

Actuarial Valuations as of June 30, 2017 Presentation to City Council

Federated City Employees' Retirement System
Police & Fire Department Retirement Plan

April 17, 2018
Presented by: Roberto L. Peña

Agenda

- ▶ Purpose
- ▶ Key Valuation Results
- ▶ Contributions Rates and Amounts
- ▶ City Contribution Reconciliation
- ▶ Analysis of Change in UAL
- ▶ Expected Distribution of Annual Passive Investment Returns
- ▶ Schedule of Funding Progress
- ▶ Annual City Contributions–Throughout the Year Amounts
- ▶ Total Unfunded Actuarial Liability as of June 30, 2017

Purpose

- ▶ June 2017 actuarial valuation report is used to determine:
 - Member contribution rates for FYE 2019
 - City contribution rates and amounts for FYE 2019
 - Basis for projecting liability amounts reported in the June 30, 2018 CAFR.

Key Valuation Results – Federated

In Thousands	Pension 6/30/17	Pension 6/30/16	OPEB 6/30/17	OPEB 6/30/16
Discount Rate	6.875%	6.875%	6.875%	6.875%
Total Actuarial Liability (AL)	\$3,923,966	\$3,786,730	\$630,452	\$736,721
Actuarial Value of Assets (AVA)	\$2,101,435	\$2,034,741	\$248,583	\$225,845
Unfunded Actuarial Liability (UAL)	\$1,822,531	\$1,751,989	\$381,869	\$510,876
AVA Funded Ratio	53.6%	53.7%	39.4%	30.7%
Market Value of Assets (MVA)	\$1,972,791	\$1,858,880	\$248,583	\$225,845
UAL – MVA	\$1,951,175	\$1,927,850	\$381,869	\$510,876
MVA Funded Ratio	50.3%	49.1%	39.4%	30.7%

Key Valuation Results – P&F

In Thousands	Pension 6/30/17	Pension 6/30/16	OPEB 6/30/17	OPEB 6/30/16
Discount Rate	6.875%	6.875%	6.875%	6.875%
Total Actuarial Liability (AL)	\$4,464,402	\$4,355,990	\$680,246	\$676,430
Actuarial Value of Assets (AVA)	\$3,439,922	\$3,297,068	\$142,517	\$135,207
Unfunded Actuarial Liability (UAL)	\$1,024,480	\$1,058,922	\$537,729	\$541,223
AVA Funded Ratio	77.1%	75.7%	21.0%	20.0%
Market Value of Assets (MVA)	\$3,293,257	\$3,043,651	\$142,517	\$135,207
UAL – MVA	\$1,171,145	\$1,312,339	\$537,729	\$541,223
MVA Funded Ratio	73.8%	69.9%	21.0%	20.0%

Summary of Contribution Rates – Pension – Federated

	6/30/19	6/30/18
Tier 1 Member	6.85%	6.60%
Tier 1 City – Normal	18.61%	18.00%
Tier 1 City – UAL	80.55%	76.04%
Total City Tier 1	99.16%	94.04%
Total Tier 1	106.01%	100.64%
Tier 2 Member	8.28%	7.72%
Tier 2 City	8.28%	7.72%
Total Tier 2	16.56%	15.44%

Summary of Contribution Rates – Pension – P&F

	6/30/19	6/30/18	6/30/19	6/30/18
	POLICE		FIRE	
Tier 1 Member	10.28%	10.88%	11.09%	11.38%
Tier 1 City – Normal	30.28%	30.20%	31.20%	31.11%
Tier 1 City – UAL	67.27%	65.11%	67.29%	64.95%
Total City Tier 1	97.55%	95.31%	98.49%	96.06%
Total Tier 1	107.83%	106.19%	109.58%	107.44%
Tier 2 Member	13.71%	15.17%	15.13%	16.26%
Tier 2 City	13.71%	15.17%	15.13%	16.26%
Total Tier 2	27.42%	30.34%	30.26%	32.52%

Summary of Contribution Rates – OPEB

	Federated	Police	Fire
	6/30/19	6/30/19	6/30/19
Members:			
Fed Member (T1/T2A)	7.50%	N/A	N/A
Police Member (T1)	N/A	8.0%	N/A
Fire Member (T1)	N/A	N/A	8.0%
City:			
Actuarially Determined Rate	7.16%	11.0%	10.1%

Analysis of Change in Unfunded Actuarial Liability (AL) – Pension

\$ Amounts in Thousands	Federated		Police & Fire	
	2017	2016	2017	2016
UAL at Beginning of Year	\$1,751,989	\$1,565,418	\$1,058,922	\$845,633
Expected UAL Payment	*	(88,568)	(88,525)	(79,899)
Interest	10,405*	103,380	72,801	59,194
Change due to Measure F	(13,769)		4,261	
Assumption / Methods Changes	15,582	60,233	(131,832)	72,680
Expected UAL at End of Year	\$1,764,207	\$1,640,463	915,627	897,609
Actual UAL at End of Year	\$1,822,531	\$1,751,989	\$1,024,480	\$1,058,922
Experience Gain or (Loss):	(\$58,324)	(\$111,526)	(\$108,853)	(\$161,313)

