>
<b>Reporting Period</b>		<u>2016-2017</u>	<u>2017-2018</u>
<b>Expense</b>		\$ 327,810	\$ 356,016
<b>Actuarially Determined Contribution (ADC), End of Year*</b>		760,836	465,770

### Net Position Chart



\*The Actuarially Determined Contribution includes the implicit subsidy. It is not the amount that the District contributes directly to the fund. See page 14 for the District's direct contribution.

# Executive Summary

## Reconciliation of the Change in the Total OPEB Liability

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

<b>Projected Total OPEB Liability as of Measurement Date June 30, 2017</b>	<b>\$ 5,932,188</b>
Service Cost	205,376
Interest Cost	411,764
Benefit payments, including refunds of employee contributions	(228,905)
Implicit rate subsidy fulfilled	(76,161)
<b>Projected Total OPEB Liability as of Measurement Date June 30, 2018</b>	<b>\$ 6,244,262</b>
Difference Between Actual and Expected Benefit Payments	(6,049)
Change in Interest Calculation	7,188
Change in Experience	(220)
Change in Discount Rate from 7.00% to 7.28%	(183,581)
Change in Payroll Growth Rate	25,123
<b>Actual Total OPEB Liability as of Measurement Date June 30, 2018</b>	<b>\$ 6,086,723</b>

# Accounting Information

## Statement of Fiduciary Net Position

Measurement Date: June 30, 2018

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		3,681,021
International Equities		-
Real Estate		-
Total Investments		3,681,021
Total Assets	\$	3,681,021

### 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 \$ 3,681,021



# Accounting Information

## Statement of Changes to the Fiduciary Net Position

	Measurement Date: June 30, 2017	June 30, 2018
	Report Date: June 30, 2017	June 30, 2018
<b>Additions</b>		
Investment Income:		
Net Appreciation in the Fair Value of Investments	\$ 264,178	\$ 253,998
Interest and Dividends	-	-
Less Investment Expense, Other than from Securities Lending	(933)	(1,231)
Net Income from Investing, Other than from Securities Lending	263,245	252,767
Securities Lending Income	-	-
Less Securities Lending Expense	-	-
Net Income from Securities Lending	-	-
Net Investment Income (a)	\$ 263,245	\$ 252,767
Contributions:		
Employer – District's Contribution	\$ 727,702	\$ 539,954
Employer – Implicit Subsidy	71,179	76,161
Employee	-	-
Total Contributions (b)	\$ 798,881	\$ 616,115
<b>Total Additions (c) = (a) + (b)</b>	<b>\$ 1,062,126</b>	<b>\$ 868,882</b>
<b>Deductions</b>		
Benefit Payments	\$ 198,454	\$ 234,954
Implicit Rate Subsidy Fulfilled	71,179	76,161
Administrative Expense	1,276	1,684
Total Deductions (d)	\$ 270,909	\$ 312,799
<b>Net Increase in Net Position = (c) – (d)</b>	<b>\$ 791,217</b>	<b>\$ 556,083</b>
<b>Net Position Restricted for Postemployment Benefits Other than Pensions</b>		
Beginning of Year	\$ 2,333,721	\$ 3,124,938
Net Increase in Net Position	791,217	556,083
End of Year	\$ 3,124,938	\$ 3,681,021

# 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 Report Date June 30, 2017</b>	\$ 5,932,188	\$ 3,124,938	\$ 2,807,250
<b>Changes for the year:</b>			
Service Cost	205,376		205,376
Interest	411,764		411,764
Changes of Benefit Terms	-		-
Differences Between Expected and Actual Experience	6,968		6,968
Changes of Assumptions	(158,458)		(158,458)
Net Investment Income		252,767	(252,767)
Contributions			
Employer – District's Contribution		539,954	(539,954)
Employer – Implicit Subsidy		76,161	(76,161)
Employee		-	-
Benefit Payments, Including Refunds of Employee Contributions	(234,954)	(234,954)	-
Implicit Rate Subsidy Fulfilled	(76,161)	(76,161)	-
Administrative Expense		(1,684)	1,684
Other Changes		-	-
<b>Net Changes</b>	<b>154,535</b>	<b>556,083</b>	<b>(401,548)</b>
<b>Balance as of Report Date June 30, 2018</b>	<b>\$ 6,086,723</b>	<b>\$ 3,681,021</b>	<b>\$ 2,405,702</b>

# Accounting Information

## Development of Projected Deferred Outflows and Inflows of Resources

Balances as of 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	\$ -	\$ -	\$ -	\$ -	\$ -
2018	6,968	-	942	6,026	-
<b>Total</b>				<b>\$ 6,026</b>	<b>\$ -</b>

### 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	\$ -	\$ -	\$ -	\$ -	\$ -
2018	-	(158,458)	(21,413)	-	(137,045)
<b>Total</b>				<b>\$ -</b>	<b>\$ (137,045)</b>

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

Measurement Date – June 30:	Investment Earnings Less Than Projected (a)	Investment 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	\$ -	\$ -	\$ -	\$ -	\$ -
2018	-	(18,278)	(3,656)	-	(14,622)
<b>Total</b>				<b>\$ -</b>	<b>\$ (14,622)</b>

# Accounting Information

## Schedule of Deferred Outflows and Inflows of Resources

### Schedule of Deferred Outflows and Inflows of Resources

	Measurement Period	Base Amount	Recognition Period	Remaining Period	Increase/(Decrease) in Expense: Report Years Ending June 30:						Remaining	
					2018	2019	2020	2021	2022	2023		
Differences Between Expected and Actual Experience	2016-2017	\$ -	0.0	0.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
	2017-2018	6,968	7.4	7.4	942	942	942	942	942	942	942	1,316
Changes of Assumptions	2016-2017	-	0.0	-1.0	-	-	-	-	-	-	-	-
	2017-2018	(158,458)	7.4	7.4	(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(29,980)
Differences Between Projected and Actual Earnings	2016-2017	-	5.0	4.0	-	-	-	-	-	-	-	-
	2017-2018	(18,278)	5.0	5.0	(3,656)	(3,656)	(3,656)	(3,656)	(3,654)	-	-	-
<b>Summary of Deferred Outflows and Inflows of Resources – Measurement Period 2017-2018 – Fiscal Reporting Period 2017-2018</b>												
Differences Between Expected and Actual Experience					\$ 942	\$ 942	\$ 942	\$ 942	\$ 942	\$ 942	\$ 942	\$ 1,316
Changes of Assumptions					(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(21,413)	(29,980)
Differences Between Projected and Actual Earnings					(3,656)	(3,656)	(3,656)	(3,656)	(3,654)	-	-	-
<b>Total</b>					<b>\$ (24,127)</b>	<b>\$ (24,127)</b>	<b>\$ (24,127)</b>	<b>\$ (24,127)</b>	<b>\$ (24,125)</b>	<b>\$ (20,471)</b>	<b>\$ (28,664)</b>	

# Accounting Information

## Calculation of Projected Expense under GASB 75

	Measurement Period: Reporting Period:	2016-2017 2016-2017	2017-2018 2017-2018
<b>Expense</b>			
Service Cost	\$	199,394	\$ 193,350
Interest on Total OPEB Liability		390,385	423,600
Changes of Benefit Terms		-	-
Recognized Changes of Assumptions		-	942
Recognized Differences Between Expected and Actual Experience		-	(21,413)
Employee Contributions		-	-
Projected Earnings on OPEB Plan Investments		(263,245)	(238,491)
Recognized Differences Between Projected and Actual Earnings		-	(3,656)
Administrative expenses		1,276	1,684
<b>Total Expense</b>	<b>\$</b>	<b>327,810</b>	<b>\$ 356,016</b>

