City of Los Angeles Fire and Police Pension Plan

Actuarial Valuation and Review Of Retirement and Other Postemployment Benefits (OPEB) as of June 30, 2015

Segal Consulting

This report has been prepared at the request of the Board of Commissioners to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Commissioners and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Segal Consulting
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November 9, 2015

Board of Fire and Police Pension Commissioners
City of Los Angeles Fire and Police Pension Plan
360 East Second Street, Suite 400
Los Angeles, CA 90012

Re: June 30, 2015 Actuarial Valuations

Dear Board Members:

Enclosed please find the June 30, 2015 actuarial valuations for the retirement and the health programs.

As requested by LAFPP, we have attached the following supplemental schedules:

- Exhibit A - Summary of significant results for the two programs.
- Exhibit B - History of computed contribution rates for the two programs.

We look forward to discussing the reports and the enclosed schedules with the Board.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

EZY/hy
Enclosures

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Exhibit A

City of Los Angeles Fire and Police Pension Plan
Summary of Significant Valuation Results

		June 30, 2015	June 30, 2014	Percent Change
I.	**Total Membership**			
	A. Current Active Members	13,068	13,097	-0.22%
	B. Current Vested Former Members[1]	112	131	-14.50%
	C. Current Retirees, Beneficiaries, and Dependents	12,593	12,502	0.73%
II.	**Valuation Salary**			
	A. Total Annual Payroll	$1,405,171,210	$1,402,715,039	0.18%
	B. Average Monthly Salary	8,961	8,925	0.40%
III.	**Benefits to Current Retirees and Beneficiaries[2]**			
	A. Total Annual Benefits	$802,218,609	$787,236,799	1.90%
	B. Average Monthly Benefit Amount	5,309	5,247	1.18%
IV.	**Total System Assets[3]**			
	A. Actuarial Value	$18,114,393,332	$16,879,354,713	7.32%
	B. Market Value	18,737,100,702	18,291,010,687[4]	2.44%
V.	**Unfunded Actuarial Accrued Liability (UAAL)**			
	A. Retirement Benefits	$1,567,447,049	$2,435,749,038	-35.65%
	B. Health Subsidy Benefits	1,618,369,578	1,582,408,441	2.27%

(1) *The June 30, 2015 valuation includes 67 terminated members due only a refund of member contributions. The June 30, 2014 valuation included 76 such members.*

(2) *Includes July COLA.*

(3) *Includes all assets for Retirement and Health Subsidy Benefits.*

(4) *Based on unaudited market value of assets. Subsequent to the June 30, 2014 valuation, the market value of assets was changed to $18,303,840,134.*

Exhibit A (continued)

City of Los Angeles Fire and Police Pension Plan
Summary of Significant Valuation Results

VI. Budget Items	FY 2016-2017		FY 2015-2016		Change	
	Beginning of Year[1]	July 15	Beginning of Year	July 15	Beginning of Year	July 15
A. Retirement Benefits						
1. Normal Cost as a Percent of Pay	18.68%	18.74%	18.72%	18.78%	-0.04%	-0.04%
2. Amortization of UAAL	12.92%	12.96%	15.51%	15.55%	-2.59%	-2.59%
3. Allocated amount for administrative expenses	0.91%	0.91%	0.91%	0.91%	0.00%	0.00%
4. Total Retirement Contribution	32.51%	32.61%	35.14%	35.24%	-2.63%	-2.63%
B. Health Subsidy Contribution						
1. Normal Cost as a Percent of Pay	4.36%	4.37%	4.12%	4.13%	0.24%	0.24%
2. Amortization of UAAL	7.38%	7.40%	7.03%	7.05%	0.35%	0.35%
3. Allocated amount for administrative expenses	0.06%	0.06%	0.06%	0.06%	0.00%	0.00%
4. Total Health Contribution	11.80%	11.83%	11.21%	11.24%	0.59%	0.59%
C. Total Contribution (A+B)	44.31%	44.44%	46.35%	46.48%	-2.04%	-2.04%

(1) *Alternative contribution payment date for FY 2016-2017:*	*Retirement*	*Health*	*Total*
End of Pay Periods	*33.70%*	*12.23%*	*45.93%*

Exhibit A (continued)

City of Los Angeles Fire and Police Pension Plan
Summary of Significant Valuation Results

		June 30, 2015	June 30, 2014	Change
VII	**Funded Ratio**			
	(Based on Valuation Value of Assets)			
	A. Retirement Benefits	91.5%	86.6%	4.9%
	B. Health Subsidy Benefits	45.4%	43.2%	2.2%
	C. Total	85.0%	80.8%	4.2%

		June 30, 2015	June 30, 2014	Change
VIII	**Funded Ratio**			
	(Based on Market Value of Assets)			
	A. Retirement Benefits	94.6%	93.8%	0.8%
	B. Health Subsidy Benefits	46.9%	46.8%	0.1%
	C. Total	88.0%	87.5%	0.5%

Exhibit B

City of Los Angeles Fire and Police Pension Plan
Computed Contribution Rates[1] – Historical Comparison

Valuation Date	Retirement	Health	Total	Valuation Payroll (In Thousands)
06/30/2006	22.12%	8.48%[2]	30.65%	$1,092,815
06/30/2007	19.95%[3]	8.20%[2],[3]	28.15%[3]	1,135,592
06/30/2008	20.58%	8.76%	29.34%	1,206,589
06/30/2009	22.26%	9.00%	31.26%	1,357,249
06/30/2010	28.20%[4]	12.27%[5]	40.47%	1,356,986
06/30/2011[2]	32.56%	11.34%	43.90%	1,343,963
06/30/2012[2]	35.93%	11.22%[6]	47.15%	1,341,914
06/30/2013	37.82%	11.69%	49.51%	1,367,237
06/30/2014	36.47%	11.50%	47.97%	1,402,715
06/30/2015	33.70%	12.23%	45.93%	1,405,171

[1] *Contributions are assumed to be made at the end of the pay period.*

[2] *Before reflecting phase-in policy.*

[3] *Revised to recognize payment of Harbor Port Police June 30, 2007 UAAL during 2007-2008 fiscal year. This reduced the UAAL rate by 0.02% and 0.00% for the retirement plan and health plan, respectively.*

[4] *Before reflecting the 2% additional employee contributions for unfrozen health subsidies.*

[5] *Before reflecting the freeze on the medical subsidy for certain employees retiring on or after July 15, 2011.*

[6] *After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.*

City of Los Angeles Fire and Police Pension Plan

Actuarial Valuation and Review as of June 30, 2015

This report has been prepared at the request of the Board of Commissioners to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Commissioners and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Segal Consulting
100 Montgomery Street, Suite 500 San Francisco, CA 94104
T 415.263.8200 www.segalco.com

November 9, 2015

Board of Fire and Police Pension Commissioners
City of Los Angeles Fire and Police Pension Plan
360 East Second Street, Suite 400
Los Angeles, CA 90012

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2015. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016-2017 and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Plan. The census information and financial information on which our calculations were based was prepared by Los Angeles Fire & Police Pensions (LAFPP). That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

We are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board of Commissioners are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

JB/hy

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Los Angeles Fire and Police Pension Plan as of June 30, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Board of Commissioners;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2015, provided by LAFPP;
- The assets of the Plan as of June 30, 2015, provided by LAFPP;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

Reference: Pg. 22 and Pg. 46

- The ratio of the valuation value of assets to actuarial accrued liabilities increased from 86.6% to 91.5%. On a market value of assets basis, the funded ratio increased from 93.8% to 94.6%. The Unfunded Actuarial Accrued Liability (UAAL) has decreased from $2.436 billion to $1.567 billion. Note that for this June 30, 2015 valuation, we requested information for current retirees who participated in the Survivor Benefit Purchase Program (SBP) or who elected an Optional Qualified Surviving Spouse (OQSS) benefit as well as current Tier 5 retirees who were former Tier 2 members, in order to refine our procedure for valuing the percent of continuance benefit to be paid to beneficiaries for these retirees. This refinement in procedure increased the actuarial accrued liability by about $43 million; however, that liability increase is more than offset by about $861 million in other net actuarial gains in this valuation. These other net actuarial gains include gains that were from (i) higher than expected return on the valuation value of assets (after smoothing), (ii) lower than expected salary increases for continuing active members, (iii) lower than expected COLAs granted to retirees, beneficiaries and DROP members, and (iv) other actuarial gains. A complete reconciliation of the Plan's unfunded actuarial accrued liability is provided in Section 3, Exhibit G.

Reference: Pg. 20

- The aggregate beginning-of-year employer rate calculated in this valuation has decreased from 35.14% of payroll to 32.51% of payroll. Using a projected annual payroll of $1.405 billion as of June 30, 2015, there would be a decrease in contributions from $494 million to $457 million. The decrease was due to: (i) higher than expected return on the valuation value of assets (after smoothing), (ii) lower than expected salary increases for continuing active members, and (iii) lower than expected COLAs granted to retirees, beneficiaries and DROP members, (iv) other actuarial gains, offset somewhat by (v) loss due to actual contributions less than expected, (vi) amortizing the prior year's UAAL over a smaller than expected projected total payroll, and (vii) refining procedure for valuing the percent of continuance benefit to be paid to beneficiaries for retirees who participate in the SBP/OQSS as well as current Tier 5 retirees who were former Tier 2 members. A complete reconciliation of the aggregate employer contribution is provided in Section 2, Chart 15.

- The employer contribution rates provided in this report have been developed assuming that they will be made by the City at either: (1) the beginning of the fiscal year, (2) on July 15, or (3) throughout the year (i.e., the City will pay contributions at the end of every pay period).

Reference: Pg. 5

- As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2015 is $622.7 million for the assets for Retirement and Health Subsidy Benefits. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. For comparison purposes, the total unrecognized investment gain as of June 30, 2014 was $1.412 billion.

- The unrecognized investment gains represent about 3.3% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the $622.7 million market gains is expected to have an impact on the Plan's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:

  - If the deferred gains were recognized immediately in the valuation value of assets, the funded percentage would increase from 91.5% to 94.6%.

  - If the deferred gains were recognized immediately in the valuation value of assets, the aggregate beginning-of-year employer contribution rate would decrease from 32.51% of payroll to 29.8% of payroll.

- The actuarial valuation report as of June 30, 2015 is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected and will impact the actuarial cost of the Plan.

Summary of Key Valuation Results

	2015	2014
Contributions calculated as of June 30:		
Recommended as a percent of pay (note there is a 12-month delay until the rate is effective)		
At the beginning of year	32.51%	35.14%[1]
On July 15	32.61%	35.24%[1]
At the end of each biweekly pay period	33.70%	36.43%[1]
Funding elements for plan year beginning July 1:		
Normal cost	$396,943,582	$396,638,061[1]
Valuation value of retirement assets (VVA)	16,770,060,026	15,678,480,269
Market value of retirement assets	17,346,554,076	16,989,704,585
Actuarial accrued liability	18,337,507,075	18,114,229,307
Unfunded actuarial accrued liability on valuation value of retirement assets basis	1,567,447,049	2,435,749,038
Unfunded actuarial accrued liability on market value of retirement assets basis	990,952,999	1,124,524,722
Funded ratio on valuation value of retirement assets basis[2]	91.5%	86.6%
Funded ratio on market value of retirement assets basis	94.6%	93.8%
Demographic data for plan year beginning July 1:		
Number of retired members and beneficiaries	12,593	12,502
Number of vested former members[3]	112	131
Number of active members (includes DROP members)	13,068	13,097
Projected total payroll	$1,405,171,210	$1,402,715,039
Projected average payroll	107,528	107,102

(1) *Revised to reflect payroll as of June 30, 2015.*

(2) *The funded ratios on VVA basis excluding Harbor Port Police are 91.5% and 86.6% for 2015 and 2014, respectively.*

(3) *The June 30, 2015 valuation includes 67 terminated members due only a refund of member contributions. The June 30, 2014 valuation included 76 such members.*

Important Information about Actuarial Valuations

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by LAFPP. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by LAFPP.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of LAFPP. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If LAFPP is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. LAFPP should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of LAFPP, it is not a fiduciary in its capacity as actuaries and consultants with respect to LAFPP.

Actuarial Certification

November 9, 2015

This is to certify that Segal Consulting has conducted an actuarial valuation of the City of Los Angeles Fire and Police Pension Plan retirement program as of June 30, 2015, in accordance with generally accepted actuarial principles and practices. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs). Actuarial valuations are performed annually for this retirement program with the last valuation completed on June 30, 2014. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for retirement benefits.

The actuarial valuation is based on the plan of benefits summarized in Exhibit IV and on participant and financial data provided by LAFPP. Segal did not audit LAFPP's financial statements, but we conducted an examination of the participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data.

The actuarial computations made are for funding plan benefits. Accordingly, additional determinations may be needed for other purposes, such as satisfying financial accounting requirements under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, and judging benefit security at termination of the plan.

Segal prepared all of the supporting schedules in the actuarial section of the Comprehensive Annual Financial Report (CAFR). A listing of the supporting schedules Segal prepared for inclusion in the financial section as Supplementary Information required by GASB is provided below:

1) Schedule of Net Pension Liability
2) Schedule of Changes in Net Pension Liability and Related Ratios
3) Schedule of Contribution History

LAFPP's staff prepared other trend data schedules in the statistical section based on information supplied in Segal's valuation report.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the Plan's current funding information. The undersigned is a Member of the American Academy of Actuaries and meets the qualifications to provide the actuarial opinion herein.

____

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, non-vested members (entitled to a refund of member contributions) and vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 1

Member Population: 2006 – 2015

Year Ended June 30	Active Members[1]	DROP Members	Vested Terminated Members[2]	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2006	12,903	1,206	59	11,815	0.92
2007	13,218	1,226	85	11,974	0.91
2008	13,495	1,144	81	12,182	0.91
2009	13,802	1,024	61	12,327	0.90
2010	13,654	1,089	58	12,348	0.91
2011	13,432	1,314[3]	59	12,392[4]	0.93
2012	13,396	1,193	62	12,380	0.93
2013	13,224	1,191	133	12,432	0.95
2014	13,097	1,277	131	12,502	0.96
2015	13,068	1,359	112	12,593	0.97

(1) *Includes DROP members provided in the next column.*

(2) *Includes terminated members due only a refund of contributions (beginning with the June 30, 2013 valuation).*

(3) *Includes 113 members who made an election to participate in the DROP during the period July 1, 2011 to July 14, 2011.*

(4) *Includes 13 new retirees during the period July 1, 2011 to July 14, 2011.*

Active Members (Including DROP Members)
Plan costs are affected by the age, years of service and salaries of active members. In this year's valuation, there were 13,068 active members with an average age of 42.5, average years of service of 15.5 years and average salary of $107,528. The 13,097 active members in the prior valuation had an average age of 42.4, average service of 15.4 years and average salary of $107,102.

Inactive Members
In this year's valuation, there were 112 members with a vested right to a deferred or immediate vested benefit or a return of member contributions versus 131 members in the prior valuation.

These graphs show a distribution of active members by age and by years of service.

CHART 2

Distribution of Active Members (Including DROP Members) by Age as of June 30, 2015

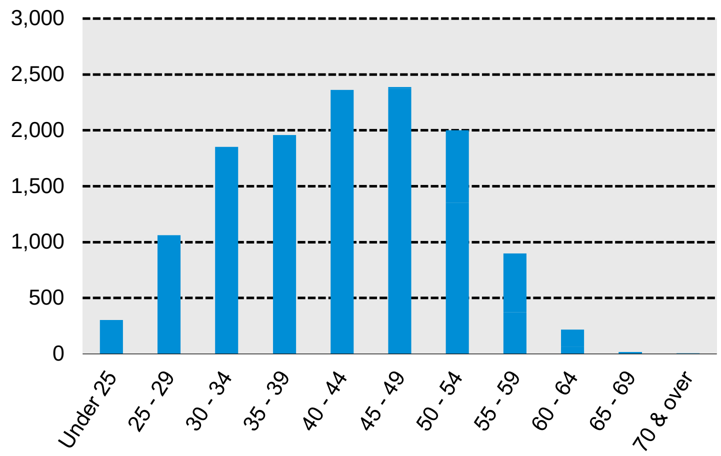
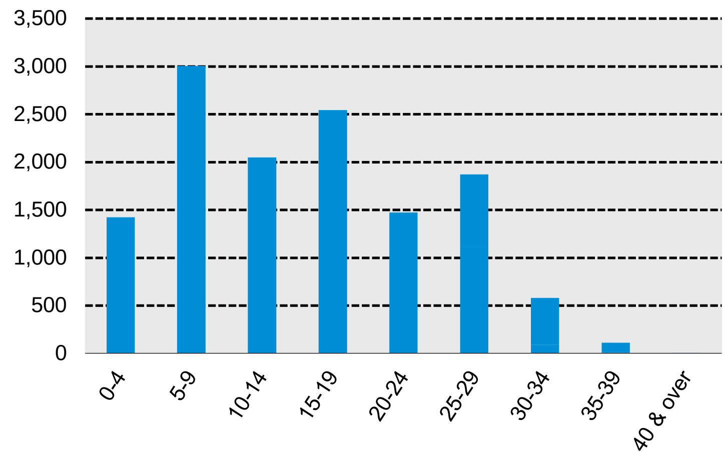


CHART 3

Distribution of Active Members (Including DROP Members) by Years of Service as of June 30, 2015



Retired Members and Beneficiaries

As of June 30, 2015, 10,153 retired members and 2,440 beneficiaries and survivors were receiving total monthly benefits of $66,851,551. For comparison, in the previous valuation there were 10,043 retired members and 2,459 beneficiaries and survivors receiving monthly benefits of $65,603,067.