* Combined normal cost and interest on UAL

Analysis of Change in Unfunded Actuarial Liability (AL) – OPEB

\$ Amounts in Thousands	Federated	Police & Fire
	2017	2017
UAL at Beginning of Year	\$510,876	\$541,223
Normal Cost and Interest Less Contributions	(4,328)	13,290
Change due to Measure F	(45,836)	(62,269)
Assumption / Methods Changes	(77,796)	33,024
Experience Gain or (Loss):	(1,047)	12,461
Actual UAL at End of Year	\$381,869	\$537,729

SCHEDULE OF FUNDING PROGRESS – Federated

(in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a / b)	Annual Covered Payroll (c)	UAAL as a % of Annual Covered Payroll ((b-a)/c)
PENSION						
June 30, 2017	\$2,101,435	\$3,923,966	\$1,822,531	54%	\$287,339	634%
June 30, 2016	\$2,034,741	\$3,786,730	\$1,751,989	54%	\$266,823	657%
June 30, 2015	\$2,004,481	\$3,569,898	\$1,565,417	56%	\$251,430	623%
June 30, 2014	\$1,911,773	\$3,235,065	\$1,323,292	59%	\$234,677	564%
June 30, 2013	\$1,783,270	\$3,013,763	\$1,230,493	59%	\$225,779	545%
OPEB						
June 30, 2017	\$248,583	\$630,452	\$381,869	39%	\$287,339	133%
June 30, 2016	\$225,845	\$764,261	\$538,416	30%	\$266,823	202%
June 30, 2015	\$209,761	\$817,673	\$607,912	26%	\$251,430	242%
June 30, 2014	\$199,776	\$729,406	\$529,630	27%	\$234,677	226%
June 30, 2013	\$157,695	\$870,872	\$713,177	18%	\$226,098	315%

SCHEDULE OF FUNDING PROGRESS – Police & Fire

(in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a / b)	Annual Covered Payroll (c)	UAAL as a % of Annual Covered Payroll ((b-a)/c)
PENSION						
June 30, 2017	\$3,439,922	\$4,464,402	\$1,024,480	77%	\$203,816	502.6%
June 30, 2016	\$3,303,550	\$4,355,990	\$1,052,440	76%	\$194,072	542.3%
June 30, 2015	\$3,212,776	\$4,058,410	\$845,634	79%	\$184,733	457.8%
June 30, 2014	\$3,025,101	\$3,813,825	\$788,724	79%	\$188,189	419.1%
June 30, 2013	\$2,771,924	\$3,578,031	\$806,107	78%	\$184,645	436.6%
OPEB						
June 30, 2017	\$142,517	\$680,246	\$537,729	21%	\$203,816	264%
June 30, 2016	\$135,207	\$778,871	\$643,664	17%	\$194,072	332%
June 30, 2015	\$114,565	\$739,753	\$625,188	16%	\$184,733	338%
June 30, 2014	\$93,605	\$706,710	\$613,105	13%	\$188,189	326%
June 30, 2013	\$75,035	\$700,525	\$625,490	11%	\$184,645	339%

Annual City Contributions– Amounts Throughout the Fiscal Year

Valuation ending 6/30	2017	2016
Fiscal Year	2018–2019	2017–2018
Federated Pension	\$164,100	\$160,100
Federated OPEB	\$21,000	\$29,000
Total Federated	\$185,100	\$189,100
Police & Fire Pension	\$165,000	\$162,800
Police & Fire OPEB	22,500	\$20,900
Police & Fire	\$187,500	\$183,700
Total Pension	\$329,100	\$322,900
Total OPEB	\$43,500	\$49,900
Grand Total	\$372,600	\$372,800

Total Unfunded Actuarial Liability As of June 30, 2017

\$ in Thousands	Federated	Police & Fire	Total UAL
Pension UAL – AVA	\$1,822,531	\$1,024,480	\$2,847,011
OPEB UAL – AVA	\$381,869	\$537,729	\$919,598
Total UAL – AVA	\$2,204,400	\$1,562,209	\$3,766,609
Pension UAL – MVA	\$1,951,175	\$1,171,145	\$3,122,320
OPEB UAL – MVA	\$381,869	\$537,729	\$919,598
Total UAL – MVA	\$2,333,044	\$1,708,874	\$4,041,918

Expected Distribution of Average Annual Passive Investment Returns

Federated: Current Rate = 6.875%

	Pension Trust	115 Healthcare Trust
Percentile	20 Years	20 Years
95 th	11.1%	11.1%
75 th	8.6%	8.5%
50th	7.0%	6.7%
48 th	6.9%	6.6%
25 th	5.4%	4.9%
5 th	3.1%	2.5%

Expected Distribution of Average Annual Passive Investment Returns

Police and Fire: Current Rate = 6.875%

	Pension Trust	115 Healthcare Trust
Percentile	20 Years	20 Years
95 th	11.7%	11.9%
75 th	9.0%	8.9%
50 th	7.1%	6.8%
45 th	6.8%	6.5%
25 th	5.3%	4.8%
5 th	2.7%	2.0%