### Deferred Outflows and Inflows of Resources

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 6,026	\$ -
Changes of Assumptions	-	(137,045)
Net Difference Between Projected and Actual Earnings on Plan Investments	-	(14,622)
District Contributions Subsequent to the Measurement Date	<i>District to Determine</i>	-
<b>Total</b>	<b>\$ 6,026</b>	<b>\$ (151,667)</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>
2019	\$ (24,127)
2020	(24,127)
2021	(24,127)
2022	(24,125)
2023	(20,471)
Remaining	(28,664)

## Accounting Information

### Reconciliation of Expense

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Deferred (Inflows)	Deferred Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
Balance as of Report Date June 30, 2017	\$ (5,932,188)	\$ 3,124,938	\$ (2,807,250)				\$ (2,807,250)	
Service Cost	(205,376)		(205,376)					\$ 205,376
Interest on Total OPEB Liability	(411,764)		(411,764)					411,764
Effect of Changes of Benefit Terms	-		-	\$ -		\$ -		-
Effect of Liability Gains or Losses	(6,968)		(6,968)	6,968		6,968		
Effect of Assumption Changes or Inputs	158,458		158,458	(158,458)		(158,458)		
Expected Investment Income (Net of Investment Expenses)		234,489	234,489					(234,489)
Investment Gains or Losses on Expected Return		18,278	18,278	(18,278)		(18,278)		
Contributions								
Employer – District's Contribution		539,954	539,954				539,954	
Employer – Implicit Subsidy		76,161	76,161				76,161	
Employee		-	-					-
Benefit Payments, Including Refunds of Employee Contributions	234,954	(234,954)	-					
Implicit Rate Subsidy Fulfilled	76,161	(76,161)	-					
Administrative Expenses		(1,684)	(1,684)					1,684
Recognition of Liability Gains or Losses			-	-	(942)	(942)		942
Recognition of Assumption Changes or Inputs			-	21,413	-	21,413		(21,413)
Recognition of Investment Gains or Losses			-	3,656	-	3,656		(3,656)
Annual Expense							(360,208)	\$ 360,208
Balance as of Report Date June 30, 2018	\$ (6,086,723)	\$ 3,681,021	\$ (2,405,702)	\$ (144,699)	\$ (942)	\$ (145,641)	\$ (2,551,343)	

# 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.

	<u>Actual</u>	<u>Projected</u>	
Measurement Period:	2016-2017	2017-2018	2018-2019
Reporting Period:	2016-2017	2017-2018	2018-2019
Actuarial Accrued Liability (AAL) – Entry Age Normal, Beginning of Fiscal Year	\$ 5,612,042	\$ 5,932,188	\$ 6,086,723
Actuarial Value of Plan Assets, Beginning of Fiscal Year	– 2,333,721	3,124,938	3,681,021
Unfunded Actuarial Accrued Liability (UAAL), Beginning of Fiscal Year	<u>= \$ 3,278,321</u>	<u>\$ 2,807,250</u>	<u>\$ 2,405,702</u>
Interest Rate Used to Determine Amortization Payment	7.00%	7.00%	7.28%
Assumed Rate of Payroll Growth	3.000%	3.000%	2.750%
Amortization Period	7 years	16 years	15 years
Amount Recognized, Beginning of Year	\$ 523,520	\$ 229,923	\$ 213,202
<b>Amount Recognized (Principal &amp; Interest), End of Year</b>	<b>\$ 560,166</b>	<b>\$ 246,018</b>	<b>\$ 228,723</b>

# Accounting Information

## Actuarially Determined Contribution (ADC)

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

	<u>Actual</u>		<u>Projected</u>	
Measurement Period:	2016-2017	2017-2018	2018-2019	2018-2019
Reporting Period:	2016-2017	2017-2018	2018-2019	2018-2019
Service Cost – Entry Age Normal	\$ 199,394	\$ 205,376	\$ 198,667	
Amortization of the Unfunded Actuarial Accrued Liability (UAAL)	523,520	229,923	213,202	
Actuarially Determined Contribution (ADC), Beginning of Year	\$ 722,914	\$ 435,299	\$ 411,869	
<b>Actuarially Determined Contribution (ADC), End of Year</b>	<b>\$ 760,836</b>	<b>\$ 465,770</b>	<b>\$ 441,853</b>	
ADC as a Percentage of Payroll	29.27%	17.44%	16.10%	
Discount Rate for ADC Calculation	7.00%	7.00%	7.28%	
<b>ADC Components</b>				
Benefit Payments	\$ 198,454	\$ 228,905	\$ 247,767	
District's Contribution to Assets	491,203	160,704	103,641	
<b>District's Total Contribution</b>	<b>689,657</b>	<b>389,609</b>	<b>351,408</b>	
Implied Contribution – Implicit Subsidy	71,179	76,161	90,445	
<b>Total ADC</b>	<b>\$ 760,836</b>	<b>\$ 465,770</b>	<b>\$ 441,853</b>	

### District's Funding Policy

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

15

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 2018 use an estimated expected rate of return, contributions, and benefit payments. We recommend that the District update these values for its 2018 financial statements.



# Accounting Information

## Projection of ADC and Net OPEB Liability

	<u>Actual</u>	<u>Actual</u>	<u>Projected</u>
Measurement Date:	June 30, 2017	June 30, 2018	June 30, 2019
Report Date:	June 30, 2017	June 30, 2018	June 30, 2019
<b>Estimated Liabilities</b>			
OPEB Liability, Beginning of Year	\$ 5,612,042	\$ 5,932,188	\$ 6,086,723
Service Cost	199,394	205,376	193,350
Interest on Liabilities	390,385	411,764	423,820
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	-	6,968	-
Changes of Assumptions	-	(158,458)	-
Benefit Payments	(198,454)	(234,954)	(247,767)
Implicit Rate Subsidy Fulfilled	(71,179)	(76,161)	(90,445)
<b>OPEB Liability, End of Year (a)</b>	<b>\$ 5,932,188</b>	<b>\$ 6,086,723</b>	<b>\$ 6,365,681</b>
<b>Estimated Assets</b>			
Assets, Beginning of Year	\$ 2,333,721	\$ 3,124,938	\$ 3,681,021
Expected Earnings	263,245	252,767	280,786
Contributions			
Employer – District's Contribution	727,702	539,954	351,408
Employer – Implicit Subsidy	71,179	76,161	90,445
Employee	-	-	-
<b>Total Contributions</b>	<b>798,881</b>	<b>616,115</b>	<b>441,853</b>
Projected Benefit Payments			
Benefit Payments, Including Refunds of Employee Contributions	(198,454)	(234,954)	(247,767)
Implicit Rate Subsidy Fulfilled	(71,179)	(76,161)	(90,445)
<b>Total Benefit Payments</b>	<b>(269,633)</b>	<b>(311,115)</b>	<b>(338,212)</b>
Administrative Expenses	(1,276)	(1,684)	(1,726)
<b>Assets, End of Year (b)</b>	<b>\$ 3,124,938</b>	<b>\$ 3,681,021</b>	<b>\$ 4,063,722</b>
<b>Net OPEB liability, End of Year = (a) – (b)</b>	<b>\$ 2,807,250</b>	<b>\$ 2,405,702</b>	<b>\$ 2,301,959</b>
Expense	327,810	356,016	n/a
ADC	760,836	465,770	441,853