Please note that the monthly benefits provided have been adjusted for the COLA granted effective for the month of July.

These graphs show a distribution of the current retired members based on their monthly amount and age, by type ofpension.

CHART 4

Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2015 (Includes July 1 COLA)

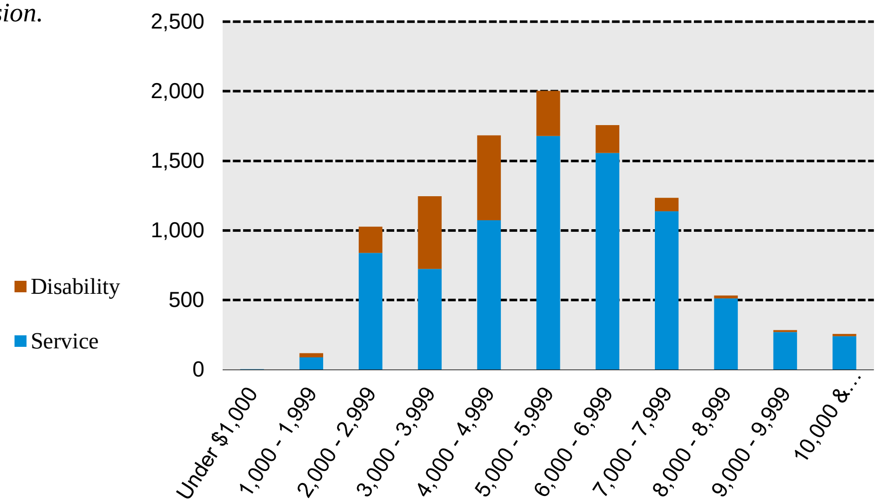
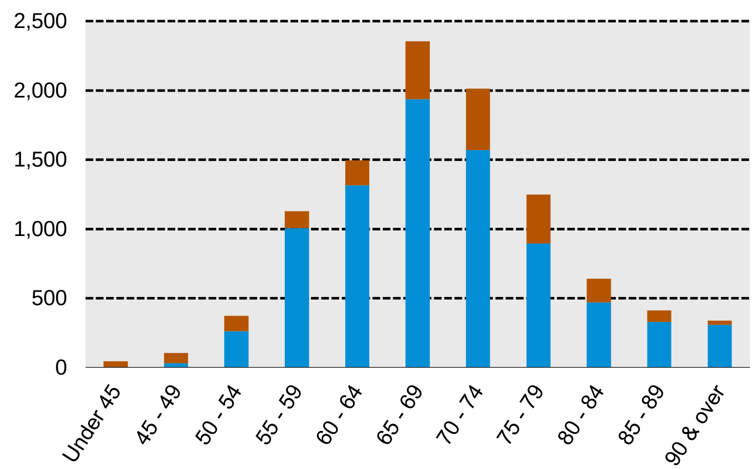


CHART 5

Distribution of Retired Members by Type and by Age as of June 30, 2015 (Includes July 1 COLA)



B. FINANCIAL INFORMATION

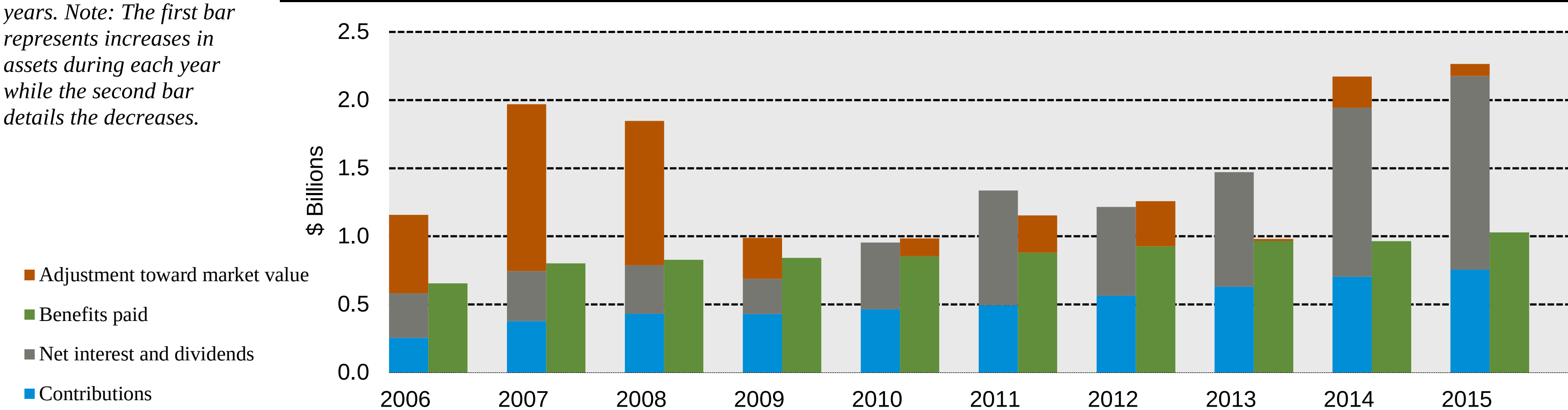
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006 – 2015



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Commissioners has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7

Determination of Actuarial Value of Assets for Year Ended June 30, 2015

		Original Amount	Portion Not Recognized	Amount Not Recognized	
1.	Market value of assets (for Retirement and Health Subsidy Benefits)				$18,737,100,702
2.	Calculation of unrecognized return[1]				
	(a) Year ended June 30, 2015	-$643,447,599	6/7	-$551,526,513	
	(b) Year ended June 30, 2014	1,571,818,656	5/7	1,122,727,611	
	(c) Combined Net Deferred Gain as of June 30, 2013[2]	77,259,408	4/6	51,506,272	
	(d) Total unrecognized return				622,707,370
3.	Preliminary actuarial value: (1) - (2d)				18,114,393,332
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: (3) + (4)				$18,114,393,332
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				96.7%
7.	Market value of retirement assets				$17,346,554,076
8.	Valuation value of retirement assets: (5) ÷ (1) x (7)				$16,770,060,026
9.	Deferred return recognized in each of the next 6 years (for Retirement and Health Subsidy Benefits):				
	(a) Amount recognized on June 30, 2016				$145,501,004
	(b) Amount recognized on June 30, 2017				145,501,004
	(c) Amount recognized on June 30, 2018				145,501,004
	(d) Amount recognized on June 30, 2019				145,501,004
	(e) Amount recognized on June 30, 2020				132,624,437
	(f) Amount recognized on June 30, 2021				-91,921,083
	(g) Subtotal (may not total exactly due to rounding)				$622,707,370

(1) *Total return minus expected return on a market value basis. Effective with the calculation for period ended June 30, 2015, both actual and expected returns on market value have been adjusted to exclude administrative expense paid during the plan year.*

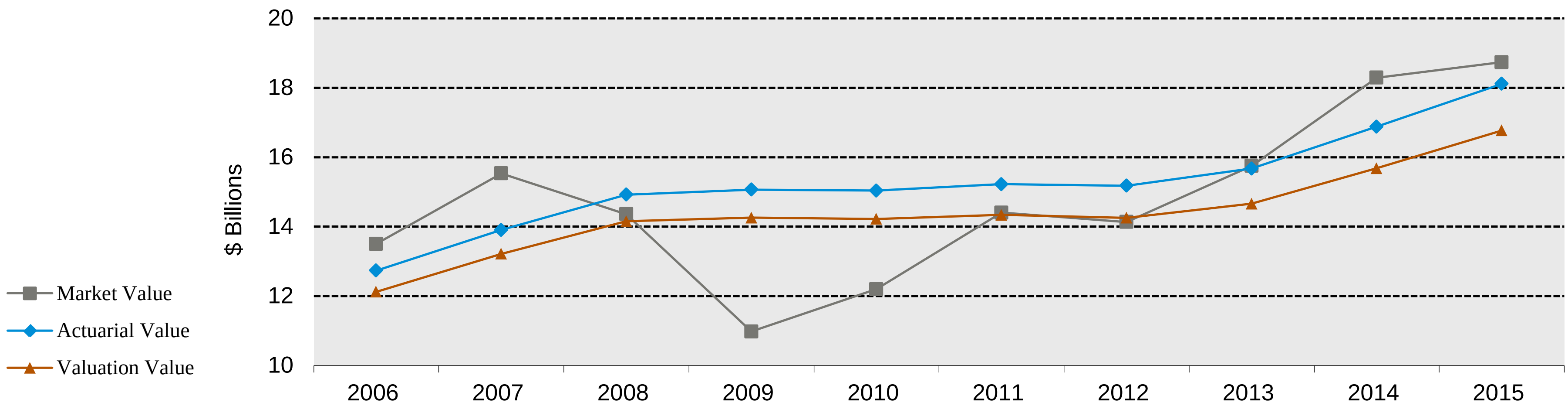
(2) *Net deferred unrecognized investment gains as of June 30, 2013 have been combined into a single layer to be recognized over the six-year period effective July 1, 2013*

The actuarial value, market value and valuation value of assets are representations of LAFPP's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The portion of the total actuarial value of assets allocated for retirement benefits, based on multiplying the total actuarial value of assets by the ratio of market value of retirement assets to the market value of both retirement and health assets, is shown as the valuation value of assets. The valuation value of assets is significant because LAFPP's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 8

Market Value of Assets*, Actuarial Value of Assets* and Valuation Value of Assets as of June 30, 2006 – 2015**



* *Retirement and Health assets*

** *Retirement only assets*

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total net gain of $861,234,436 was due mainly to less than expected COLA increases for retirees, beneficiaries, and DROP members, lower than expected salary increases for continuing active members, and an investment gain of $241,163,722 (after smoothing). A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

CHART 9

Actuarial Experience for Year Ended June 30, 2015

1.	Net gain from investments[1]	$241,163,722
2.	Net gain from other experience[2]	620,070,714
3.	Net experience gain: (1) + (2)	$861,234,436

(1) *Details in Chart 10.*

(2) *Details in Chart 13. The net gain is attributed to actual liability experience from June 30, 2014 to June 30, 2015, compared to the projected experience as predicted by the actuarial assumptions as of June 30, 2014.*

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on LAFPP's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 7.50% for the 2014-2015 plan year (based on the June 30, 2014 valuation). The actual rate of return on the actuarial value of assets basis for the 2014-2015 plan year was 8.98%.

Since the actual return for the year was greater than the assumed return, LAFPP experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments.

This chart shows the gain due to investment experience.

CHART 10

Actuarial Value Investment Experience for Year Ended June 30, 2015

	All Assets[1]	Assets for Retirement Only
1. Actual return	$1,527,957,644	$1,421,200,389
2. Average value of assets	17,021,099,217	15,733,822,234
3. Actual rate of return: (1) ÷ (2)	8.98%	9.03%
4. Assumed rate of return	7.50%	7.50%
5. Expected return: (2) x (4)	$1,276,582,441	$1,180,036,667
6. Actuarial gain: (1) – (5)	$251,375,203	$241,163,722

(1) *Includes all assets for Retirement and Health Subsidy Benefits.*

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for all Retirement and Health Subsidy Benefits assets for the last ten years, including five-year and ten-year averages.

CHART 11

Investment Return[(1)] – Actuarial Value vs. Market Value: 2006 – 2015

Year Ended June 30	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
2006	$901,268,460	7.44%	$1,520,383,435	12.40%
2007	1,590,968,304	12.57%	2,450,077,668	18.25%
2008	1,414,391,128	10.20%	-776,503,003	-5.01%
2009	557,346,783	3.75%	-2,968,762,917	-20.74%
2010	360,741,904	2.40%	1,612,772,227	14.74%
2011	568,411,044	3.78%	2,585,948,784	21.22%
2012	320,400,668	2.10%	93,546,777	0.65%
2013	827,790,619	5.43%	1,952,254,466	13.75%
2014	1,468,399,449	9.29%	2,802,796,015	17.65%
2015	1,527,957,644	8.98%	739,009,040	4.01%
Five-Year Average Return		5.88%		11.17%
Ten-Year Average Return		6.54%		6.91%

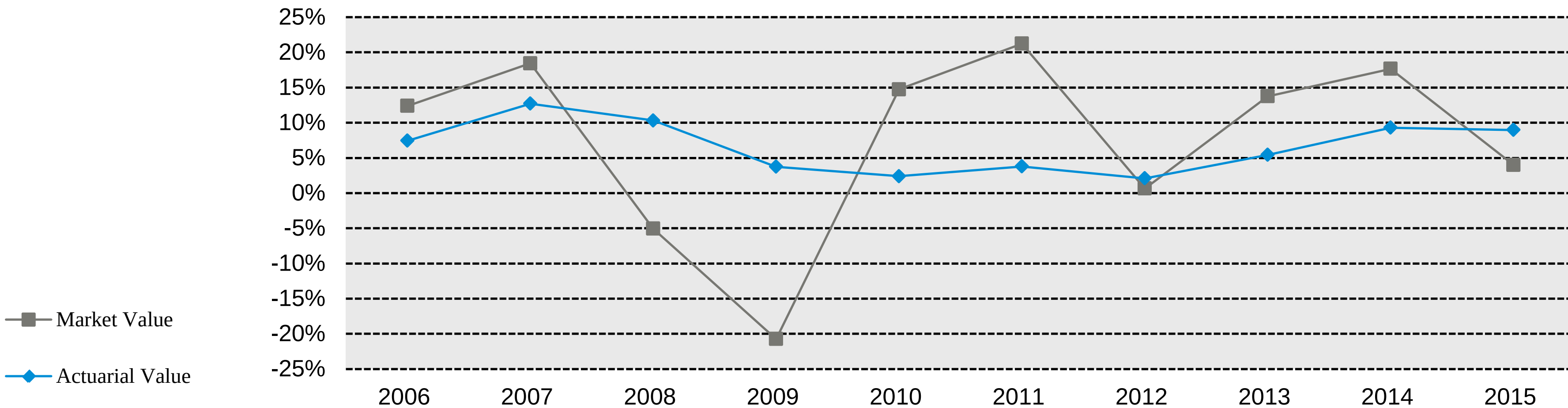
(1) *Includes all assets for Retirement and Health Subsidy Benefits*

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2006 - 2015.

CHART 12

Market and Actuarial Rates of Return for Years Ended June 30, 2006 - 2015



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2015 amounted to $620,070,714, which is 3.4% of the actuarial accrued liability and within the range of reasonable expectations.

A brief summary of the demographic gain/(loss) experience of the LAFPP for the year ended June 30, 2015 is shown in the chart below.

The chart shows elements of the experience gain for the most recent year.

CHART 13

Experience Due to Changes in Demographics for Year Ended June 30, 2015

1.	Gain due to lower than expected COLA increases for retirees, beneficiaries, and DROP members	$344,310,523
2.	Gain due to lower than expected salary increases for continuing actives	225,087,603
3.	Miscellaneous gain	50,672,588
4.	Net gain	$620,070,714

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability, separately for each Tier. The total amount is then divided by the projected payroll for active members to determine the contribution rate of 32.51% of payroll if paid at beginning of year.

CHART 14
Recommended Contribution

Tier 1 Members	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount	June 30, 2014 % of Payroll
1. Total normal cost	$0	N/A	$0	N/A
2. Expected employee contributions, discounted to beginning of year	0	N/A	0	N/A
3. Employer normal cost: (1) + (2)	0	N/A	0	N/A
4. Actuarial accrued liability	101,740,530		114,064,299	
5. Valuation value of assets	-69,166,589		-65,249,777	
6. Unfunded actuarial accrued liability	170,907,119		179,314,076	
7. Amortization of unfunded accrued liability	14,974,146	N/A	15,435,235	N/A
8. Allocated amount for admin expenses, calculated with payroll in (12)	0	N/A	0	N/A
9. Total recommended contribution, payable July 1	14,974,146	N/A	15,435,235	N/A
10. Total recommended contribution, payable July 15	15,019,337	N/A	15,481,817	N/A
11. Total recommended contribution, payable biweekly	15,525,525	N/A	16,003,592	N/A
12. Projected payroll used for developing normal cost rate	0		N/A	

Tier 2 Members	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[(2)]	June 30, 2014 % of Payroll
1. Total normal cost	$791,845	25.57%	$787,217	25.42%
2. Expected employee contributions, discounted to beginning of year	-20,184	-0.65%	-9,291	-0.30%
3. Employer normal cost: (1) + (2)	771,661	24.92%	777,926	25.12%
4. Actuarial accrued liability	5,188,268,336		5,466,934,977	
5. Valuation value of assets	5,367,842,237		5,336,139,517	
6. Unfunded actuarial accrued liability	-179,573,901[(3)]		130,795,460	
7. Amortization of unfunded accrued liability[(1)]	10,819,196[(3)]	0.78%	29,119,102	2.09%
8. Allocated amount for admin expenses, calculated with payroll in (12)	28,076	0.91%	28,181	0.91%
9. Total recommended contribution, payable July 1	11,618,933	N/A	29,925,209	N/A
10. Total recommended contribution, payable July 15	11,653,998	N/A	30,015,520	N/A
11. Total recommended contribution, payable biweekly	12,046,766	N/A	31,027,117	N/A
12. Projected payroll used for developing normal cost rate	3,096,841		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,393,258,487.

(2) Amounts are revised to reflect payroll as of June 30, 2015.

(3) Even though the new actuarial gain recognized during the 2014/2015 plan year has caused the total UAAL for Tier 2 to become negative, we have not applied the surplus amortization provisions of the LAFPP funding policy because the Plan as a whole does not have an actuarial surplus.