# Accounting Information

## OPEB Cash-Flow Projections

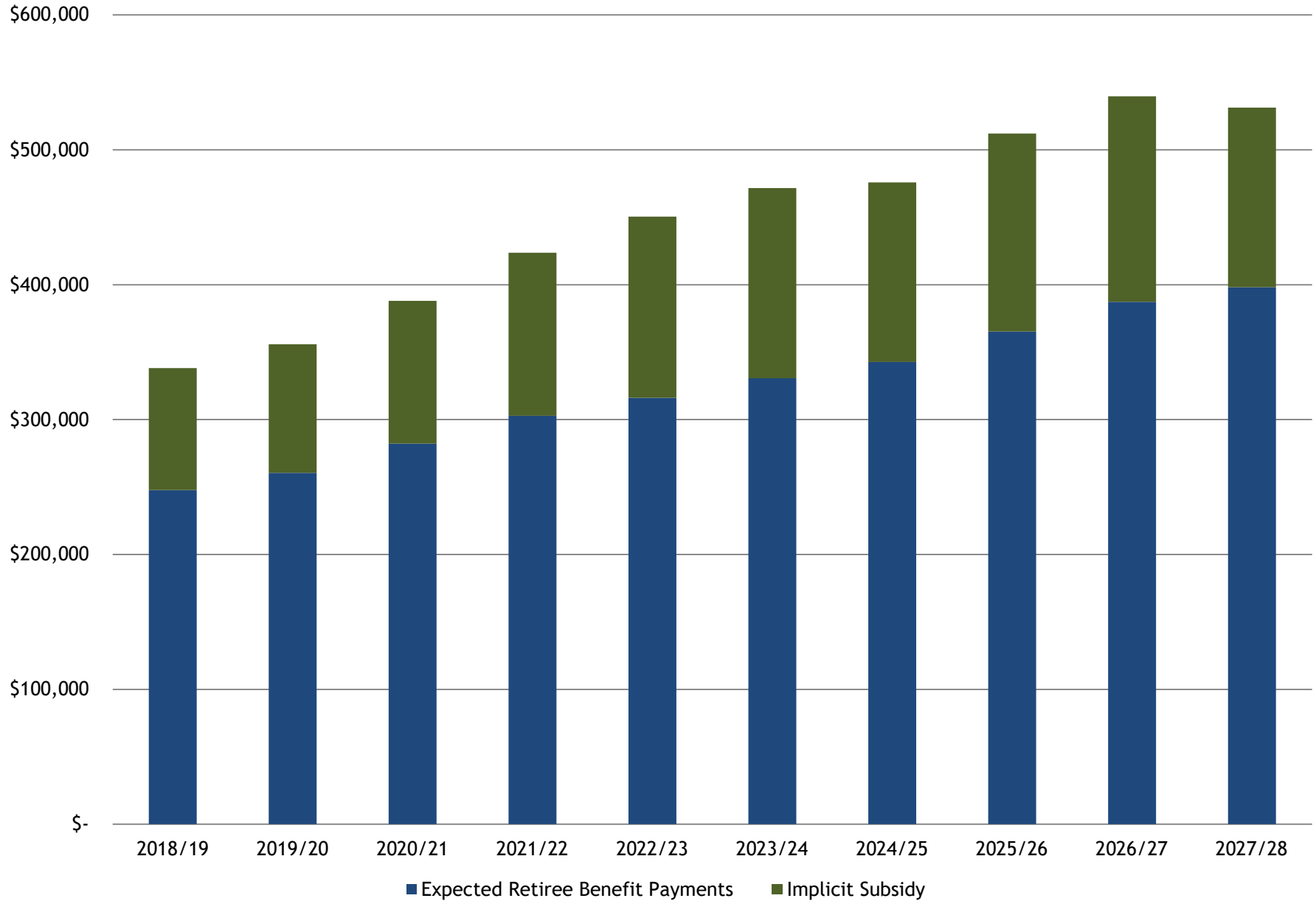
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OPEB cash-flow projections for existing participants for the next twenty-five years follow.

<b>Measurement Period Ending June 30:</b>	<b>Expected Retiree Benefit Payments</b>	<b>Implicit Subsidy</b>	<b>Total Expected Benefit Payments</b>
2019	\$ 247,767	\$ 90,445	\$ 338,212
2020	260,512	95,401	355,913
2021	282,142	105,797	387,939
2022	302,920	120,791	423,711
2023	316,176	134,312	450,488
2024	330,713	140,863	471,576
2025	342,788	133,018	475,806
2026	365,278	146,784	512,062
2027	387,252	152,367	539,619
2028	398,096	133,253	531,349
2029	413,338	128,696	542,034
2030	435,069	132,095	567,164
2031	456,465	143,693	600,158
2032	481,777	165,376	647,153
2033	493,277	139,915	633,192
2034	514,993	160,130	675,123
2035	539,366	174,238	713,604
2036	552,961	147,123	700,084
2037	576,904	154,544	731,448
2038	601,697	148,451	750,148
2039	622,846	140,826	763,672
2040	647,195	149,042	796,237
2041	669,353	135,612	804,965
2042	693,850	165,478	859,328
2043	720,208	193,667	913,875

# Accounting Information

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



## Accounting Information

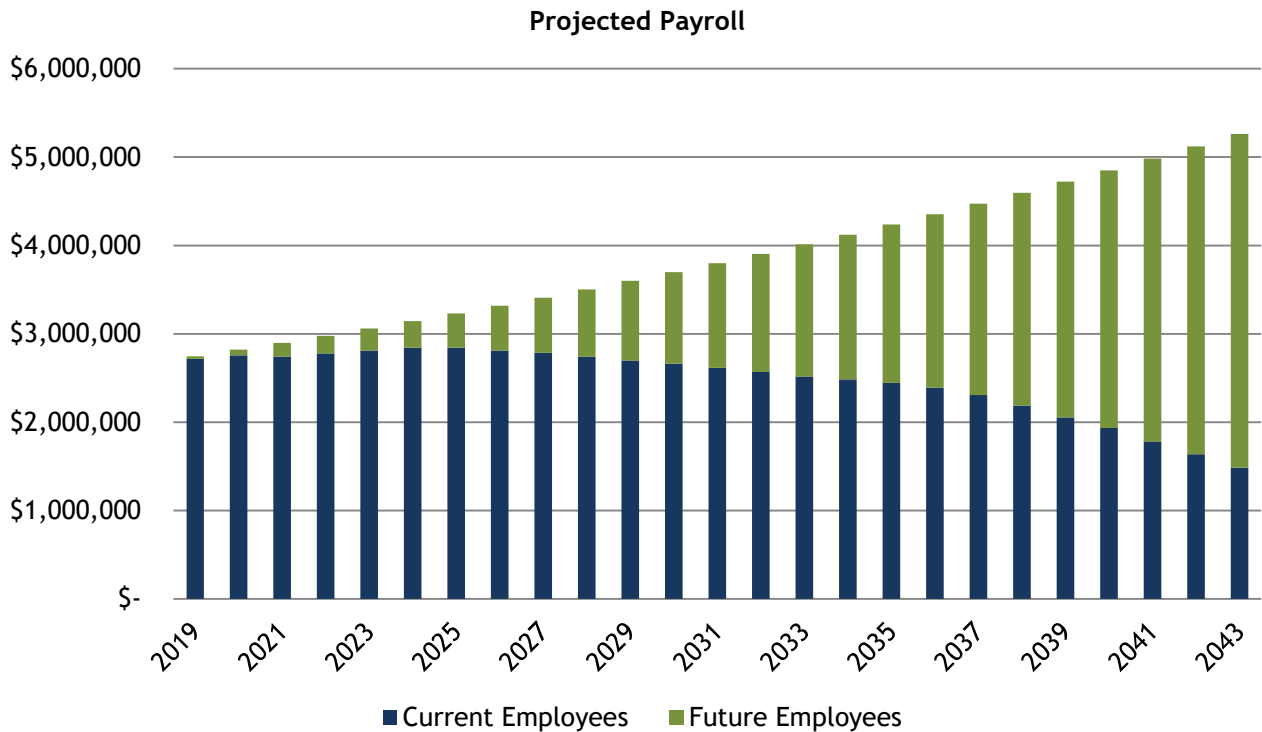
### Projection of Contributions

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 16.10% for 15 Years, 7.77% Thereafter	Employer Contributions Related to Payroll of Future Plan Members (e) = (b) x 7.77%	Portion of Employer Contribution for Current Plan Members (f) = (d) - (e)
2019	\$ 2,716,734	\$ 27,516	\$ 2,744,250	\$ 441,853	\$ 2,137	\$ 439,716
2020	2,756,728	62,989	2,819,717	454,004	4,892	449,112
2021	2,742,373	154,886	2,897,259	466,489	12,029	454,460
2022	2,776,344	200,590	2,976,934	479,318	15,579	463,739
2023	2,810,582	248,218	3,058,800	492,499	19,278	473,221
2024	2,841,207	301,710	3,142,917	506,043	23,432	482,611
2025	2,843,679	385,668	3,229,347	519,959	29,953	490,006
2026	2,809,462	508,692	3,318,154	534,258	39,507	494,751
2027	2,784,745	624,658	3,409,403	548,950	48,514	500,436
2028	2,742,464	760,698	3,503,162	564,046	59,079	504,967
2029	2,699,759	899,740	3,599,499	579,557	69,878	509,679
2030	2,661,156	1,037,329	3,698,485	595,495	80,563	514,932
2031	2,613,002	1,187,191	3,800,193	611,871	92,202	519,669
2032	2,568,745	1,335,953	3,904,698	628,697	103,756	524,941
2033	2,518,447	1,493,630	4,012,077	645,987	116,002	529,985
2034	2,484,170	1,638,239	4,122,409	320,164	127,233	192,931
2035	2,444,764	1,791,011	4,235,775	328,968	139,097	189,871
2036	2,388,333	1,963,926	4,352,259	338,015	152,527	185,488
2037	2,305,050	2,166,896	4,471,946	347,310	168,290	179,020
2038	2,186,212	2,408,713	4,594,925	356,861	187,071	169,790
2039	2,051,469	2,669,816	4,721,285	366,675	207,349	159,326
2040	1,933,881	2,917,239	4,851,120	376,758	226,565	150,193
2041	1,783,170	3,201,356	4,984,526	387,119	248,631	138,488
2042	1,636,909	3,484,691	5,121,600	397,765	270,636	127,129
2043	1,483,799	3,778,645	5,262,444	408,703	293,465	115,238

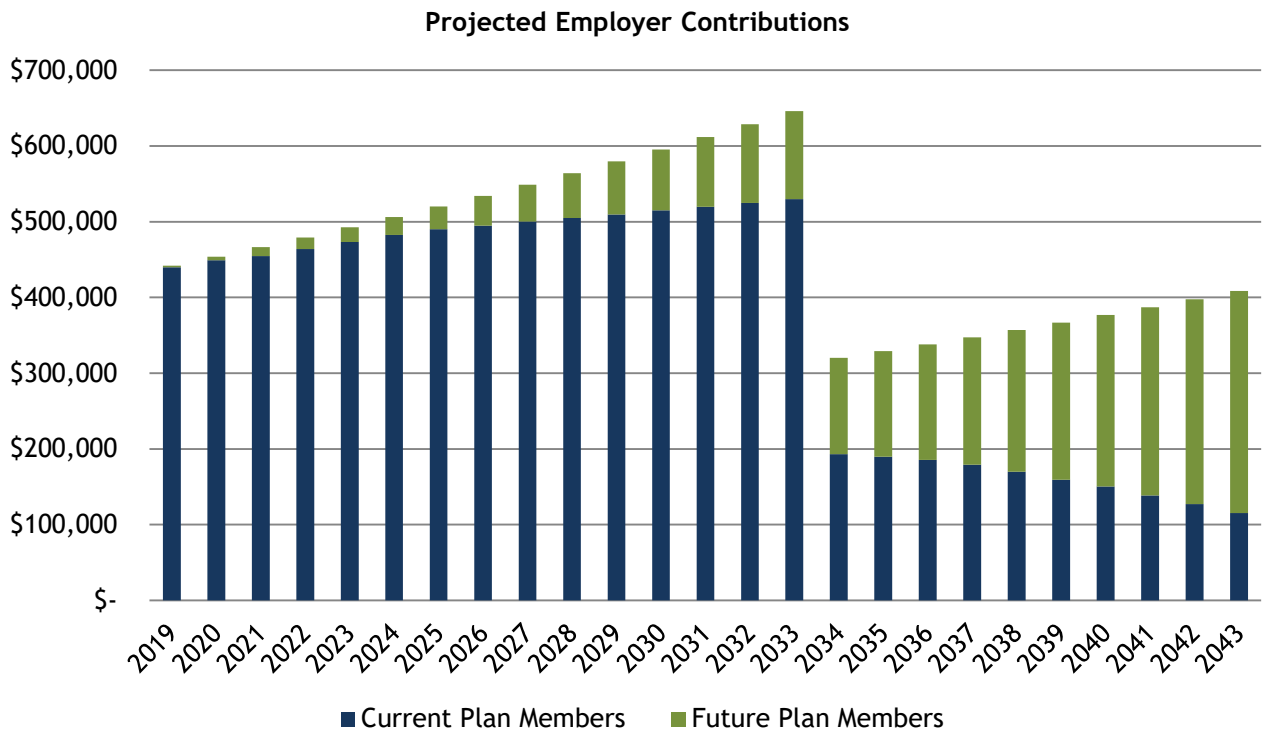
# Accounting Information

## 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	\$ 3,124,938	\$ 439,716	\$ 338,212	\$ 1,726	\$ 231,127	\$ 3,455,843
2019	3,455,843	449,112	355,913	1,769	254,913	3,802,186
2020	3,802,186	454,460	387,939	1,813	279,155	4,146,049
2021	4,146,049	463,739	423,711	1,858	303,222	4,487,441
2022	4,487,441	473,221	450,488	1,904	327,444	4,835,714
2023	4,835,714	482,611	471,576	1,952	352,371	5,197,168
2024	5,197,168	490,006	475,806	2,001	378,798	5,588,165
2025	5,588,165	494,751	512,062	2,051	406,114	5,974,917
2026	5,974,917	500,436	539,619	2,102	433,471	6,367,103
2027	6,367,103	504,967	531,349	2,155	462,486	6,801,052
2028	6,801,052	509,679	542,034	2,209	493,858	7,260,346
2029	7,260,346	514,932	567,164	2,264	526,570	7,732,420
2030	7,732,420	519,669	600,158	2,321	559,906	8,209,516
2031	8,209,516	524,941	647,153	2,379	593,118	8,678,043
2032	8,678,043	529,985	633,192	2,438	627,916	9,200,314
2033	9,200,314	192,931	675,123	2,499	652,140	9,367,763
2034	9,367,763	189,871	713,604	2,561	662,816	9,504,285
2035	9,504,285	185,488	700,084	2,625	673,085	9,660,149
2036	9,660,149	179,020	731,448	2,691	683,053	9,788,083
2037	9,788,083	169,790	750,148	2,758	691,347	9,896,314
2038	9,896,314	159,326	763,672	2,827	698,351	9,987,492
2039	9,987,492	150,193	796,237	2,898	703,468	10,042,018
2040	10,042,018	138,488	804,965	2,970	706,691	10,079,262
2041	10,079,262	127,129	859,328	3,044	707,007	10,051,026
2042	10,051,026	115,238	913,875	3,120	702,531	9,951,800