CHART 14
Recommended Contribution (Continued)

Tier 3 Members	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[2]	June 30, 2014 % of Payroll
1. Total normal cost	$23,958,744	25.48%	$24,039,220	25.57%
2. Expected employee contributions, discounted to beginning of year	-8,388,866	-8.92%	-8,433,000	-8.97%
3. Employer normal cost: (1) + (2)	15,569,878	16.56%	15,606,220	16.60%
4. Actuarial accrued liability	970,719,394		941,455,784	
5. Valuation value of assets	868,963,588		778,005,144	
6. Unfunded actuarial accrued liability	101,755,806		163,450,640	
7. Amortization of unfunded accrued liability[1]	32,156,794	2.31%	25,635,956	1.84%
8. Allocated amount for admin expenses, calculated with payroll in (12)	852,341	0.91%	855,522	0.91%
9. Total recommended contribution, payable July 1	48,579,013	N/A	42,097,698	N/A
10. Total recommended contribution, payable July 15	48,725,620	N/A	42,224,745	N/A
11. Total recommended contribution, payable biweekly	50,367,793	N/A	43,647,822	N/A
12. Projected payroll used for developing normal cost rate	94,013,374		N/A	

Tier 4 Members	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[2]	June 30, 2014 % of Payroll
1. Total normal cost	$9,391,809	25.33%	$9,382,601	25.31%
2. Expected employee contributions, discounted to beginning of year	-2,966,980	-8.00%	-2,954,537	-7.97%
3. Employer normal cost: (1) + (2)	6,424,829	17.33%	6,428,064	17.34%
4. Actuarial accrued liability	498,048,177		486,428,955	
5. Valuation value of assets	396,900,701		363,378,216	
6. Unfunded actuarial accrued liability	101,147,476		123,050,739	
7. Amortization of unfunded accrued liability[1]	16,263,941	1.17%	13,514,607	0.97%
8. Allocated amount for admin expenses, calculated with payroll in (12)	336,089	0.91%	337,344	0.91%
9. Total recommended contribution, payable July 1	23,024,859	N/A	20,280,015	N/A
10. Total recommended contribution, payable July 15	23,094,346	N/A	20,341,218	N/A
11. Total recommended contribution, payable biweekly	23,872,682	N/A	21,026,767	N/A
12. Projected payroll used for developing normal cost rate	37,070,727		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,393,258,487.
(2) Amounts are revised to reflect payroll as of June 30, 2015.

CHART 14
Recommended Contribution (Continued)

Tier 5 Members (without Harbor Port Police)	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[1]	June 30, 2014 % of Payroll
1. Total normal cost	$336,453,018	28.71%	$336,145,345	28.68%
2. Expected employee contributions, discounted to beginning of year	-112,601,363	-9.61%	-111,814,037	-9.54%
3. Employer normal cost: (1) + (2)	223,851,655	19.10%	224,331,308	19.14%
4. Actuarial accrued liability	*Tiers 5 and 6 are combined. See table on the next page.*		*Tiers 5 and 6 are combined. See table on the next page.*	
5. Valuation value of assets				
6. Unfunded actuarial accrued liability				
7. Amortization of unfunded accrued liability	99,178,204	8.46%	124,120,614	10.59%
8. Allocated amount for admin expenses, calculated with payroll in (12)	10,626,043	0.91%	10,665,700	0.91%
9. Total recommended contribution, payable July 1	333,655,902	28.47%	359,117,622	30.64%
10. Total recommended contribution, payable July 15	334,662,844	28.55%	360,201,405	30.73%
11. Total recommended contribution, payable biweekly	345,941,802	29.52%	372,341,075	31.77%
12. Projected payroll used for developing normal cost rate	1,172,054,899		N/A	

Tier 6 Members (without Harbor Port Police)	June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[1]	June 30, 2014 % of Payroll
1. Total normal cost	$22,830,053	26.23%	$22,765,124	26.16%
2. Expected employee contributions, discounted to beginning of year	-9,232,530	-10.61%	-9,233,103	-10.61%
3. Employer normal cost: (1) + (2)	13,597,523	15.62%	13,532,021	15.55%
4. Actuarial accrued liability	*Tiers 5 and 6 are combined. See table on the next page.*		*Tiers 5 and 6 are combined. See table on the next page.*	
5. Valuation value of assets				
6. Unfunded actuarial accrued liability				
7. Amortization of unfunded accrued liability	7,363,776	8.46%	9,215,698	10.59%
8. Allocated amount for admin expenses, calculated with payroll in (12)	788,962	0.91%	791,906	0.91%
9. Total recommended contribution, payable July 1	21,750,261	24.99%	23,539,625	27.05%
10. Total recommended contribution, payable July 15	21,815,901	25.07%	23,610,665	27.13%
11. Total recommended contribution, payable biweekly	22,551,150	25.91%	24,406,403	28.05%
12. Projected payroll used for developing normal cost rate	87,022,646		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2015.

CHART 14
Recommended Contribution (Continued)

Combined Tiers 5 and 6 UAAL Contribution Rate Calculations for the City

	June 30, 2015				June 30, 2014	
	Tier 5	Tier 6	Combined Tiers 5 and 6		Combined Tiers 5 and 6	
			Amount	% of Payroll	Amount[1]	% of Payroll
4. Actuarial accrued liability	$11,505,479,709	$23,184,706	$11,528,664,415		$11,059,924,084	
5. Valuation value of assets			10,161,568,166		9,229,523,594	
6. Unfunded actuarial accrued liability			1,367,096,249		1,830,400,490	
7. Amortization of unfunded accrued liability			106,541,980	8.46%	133,336,312	10.59%
12. Projected payroll used for developing normal cost rate	1,172,054,899	87,022,646	1,259,077,545		N/A	

	June 30, 2015		June 30, 2014	
All Tiers Combined (without Harbor Port Police)	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$393,425,469	28.24%	$393,119,507	28.22%
2. Expected employee contributions, discounted to beginning of year	-133,209,922	-9.56%	-132,443,968	-9.51%
3. Employer normal cost: (1) + (2)	260,215,547	18.68%	260,675,539	18.71%
4. Actuarial accrued liability	18,287,440,852		18,068,808,099	
5. Valuation value of assets	16,726,108,103		15,641,796,694	
6. Unfunded actuarial accrued liability	1,561,332,749		2,427,011,405	
7. Amortization of unfunded accrued liability	180,756,057	12.97%	217,041,212	15.58%
8. Allocated amount for admin expenses, calculated with payroll in (12)	12,631,511	0.91%	12,678,653	0.91%
9. Total recommended contribution, payable July 1	453,603,114	32.56%	490,395,404	35.20%
10. Total recommended contribution, payable July 15	454,972,046	32.66%	491,875,371	35.30%
11. Total recommended contribution, payable biweekly	470,305,718	33.76%	508,452,777	36.49%
12. Projected payroll used for developing normal cost rate	1,393,258,487		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2015.

CHART 14
Recommended Contribution (Continued)

Harbor Port Police Tier 5

	June 30, 2015		June 30, 2014	
	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$3,287,613	29.85%	$3,281,745	29.81%
2. Expected employee contributions, discounted to beginning of year	-1,135,270	-10.31%	-1,133,914	-10.30%
3. Employer normal cost: (1) + (2)	2,152,343	19.54%	2,147,831	19.51%
4. Actuarial accrued liability	*Tiers 5 and 6 are combined. See table on the next page.*		*Tiers 5 and 6 are combined. See table on the next page.*	
5. Valuation value of assets				
6. Unfunded actuarial accrued liability				
7. Amortization of unfunded accrued liability	726,236	6.60%	878,508	7.98%
8. Allocated amount for admin expenses, calculated with payroll in (12)	99,808	0.91%	100,181	0.91%
9. Total recommended contribution, payable July 1	2,978,387	27.05%	3,126,520	28.40%
10. Total recommended contribution, payable July 15	2,987,375	27.14%	3,135,956	28.49%
11. Total recommended contribution, payable biweekly	3,088,057	28.05%	3,241,645	29.45%
12. Projected payroll used for developing normal cost rate	11,008,872		N/A	

Harbor Port Police Tier 6

	June 30, 2015		June 30, 2014	
	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$230,500	25.50%	$236,809	26.20%
2. Expected employee contributions, discounted to beginning of year	-95,893	-10.61%	-95,899	-10.61%
3. Employer normal cost: (1) + (2)	134,607	14.89%	140,910	15.59%
4. Actuarial accrued liability	*Tiers 5 and 6 are combined. See table on the next page.*		*Tiers 5 and 6 are combined. See table on the next page.*	
5. Valuation value of assets				
6. Unfunded actuarial accrued liability				
7. Amortization of unfunded accrued liability	59,626	6.60%	72,127	7.98%
8. Allocated amount for admin expenses, calculated with payroll in (12)	8,194	0.91%	8,225	0.91%
9. Total recommended contribution, payable July 1	202,427	22.40%	221,262	24.48%
10. Total recommended contribution, payable July 15	203,038	22.46%	221,930	24.55%
11. Total recommended contribution, payable biweekly	209,881	23.22%	229,409	25.38%
12. Projected payroll used for developing normal cost rate	903,852		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2015.

CHART 14
Recommended Contribution (Continued)

Combined Tiers 5 and 6 UAAL Contribution Rate Calculations for the Harbor Port Police

	June 30, 2015				June 30, 2014	
	Tier 5	Tier 6	Combined Tiers 5 and 6		Combined Tiers 5 and 6	
			Amount	% of Payroll	Amount[1]	% of Payroll
4. Actuarial accrued liability	$49,966,144	$100,079	$50,066,223		$45,421,208	
5. Valuation value of assets			43,951,923		36,683,575	
6. Unfunded actuarial accrued liability			6,114,300		8,737,633	
7. Amortization of unfunded accrued liability			785,862	6.60%	950,635	7.98%
12. Projected payroll used for developing normal cost rate	11,008,872	903,852	11,912,724		N/A	

Harbor Port Police Combined (Tiers 5 and 6)

	June 30, 2015		June 30, 2014	
	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$3,518,113	29.53%	$3,518,554	29.53%
2. Expected employee contributions, discounted to beginning of year	-1,231,163	-10.33%	-1,229,813	-10.32%
3. Employer normal cost: (1) + (2)	2,286,950	19.20%	2,288,741	19.21%
4. Actuarial accrued liability	50,066,223		45,421,208	
5. Valuation value of assets	43,951,923		36,683,575	
6. Unfunded actuarial accrued liability	6,114,300		8,737,633	
7. Amortization of unfunded accrued liability	785,862	6.60%	950,635	7.98%
8. Allocated amount for admin expenses, calculated with payroll in (12)	108,002	0.91%	108,406	0.91%
9. Total recommended contribution, payable July 1	3,180,814	26.70%	3,347,782	28.10%
10. Total recommended contribution, payable July 15	3,190,413	26.78%	3,357,886	28.19%
11. Total recommended contribution, payable biweekly	3,297,938	27.68%	3,471,054	29.14%
12. Projected payroll used for developing normal cost rate	11,912,724		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2015.

CHART 14

Recommended Contribution (Continued)

All Tiers Combined	June 30, 2015		June 30, 2014	
	Amount	% of Payroll	Amount [1]	% of Payroll
1. Total normal cost	$396,943,582	28.25%	$396,638,061	28.23%
2. Expected employee contributions, discounted to beginning of year	-134,441,085	-9.57%	-133,673,781	-9.51%
3. Employer normal cost: (1) + (2)	262,502,497	18.68%	262,964,280	18.72%
4. Actuarial accrued liability	18,337,507,075		18,114,229,307	
5. Valuation value of assets	16,770,060,026		15,678,480,269	
6. Unfunded actuarial accrued liability	1,567,447,049		2,435,749,038	
7. Amortization of unfunded accrued liability	181,541,919	12.92%	217,991,847	15.51%
8. Allocated amount for admin expenses, calculated with payroll in (12)	12,739,513	0.91%	12,787,059	0.91%
9. Total recommended contribution, payable July 1	456,783,928	32.51%	493,743,186	35.14%
10. Total recommended contribution, payable July 15	458,162,459	32.61%	495,233,257	35.24%
11. Total recommended contribution, payable biweekly	473,603,656	33.70%	511,923,831	36.43%
12. Projected payroll used for developing normal cost rate	1,405,171,211		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2015.

If paid by the City at the beginning of the year, the calculated normal cost is 18.68% payroll, and the explicit contribution rate for administrative expense is 0.91% of payroll. The remaining contribution of 12.92% of payroll will amortize the unfunded actuarial accrued liability over an equivalent single amortization period of about 10.0 years.

The contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the actuarial valuation.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 15

Reconciliation of Recommended Contribution Rate from June 30, 2014 to June 30, 2015

Recommended Contribution as of June 30, 2014 (Assuming Payment at the Beginning of the Year)	35.14%*
Effect of actual contributions less than expected**	0.13%
Effect of investment gain	-1.15%
Effect of difference in actual versus expected salary increases	-1.08%
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.59%
Effect of lower than expected COLA increases for retirees, beneficiaries, and DROP members	-1.65%
Effect of gain layers being fully amortized	0.81%
Effect of other actuarial gains	-0.49%
Effect of refinement in procedure to value continuance percentages for current retirees	0.21%
Total change	-2.63%
Recommended Contribution as of June 30, 2015 (Assuming Payment at the Beginning of the Year)	32.51%

* *Revised using payroll as of June 30, 2015.*

** *Payroll increases less than expected by payroll growth assumption, offset to some degree by one-year delay in contribution rate reduction recommended in the June 30, 2014 valuation.*

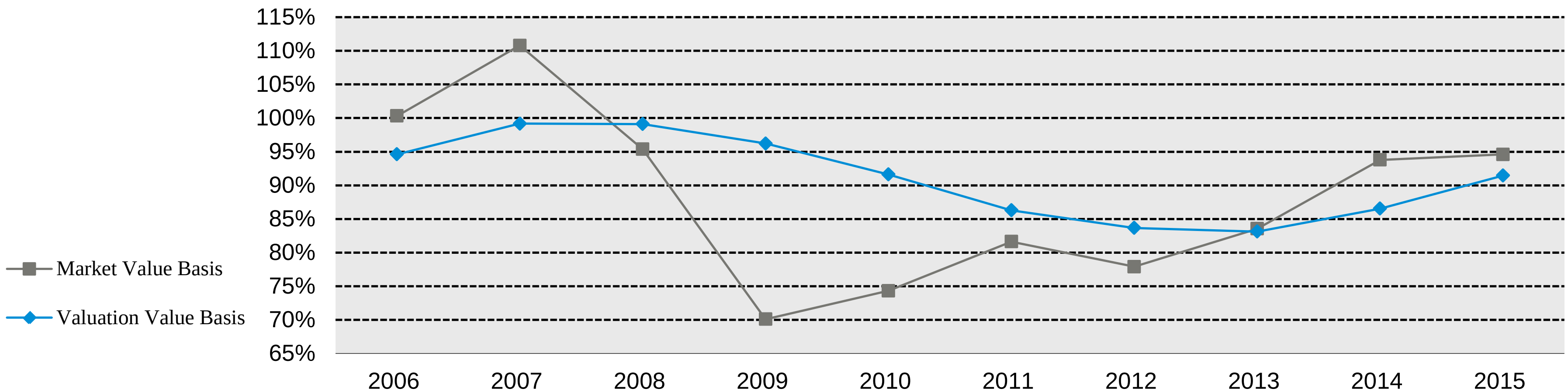
E. FUNDED RATIO

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. The ratios compare the valuation value of assets and the market value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratios for this plan.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the valuation or market value of assets is used.

CHART 16

Funded Ratio



Segal Consulting

Chart 17

Schedule of Funding Progress

Retirement Benefits (Dollar Amounts in Thousands)

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
06/30/2008	$14,153,296	$14,279,116	$125,820	99.1%	$1,206,589	10.4%
06/30/2009	14,256,611	14,817,146	560,535	96.2%	1,357,249	41.3%
06/30/2010	14,219,581	15,520,625	1,301,044	91.6%	1,356,986	95.9%
06/30/2011	14,337,669	16,616,476	2,278,807	86.3%	1,343,963	169.6%
06/30/2012	14,251,913	17,030,833	2,778,920	83.7%	1,341,914	207.1%
06/30/2013	14,657,713	17,632,425	2,974,712	83.1%	1,367,237	217.6%
06/30/2014	15,678,480	18,114,229	2,435,749	86.6%	1,402,715	173.6%
06/30/2015	16,770,060	18,337,507	1,567,447	91.5%	1,405,171	111.5%

F. VOLATILITY RATIOS

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of retirement assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For LAFPP, the current AVR is about 12.3. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 12.3% of one-year's payroll. Since LAFPP amortizes actuarial gains and losses over a period of 20 years, there would be a 0.8% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For LAFPP, the current LVR is about 13.1. This is about 6% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

This chart shows how the asset and liability volatility ratios have varied over time.