# 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.

	<b>Measurement Date:</b>	<b>June 30, 2017</b>	<b>June 30, 2018</b>
	<b>Report Date:</b>	<b>June 30, 2017</b>	<b>June 30, 2018</b>
Discount Rate		7.00%	7.28%
Retiree Benefit Payments	\$	4,754,906	\$ 4,857,677
Implicit Subsidy		1,177,282	1,229,046
<b>Total OPEB Liability</b>	<b>\$</b>	<b>5,932,188</b>	<b>\$ 6,086,723</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: Report Date:	June 30, 2017 June 30, 2017	June 30, 2018 June 30, 2018
<b><u>Total OPEB Liability</u></b>			
Service Cost		\$ 199,394	\$ 205,376
Interest		390,385	411,764
Changes of Benefit Terms		-	-
Differences Between Expected and Actual Experience		-	6,968
Changes of Assumptions		-	(158,458)
Benefit Payments, Including Refunds of Employee Contributions		(198,454)	(234,954)
Implicit Rate Subsidy Fulfilled		(71,179)	(76,161)
Net Change in Total OPEB liability		320,146	154,535
Total OPEB Liability – Beginning of Year		5,612,042	5,932,188
<b>Total OPEB Liability – End of Year (a)</b>		<b>\$ 5,932,188</b>	<b>\$ 6,086,723</b>
 <b><u>Plan Fiduciary Net Position</u></b>			
Net Investment Income		\$ 263,245	\$ 252,767
Contributions			
Employer – District's Contribution		727,702	539,954
Employer – Implicit Subsidy		71,179	76,161
Employee		-	-
Benefit Payments, Including Refunds of Employee Contributions		(198,454)	(234,954)
Implicit Rate Subsidy Fulfilled		(71,179)	(76,161)
Administrative Expense		(1,276)	(1,684)
Other		-	-
Net Change in Plan Fiduciary Net Position		791,217	556,083
Plan Fiduciary Net Position – Beginning of Year		2,333,721	3,124,938
<b>Plan Fiduciary Net Position – End of Year (b)</b>		<b>\$ 3,124,938</b>	<b>\$ 3,681,021</b>
 <b><u>Net OPEB Liability</u></b>			
District's Net OPEB liability – End of Year = (a) – (b)		\$ 2,807,250	\$ 2,405,702
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		52.68%	60.48%
Covered-Employee Payroll		\$ 2,599,322	\$ 2,599,322
District's Net OPEB Liability as a Percentage of Covered-Employee Payroll		108.00%	92.55%

**Notes to schedule:**

The District 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: <u>June 30, 2017</u>	<u>June 30, 2018</u>
Expense	10.13%	7.71%

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	2017-2018
	Reporting Period:	2016-2017	2017-2018
	Report Date:	June 30, 2017	June 30, 2018
Actuarially Determined Contribution (ADC)		\$ 760,836	\$ 465,770
Less: Contributions Made in Relation to the ADC	-	798,881	616,115
Contribution Deficiency (Excess)		(38,045)	(150,345)
Covered-Employee Payroll		\$ 2,599,322	\$ 2,670,803
Contributions as a Percentage of Covered-Employee Payroll		30.73%	23.07%

### 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	7 years
Inflation	2.50%
Assumed Payroll Growth	2.750%
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

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*A draft of the required notes to the District's financial statements, based on the requirements of GASB 75 and our understanding of the District'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 District 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 a single-employer defined-benefit post-employment healthcare plan. Benefits vary by hire date. Benefits continue to the surviving spouses.

##### *Benefits Provided.*

Eligibility for retiree health benefits requires retirement from the District on or after age 50 with at least five years of CalPERS service. Eligible employees who were hired before March 1, 2005 receive 100% of medical premium. Spouse and dependent coverage is available. Eligible employees who were hired after March 1, 2005 receive a vested share of the medical premium. Vesting starts at 50% for 10 years of service and increase 5% per additional year of service to a maximum of 100% with 20 years of service. Retirees with 5-10 years of service receive the PEMHCA minimum.

##### *Employees covered by benefit terms.*

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

<u>Category</u>	<u>Count</u>
Active employees:	26
Inactive employees, spouses, or beneficiaries currently receiving benefit payments:	37
Inactive employees entitled to but not yet receiving benefit payment:	0
<b>Total</b>	<b>63</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 District'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: 7.00% in the first year, trending down to 3.84% over 59 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 District 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	\$ 5,932,188	\$ 3,124,938	\$ 2,807,250
Changes for the year:			
Service Cost	205,376		205,376
Interest	411,764		411,764
Changes of Benefit Terms	-		-
Differences Between Expected and Actual Experience	6,968		6,968
Changes of Assumptions	(158,458)		(158,458)
Contributions			
Employer – District's Contribution		539,954	(539,954)
Employer – Implicit Subsidy		76,161	(76,161)
Employee		-	-
Net Investment Income		252,767	(252,767)
Benefit Payments, Including Refunds of Employee Contributions	(234,954)	(234,954)	-
Implicit Rate Subsidy Fulfilled	(76,161)	(76,161)	-
Administrative Expenses		(1,684)	1,684
Net Changes	154,535	556,083	(401,548)
<b>Balance as of Report Date June 30, 2018</b>	<b>\$ 6,086,723</b>	<b>\$ 3,681,021</b>	<b>\$ 2,405,702</b>

Sensitivity of the net OPEB liability to changes in the discount rate. The net OPEB liability of the District, as well as what the District'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%
<b>Net OPEB Liability (Asset)</b>	<b>\$ 1,447,885</b>	<b>\$ 2,405,702</b>	<b>\$ 2,893,037</b>

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The net OPEB liability of the District, as well as what the District'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%
<b>Net OPEB Liability (Asset)</b>	<b>\$ 2,786,339</b>	<b>\$ 2,405,702</b>	<b>\$ 1,526,224</b>

# 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 District recognized an OPEB expense of \$327,810. At June 30, 2018, the District 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	\$ 6,026	\$ -
Changes of Assumptions	-	(137,045)
Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	-	(14,622)
District Contributions Subsequent to the Measurement Date	<i>District to Determine</i>	-
<b>Total</b>	<b>\$ 6,026</b>	<b>\$ (151,667)</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>
2019	\$ (24,127)
2020	(24,127)
2021	(24,127)
2022	(24,125)
2023	(20,471)
Remaining	(28,664)

# Basis of Valuation

## Substantive Plan

the basis of the valuation follows.

Retiree Benefits				
Retiree Medical Benefit				
<b>Eligibility*</b>	Standard CalPERS (5 years of service and attained age 50)			
<b>Duration of coverage</b>	Retiree's lifetime			
<b>Surviving Spouse coverage</b>	Yes, as required by CalPERS			
<b>Medical plan choices</b>	Any eligible plan available via PEMHCA and administered by CalPERS			
	District pays 100% healthcare premiums for retirees subject to a monthly			
<b>Benefit*</b>		Hire Period		
		Pre-3/1/2005	3/1/2005 to 7/30/2017	Post-7/30/2017
	<b>Tier</b>	Max (Fixed)	Max (subject to vesting)*	Max (Fixed)
	Employee	\$ 664	\$ 664	\$ 664
	Employee+1	1,329	1,329	1,329
Family	1,729	1,729	1,729	

**\*Note**

*This group is subject to additional vesting requirements. After 10 years of service, district shall pay 50% of the cap. For every year of service after 10 years, the district shall pay an additional 5% per year toward the Cap to a maximum of 100% of cap after 20 years. For example, after 10 years of service the maximum payment would be \$332 for an employee only plan. After 15 years of service, maximum payment would be \$498. After 20 years of service, maximum payment is \$664.*

# Basis of Valuation

## Participant Summary

Census Date: June 30, 2017

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	1	1									2
25-29	1	1									2
30-34		1	2	1							4
35-39	1	1	1	1							4
40-44				3							3
45-49		1		1	2		1				5
50-54			1				3				4
55-59				1							1
60-64							1				1
65-69											0
70+											0
<b>Total</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>

Average Employee Age: 41.1

Average Years of Service: 11.1

Inactive Participants								
Age	Retirees				Spouses			Total
	Ret.	Disab.	Surv.	Total	Ret.	Disab.	Total	
< 50				0	1		1	1
50-54	1			1	1	1	2	3
55-59	4	1		5	4		4	9
60-64	1	2		3	1	1	2	5
65-69	3	2		5	1	3	4	9
70-74	1	1		2	3		3	5
75-79	2		2	4			0	4
80-84				0			0	0
85-89				0			0	0
90+			1	1			0	1
<b>Total</b>	<b>12</b>	<b>6</b>	<b>3</b>	<b>21</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>37</b>

Average Inactive Age: 65.0



# Basis of Valuation

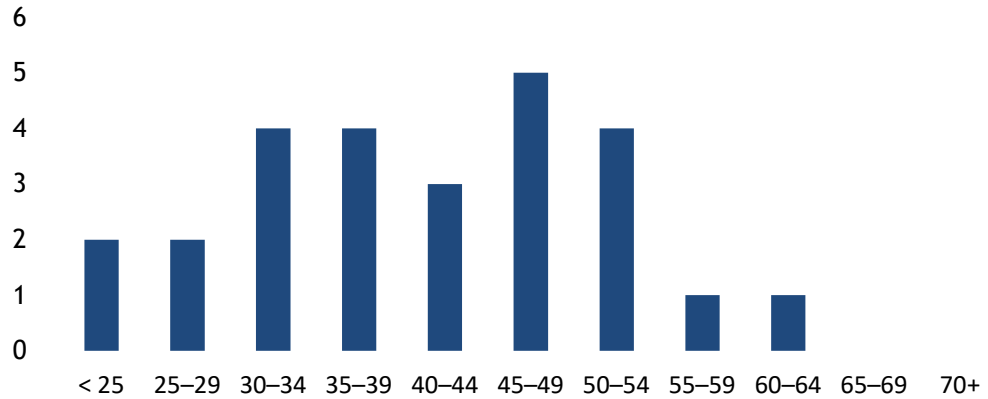
## Participant Summary Charts

Census Date: June 30, 2017

Age and service determined as of the census date.

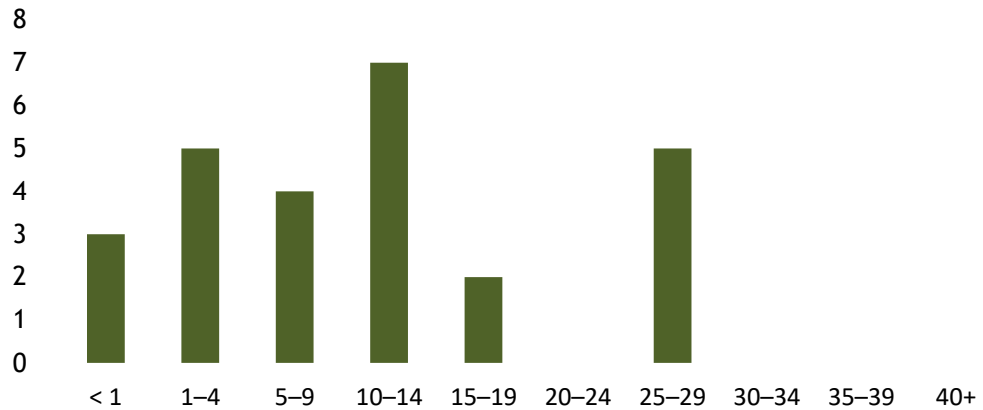
### Count of Actives by Age Bracket

Average Employee Age: 41.1



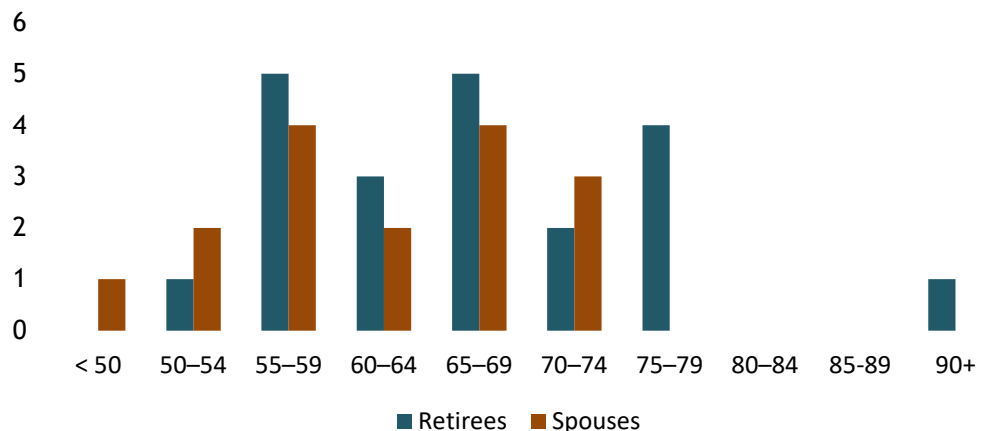
### Count of Actives by Years of Service

Average Years of Service: 11.1



### Count of Inactives by Age Bracket

Average Inactive Age: 65.0



# 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, 2017															
<b>Report Date</b>	June 30, 2018															
<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 District'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>\$ 11,609</td> <td>\$ 11,930</td> </tr> <tr> <td>55</td> <td>13,405</td> <td>12,806</td> </tr> <tr> <td>60</td> <td>16,518</td> <td>14,318</td> </tr> <tr> <td>65</td> <td>3,631</td> <td>3,170</td> </tr> </tbody> </table>	Age	Males	Females	50	\$ 11,609	\$ 11,930	55	13,405	12,806	60	16,518	14,318	65	3,631	3,170
Age	Males	Females														
50	\$ 11,609	\$ 11,930														
55	13,405	12,806														
60	16,518	14,318														
65	3,631	3,170														
<b>Average Per Capita Cost for Implicit Subsidy Calculation</b>	Developed based on CalPERS premiums and CalPERS HMO and PPO population data. Assumed annual pre-Medicare PMPM is \$7,368.															

# 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>	Based on service at retirement and employee group.						
<b>Salary Increases</b>	2.750% The salary increase is used to determine the growth in the aggregate payroll.  Individual Salary Increases: 2015 CalPERS Merit Salary Increases.						
<b>Inflation Rate</b>	2.50%						
<b>Marital Status</b>	Current Retirees: Used actual spouse coverage, status, and ages.  Future retirees: 80% assumed to be married.						
<b>Spouse Gender</b>	Assumes spouse of opposite gender for current and future retirees.						
<b>Spouse Age Difference</b>	Actual spouse age is used for current retirees. Assumes males are three years older than females for future retirees.						
<b>Participation</b>	Current Retirees: Assume current elections continue until decrement. Future Retiree election assumptions summarized below*:						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Condition</th> <th style="text-align: left;">Participation</th> </tr> </thead> <tbody> <tr> <td>Eligible for District Contribution above the PEMHCA minimum</td> <td style="text-align: center;">95%</td> </tr> <tr> <td>Eligible for the PEMHCA minimum only</td> <td style="text-align: center;">75%</td> </tr> </tbody> </table>	Condition	Participation	Eligible for District Contribution above the PEMHCA minimum	95%	Eligible for the PEMHCA minimum only	75%
Condition	Participation						
Eligible for District Contribution above the PEMHCA minimum	95%						
Eligible for the PEMHCA minimum only	75%						
<b>PEMHCA Administrative Fee</b>	0.33% of retiree premium.						
<b>Annual PEMHCA Amount</b>	\$1,566 for the period For the Period ending June 30, 2017 through June 30, 2018.						
<b>PEMHCA Minimum Trend Rate</b>	3.00% for all future years.						
<b>Benefit Cap Escalation Rate:</b>	3.50% annually.						
<b>Annual PEMHCA Amount</b>	\$1,559 for the period June 30, 2017 through June 30, 2018 Unequal amount for 2017: \$844.80						
<b>ACA Excise Tax</b>	Assumed that the District will pass the ACA Excise Tax on to the retirees.						