CHART 18

Volatility Ratios for Years Ended June 30, 2009 – 2015

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2009	7.6	10.9
2010	8.5	11.4
2011	10.1	12.4
2012	9.9	12.7
2013	10.8	12.9
2014	12.1	12.9
2015	12.3	13.1

EXHIBIT A

Table of Plan Coverage

Total

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	13,068	13,097	-0.2%
Average age	42.5	42.4	N/A
Average service	15.5	15.4	N/A
Projected total payroll	$1,405,171,210	$1,402,715,039	0.2%
Projected average payroll	$107,528	$107,102	0.4%
Account balances	$1,798,403,054	$1,732,229,015	3.8%
Total active vested members	4,462	4,385	1.8%
Vested terminated members:			
Number*	112	131	-14.5%
Average age**	46.0	46.3	N/A
Average monthly benefit at age 50**	$2,275	$2,094	8.6%
Retired members:			
Number in pay status	8,122	7,955	2.1%
Average age at retirement	51.7	51.6	N/A
Average age	69.6	69.6	N/A
Average monthly benefit (includes July COLA)	$5,822	$5,745	1.3%
Disabled members:			
Number in pay status	2,031	2,088	-2.7%
Average age at retirement	44.0	44.0	N/A
Average age	69.7	69.0	N/A
Average monthly benefit (includes July COLA)	$4,628	$4,622	0.1%
Beneficiaries:			
Number in pay status	2,440	2,459	-0.8%
Average age	76.6	76.3	N/A
Average monthly benefit (includes July COLA)	$4,166	$4,167	-0.0%

* *Includes terminated members due only a refund of member contributions.*

** *Excludes terminated members due only a refund of member contributions.*

EXHIBIT A

Table of Plan Coverage

i. Tier 1

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average service	N/A	N/A	N/A
Projected total payroll	N/A	N/A	N/A
Projected average payroll	N/A	N/A	N/A
Account balances	N/A	N/A	N/A
Total active vested members	N/A	N/A	N/A
Vested terminated members:			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit at age 50	N/A	N/A	N/A
Retired members:			
Number in pay status	77	90	-14.4%
Average age at retirement	46.3	46.2	N/A
Average age	86.1	86.0	N/A
Average monthly benefit (includes July COLA)	$2,349	$2,325	1.0%
Disabled members:			
Number in pay status	75	85	-11.8%
Average age at retirement	36.5	36.5	N/A
Average age	82.3	81.7	N/A
Average monthly benefit (includes July COLA)	$3,108	$3,098	0.3%
Beneficiaries:			
Number in pay status	292	323	-9.6%
Average age	84.6	84.9	N/A
Average monthly benefit (includes July COLA)	$2,584	$2,597	-0.5%

EXHIBIT A

Table of Plan Coverage

ii. Tier 2

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	22	47	-53.2%
Average age	59.9	57.9	N/A
Average service	36.1	34.8	N/A
Projected total payroll	$3,096,841	$6,648,510	-53.4%
Projected average payroll	$140,766	$141,458	-0.5%
Account balances	$5,709,181	$11,779,651	-51.5%
Total active vested members	22	47	-53.2%
Vested terminated members:			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit at age 50	N/A	N/A	N/A
Retired members:			
Number in pay status	4,559	4,703	-3.1%
Average age at retirement	50.3	50.3	N/A
Average age	74.5	73.9	N/A
Average monthly benefit (includes July COLA)	$5,025	$4,995	0.6%
Disabled members:			
Number in pay status	1,540	1,589	-3.1%
Average age at retirement	45.1	45.2	N/A
Average age	73.2	72.4	N/A
Average monthly benefit (includes July COLA)	$4,875	$4,873	0.0%
Beneficiaries:			
Number in pay status	1,876	1,875	0.1%
Average age	78.6	78.3	N/A
Average monthly benefit (includes July COLA)	$4,288	$4,284	0.1%

EXHIBIT A

Table of Plan Coverage

iii. Tier 3

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	836	870	-3.9%
Average age	48.8	48.0	N/A
Average service	21.2	20.2	N/A
Projected total payroll	$94,013,374	$97,117,729	-3.2%
Projected average payroll	$112,456	$111,630	0.7%
Account balances	$144,328,775	$138,134,124	4.5%
Total active vested members	835	868	-3.8%
Vested terminated members:			
Number*	39	53	-26.4%
Average age**	45.6	46.0	N/A
Average monthly benefit at age 50**	$1,891	$1,842	2.7%
Retired members:			
Number in pay status	227	193	17.6%
Average age at retirement	52.9	52.8	N/A
Average age	60.3	60.2	N/A
Average monthly benefit (includes July COLA)	$2,888	$2,823	2.3%
Disabled members:			
Number in pay status	249	250	-0.4%
Average age at retirement	39.8	39.7	N/A
Average age	56.1	55.1	N/A
Average monthly benefit (includes July COLA)	$3,522	$3,496	0.7%
Beneficiaries:			
Number in pay status	83	89	-6.7%
Average age	53.3	50.7	N/A
Average monthly benefit (includes July COLA)	$3,880	$4,066	-4.6%

* *Includes terminated members due only a refund of member contributions.*

** *Excludes terminated members due only a refund of member contributions.*

EXHIBIT A

Table of Plan Coverage

iv. Tier 4

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	323	350	-7.7%
Average age	45.6	45.0	N/A
Average service	20.7	20.3	N/A
Projected total payroll	$37,070,727	$40,032,133	-7.4%
Projected average payroll	$114,770	$114,378	0.3%
Account balances	$55,980,040	$57,902,656	-3.3%
Total active vested members	140	157	-10.8%
Vested terminated members:			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit at age 50	N/A	N/A	N/A
Retired members:			
Number in pay status	202	179	12.9%
Average age at retirement	46.5	46.1	N/A
Average age	54.3	53.6	N/A
Average monthly benefit (includes July COLA)	$4,745	$4,597	3.2%
Disabled members:			
Number in pay status	45	44	2.3%
Average age at retirement	42.2	42.1	N/A
Average age	53.4	52.5	N/A
Average monthly benefit (includes July COLA)	$4,525	$4,509	0.4%
Beneficiaries:			
Number in pay status	4	4	0.0%
Average age	35.2	36.4	N/A
Average monthly benefit (includes July COLA)	$6,803	$8,518	-20.1%

EXHIBIT A

Table of Plan Coverage

v. Tier 5 (without Harbor Port Police)

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	10,569	10,923	-3.2%
Average age	43.6	42.9	N/A
Average service	16.5	15.9	N/A
Projected total payroll	$1,172,054,899	$1,198,378,807	-2.2%
Projected average payroll	$110,896	$109,712	1.1%
Account balances	$1,574,959,881	$1,511,270,941	4.2%
Total active vested members	3,461	3,308	4.6%
Vested terminated members:			
Number*	47	52	-9.6%
Average age**	47.4	48.4	N/A
Average monthly benefit at age 50**	$4,052	$3,819	6.1%
Retired members:			
Number in pay status	3,046	2,780	9.6%
Average age at retirement	54.2	54.3	N/A
Average age	63.7	63.4	N/A
Average monthly benefit (includes July COLA)	$7,391	$7,401	-0.1%
Disabled members:			
Number in pay status	120	118	1.7%
Average age at retirement	43.6	43.6	N/A
Average age	50.9	50.2	N/A
Average monthly benefit (includes July COLA)	$4,745	$4,760	-0.3%
Beneficiaries:			
Number in pay status	185	168	10.1%
Average age	54.5	52.6	N/A
Average monthly benefit (includes July COLA)	$5,504	$5,839	-5.7%

* *Includes terminated members due only a refund of member contributions.*

** *Excludes terminated members due only a refund of member contributions.*

EXHIBIT A

Table of Plan Coverage

vi. Tier 6 (without Harbor Port Police)

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	1,203	798	50.8%
Average age	28.2	27.7	N/A
Average service	1.1	1.1	N/A
Projected total payroll	$87,022,646	$49,200,011	76.9%
Projected average payroll	$72,338	$61,654	17.3%
Account balances	$8,715,512	$5,614,899	55.2%
Total active vested members	0	0	N/A
Vested terminated members:			
Number*	26	25	4.0%
Average age**	N/A	N/A	N/A
Average monthly benefit at age 50**	N/A	N/A	N/A
Retired members:			
Number in pay status	0	0	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Disabled members:			
Number in pay status	0	0	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Beneficiaries:			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A

* *Includes terminated members due only a refund of member contributions.*

** *Excludes terminated members due only a refund of member contributions.*

EXHIBIT A

Table of Plan Coverage

vii. Harbor Port Police (Tier 5)

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	103	105	-1.9%
Average age	39.4	38.5	N/A
Average service	9.7	8.9	N/A
Projected total payroll	$11,008,872	$11,105,605	-0.9%
Projected average payroll	$106,882	$105,768	1.1%
Account balances	$8,661,305	$7,494,811	15.6%
Total active vested members	4	5	-20.0%
Vested terminated members:			
Number*	0	1	-100.0%
Average age**	N/A	N/A	N/A
Average monthly benefit at age 50**	N/A	N/A	N/A
Retired members:			
Number in pay status	11	10	10.0%
Average age at retirement	54.8	55.1	N/A
Average age	59.6	59.4	N/A
Average monthly benefit (includes July COLA)	$6,397	$5,940	7.7%
Disabled members:			
Number in pay status	2	2	0.0%
Average age at retirement	40.1	40.1	N/A
Average age	50.1	49.1	N/A
Average monthly benefit (includes July COLA)	$4,914	$4,910	0.1%
Beneficiaries:			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A

* *Includes terminated members due only a refund of member contributions.*

** *Excludes terminated members due only a refund of member contributions.*

EXHIBIT A

Table of Plan Coverage

viii. Harbor Port Police (Tier 6)

Category	Year Ended June 30 2015	Year Ended June 30 2014	Change From Prior Year
Active members in valuation:			
Number	12	4	200.0%
Average age	32.4	28.7	N/A
Average service	0.5	0.3	N/A
Projected total payroll	$903,852	$232,244	289.2%
Projected average payroll	$75,321	$58,061	29.7%
Account balances	$48,359	$31,933	51.4%
Total active vested members	0	0	N/A
Vested terminated members:			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit at age 50	N/A	N/A	N/A
Retired members:			
Number in pay status	0	0	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Disabled members:			
Number in pay status	0	0	N/A
Average age at retirement	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A
Beneficiaries:			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit (includes July COLA)	N/A	N/A	N/A

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

Total

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	303	303	- -	- -	- -	- -	- -	- -	- -	- -
	$65,028	$65,028	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	1,063	694	369	- -	- -	- -	- -	- -	- -	- -
	83,034	75,728	$96,774	- -	- -	- -	- -	- -	- -	- -
30 - 34	1,853	303	1,385	165	- -	- -	- -	- -	- -	- -
	96,236	80,580	98,688	$104,401	- -	- -	- -	- -	- -	- -
35 - 39	1,959	69	811	876	203	- -	- -	- -	- -	- -
	103,027	78,259	99,361	106,475	$111,221	- -	- -	- -	- -	- -
40 - 44	2,362	35	303	671	1,136	217	- -	- -	- -	- -
	109,536	86,211	98,579	106,705	112,662	$120,984	- -	- -	- -	- -
45 - 49	2,389	14	104	258	857	719	436	1	- -	- -
	115,380	85,743	97,706	106,639	112,467	120,019	$123,789	$117,656	- -	- -
50 - 54	2,002	3	31	67	250	432	990	223	6	- -
	120,770	80,512	102,164	107,454	111,857	117,697	123,820	129,911	$135,291	- -
55 - 59	898	2	3	11	75	91	365	285	66	- -
	124,247	128,845	100,297	109,732	109,091	116,646	122,616	127,728	149,302	- -
60 - 64	218	1	- -	2	22	15	72	69	34	3
	122,897	172,655	- -	112,735	107,584	118,817	119,621	121,983	141,897	$130,073
65 - 69	17	- -	- -	- -	1	1	7	2	5	1
	122,232	- -	- -	- -	97,616	102,925	120,571	129,634	129,813	125,079
70 & over	4	- -	- -	- -	1	- -	2	- -	- -	1
	114,576	- -	- -	- -	118,459	- -	110,692	- -	- -	118,459
Total	13,068	1,424	3,006	2,050	2,545	1,475	1,872	580	111	5
	$107,528	$75,115	$98,627	$106,460	$112,249	$119,249	$123,390	$127,873	$145,399	$126,751

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

i. Tier 1

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
40 - 44	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
45 - 49	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
50 - 54	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
55 - 59	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
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60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
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65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
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70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015
By Age and Years of Service
ii. Tier 2

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	--	--	--	--	--	--	--	--	--	--
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25 - 29	--	--	--	--	--	--	--	--	--	--
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30 - 34	--	--	--	--	--	--	--	--	--	--
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35 - 39	--	--	--	--	--	--	--	--	--	--
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40 - 44	--	--	--	--	--	--	--	--	--	--
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45 - 49	--	--	--	--	--	--	--	--	--	--
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50 - 54	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
55 - 59	15	--	--	--	--	--	--	5	10	--
	$150,476	--	--	--	--	--	--	$165,678	$142,875	--
60 - 64	5	--	--	--	--	--	--	3	2	--
	116,302	--	--	--	--	--	--	116,820	115,523	--
65 - 69	1	--	--	--	--	--	--	--	1	--
	139,733	--	--	--	--	--	--	--	139,733	--
70 & over	1	--	--	--	--	--	--	--	--	1
	118,459	--	--	--	--	--	--	--	--	$118,459
Total	22	--	--	--	--	--	--	8	13	1
	$140,765	--	--	--	--	--	--	$147,356	$138,426	$118,459

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

iii. Tier 3

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	6	- -	- -	- -	6	- -	- -	- -	- -	- -
	$108,446	- -	- -	- -	$108,446	- -	- -	- -	- -	- -
40 - 44	217	- -	- -	- -	180	37	- -	- -	- -	- -
	110,800	- -	- -	- -	109,979	$114,792	- -	- -	- -	- -
45 - 49	309	- -	- -	1	152	113	43	- -	- -	- -
	113,280	- -	- -	$121,430	110,426	115,126	$118,325	- -	- -	- -
50 - 54	213	- -	1	2	44	69	91	6	- -	- -
	113,630	- -	$93,409	88,264	113,017	112,788	115,237	$115,258	- -	- -
55 - 59	58	- -	- -	- -	22	18	16	2	- -	- -
	110,652	- -	- -	- -	107,760	110,347	114,551	114,002	- -	- -
60 - 64	29	- -	- -	- -	10	10	8	1	- -	- -
	112,856	- -	- -	- -	104,728	118,008	115,466	121,717	- -	- -
65 - 69	2	- -	- -	- -	1	1	- -	- -	- -	- -
	100,271	- -	- -	- -	97,616	102,925	- -	- -	- -	- -
70 & over	2	- -	- -	- -	1	- -	1	- -	- -	- -
	110,692	- -	- -	- -	118,459	- -	102,925	- -	- -	- -
Total	836	- -	1	3	416	248	159	9	- -	- -
	$112,456	- -	$93,409	$99,319	$110,189	$114,146	$115,937	$115,696	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

iv. Tier 4

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	74	- -	- -	42	32	- -	- -	- -	- -	- -
	$106,505	- -	- -	$105,682	$107,586	- -	- -	- -	- -	- -
40 - 44	84	- -	- -	27	53	4	- -	- -	- -	- -
	108,216	- -	- -	106,680	108,210	$118,661	- -	- -	- -	- -
45 - 49	76	- -	- -	6	13	12	45	- -	- -	- -
	120,422	- -	- -	105,062	103,775	124,456	$126,203	- -	- -	- -
50 - 54	76	- -	- -	5	4	2	44	21	- -	- -
	120,948	- -	- -	111,409	106,684	107,404	120,707	$127,731	- -	- -
55 - 59	12	- -	- -	1	- -	- -	3	8	- -	- -
	135,549	- -	- -	111,298	- -	- -	121,665	143,788	- -	- -
60 - 64	1	- -	- -	- -	- -	- -	- -	1	- -	- -
	128,519	- -	- -	- -	- -	- -	- -	128,519	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	323	- -	- -	81	102	18	92	30	- -	- -
	$114,770	- -	- -	$106,392	$107,389	$121,274	$123,426	$132,039	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

v. Tier 5 (without Harbor Port Police)

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	462	100	362	- -	- -	- -	- -	- -	- -	- -
	$95,512	$90,672	$96,849	- -	- -	- -	- -	- -	- -	- -
30 - 34	1,609	88	1,357	164	- -	- -	- -	- -	- -	- -
	98,846	91,566	98,671	$104,200	- -	- -	- -	- -	- -	- -
35 - 39	1,790	12	782	831	165	- -	- -	- -	- -	- -
	103,799	92,872	99,365	106,495	$112,026	- -	- -	- -	- -	- -
40 - 44	2,016	11	291	638	900	176	- -	- -	- -	- -
	109,831	94,764	98,363	106,684	113,508	$122,339	- -	- -	- -	- -
45 - 49	1,983	5	100	247	689	593	348	1	- -	- -
	115,679	91,455	97,425	106,619	113,035	120,832	$124,152	$117,656	- -	- -
50 - 54	1,703	1	27	58	200	361	854	196	6	- -
	121,641	91,023	96,966	106,867	111,811	118,693	124,859	130,593	$135,291	- -
55 - 59	809	1	3	10	52	72	345	270	56	- -
	124,386	81,697	100,297	109,575	109,179	117,983	122,774	126,651	150,450	- -
60 - 64	182	- -	- -	2	12	5	64	64	32	3
	124,374	- -	- -	112,735	109,963	120,435	120,141	122,127	143,545	$130,073
65 - 69	14	- -	- -	- -	- -	- -	7	2	4	1
	124,120	- -	- -	- -	- -	- -	120,571	129,634	127,333	125,079
70 & over	1	- -	- -	- -	- -	- -	1	- -	- -	- -
	118,459	- -	- -	- -	- -	- -	118,459	- -	- -	- -
Total	10,569	218	2,922	1,950	2,018	1,207	1,619	533	98	4
	$110,896	$91,339	$98,544	$106,413	$112,924	$120,240	$124,054	$127,552	$146,324	$128,825

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

vi. Tier 6 (without Harbor Port Police)