# Basis of Valuation

## Actuarial Assumptions

Assumption	Rates		
Premiums	Premiums used to develop aged claims		
	Plan	Employee-Only	
		2017	2018
	Blue Shield Access+ Other Southern California	\$ 778.15	\$ 695.97
	Kaiser Permanente California Other Southern California	599.54	666.80
	PERS Choice Other Southern California	714.43	698.96
	PERS Select Other Southern California	633.46	654.74
	PERSCare Other Southern California	802.24	733.50

### Trend Rates

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

Year	Pre-Medicare Trend	Medicare Trend	PEMHCA Trend
2017	7.00%	6.00%	3.00%
2018	6.50%	5.50%	3.00%
2019	6.00%	5.50%	3.00%
2020	5.50%	5.30%	3.00%
2021	5.20%	5.20%	3.00%
2022	5.20%	5.20%	3.00%
2023	5.20%	5.20%	3.00%
2024	5.19%	5.19%	3.00%
2025-2074	...	...	...
2075+	3.84%	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 March 7, 2014:

<b>Mortality</b>	<b><u>Source Table</u></b>
Miscellaneous Employees	Mort and Disb Rates_Misc
Safety Employees	Mort and Disb Rates_Fire
<b>Disability Rates</b>	
Miscellaneous Employees	Mort and Disb Rates_Misc
Safety Employees	Mort and Disb Rates_Fire
<b>Terminated Refund Rates</b>	
Miscellaneous Employees	Terminated Refund Rates_Misc
Safety Employees	Terminated Refund Rates_Fire
<b>Terminated Vested Rates</b>	
Miscellaneous Employees	Terminated Vested Rates_Misc
Safety Employees	Terminated Vested Rates_Fire
<b>Salary Scale Rates</b>	
Miscellaneous Employees	Salary Scale Rates_PA Misc
Safety Employees	Salary Scale Rates_PA_Fire
<b>Service Retirement Rates</b>	
Miscellaneous Employees	
• 2.7% at 55	Rx Misc 2.7 % @ 55
Safety Employees	
• 2.0% at 50	Rx Safety Fire 2% @ 50
• 3.0% at 55	Rx Safety Fire 3% @ 55

## Appendix

### 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	0.00000	0.00000	0.00000	0.00000	0.00023	0.00555	0.00128	0.00015	0.00346	0.00098	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00023	0.00565	0.00129	0.00015	0.00350	0.00099	0.00000	0.00000	0.00000	0.00000
10	0.00000	0.00000	0.00000	0.00000	0.00024	0.00572	0.00130	0.00015	0.00354	0.00099	0.00000	0.00000	0.00000	0.00000
15	0.00023	0.00000	0.00017	0.00000	0.00024	0.00584	0.00132	0.00016	0.00361	0.00101	0.00017	0.00000	0.00010	0.00000
20	0.00031	0.00000	0.00020	0.00000	0.00025	0.00604	0.00135	0.00017	0.00372	0.00104	0.00017	0.00000	0.00010	0.00000
25	0.00040	0.00000	0.00023	0.00000	0.00029	0.00637	0.00141	0.00021	0.00392	0.00109	0.00017	0.00000	0.00010	0.00000
30	0.00049	0.00000	0.00025	0.00000	0.00039	0.00693	0.00153	0.00028	0.00428	0.00121	0.00019	0.00000	0.00024	0.00000
35	0.00057	0.00000	0.00035	0.00000	0.00060	0.00788	0.00178	0.00046	0.00492	0.00143	0.00049	0.00000	0.00081	0.00000
40	0.00075	0.00000	0.00050	0.00000	0.00110	0.00949	0.00225	0.00091	0.00605	0.00188	0.00122	0.00000	0.00155	0.00000
45	0.00106	0.00000	0.00071	0.00000	0.00227	0.01221	0.00318	0.00200	0.00804	0.00281	0.00191	0.00000	0.00218	0.00000
50	0.00155	0.00000	0.00100	0.00000	0.00501	0.01680	0.00501	0.00466	0.01158	0.00466	0.00213	0.00000	0.00229	0.00000
55	0.00228	0.00000	0.00138	0.00000	0.00599	0.01973	0.00599	0.00416	0.01149	0.00416	0.00221	0.00000	0.00179	0.00000
60	0.00308	0.00000	0.00182	0.00000	0.00710	0.02289	0.00754	0.00436	0.01235	0.00518	0.00222	0.00000	0.00135	0.00000
65	0.00400	0.00000	0.00257	0.00000	0.00829	0.02451	0.01122	0.00588	0.01607	0.00838	0.00210	0.00000	0.00118	0.00000
70	0.00524	0.00000	0.00367	0.00000	0.01305	0.02875	0.01635	0.00993	0.02211	0.01395	0.00180	0.00000	0.00114	0.00000
75	0.00713	0.00000	0.00526	0.00000	0.02205	0.03990	0.02834	0.01722	0.03037	0.02319	0.00142	0.00000	0.00118	0.00000
80	0.00990	0.00000	0.00814	0.00000	0.03899	0.06083	0.04899	0.02902	0.04725	0.03910	0.00142	0.00000	0.00118	0.00000
85	0.00000	0.00000	0.00000	0.00000	0.06969	0.09731	0.07679	0.05243	0.07762	0.06251	0.00000	0.00000	0.00000	0.00000
90	0.00000	0.00000	0.00000	0.00000	0.12974	0.14804	0.12974	0.09887	0.12890	0.09887	0.00000	0.00000	0.00000	0.00000
95	0.00000	0.00000	0.00000	0.00000	0.22444	0.22444	0.22444	0.18489	0.21746	0.18489	0.00000	0.00000	0.00000	0.00000
100	0.00000	0.00000	0.00000	0.00000	0.32536	0.32536	0.32536	0.30017	0.30017	0.30017	0.00000	0.00000	0.00000	0.00000
105	0.00000	0.00000	0.00000	0.00000	0.58527	0.58527	0.58527	0.56093	0.56093	0.56093	0.00000	0.00000	0.00000	0.00000
110	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000
115	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000
120	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000

**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 Mortality and Disability Rates

Public Agency Fire

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	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	0.000100	0.000020	0.000100	0.000020
20	0.000216	0.000040	0.000069	0.000040	0.000216	0.000216	0.000040	0.000069	0.000069	0.000040	0.000100	0.000050	0.000100	0.000050
25	0.000289	0.000060	0.000109	0.000060	0.000289	0.000289	0.000060	0.000109	0.000109	0.000060	0.000100	0.000190	0.000100	0.000190
30	0.000379	0.000070	0.000155	0.000070	0.000379	0.000379	0.000070	0.000155	0.000155	0.000070	0.000100	0.000560	0.000100	0.000560
35	0.000491	0.000090	0.000270	0.000090	0.000491	0.000491	0.000090	0.000270	0.000270	0.000090	0.000100	0.001190	0.000100	0.001190
40	0.000637	0.000100	0.000366	0.000100	0.000637	0.000637	0.000100	0.000366	0.000366	0.000100	0.000100	0.002250	0.000100	0.002250
45	0.000795	0.000120	0.000543	0.000120	0.000795	0.000795	0.000120	0.000543	0.000543	0.000120	0.000200	0.003980	0.000200	0.003980
50	0.001161	0.000130	0.000794	0.000130	0.003716	0.011831	0.003716	0.003458	0.010830	0.003458	0.000500	0.020790	0.000500	0.020790
55	0.001717	0.000150	0.001204	0.000150	0.004369	0.016132	0.004369	0.004097	0.011777	0.004097	0.000700	0.030660	0.000700	0.030660
60	0.002550	0.000160	0.001657	0.000160	0.006712	0.021658	0.006712	0.004763	0.014036	0.004763	0.000700	0.043750	0.000700	0.043750
65	0.003626	0.000180	0.002329	0.000180	0.009275	0.027330	0.011130	0.006372	0.017570	0.007647	0.000700	0.060690	0.000700	0.060690
70	0.006227	0.000190	0.003883	0.000190	0.013389	0.033583	0.016067	0.009262	0.021835	0.011115	0.000700	0.082210	0.000700	0.082210
75	0.010572	0.000210	0.006228	0.000210	0.023161	0.042774	0.027794	0.016348	0.029693	0.019617	0.000700	0.109100	0.000700	0.109100
80	0.016593	0.000220	0.009391	0.000220	0.039774	0.062721	0.047729	0.030072	0.046406	0.036086	0.000700	0.142190	0.000700	0.142190
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.

# Appendix

## Sample Termination Rates

		Sample Terminated Refund Rates Public Agency Miscellaneous									
Entry Ages		15	20	25	30	35	40	45	50	55	59
Service	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
		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		15	20	25	30	35	40	45	50	55	59
Service	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	5	0.07140	0.06560	0.05970	0.05370	0.04770	0.04180	0.00000	0.00000	0.00000	0.00000
	10	0.05940	0.05300	0.04660	0.04030	0.03390	0.00000	0.00000	0.00000	0.00000	0.00000
	15	0.05110	0.04430	0.03730	0.03050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	20	0.04050	0.03330	0.02610	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	25	0.02880	0.02120	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	30	0.01500	0.00000	0.00000	0.00000	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

# Appendix

## Sample Termination Rates

Sample Terminated Refund Rates  
Public Agency Fire

Service	Entry Ages									
	15	20	25	30	35	40	45	50	55	59
0	0.12980	0.12980	0.12980	0.12980	0.12980	0.12980	0.12980	0.12980	0.12980	0.12980
5	0.00520	0.00520	0.00520	0.00520	0.00520	0.00520	0.00520	0.00520	0.00520	0.00520
10	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050
15	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
20	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030
25	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020
30	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	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
	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Sample Terminated Vested Rates  
Public Agency Fire

Service	Entry Ages									
	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	0.00940	0.00940	0.00940	0.00940	0.00940	0.00940	0.00940	0.00940	0.00940	0.00940
10	0.00640	0.00640	0.00640	0.00640	0.00640	0.00640	0.00640	0.00640	0.00640	0.00640
15	0.00480	0.00480	0.00480	0.00480	0.00480	0.00480	0.00480	0.00480	0.00480	0.00480
20	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380
25	0.00260	0.00260	0.00260	0.00260	0.00260	0.00260	0.00260	0.00260	0.00260	0.00260
30	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	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.

The Police Termination with vested benefits rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

# Appendix

## Sample Salary Scale Rates

Service	Entry Ages										Public Agency Miscellaneous			
	15	20	25	30	35	40	45	50	55	60	65	70	75	79
0	0.1220	0.1220	0.1220	0.1160	0.1090	0.1020	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950
5	0.0640	0.0640	0.0640	0.0600	0.0550	0.0520	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480
10	0.0460	0.0460	0.0460	0.0430	0.0410	0.0390	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370
15	0.0420	0.0420	0.0420	0.0400	0.0380	0.0360	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340
20	0.0390	0.0390	0.0390	0.0380	0.0360	0.0340	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330
25	0.0370	0.0370	0.0370	0.0360	0.0340	0.0330	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310
30	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
35	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
40	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
45	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
50	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300

Service	Entry Ages										Public Agency Fire			
	15	20	25	30	35	40	45	50	55	60	65	70	75	79
0	0.17000	0.17000	0.17000	0.17000	0.17000	0.17000	0.17000	0.17000	0.17000	0.17000	0.1700	0.1700	0.1700	0.1700
5	0.03723	0.03723	0.03723	0.03723	0.03723	0.03723	0.03723	0.03723	0.03723	0.03723	0.0372	0.0372	0.0372	0.0372
10	0.01647	0.01647	0.01647	0.01647	0.01647	0.01647	0.01647	0.01647	0.01647	0.01647	0.0165	0.0165	0.0165	0.0165
15	0.01443	0.01443	0.01443	0.01443	0.01443	0.01443	0.01443	0.01443	0.01443	0.01443	0.0144	0.0144	0.0144	0.0144
20	0.01265	0.01265	0.01265	0.01265	0.01265	0.01265	0.01265	0.01265	0.01265	0.01265	0.0127	0.0127	0.0127	0.0127
25	0.01109	0.01109	0.01109	0.01109	0.01109	0.01109	0.01109	0.01109	0.01109	0.01109	0.0111	0.0111	0.0111	0.0111
30	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.0097	0.0097	0.0097	0.0097
35	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.0097	0.0097	0.0097	0.0097
40	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.0097	0.0097	0.0097	0.0097
45	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.0097	0.0097	0.0097	0.0097
50	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.00971	0.0097	0.0097	0.0097	0.0097

Miscellaneous Salary Scale is used for Local Prosecutors

# Appendix

## Matrix of Sample Service Retirement Assumption Rates

Attained Ages		Public Agency Miscellaneous 2.7% @ 55						
		50	55	60	65	70	75	79
Service								
0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5		0.0030	0.0330	0.0600	0.1400	0.1500	1.0000	1.0000
10		0.0100	0.0550	0.0860	0.1740	0.1810	1.0000	1.0000
15		0.0160	0.0780	0.1120	0.2080	0.2120	1.0000	1.0000
20		0.0340	0.1130	0.1500	0.2540	0.2430	1.0000	1.0000
25		0.0330	0.1560	0.1820	0.3060	0.2910	1.0000	1.0000
30		0.0450	0.2340	0.2380	0.3890	0.3500	1.0000	1.0000
35		0.1200	0.3610	0.3020	0.4220	0.3900	1.0000	1.0000
40		0.0000	0.4250	0.3300	0.4220	0.4000	1.0000	1.0000
45		0.0000	0.0000	0.3300	0.4220	0.4000	1.0000	1.0000
50		0.0000	0.0000	0.0000	0.4220	0.4000	1.0000	1.0000

Attained Ages		Public Agency Fire 2% @ 50						
		50	55	60	65	70	75	79
Service								
0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5		0.0090	0.0890	0.1000	1.0000	1.0000	1.0000	1.0000
10		0.0090	0.0890	0.1000	1.0000	1.0000	1.0000	1.0000
15		0.0090	0.0890	0.1000	1.0000	1.0000	1.0000	1.0000
20		0.0090	0.0890	0.1000	1.0000	1.0000	1.0000	1.0000
25		0.0130	0.1360	0.1540	1.0000	1.0000	1.0000	1.0000
30		0.0200	0.2040	0.2300	1.0000	1.0000	1.0000	1.0000
35		0.0220	0.2300	0.2600	1.0000	1.0000	1.0000	1.0000
40		0.0000	0.2360	0.2670	1.0000	1.0000	1.0000	1.0000
45		0.0000	0.0000	0.2670	1.0000	1.0000	1.0000	1.0000
50		0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000

Attained Ages		Public Agency Fire 3% @ 55						
		50	55	60	65	70	75	79
Service								
0		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5		0.0010	0.0730	0.1050	1.0000	1.0000	1.0000	1.0000
10		0.0010	0.0730	0.1050	1.0000	1.0000	1.0000	1.0000
15		0.0010	0.0730	0.1050	1.0000	1.0000	1.0000	1.0000
20		0.0060	0.1090	0.1550	1.0000	1.0000	1.0000	1.0000
25		0.0160	0.1790	0.2510	1.0000	1.0000	1.0000	1.0000
30		0.0690	0.2590	0.3440	1.0000	1.0000	1.0000	1.0000
35		0.0690	0.2590	0.3440	1.0000	1.0000	1.0000	1.0000
40		0.0000	0.2590	0.3440	1.0000	1.0000	1.0000	1.0000
45		0.0000	0.0000	0.3440	1.0000	1.0000	1.0000	1.0000
50		0.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000