		Years of Service								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	300	300	- -	- -	- -	- -	- -	- -	- -	- -
	$65,192	$65,192	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	591	588	3	- -	- -	- -	- -	- -	- -	- -
	73,510	73,423	$90,451	- -	- -	- -	- -	- -	- -	- -
30 - 34	215	215	- -	- -	- -	- -	- -	- -	- -	- -
	76,083	76,083	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	57	55	2	- -	- -	- -	- -	- -	- -	- -
	75,513	74,872	93,130	- -	- -	- -	- -	- -	- -	- -
40 - 44	28	24	1	2	1	- -	- -	- -	- -	- -
	84,611	82,290	96,665	$98,535	$100,391	- -	- -	- -	- -	- -
45 - 49	10	9	- -	1	- -	- -	- -	- -	- -	- -
	83,910	82,570	- -	95,968	- -	- -	- -	- -	- -	- -
50 - 54	2	2	- -	- -	- -	- -	- -	- -	- -	- -
	75,257	75,257	- -	- -	- -	- -	- -	- -	- -	- -
55 - 59	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	1,203	1,193	6	3	1	- -	- -	- -	- -	- -
	$72,338	$72,150	$92,380	$97,679	$100,391	- -	- -	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

vii. Harbor Port Police (Tier 5)

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	4	- -	4	- -	- -	- -	- -	- -	- -	- -
	$94,770	- -	$94,770	- -	- -	- -	- -	- -	- -	- -
30 - 34	29	- -	28	1	- -	- -	- -	- -	- -	- -
	100,810	- -	99,504	$137,369	- -	- -	- -	- -	- -	- -
35 - 39	31	1	27	3	- -	- -	- -	- -	- -	- -
	100,032	$73,377	99,687	112,022	- -	- -	- -	- -	- -	- -
40 - 44	17	- -	11	4	2	- -	- -	- -	- -	- -
	105,986	- -	104,481	114,360	$97,517	- -	- -	- -	- -	- -
45 - 49	11	- -	4	3	3	1	- -	- -	- -	- -
	114,158	- -	104,730	110,098	123,053	$137,369	- -	- -	- -	- -
50 - 54	8	- -	3	2	2	- -	1	- -	- -	- -
	135,032	- -	151,862	133,796	101,218	- -	$154,640	- -	- -	- -
55 - 59	3	- -	- -	- -	1	1	1	- -	- -	- -
	155,855	- -	- -	- -	133,796	133,796	199,973	- -	- -	- -
60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	103	1	77	13	8	2	2	- -	- -	- -
	$106,882	$73,377	$102,345	$117,597	$112,553	$135,582	$177,307	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2015

By Age and Years of Service

viii. Harbor Port Police (Tier 6)

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	3	3	- -	- -	- -	- -	- -	- -	- -	- -
	$48,660	$48,660	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	6	6	- -	- -	- -	- -	- -	- -	- -	- -
	52,533	52,533	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	1	1	- -	- -	- -	- -	- -	- -	- -	- -
	94,029	94,029	- -	- -	- -	- -	- -	- -	- -	- -
40 - 44	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
45 - 49	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
50 - 54	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
55 - 59	1	1	- -	- -	- -	- -	- -	- -	- -	- -
	175,993	175,993	- -	- -	- -	- -	- -	- -	- -	- -
60 - 64	1	1	- -	- -	- -	- -	- -	- -	- -	- -
	172,655	172,655	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	12	12	- -	- -	- -	- -	- -	- -	- -	- -
	$75,321	$75,321	- -	- -	- -	- -	- -	- -	- -	- -

EXHIBIT C

Reconciliation of Member Data

	Active Members *	Vested Former Members**	Disableds	Retired Members	Beneficiaries	Total
Number as of June 30, 2014	13,097	131	2,088	7,955	2,459	25,730
New members	470	N/A	N/A	N/A	151	621
Terminations – with vested rights	-71	71	0	0	0	0
Refund of member contributions	-58	-71	0	0	0	-129
Retirements	-355	-16	N/A	371	N/A	0
New disabilities	-6	0	6	0	N/A	0
Died with or without beneficiary	-12	0	-64	-203	-155	-434
Rehired	3	-3	0	0	N/A	0
Certain period expired	N/A	N/A	0	0	-20	-20
Data adjustments	0	0	1	-1	5	5
Number as of June 30, 2015	13,068	112	2,031	8,122	2,440	25,773

* *Includes DROP members.*

** *Includes and 76 and 67 terminated members due only a refund of member contributions as of June 30, 2014 and June 30, 2015, respectively.*

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis for All Retirement and Health Subsidy Benefits Assets

	Year Ended June 30, 2015		Year Ended June 30, 2014	
Contribution income:				
Employer contributions	$628,808,763		$578,805,107	
Employee contributions	126,770,882		124,394,889	
Contribution income		$755,579,645		$703,199,996
Investment income:				
Interest, dividends and other income	$1,524,766,970		$1,325,729,463	
Recognition of capital appreciation	87,669,422		227,580,333	
Less investment fees*	-84,478,748		-84,910,347	
Net investment income		1,527,957,644		1,468,399,449
Total income available for benefits		$2,283,537,289		$2,171,599,445
Less benefit payments		-$1,029,319,785		-$963,356,954
Less administrative expenses		-19,178,885		0
Change in reserve for future benefits		$1,235,038,619		$1,208,242,491

* *Prior to 2015, administrative expenses were shown as part of investment and administrative fees.*

EXHIBIT E

Summary Statement of Assets for Retirement and Health Subsidy Benefits

	Year Ended June 30, 2015		Year Ended June 30, 2014	
Cash equivalents		$1,030,837		$1,449,555
Accounts receivable:				
Accrued interest and dividends	$53,667,875		$58,230,583	
Contributions	6,686,968		6,109,845	
Due from brokers	204,331,276		265,172,222	
Total accounts receivable		264,686,119		329,512,650
Investments:				
Equities	$13,533,110,602		$12,691,081,303	
Fixed income investments	3,843,514,633		4,311,621,954	
Real estate	1,581,094,151		1,419,813,952	
Total investments at market value		18,957,719,386		18,422,517,209
Total assets		$19,223,436,342		$18,753,479,414
Less accounts payable:				
Accounts payable and benefits in process	-$34,359,392		-$28,597,595	
Due to brokers	-245,774,104		-265,350,594	
Mortgage payable	-206,202,144		-168,520,538	
Total accounts payable		-$486,335,640		-$462,468,727
Net assets at market value		$18,737,100,702		$18,291,010,687*
Net assets at actuarial value		$18,114,393,332		$16,879,354,713
Net assets at valuation value (retirement benefits)		$16,770,060,026		$15,678,480,269

* *Based on unaudited market value of assets. Subsequent to the June 30, 2014 valuation, the market value of assets was changed to $18,303,840,134.*

EXHIBIT F

Development of the Fund Through June 30, 2015 for All Retirement and Health Subsidy Benefits Assets

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return[1]	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2007	$286,167,278[2]	$91,263,474	$1,590,968,304	-	$800,819,286	$13,902,764,838
2008	333,672,743	98,074,219	1,414,391,128	-	827,959,245	14,920,943,683
2009	326,876,839	103,685,447	557,346,783	-	842,565,358	15,066,287,394
2010	357,165,140	106,411,630	360,741,904	-	853,749,429	15,036,856,639
2011	388,773,459	105,471,264	568,411,044	-	878,952,809	15,220,559,597
2012	444,565,284	120,099,124	320,400,668	-	926,349,506	15,179,275,167
2013	508,387,283	121,777,655	827,790,619	-	966,118,502	15,671,112,222
2014	578,805,107	124,394,889	1,468,399,449	-	963,356,954	16,879,354,713
2015	628,808,763	126,770,882	1,527,957,644	$19,178,885	1,029,319,785	18,114,393,332

(1) *Net of investment fees and administrative expenses prior to 2015. Starting in 2015, administrative expenses are shown separately.*

(2) *Includes $6,220,076 (discounted to $6,058,515) of Harbor Port Police assets transferred in October, 2007.*

EXHIBIT G

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2015

1.	Unfunded actuarial accrued liability at beginning of year	$2,435,749,038
2.	Total normal cost at beginning of year[1]	409,453,216
3.	Expected contributions at beginning of year[1]	-626,119,974
4.	Interest	166,431,171
5.	Expected unfunded actuarial accrued liability: (1) + (2) + (3) + (4)	$2,385,513,451
6	Actuarial experience (gain)/loss :	
	(a) Loss due to actual contributions less than expected[2]	$26,698,050
	(b) Investment gain	-241,163,722
	(c) COLA increases less than expected for retirees, beneficiaries and DROP members	-344,310,523
	(d) Salary increases less than expected	-225,087,603
	(e) Other experience gain[3]	-77,370,638
	(f) Total experience (gain)/loss	-$861,234,436
7.	Refinement in procedure to value continuance percentages for current retirees	43,168,034
8.	Unfunded actuarial accrued liability at end of year: (5) + (6f) + (7)	$1,567,447,049

(1) *Includes $12,717,245 in assumed administrative expenses (0.91% of projected payroll at beginning of the year).*

(2) *Payroll increases less than expected by payroll growth assumption, offset to some degree by one-year delay in contribution rate reduction recommended in the June 30, 2014 valuation.*

(3) *Includes a gain of about $31 million from more than expected deaths among retirees.*

EXHIBIT H

Table of Amortization Bases

Tier 1

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Unfunded Actuarial Accrued Liability	06/30/2015	$170,907,119	22	$170,907,119	22	$14,974,146
Total				**$170,907,119**		**$14,974,146**

Tier 2

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[2]
Unfunded Actuarial Accrued Liability	06/30/2008	-$632,245,519	29	-$708,502,016	22	-$44,598,831
Experience Loss	06/30/2009	53,442,825	15	45,090,011	9	5,698,407
Experience Loss	06/30/2010	210,742,926	15	186,383,774	10	21,534,522
Assumption Change	06/30/2010	1,450,331	27	1,559,364	22	98,159
Experience Loss	06/30/2011	203,104,597	15	186,609,704	11	19,908,600
Assumption Change	06/30/2011	344,553,091	26	363,842,159	22	22,903,160
Experience Loss	06/30/2012	238,453,071	20	239,527,934	17	18,122,308
Experience Loss	06/30/2013	73,947,281	20	74,325,698	18	5,391,012
Experience Gain	06/30/2014	-212,930,921	20	-213,508,592	19	-14,891,008
Assumption Change	06/30/2014	-65,152,628	25	-65,987,717	24	-3,919,453
Experience Gain	06/30/2015	-288,914,220	20	-288,914,220	20	-19,427,680
Total				**-$179,573,901[3]**		**$10,819,196[3]**

(1) *Level dollar amortization.*

(2) *Level percentage of payroll amortization.*

(3) *Even though the new actuarial gain recognized during the 2014/2015 plan year has caused the total UAAL for Tier 2 to become negative, we have not applied the surplus amortization provisions of the LAFPP funding policy because the Plan as a whole does not have an actuarial surplus.*

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 3

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption Change	06/30/1989[3]	-$15,977,993	14	-$8,169,236	4	-$2,144,800
Plan Amendment	06/30/1990[3]	279,608	15	166,625	5	35,567
Assumption Change	06/30/1990[3]	-6,281,127	15	-3,743,077	5	-798,975
Assumption Change	06/30/1992[3]	2,454,735	17	1,803,591	7	283,932
Assumption Change	06/30/1995[3]	-20,329,471	20	-18,086,022	10	-2,089,634
Plan Amendment	06/30/1996[3]	2,832,341	21	2,637,271	11	281,359
Asset Method Change	06/30/1996[3]	-18,309,076	21	-17,048,086	11	-1,818,788
Plan Amendment	06/30/1998[3]	5,510,715	23	5,526,362	13	514,542
Assumption Change	06/30/1998[3]	9,268,417	23	9,294,733	13	865,404
Plan Amendment	06/30/2000[3]	949,873	25	1,009,291	15	83,969
Experience Gain	06/30/2001[3]	-39,924,972	11	-6,513,673	1	-6,513,673
Assumption Change	06/30/2001[3]	-29,148,684	26	-31,736,428	16	-2,513,088
Experience Loss	06/30/2002[3]	110,014,634	12	32,874,358	2	16,709,189
Experience Loss	06/30/2003[3]	151,681,782	13	62,698,016	3	21,594,795
Experience Loss	06/30/2004[3]	10,104,562	14	5,166,265	4	1,356,382
Assumption Change	06/30/2004[3]	-8,698,728	29	-10,055,165	19	-701,290
Experience Loss	06/30/2005[3]	21,605,884	15	12,875,476	5	2,748,323
Assumption Change	06/30/2005[3]	27,253,819	30	32,026,629	20	2,153,591
Experience Loss	06/30/2006	16,400,257	15	10,992,586	6	1,986,977
Assumption Change	06/30/2006	29,340,123	30	33,977,506	21	2,208,183
Experience Gain	06/30/2007	-20,934,587	21	-20,388,022	13	-1,898,265
Assumption Change	06/30/2007	-5,027,630	30	-5,761,499	22	-362,675

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 3 (Continued)

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Gain	06/30/2008	-$18,292,189	17	-$16,018,591	10	-$1,850,766
Assumption Change	06/30/2008	8,034,472	30	9,093,221	23	555,518
Experience Loss	06/30/2009	10,158,177	15	8,570,512	9	1,083,128
Experience Loss	06/30/2010	2,144,522	15	1,896,643	10	219,135
Assumption Change	06/30/2010	25,997,606	30	28,549,757	25	1,651,439
Plan Amendment[2]	06/30/2011	-18,044	30	-19,490	26	-1,100
Experience Loss	06/30/2011	1,095,451	15	1,006,485	11	107,378
Assumption Change	06/30/2011	25,593,931	30	27,643,126	26	1,559,561
Experience Loss	06/30/2012	10,983,184	20	11,032,691	17	834,716
Experience Loss	06/30/2013	6,011,719	20	6,042,484	18	438,275
Experience Gain	06/30/2014	-15,610,972	20	-15,653,324	19	-1,091,730
Assumption Change	06/30/2014	-3,528,915	25	-3,574,147	24	-212,293
Experience Gain	06/30/2015	-46,361,062	20	-46,361,062	20	-3,117,492
Total				**$101,755,806**		**$32,156,794**

(1) *Level percentage of payroll amortization.*

(2) *Gain due to new retirees from non-DROP status and new DROP members during 7/1/2011 – 7/14/2011.*

(3) *Initial amount and initial period were values as of 06/30/2005 (i.e., the year before Segal was appointed as the actuary starting with 6/30/2006).*

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 4

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption Change	06/30/1989[3]	-$6,262,457	14	-$3,201,873	4	-$840,639
Plan Amendment	06/30/1990[3]	109,592	15	65,309	5	13,940
Assumption Change	06/30/1990[3]	-2,461,841	15	-1,467,071	5	-313,152
Assumption Change	06/30/1992[3]	962,115	17	706,904	7	111,285
Assumption Change	06/30/1995[3]	-7,967,987	20	-7,088,682	10	-819,016
Plan Amendment	06/30/1996[3]	1,110,115	21	1,033,661	11	110,277
Asset Method Change	06/30/1996[3]	-7,176,108	21	-6,681,874	11	-712,861
Plan Amendment	06/30/1998[3]	2,159,884	23	2,166,018	13	201,671
Assumption Change	06/30/1998[3]	3,632,689	23	3,643,005	13	339,189
Plan Amendment	06/30/2000[3]	370,129	25	393,281	15	32,719
Experience Gain	06/30/2001[3]	-9,231,354	11	-1,506,076	1	-1,506,076
Assumption Change	06/30/2001[3]	-4,878,745	26	-5,311,867	16	-420,627
Experience Loss	06/30/2002[3]	18,536,288	12	5,538,977	2	2,815,319
Experience Loss	06/30/2003[3]	59,690,449	13	24,673,184	3	8,498,073
Experience Loss	06/30/2004[3]	10,147,466	14	5,188,202	4	1,362,141
Assumption Change	06/30/2004[3]	-5,220,974	29	-6,035,109	19	-420,914
Experience Loss	06/30/2005[3]	13,244,413	15	7,892,672	5	1,684,723
Assumption Change	06/30/2005[3]	14,033,320	30	16,490,896	20	1,108,910
Experience Loss	06/30/2006	6,063,600	15	4,064,244	6	734,637
Assumption Change	06/30/2006	14,561,746	30	16,863,317	21	1,095,940
Experience Gain	06/30/2007	-8,926,309	21	-8,693,261	13	-809,403
Assumption Change	06/30/2007	-3,015,790	30	-3,455,996	22	-217,548

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 4 (Continued)

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Gain	06/30/2008	-$4,429,445	17	-$3,878,895	10	-$448,162
Assumption Change	06/30/2008	10,599,393	30	11,996,135	23	732,862
Experience Loss	06/30/2009	11,924,683	15	10,060,922	9	1,271,484
Experience Loss	06/30/2010	4,794,050	15	4,239,921	10	489,875
Assumption Change	06/30/2010	12,948,180	30	14,219,285	25	822,504
Plan Amendment[2]	06/30/2011	1,483,135	30	1,601,883	26	90,375
Experience Loss	06/30/2011	5,867,945	15	5,391,388	11	575,184
Assumption Change	06/30/2011	12,753,767	30	13,774,906	26	777,148
Experience Loss	06/30/2012	9,377,426	20	9,419,696	17	712,679
Experience Loss	06/30/2013	6,625,380	20	6,659,284	18	483,013
Experience Gain	06/30/2014	-11,060,872	20	-11,090,879	19	-773,526
Assumption Change	06/30/2014	9,988,189	25	10,116,212	24	600,870
Experience Gain	06/30/2015	-16,640,244	20	-16,640,244	20	-1,118,953
Total				**$101,147,476**		**$16,263,941**

(1) *Level percentage of payroll amortization.*

(2) *Gain due to new retirees from non-DROP status and new DROP members during 7/1/2011 – 7/14/2011.*

(3) *Initial amount and initial period were values as of 06/30/2005 (i.e., the year before Segal was appointed as the actuary starting with 6/30/2006).*

EXHIBIT H

Table of Amortization Bases (Continued)

Tiers 5 and 6 (without Harbor Port Police)

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Original Base	06/30/2002[3]	-$157,564,364	27	-$175,359,657	17	-$13,267,437
Experience Gain	06/30/2003[3]	-314,459,851	13	-129,982,707	3	-44,769,357
Experience Loss	06/30/2004[3]	106,500,938	14	54,451,853	4	14,296,114
Assumption Change	06/30/2004[3]	-242,147,820	29	-279,907,155	19	-19,521,929
Experience Loss	06/30/2005[3]	241,854,245	15	144,126,876	5	30,764,476
Assumption Change	06/30/2005[3]	421,011,169	30	494,740,512	20	33,268,214
Experience Loss	06/30/2006	64,026,458	15	42,914,963	6	7,757,140
Assumption Change	06/30/2006	291,388,037	30	337,443,657	21	21,930,315
Experience Gain	06/30/2007	-200,979,530	21	-195,732,314	13	-18,224,028
Assumption Change	06/30/2007	-71,262,522	30	-81,664,512	22	-5,140,623
Experience Gain	06/30/2008	-79,435,149	17	-69,561,879	10	-8,037,083
Assumption Change	06/30/2008	312,669,142	30	353,871,292	23	21,618,528
Experience Loss	06/30/2009	357,256,711	15	301,419,495	9	38,092,937
Experience Loss	06/30/2010	207,594,800	15	183,599,531	10	21,212,834
Assumption Change	06/30/2010	277,673,454	30	304,932,284	25	17,638,581
Plan Amendment[2]	06/30/2011	5,693,576	30	6,149,437	26	346,937
Experience Loss	06/30/2011	125,215,079	15	115,045,890	11	12,273,760
Assumption Change	06/30/2011	244,615,700	30	264,201,033	26	14,905,607
Experience Loss	06/30/2012	248,617,082	20	249,737,761	17	18,894,767
Experience Loss	06/30/2013	115,390,840	20	115,981,341	18	8,412,390
Experience Gain	06/30/2014	-246,417,577	20	-247,086,097	19	-17,232,847
Assumption Change	06/30/2014	35,896,722	25	36,356,826	24	2,159,476

EXHIBIT H

Table of Amortization Bases (Continued)

Tiers 5 and 6 (without Harbor Port Police) (Continued)

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Gain	06/30/2015	-$458,582,182	20	-$458,582,182	20	-$30,836,792
Total				**$1,367,096,249**		**$106,541,980**

(1) *Level percentage of payroll amortization.*

(2) *Gain due to new retirees from non-DROP status and new DROP members during 7/1/2011 – 7/14/2011.*

(3) *Initial amount and initial period were values as of 06/30/2005 (i.e., the year before Segal was appointed as the actuary starting with 6/30/2006).*

EXHIBIT H

Table of Amortization Bases (Continued)

Harbor Port Police (Tiers 5 and 6)

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	[1]Annual Payment
Experience Gain	06/30/2008	-$169,104	17	-$148,085	10	-$17,110
Assumption Change	06/30/2008	126,433	30	143,093	23	8,742
Experience Loss	06/30/2009	6,588,231	15	5,558,527	9	702,478
Experience Loss	06/30/2010	1,742,728	15	1,541,291	10	178,079
Assumption Change	06/30/2010	1,043,633	30	1,146,086	25	66,295
Plan Amendment[2]	06/30/2011	41,208	30	44,508	26	2,511
Experience Gain	06/30/2011	-447,574	15	-411,224	11	-43,872
Assumption Change	06/30/2011	734,993	30	793,842	26	44,787
Experience Loss	06/30/2012	1,311,840	20	1,317,752	17	99,699
Experience Loss	06/30/2013	1,253,385	20	1,259,799	18	91,376
Experience Gain	06/30/2014	-2,336,763	20	-2,343,102	19	-163,418
Assumption Change	06/30/2014	-476,026	25	-482,128	24	-28,637
Experience Gain	06/30/2015	-2,306,059	20	-2,306,059	20	-155,068
Total				**$6,114,300**		**$785,862**

(1) *Level percentage of payroll amortization.*

(2) *Gain due to new retirees from non-DROP status and new DROP members during 7/1/2011 – 7/14/2011.*

EXHIBIT I
Section 415 Limitations

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $210,000 for 2015 and 2016. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age; and

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost: The amount of contributions required to fund the cost of benefits allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Pensioners: The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return: The rate of earnings of the Plan from its investments, including interest, dividends and market gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market gains and losses to avoid significant swings in the value of assets from one year to the next.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Retired members as of the valuation date (including 2,440 beneficiaries in pay status)		12,593
2.	Members inactive during year ended June 30, 2015 with vested rights[1]		112
3.	Members active during the year ended June 30, 2015		13,068
	Fully vested	4,462	
	Not vested	8,606	

The actuarial factors as of the valuation date are as follows:

	Assets		
1.	Valuation value of retirement assets ($18,737,100,702 at market value[2] as reported by LAFPP and $18,114,393,332 at actuarial value[2])		$16,770,060,026
2.	Present value of future normal costs		
	Employee	$1,417,262,599	
	Employer	2,674,920,434	
	Total		$4,092,183,033
3.	Unfunded actuarial accrued liability		1,567,447,049
4.	Present value of current and future assets		$22,429,690,108
	Liabilities		
5.	Present value of future benefits		
	Retired members and beneficiaries	$10,105,567,038	
	Inactive members with vested rights	20,000,498	
	Active members	12,304,122,572	
	Total		$22,429,690,108

(1) *Includes 67 terminated members due only a refund of member contributions.*

(2) *Includes all assets for Retirement and Health Subsidy Benefits.*

EXHIBIT I (continued)
Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1.	Total normal cost	$396,943,582
2.	Expected employee contributions	-134,441,085
3.	Employer normal cost: (1) + (2)	$262,502,497
4.	Payment on unfunded actuarial accrued liability	181,541,919
5.	Payment for administrative expenses	12,739,513
6.	Total recommended contribution: (3) + (4) + (5), payable beginning of year	$456,783,928
7.	Total recommended contribution: adjusted for July 15 payment	$458,162,459
8.	Total recommended contribution: adjusted for biweekly payment	$473,603,656
9.	Projected payroll	$1,405,171,211
10.	Item 6 as a percentage of projected payroll: (6) ÷ (9)	32.51%
11.	Item 7 as a percentage of projected payroll: (7) ÷ (9)	32.61%
12.	Item 8 as a percentage of projected payroll: (8) ÷ (9)	33.70%

EXHIBIT II

Schedule of Employer Contributions

Retirement Benefits

Plan Year Ended June 30	Actuarially Determined Contributions[1]	Actual Contributions	Percentage Contributed
2006	$143,945,802	$143,945,802	100.00%
2007	224,946,082	224,946,082	100.00%
2008[2]	261,635,491	261,635,491	100.00%
2009	238,697,929	238,697,929	100.00%
2010	250,516,858	250,516,858	100.00%
2011	277,092,251	277,092,251	100.00%
2012	321,593,433	321,593,433	100.00%
2013	375,448,092	375,448,092	100.00%
2014	440,698,260	440,698,260	100.00%
2015	480,332,251	480,332,251	100.00%

(1) Prior to plan year ending June 30, 2015, this amount was the Annual Required Contribution.

(2) Figures include amounts transferred and contributed during the fiscal year that were related to the transfer of certain Harbor Port Police members from the Los Angeles City Employees' Retirement System into LAFPP.

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2010 through June 30, 2013 Actuarial Experience Study dated July 3, 2014 and the Economic Actuarial Assumption Study for June 30, 2014 Actuarial Valuation dated July 3, 2014. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all members. These assumptions have been adopted by the Board.

<u>Demographic Assumptions</u>:

Mortality Rates

Healthy: RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set back one year for members.

RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set forward one year for beneficiaries.

Disabled: RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set forward one year.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates Before Retirement:

Pre-Retirement Mortality:

Rate (%)		
	Mortality	
Age	Male	Female
20	0.03	0.02
25	0.04	0.02
30	0.04	0.02
35	0.07	0.04
40	0.10	0.06
45	0.13	0.10
50	0.19	0.15
55	0.30	0.22
60	0.52	0.36

All pre-retirement deaths are assumed to be service connected.

Termination Rates Before Retirement (continued):

	Rate (%)	
	Disability*	
Age	Fire	Police
20	0.02	0.02
25	0.02	0.03
30	0.03	0.05
35	0.06	0.08
40	0.15	0.22
45	0.23	0.36
50	0.28	0.46
55	1.02	0.80
60	3.00	1.18

* *90% of disabilities are assumed to be service connected. Disability rates are not applied to members eligible to enter the DROP.*

Termination Rates Before Retirement (continued):

Rate (%) Termination (< 5 Years of Service)		
Years of Service	Fire	Police
0 - 1	8.00	8.00
1 - 2	2.50	3.00
2 – 3	1.50	2.50
3 – 4	0.75	2.50
4 – 5	0.50	1.75

Rate (%) Termination (5+ Years of Service) *		
Age	Fire	Police
20	1.00	2.00
25	1.00	2.00
30	0.85	1.70
35	0.54	1.20
40	0.37	0.85
45	0.17	0.66
50	0.02	0.24
55	0.00	0.00
60	0.00	0.00

* *No termination is assumed after a member is eligible for retirement. This includes all active members currently in Tier 2. Members in Tiers 3, 5 and 6 who are not eligible to receive a deferred vested retirement benefit are assumed to receive refund of member contributions.*

Retirement Rates:

	Rate(%)					
	Fire			Police		
Age	Tiers 2&4	Tiers 3&5	Tier 6	Tiers 2&4	Tiers 3&5	Tier 6
41	1.00	0.00	0.00	10.00	0.00	0.00
42	1.00	0.00	0.00	10.00	0.00	0.00
43	1.00	0.00	0.00	10.00	0.00	0.00
44	1.00	0.00	0.00	10.00	0.00	0.00
45	1.00	0.00	0.00	10.00	0.00	0.00
46	1.00	0.00	0.00	7.00	0.00	0.00
47	1.00	0.00	0.00	7.00	0.00	0.00
48	2.00	0.00	0.00	7.00	0.00	0.00
49	2.00	0.00	0.00	7.00	0.00	0.00
50	3.00	3.00	3.00	12.00	7.00	8.00
51	4.00	3.00	3.00	12.00	6.00	10.00
52	5.00	3.00	4.00	12.00	6.00	10.00
53	10.00	3.00	5.00	15.00	6.00	15.00
54	15.00	7.00	5.00	20.00	10.00	15.00
55	20.00	12.00	10.00	20.00	18.00	18.00
56	20.00	14.00	12.00	25.00	18.00	18.00
57	20.00	16.00	15.00	25.00	20.00	20.00
58	20.00	20.00	18.00	25.00	22.00	22.00
59	20.00	25.00	20.00	25.00	25.00	25.00
60	20.00	25.00	25.00	25.00	25.00	25.00
61	20.00	30.00	30.00	25.00	25.00	25.00
62	25.00	35.00	30.00	25.00	25.00	25.00
63	25.00	40.00	35.00	30.00	25.00	25.00
64	30.00	40.00	40.00	40.00	30.00	30.00
65	100.00	100.00	100.00	100.00	100.00	100.00

DROP Program: DROP participants are considered active members until they leave the DROP and begin receiving retirement benefits. Members are assumed to remain in the DROP for 5 years. Of all members expected to retire with a service retirement benefit, we project a 95% probability that members have elected the DROP before retirement if they will have also satisfied the requirements for participating in the DROP for 5 years.

Retirement Age and Benefit for Inactive Vested Participants:	For deferred vested members, retirement assumption is age 50.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Exclusion of Inactive Vesteds:	All inactive participants are included in the valuation.
Definition of Active Members:	First day of biweekly payroll following employment for new department employees or immediately following transfer from other city department.
Percent Married/Domestic Partner:	80% of male members, 60% of female members
Age of Spouse:	Wives are 3 years younger than their husbands.
Future Benefit Accruals:	1.0 year of service per year.
Consumer Price Index:	Increase of 3.25% per year; benefit increases due to CPI subject to a 3.0% maximum for Tiers 3 through 6.
Member Contribution and Matching Account Crediting Rate:	5.00%
Net Investment Return:	7.50%, net of investment expenses
Administrative Expenses:	Out of the total 1.00% of payroll in administrative expense, 0.94% of payroll payable bi-weekly is allocated to the Retirement Plan. This is equal to 0.91% of payroll payable at beginning of the year.

Salary Increases:

Annual Rate of Compensation Increase	
Inflation: 3.25% per year; plus 0.75% "across the board" salary increases; plus the following Merit and Longevity increases based on years of service.	
Years of Service	**Additional Salary Increase**
0	7.50%
1	6.50
2	5.00
3	4.75
4	3.75
5	3.00
6	2.25
7	2.00
8	1.75
9	1.75
10	1.25
11 or more	0.75

Service Connected Disability Benefits:

Years of Service	Benefit
Less than 20	55% of Final Average Salary
20 – 30	65% of Final Average Salary
More than 30	75% of Final Average Salary

Nonservice Connected Disability Benefits: 40% of Final Average Salary

Actuarial Value of Assets:	The market value of assets less unrecognized returns. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis, and is recognized over a seven-year period. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a period of six years from that date. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets.
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is the current age minus Service Credit. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation, with Normal Cost determined as if the current benefit accrual rate had always been in effect.
Funding Policy:	The City of Los Angeles Fire & Police Pension Plan makes contributions equal to the Normal Cost adjusted by amount to amortize any Surplus or Unfunded Actuarial Accrued Liability. Both the Normal Cost and the Actuarial Accrued Liability are determined under the Entry Age Normal cost method. Any changes in Surplus or Unfunded Actuarial Accrued Liability due to actuarial gains or losses are amortized over separate twenty year periods as a level percentage of payroll. Any changes in Surplus or Unfunded Actuarial Accrued Liability from plan amendments are amortized over separate fifteen year periods as a level percentage of payroll. Any changes in Surplus or Unfunded Actuarial Accrued Liability from plan assumption changes are amortized over separate twenty-five year periods as a level percentage of payroll. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service. For Tier 1, the Unfunded Actuarial Accrued Liability is amortized using level dollar amortization ending on June 30, 2037. For Tiers 2, 3 and 4, the Unfunded Actuarial Accrued Liability is amortized using level percent of payroll as a percent of total valuation payroll from the respective employer (i.e., the City or Harbor Port Police). For Tiers 5 and 6, the Unfunded Actuarial Accrued Liability is amortized using level percent of payroll as a percent of combined payroll for these tiers from the respective employer (i.e., City or Harbor Port Police).
Change in Actuarial Assumptions:	There were no assumption changes since the last valuation.

This exhibit summarizes the major provisions of the City of Los Angeles Fire & Police Pension Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. For Tiers 1 through 4 and Tier 6, the section codes are from the Los Angeles Charter. For Tier 5 and the DROP program, the section codes are from the Los Angeles Administrative Code.

Plan Year:	July 1 through June 30
Census Date:	June 30

Service Retirement Benefit:

Tier 1 (§ 1304)

Age & Service Requirement — 20 years of service

Amount

Years of Service	Benefit
20	40% of Normal Pension Base
20 to 25	Additional 2% for each year over 20 and under 25
25	50% of Normal Pension Base
25 to 35	Additional 1 2/3% for each year over 25 and under 35
35+	66 2/3% of Normal Pension Base

Tier 2 (§ 1408)

Age & Service Requirement	20 years of service	
Amount	Years of Service	Benefit
	Less than 25	2% of Normal Pension Base per year of service
	25+	55% plus 3% per year over 25 to a maximum of 70% of Normal Pension Base

Tier 3 (§ 1504)

Age & Service Requirement	Age 50 and 10 years of service	
Amount	Years of Service	Benefit
	Less than 20	2% of Final Average Salary per year of service
	20+	For each additional year over 20, 3% of Final Average Salary per year over 20 to a maximum of 70% Final Average Salary

Tier 4 (§ 1604)

Age & Service Requirement	20 years of service	
Amount	Years of Service	Benefit
	20	40% of Final Average Salary
	20+	For each additional year over 20, 3% of Final Average Salary per year over 20 to a maximum of 70% Final Average Salary

Tier 5 (§ 4.2004)

Age & Service Requirement	Age 50 and 20 years of service	
Amount	Years of Service	Benefit
	20	50% of Final Average Salary
	20+	For each additional year over 20, 3% of Final Average Salary per year over 20, except 30th year where 4% is provided, to a maximum of 90% Final Average Salary

Tier 6 (§ 1704)		
Age & Service Requirement	Age 50 and 20 years of service	
Amount	Years of Service	Benefit
	20	40% of Final Average Salary
	21 to 25	Additional 3% of Final Average Salary for years 21 through 25
	26 to 30	Additional 4% of Final Average Salary for years 26 through 30
	31+	Additional 5% of Final Average Salary per year over 30, to a maximum of 90% of Final Average Salary

Deferred Retirement Option Plan (DROP) (§4.2100 - 4.2109):

Eligibility	Tier 2:	25 years of service
	Tier 3:	Age 50 and 25 years of service
	Tier 4:	25 years of service
	Tier 5:	Age 50 and 25 years of service
	Tier 6:	Age 50 and 25 years of service

Benefits under DROP

DROP benefits (calculated using age, service, and salary at the commencement date of participation in DROP) will be credited to a DROP account with interest at 5% annually. Members are required to make normal member contributions. DROP benefits receive annual COLA while in DROP (limited to 3% for all Tiers). Members may participate in DROP for up to five years.

Normal Pension Base:

Tier 1, 2 (§ 1302, § 1406)	Final monthly salary rate

Final Average Salary:

Tier 3, 4, 5 (§ 1502, § 1602, § 4.2002)	Highest monthly average salary actually received during any 12 consecutive months of service
Tier 6 (§ 1702)	Highest monthly average salary actually received during any 24 consecutive months of service

Cost of Living Adjustment (COLA):

Tier 1, 2 (§ 1328, § 1422)	Commencing July 1 based on changes to Los Angeles area consumer price index.
Tier 3, 4 (§ 1516, § 1616)	Commencing July 1 based on changes to Los Angeles area consumer price index to a maximum of 3% per year. COLA is prorated in the first year of retirement.
Tier 5, 6 (§ 4.2016, § 1716)	Commencing July 1 based on changes to Los Angeles area consumer price index to a maximum of 3% per year, excess banked. COLA is prorated in the first year of retirement.

Death After Retirement:

Tier 1 (§ 1314, § 1316)	
Service Retirement	Pension equal to the same percentage of the Member's Normal Pension Base to a maximum of 50%.
Service Connected Disability	50% of Member's Normal Pension Base.
Nonservice Connected Disability	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay.
Tier 2 (§ 1414)	
Service Retirement	Pension equal to the same percentage of the Member's Normal Pension Base to a maximum of 55%.
Service Connected Disability	50% of the Member's Normal Pension Base, or 55% of the Member's Normal Pension Base if Member had at least 25 years of service at the date of death.
Nonservice Connected Disability	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay (nonservice connected pension base).

Tier 3, 4 (§ 1508, § 1608)	
Service Retirement	Pension equal to 60% of the pension received by the deceased Member.
Service Connected Disability	If death occurs within three years of the Member's effective date of pension, then the eligible spouse or designated beneficiary shall receive 75% of the Final Average Salary. Otherwise, a pension equal to 60% of the pension received by the deceased Member immediately preceding the date of death.
Nonservice Connected Disability	Pension equal to 60% of the pension received by the deceased Member.
Tier 5 (§ 4.2008, § 4.2008.5)	If former Tier 2 member, see Tier 2. Otherwise, see Tier 3.
Tier 6 (§ 1708)	
Service Retirement	Pension equal to 70% of the pension received by the deceased Member.
Service Connected Disability	If death occurs within three years of the Member's effective date of pension, then the eligible spouse or designated beneficiary shall receive 80% of the Final Average Salary. Otherwise, a pension equal to 80% of the pension received by the deceased Member immediately preceding the date of death.
Nonservice Connected Disability	Pension equal to 70% of the pension received by the deceased Member.

Death Before Retirement:

Tier 1 (§ 1314, § 1316)	
Eligible for Service Retirement	
Service Requirement	20 years of service.
Amount	100% of Member's accrued service retirement Member would have received, not to exceed 50% of Normal Pension Base.
Service Connected	
Service Requirement	None.
Amount	50% of Member's Normal Pension Base.

Nonservice Connected	
Service Requirement	5 years of service.
Amount	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay.
Tier 2 (§ 1414)	
Eligible for Service Retirement	
Service Requirement	20 years of service.
Amount	100% of Member's accrued service retirement Member would have received, not to exceed 55% of Normal Pension Base.
Service Connected	
Service Requirement	None.
Amount	50% of the Member's Normal Pension Base, or 55% of the Member's Normal Pension Base if Member had at least 25 years of service at the date of death.
Nonservice Connected	
Service Requirement	5 years of service.
Amount	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay (nonservice connected pension base).
Tier 3, 4 (§ 1508, § 1608)	
Eligible for Service Retirement	
Service Requirement	10 years of service for Tier 3. 20 years of service for Tier 4.
Amount	80% of service retirement Member would have received, not to exceed 40% of the Member's Final Average Salary.
Service Connected	
Service Requirement	None.
Amount	75% of the Member's Final Average Salary.

Nonservice Connected	
Service Requirement	5 years of service.
Amount	30% of the Member's Final Average Salary.
Basic Death Benefit	If Member has at least one year of service, in addition to return of contributions, beneficiary receives the Member's one-year average monthly salary times years of completed service (not to exceed 6 years).
Tier 5 (§ 4.2008, § 4.2008.5)	
Eligible for Service Retirement	
Service Requirement	20 years of service.
Amount	For former Tier 2, 100% of Member's accrued service retirement Member would have received, not to exceed 55% of Normal Pension Base. For members who are not former Tier 2, 40% of the Member's Final Average Salary.
Service Connected	
Service Requirement	None.
Amount	75% of the Member's Final Average Salary payable to an eligible spouse or designated beneficiary.
Nonservice Connected	
Service Requirement	5 years of service.
Amount	For former Tier 2, 40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay. For members who are not former Tier 2, 30% of the Member's Final Average Salary.
Basic Death Benefit	If Member has at least one year of service, in addition to return of contributions, beneficiary receives the Member's one-year average monthly salary times years of completed service (not to exceed 6 years).

Tier 6 (§ 1708)	
Service Connected	
Service Requirement	None.
Amount	80% of the Member's Final Average Salary.
Nonservice Connected	
Service Requirement	5 years of service.
Amount	50% of the Member's Final Average Salary.
Basic Death Benefit	If Member has at least one year of service, in addition to return of contributions, beneficiary receives the Member's two-year average monthly salary times years of completed service (not to exceed 6 years).

Disability:

Tier 1 (§ 1310, § 1312)	
Service Connected	
Service Requirement	None.
Amount	50% to 90% of Normal Pension Base depending on severity of disability, with a minimum of Member's service pension percentage rate.
Nonservice Connected	
Service Requirement	5 years of service.
Amount	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay.
Tier 2 (§ 1412)	
Service Connected	
Service Requirement	None.
Amount	50% to 90% of Normal Pension Base depending on severity of disability, with a minimum of Member's service pension percentage rate.

Nonservice Connected	
Service Requirement	5 years of service.
Amount	40% of highest monthly salary as of Member's retirement for basic rank of Police Officer III or Firefighter III, and the highest length of service pay.
Tier 3, 4, 5, 6 (§ 1506, § 1606, § 4.2006, § 1706)	
Service Connected	
Service Requirement	None.
Amount	30% to 90% of Final Average Salary depending on severity of disability with a minimum of 2% of Final Average Salary per year of service.
Nonservice Connected	
Service Requirement	5 years of service.
Amount	30% to 50% of Final Average Salary depending on severity of disability.

Deferred Withdrawal Retirement Benefit (Vested):

Tier 3 (§ 1504)	
Age & Service Requirement	10 years of service. Receive service pension at age 50.
Amount	See Tier 3 Service Retirement.
Tier 5, Tier 6 (§ 4.2004, § 1704)	
Age & Service Requirement	20 years of service. Receive service pension at age 50.
Amount	Member is entitled to receive a service pension using Tier 3 retirement formula.

Member Normal Contributions:	Members are exempt from making contributions if their continuous service exceeds 30 years for Tiers 1 through 4, and 33 years for Tier 5 and Tier 6. Members not in Tier 6 may pay a 2% contribution on their base salary retroactive to August 15, 2011 for a period of 25 years or until retired from the Plan to avoid a freeze on their retiree health subsidy.
Tier 1 (§ 1324)	Normal contribution rate of 6%.
Tier 2 (§ 1420)	Normal contribution rate of 6% plus half of the cost of the cost of living benefit to a maximum of 1%.
Tier 3 (§ 1514)	Normal contribution rate of 8%.
Tier 4 (§ 1614)	Normal contribution rate of 8%.
Tier 5 (§ 4.2014)	Normal contribution rate of 9% with the City of Los Angeles paying 1% provided that the LAFPP is at least 100% actuarially funded for pension benefits.
Tier 6 (§ 1714)	Normal contribution rate of 9%, plus 2% additional contributions to support funding of retiree health benefits. The additional 2% contributions shall not be required for members with more than 25 years of service.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation

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City of Los Angeles Fire and Police Pension Plan

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 in accordance with GASB Statements No. 43 and No. 45

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November 9, 2015

Board of Fire and Police Pension Commissioners
City of Los Angeles Fire and Police Pension Plan
360 East Second Street, Suite 400
Los Angeles, CA 90012-4203

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2015 under Governmental Accounting Standards Board Statements No. 43 and No. 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB obligation (NOO) as of June 30, 2015, establishes the Annual Required Contribution (ARC) for the coming year, and analyzes the preceding year's experience. The census information and financial information on which our calculations were based was prepared by Los Angeles Fire and Police Pensions (LAFPP). That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valution and described in Exhibit II are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Exhibit III.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Paul Angelo, FSA, MAAA, FCA, EA	*Andy Yeung, ASA, MAAA, FCA, EA*
Senior Vice President and Actuary	*Vice President and Actuary*

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SECTION 1

EXECUTIVE SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

VALUATION DETAILS

SECTION 4

SUPPORTING INFORMATION

PURPOSE

This report presents the results of our actuarial valuation of retiree health benefits offered by the City of Los Angeles Fire and Police Pension Plan as of June 30, 2015. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes.

HIGHLIGHTS OF THE VALUATION

- In preparing the June 30, 2015 valuation, we have continued to assume that certain members who have not agreed to make an additional 2% member contribution would be subject to a freeze in the level of medical subsidy. Even though LAFPP has received a Court Order to no longer freeze the subsidy, that Court Order is currently being appealed by the City. LAFPP has directed Segal to continue to assume the freeze is in effect in the valuation until such legal action is completed. As further directed by LAFPP, we will provide the results without the subsidy freeze in a separate letter.
- The recommended contribution rate has increased from 11.13% of payroll ($156.1 million) to 11.83% of payroll ($166.3 million), assuming contributions are made by the City on July 15. A reconciliation of the employer's rate, if made at the beginning of the year, is provided in Section 3, Exhibit I.
- The employer contribution rates provided in this report have been developed assuming that they will be made by the City either (1) throughout the year (i.e. the City will pay contributions at the end of every pay period), (2) on July 15 or (3) the beginning of the year.
- The funded ratio has increased from 43.2% to 45.4% in this valuation. On a market value of asset basis, the funded ratio has increased from 46.8% to 46.9%. The unfunded actuarial accrued liability (UAAL) has increased from $1.582 billion to $1.618 billion. A reconciliation of the change in the UAAL is provided in Section 2, Chart 2.
- The discount rate for this valuation is 7.50%, and is based on the assumption that in the long term the City is paying a contribution that equals the ARC and 100% of benefits will be paid from the trust.
- The funding method used to develop the (ARC) is the Entry Age method, with the Normal Cost developed as a level percent of payroll. The contribution to amortize the UAAL is developed as a level percent of payroll.
- Contributions will generally increase with payroll growth. Other factors such as gains or losses, or changes in trend assumptions will also change the ARC for future years.
- As indicated in Section 3, Exhibit H of this report, the total unrecognized investment gain as of June 30, 2015 is $0.623 billion for the assets for Retirement and Health Subsidy Benefits. For comparison purposes, the total unrecognized investment gain as of June 30, 2014 was $1.412 billion.

- As required under the new Actuarial Standards of Practice No. 6, titled *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*, we have adjusted the per capita costs on an age-specific basis for the first time in this valuation. This methodology change increased liabilities by about 2%, as shown in Chart 2.
- The deferred gain of $0.623 billion represents 3.3% of the market value of assets as of June 30, 2015. Unless offset by future investment losses, or other unfavorable experience, the recognition of the $0.623 billion market gain is expected to have an impact on the Health Plan's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:
  - If the deferred gain were recognized immediately in the valuation value of assets, the funded percentage would increase from 45.4% to 46.9%.
  - If the deferred gain were recognized immediately in the valuation value of assets, the aggregate employer rate (payable throughout the fiscal year) would decrease from 12.23% to 12.00% of payroll.
- The actuarial valuation report as of June 30, 2015 is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected and will impact the actuarial cost of the Plan.

The key valuation results for the current and prior years are shown.

SUMMARY OF VALUATION RESULTS

	June 30, 2015	June 30, 2014
Actuarial Accrued Liability (AAL)	$2,962,702,884	$2,783,282,885
Actuarial Value of Assets	1,344,333,306	1,200,874,444
Unfunded Actuarial Accrued Liability	$1,618,369,578	$1,582,408,441
Funded Ratio on Actuarial Value of Assets	45.38%	43.15%
Market Value of Assets	$1,390,546,626	$1,301,306,102
Funded Ratio on Market Value of Assets	46.94%	46.75%
Annual Required Contribution (ARC) for coming year		
Normal cost (beginning of year)	$61,291,559	$56,552,213*
Amortization of the unfunded actuarial accrued liability	103,668,175	98,278,461*
Allocated amount for administrative expenses	813,160	811,738*
Total Annual Required Contribution at beginning of year	$165,772,894	$155,642,412*
ARC as a percentage of pay at beginning of year	11.80%	11.10%*
Total Annual Required Contribution (payable throughout the year)	$171,876,995	$161,373,487*
ARC as a percentage of pay (payable throughout the year)	12.23%	11.50%*
Total Annual Required Contribution (payable July 15)	$166,273,181	$156,112,126*
ARC as a percentage of pay (payable July 15)	11.83%	11.13%*
Projected total payroll	$1,405,171,211	$1,402,715,039
Total Participants (including retirees/beneficiaries not receiving subsidy)	25,719	25,674
Total Participants (excluding retirees/beneficiaries not receiving subsidy)	23,617	23,562
Annual OPEB Cost (AOC) for Coming Year		
Annual Required Contributions (payable end of fiscal year)	$178,205,861	$167,315,593*
Interest on Net OPEB Obligations	9,877,344	10,099,735
ARC Adjustments	-9,068,911	-8,720,981
Total Annual OPEB Cost	$179,014,294	$168,694,347
AOC as percentage of pay	12.74%	12.03%

** Before reflecting payroll for the June 30, 2015 valuation.*

IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by LAFPP. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by LAFPP.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
- The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:
- The valuation is prepared at the request of LAFPP. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If LAFPP is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. LAFPP should look to their other advisors for expertise in these areas.
- As Segal Consulting has no discretionary authority with respect to the management or assets of LAFPP, it is not a fiduciary in its capacity as actuaries and consultants with respect to LAFPP.

November 9, 2015

ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting has conducted an actuarial valuation of certain benefit obligations of the City of Los Angeles Fire and Police Pension Plan’s other postemployment benefit program as of June 30, 2015, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by LAFPP and reliance on participant, premium, claims and expense data provided by LAFPP. Segal Consulting has not audited the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal Consulting, however, has reviewed the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their “General Qualification Standards for Statements of Actuarial Opinions” to render the actuarial opinion contained herein.

Thomas Bergman, ASA, MAAA, EA	Andy Yeung, ASA, MAAA, FCA, EA
Associate Actuary	Vice President and Actuary

The actuarial present value of total projected benefits uses the actuarial assumptions disclosed in Section 4 to calculate the value today of all benefits expected to be paid to current actives and retired plan members. The actuarial balance sheet shows the expected breakdown of how these benefits will be financed.

CHART 1

Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet

	Actuarial Present Value of Total Projected Benefits (APB)	
	June 30, 2015	**June 30, 2014**
Participant Category		
Current retirees, beneficiaries, and dependents	$1,723,668,446	$1,598,044,159
Current active members	1,874,010,156	1,771,524,262
Terminated members entitled but not yet eligible	7,805,065	8,804,946
Total	$3,605,483,667	$3,378,373,367

	June 30, 2015	**June 30, 2014**
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	$1,344,333,306	$1,200,874,444
2. Present value of future normal costs	642,780,783	595,090,482
3. Unfunded actuarial accrued liability	1,618,369,578	1,582,408,441
4. Present value of current and future assets	$3,605,483,667	$3,378,373,367
Liabilities		
5. Actuarial Present Value of total Projected Benefits	$3,605,483,667	$3,378,373,367

The actuarial accrued liability shows that portion of the APB (Chart 1) allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion of the liability for active and inactive members, and reconciles the unfunded actuarial accrued liability from last year to this year.

CHART 2

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	June 30, 2015	June 30, 2014
Participant Category		
Current retirees, beneficiaries, and dependents	$1,723,668,446	$1,598,044,159
Current active members	1,231,229,373	1,176,433,780
Terminated members entitled but not yet eligible	7,805,065	8,804,946
Total actuarial accrued liability	$2,962,702,884	$2,783,282,885
Actuarial value of assets	1,344,333,306	1,200,874,444
Unfunded actuarial accrued liability	$1,618,369,578	$1,582,408,441
Development of Unfunded Actuarial Accrued Liability for the Year Ended June 30, 2015		
1. Unfunded actuarial accrued liability at beginning of year		$1,582,408,441
2. Normal cost from prior valuation		56,552,213
3. Expected employer contributions during 2014/2015 fiscal year		155,642,413
4. Interest on prior year UAAL, normal cost and contributions		111,248,868
5. Expected unfunded actuarial accrued liability (1 + 2 – 3 + 4)		1,594,567,109
6. Change due to investment gain		-10,211,481
7. Change due to actual contributions less than expected		8,183,588
8. Change due to health and starting cost assumption changes		5,158,682
9. Change due to age-adjusted per-capita costs[1]		58,783,662
10. Change due to miscellaneous demographic gains		-38,111,982
11. Unfunded actuarial accrued liability at end of year		$1,618,369,578

(1) *This is required under the new Actuarial Standards of Practice No. 6 titled Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Programs Periodic Costs or Actuarially Determined Contributions*

The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll base. The City of Los Angeles Fire and Police Pension Plan has elected to amortize the unfunded actuarial accrued liability using the following rules:

On September 6, 2012, the Board adopted the following amortization policy for bases established after June 30, 2011:

Type of Base	Amortization Period (Closed)
Actuarial Gains or Losses*	20
Assumption or Method Changes	25
Plan Amendments	15
ERIPs	5
Actuarial Surplus	30

* *Retiree health assumption changes in this valuation are treated as gains and losses and amortized over 20 years.*

CHART 3

Table of Amortization Bases

Tier 1

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment(1)
Combined Base	06/30/2011(2)	$26,295,692	25	$24,606,240	21	$2,198,067
Experience Gain	06/30/2012	-3,862,723	20	-3,579,233	17	-352,929
Experience Loss	06/30/2013	568,696	20	541,794	18	51,926
Experience Gain	06/30/2014	-116,336	20	-113,650	19	-10,616
Assumption change	06/30/2014	-170,349	25	-167,843	24	-14,216
Experience Gain	06/30/2015	-350,770	20	-350,770	20	-32,007
Total				$20,936,538		$1,840,225

Tier 2

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment(3)
Combined Base	06/30/2011(2)	$892,673,992	25	$936,123,369	21	$60,838,246
Experience Gain	06/30/2012	-78,975,844	20	-79,331,840	17	-6,002,123
Experience Loss	06/30/2013	11,740,672	20	11,800,753	18	855,935
Experience Gain	06/30/2014	-19,495,604	20	-19,548,494	19	-1,363,396
Assumption change	06/30/2014	9,333,499	25	9,453,131	24	561,485
Experience Loss(4)	06/30/2015	34,495,425	20	34,495,425	20	2,319,602
Total				$892,992,344		$57,209,749

(1) *Level dollar amortization.*

(2) *Prior to the June 30, 2012 valuation, separate amortization layers were not maintained.*

(3) *Level percentage of payroll amortization.*

(4) *Tier 2 consists mostly of retirees. Average age of retirees for this tier is 5 years older than average for all other tier and adjusting per capita costs by age has the impact of reallocating the liability from the other younger tiers to the older tiers. In addition, Tier 2 has a funded ratio of under 5% so investment gains observed in the other tiers did not offset the increased liability due to age-adjustment per capita costs, resulting in Tier 2 being the only tier with an experience loss for 2015.*

CHART 3 - Table of Amortization Bases (Continued)

Tier 3

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2011[2]	$68,153,341	25	$71,470,588	21	$4,644,842
Experience Gain	06/30/2012	-4,428,062	20	-4,448,022	17	-336,530
Experience Loss	06/30/2013	13,070,888	20	13,137,776	18	952,913
Experience Gain	06/30/2014	-7,497,023	20	-7,517,362	19	-524,293
Assumption Change	06/30/2014	2,693,968	25	2,728,497	24	162,064
Experience Gain	06/30/2015	-1,747,416	20	-1,747,416	20	-117,503
Total				$73,624,061		$4,781,493

Tier 4

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2011[2]	$49,380,711	25	$51,784,234	21	$3,365,435
Experience Gain	06/30/2012	-3,240,833	20	-3,255,442	17	-246,302
Experience Loss	06/30/2013	1,622,876	20	1,631,180	18	118,313
Experience Gain	06/30/2014	-6,372,636	20	-6,389,925	19	-445,661
Assumption Change	06/30/2014	4,070,034	25	4,122,201	24	244,845
Experience Gain	06/30/2015	-3,458,772	20	-3,458,772	20	-232,581
Total				$44,433,476		$2,804,049

(1) *Level percentage of payroll amortization.*

(2) *Prior to the June 30, 2012 valuation, separate amortization layers were not maintained.*

CHART 3 - Table of Amortization Bases (Continued)

Tiers 5 and 6 (without Harbor Port Police)

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2011[2]	$635,657,540	25	$666,597,081	21	$43,321,851
Experience Gain	06/30/2012	-36,520,953	20	-36,685,577	17	-2,775,573
Experience Gain	06/30/2013	-195,938	20	-196,941	18	-14,285
Experience Gain	06/30/2014	-85,025,359	20	-85,256,029	19	-5,946,122
Assumption change	06/30/2014	45,164,286	25	45,743,175	24	2,716,994
Experience Gain	06/30/2015	-5,944,485	20	-5,944,485	20	-399,730
Total				$584,257,224		$36,903,135

Harbor Port Police (Tiers 5 and 6)

Type	Date Established	Initial Balance	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2011[2]	$2,555,060	25	$2,679,422	21	$174,134
Experience Gain	06/30/2012	-481,777	20	-483,949	17	-36,615
Experience Gain	06/30/2013	-71,817	20	-72,185	18	-5,236
Experience Gain	06/30/2014	-232,604	20	-233,235	19	-16,267
Assumption change	06/30/2014	296,216	25	300,013	24	17,820
Experience Gain	06/30/2015	-64,131	20	-64,131	20	-4,312
Total				$2,125,935		$129,524

(1) *Level percentage of payroll amortization.*

(2) *Prior to the June 30, 2012 valuation, separate amortization layers were not maintained.*

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. Both are determined as of the start of the accounting period and adjusted as if the annual cost were to be contributed throughout the fiscal year or on July 15th.

The amortization payments are based on amortization of the Unfunded Actuarial Accrued Liability on a level percent of pay basis, except that Tier 1 is based on a level dollar basis.

CHART 4

Determination of Annual Required Contribution (ARC)

	Determined as of June 30			
Cost Element	**2015**		**2014**	
	Amount	**Percentage of Compensation**	**Amount**	**Percentage of Compensation**
1. Normal cost	$61,291,559	4.36%	$56,552,213	4.03%
2. Amortization of the unfunded actuarial accrued liability	103,668,175	7.38%	98,278,460	7.01%
3. Allocated amount for administrative expenses	813,160	0.06%	811,738	0.06%
4. Total Annual Required Contribution at beginning of year	$165,772,894	11.80%	$155,642,412	11.10%
5. Adjustment for timing (payable throughout the year)	6,104,101	0.43%	5,731,075	0.40%
6. Total Annual Required Contribution (payable throughout the year)	$171,876,995	12.23%	$161,373,487	11.50%
7. Adjustment for timing (payable July 15)	500,287	0.03%	469,714	0.03%
8. Total Annual Required Contribution (payable July 15)	$166,273,181	11.83%	$156,112,126	11.13%
9. Projected Total Payroll	$1,405,171,211		$1,402,715,039	

The Annual OPEB Cost (AOC) adjusts the ARC for timing differences between the ARC and contributions in relation to the ARC. The AOC is the cost of OPEB actually booked as an expense for the Fiscal Year under GASB 45.

CHART 4 (continued)

Determination of Annual OPEB Cost (AOC)

		Determined as of June 30	
	Cost Element	**2015**	**2014**
		Amount	**Amount**
1.	Annual Required Contribution (adjusted with interest to end of fiscal year)	$178,205,861	$167,315,593
2.	Interest on Beginning of Year Net OPEB Obligation (NOO)	9,877,344	10,099,735
3.	ARC adjustment	-9,068,911	-8,720,981
4.	Annual OPEB Cost	$179,014,294	$168,694,347
5.	AOC as percentage of pay	12.74%	12.03%
6.	Projected Total Payroll	$1,405,171,211	$1,402,715,039

For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For GASB 45 (employer reporting) purposes, the schedule of employer contributions compares actual contributions to the AOC.

CHART 5

Required Supplementary Information – Schedule of Employer Contributions

GASB 43

Fiscal Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2010	$106,648,282[1]	$106,648,282[1]	100.00%
2011	111,681,208[1]	111,681,208[1]	100.00
2012	122,971,851[1]	122,971,851[1]	100.00
2013	132,939,191[1]	132,939,191[1]	100.00
2014	138,106,847[1]	138,106,847[1]	100.00
2015	148,476,512[1]	148,476,512[1]	100.00

Required Supplementary Information – Schedule of Employer Contributions

GASB 45

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions[2]	Percentage Contributed
2010	$127,604,379	$114,816,430	89.98%
2011	173,645,281	119,975,864	69.09
2012	159,777,456	132,105,073	82.68
2013	144,568,706[3]	142,812,695	98.79
2014	149,887,239[3]	148,348,025	98.97
2015	160,865,397[3]	159,486,643	99.14

[1] *Payable as of July 15.*

[2] *Shown with interest to end of year.*

[3] *Based on calculated expense as percent of pay and actual payroll.*

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 6

Required Supplementary Information – Schedule of Funding Progress

	(Amounts in $1,000s)					
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]
06/30/2010	$817,276	$2,537,825	$1,720,549	32.20%	$1,356,986	126.79%
06/30/2011	882,890	2,557,607	1,674,716	34.52%	1,343,963	124.61%
06/30/2012	927,362	2,499,289	1,571,927	37.11%	1,341,914	117.14%
06/30/2013	1,013,400	2,633,793	1,620,393	38.48%	1,367,237	118.52%
06/30/2014	1,200,874	2,783,283	1,582,409	43.15%	1,402,715	112.81%
06/30/2015	1,344,333	2,962,703	1,618,370	45.38%	1,405,171	115.17%

The Net OPEB obligation measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC.

CHART 7

Required Supplementary Information – Net OPEB Obligation (NOO)

Fiscal Year Beginning	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount[2] (e)	Net Increase in NOO (d) - (e) (f)	NOO as of End of Fiscal Year (g)
07/01/2007	$105,876,005[1][2]	$0	$0	$105,876,005	$84,517,914	$21,358,091	$21,358,091
07/01/2008	105,967,196[2][3]	1,708,647	-1,222,906	106,452,937	94,916,833	11,536,103	32,894,194
07/01/2009	126,897,238[2]	2,631,536	-1,924,395	127,604,379	114,816,430	12,787,949	45,682,143
07/01/2010	172,841,037[2]	3,654,571	-2,850,327	173,645,281	119,975,864	53,669,417	99,351,560
07/01/2011	158,264,914[2]	7,700,361	-6,187,819	159,777,456	132,105,073	27,672,383	127,023,943
07/01/2012	142,812,695[2][4]	9,844,356	-8,088,345	144,568,706	142,812,695	1,756,011	128,779,954
07/01/2013	148,348,025[2][4]	9,980,446	-8,441,233	149,887,239	148,348,025	1,539,214	130,319,167
07/01/2014	159,486,643[2][4]	10,099,735	-8,720,981	160,865,397	159,486,643	1,378,754	131,697,921

(1) *Based on the beginning of year contribution rate of 8.15% of compensation calculated in the June 30, 2006 valuation before the phase-in. The ARC dollar amount has been approximated by applying the ratio of the contribution before the phase-in to the contribution after the phase-in as determined in the June 30, 2006 valuation to the actual contributions made during 2007/2008.*

(2) *With interest to end of year.*

(3) *Based on the beginning of year contribution rate of 7.89% of compensation calculated in the June 30, 2007 valuation before the phase-in. The ARC dollar amount has been approximated by applying the ratio of the contribution before the phase-in to the contribution after the phase-in made during 2008/2009 as determined in the June 30, 2007 valuation to the actual contributions.*

(4) *Based on calculated expense as percent of pay and actual payroll.*

EXHIBIT A

Summary of Participant Data – Includes Only Retirees and Beneficiaries Receiving Health Subsidy

	June 30, 2015	June 30, 2014
Retired members:		
Number of non-disabled retirees	7,441	7,277
Number of disabled retirees	1,386	1,410
Total Number of retirees	8,827	8,687
Average age of retirees	70.8	70.6
Number of spouses/domestic partners of retirees receiving subsidy	5,987	5,963
Average age of spouses/domestic partners of retirees receiving subsidy	66.8	66.5
Beneficiaries:		
Number	1,664	1,703
Average age	79.5	79.3
Active members in valuation:		
Number	13,068	13,097
Average age	42.5	42.4
Average years of service	15.5	15.4
Vested terminated members[1]:		
Number	58	75
Average age	45.7	45.7

(1) *Excludes terminated members not eligible for retiree health benefit due to service or due only a refund of member contributions.*

EXHIBIT A (Continued)

Summary of Participant Data – Includes All Retirees and Beneficiaries

	June 30, 2015	June 30, 2014
Retired members:		
Number of non-disabled retirees	8,122	7,955
Number of disabled retirees	2,031	2,088
Total Number of retirees	10,153	10,043
Average age of retirees	69.6	69.5
Number of spouses/domestic partners of retirees receiving subsidy	5,987	5,963
Average age of spouses/domestic partners of retirees receiving subsidy	66.8	66.5
Beneficiaries:		
Number	2,440	2,459
Average age	76.6	76.3
Active members in valuation:		
Number	13,068	13,097
Average age	42.5	42.4
Average years of service	15.5	15.4
Vested terminated members[1]:		
Number	58	75
Average age	45.7	45.7

(1) *Excludes terminated members not eligible for retiree health benefit due to service or due only a refund of member contributions.*

EXHIBIT B

Reconciliation of Participant Data with Pension Valuation

	June 30, 2015	June 30, 2014
Retired members:		
Pension valuation	8,122	7,955
Retirees with no subsidy due to service or decision not to enroll	-205	-232
Deferred retirees eligible for future health benefits	-476	-446
Health valuation	7,441	7,277
Disabled members:		
Pension valuation	2,031	2,088
Disableds with no subsidy due to service or decision not to enroll	-460	-469
Deferred disableds eligible for future health benefits	-185	-209
Health valuation	1,386	1,410
Beneficiaries:		
Pension valuation	2,440	2,459
Surviving spouses with no subsidy due to service or decision not to enroll	-595	-565
Deferred surviving spouses eligible for future health benefits	-181	-191
Health valuation	1,664	1,703
Active members:		
Pension valuation	13,068	13,097
Health valuation	13,068	13,097
Vested terminated members:		
Pension valuation*	112	131
Inactive vested with insufficient service or due only a refund of member contributions	54	-56
Health valuation	58	75

* *Includes terminated members due only a refund of member contributions.*

EXHIBIT C

Allocation of ARC by Tier

Tier 1 Members		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount	% of Payroll
1	Employer normal cost	$0	N/A	$0	N/A
2	Actuarial accrued liability	15,808,044		16,757,284	
3	Valuation value of assets	-5,128,494		-4,917,096	
4	Unfunded actuarial accrued liability	20,936,538		21,674,380	
5	Amortization of unfunded accrued liability	1,840,225	N/A	$1,872,233	N/A
6	Allocated amount for admin expenses, calculated with payroll in 10	0		0	
7	Total recommended contribution, July 1	1,840,225	N/A	$1,872,233	N/A
8	Total recommended contribution, July 15	1,845,779	N/A	1,877,883	N/A
9	Total recommended contribution, biweekly	1,907,986	N/A	1,941,172	N/A
10	Projected payroll used for developing normal cost rate	0		0	

Tier 2 Members		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[2]	% of Payroll
1	Employer normal cost	$108,608	3.51%	$101,886	3.29%
2	Actuarial accrued liability	933,536,742		905,038,146	
3	Valuation value of assets	40,544,398		53,657,373	
4	Unfunded actuarial accrued liability	892,992,344		851,380,773	
5	Amortization of unfunded accrued liability [1]	57,209,749	4.11%	52,804,497	3.79%
6	Allocated amount for admin expenses, calculated with payroll in 10	1,792	0.06%	1,792	0.06%
7	Total recommended contribution, July 1	57,320,149	N/A	52,908,175	N/A
8	Total recommended contribution, July 15	57,493,136	N/A	53,067,847	N/A
9	Total recommended contribution, biweekly	59,430,795	N/A	54,856,363	N/A
10	Projected payroll used for developing normal cost rate	3,096,841		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,393,258,487.

(2) Amounts are revised to reflect payroll as of June 30, 2015.

Tier 3 Members		June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[2]	June 30, 2014 % of Payroll
1	Employer normal cost	$4,139,444	4.40%	$3,882,752	4.13%
2	Actuarial accrued liability	171,033,853		157,623,229	
3	Valuation value of assets	97,409,792		82,799,654	
4	Unfunded actuarial accrued liability	73,624,061		74,823,575	
5	Amortization of unfunded accrued liability [1]	4,781,493	0.34%	4,737,079	0.34%
6	Allocated amount for admin expenses, calculated with payroll in 10	54,405	0.06%	54,405	0.06%
7	Total recommended contribution, payable July 1	8,975,342	N/A	8,674,236	N/A
8	Total recommended contribution, payable July 15	9,002,429	N/A	8,700,414	N/A
9	Total recommended contribution, payable biweekly	9,305,833	N/A	8,993,639	N/A
10	Projected payroll used for developing normal cost rate	94,013,374		N/A	

Tier 4 Members		June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[2]	June 30, 2014 % of Payroll
1	Employer normal cost	$1,556,705	4.20%	$1,449,465	3.91%
2	Actuarial accrued liability	88,815,964		85,119,288	
3	Valuation value of assets	44,382,488		37,648,522	
4	Unfunded actuarial accrued liability	44,433,476		47,470,766	
5	Amortization of unfunded accrued liability [1]	2,804,049	0.20%	2,925,843	0.21%
6	Allocated amount for admin expenses, calculated with payroll in 10	21,453	0.06%	21,453	0.06%
7	Total recommended contribution, payable July 1	4,382,207	N/A	4,396,761	N/A
7	Total recommended contribution, payable July 15	4,395,432	N/A	4,410,030	N/A
9	Total recommended contribution, payable biweekly	4,543,569	N/A	4,558,659	N/A
10	Projected payroll used for developing normal cost rate	37,070,727		N/A	

[1] *UAAL rate is calculated using the City's total payroll of $1,393,258,487.*
[2] *Amounts are revised to reflect payroll as of June 30, 2015.*

Tier 5 Members (without Harbor Port Police)		June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[1]	June 30, 2014 % of Payroll
1	Employer normal cost	$49,011,395	4.18%	$45,592,936	3.89%
2	Actuarial accrued liability	*(Tiers 5 and 6 are combined. See table on the next page)*		*(Tiers 5 and 6 are combined. See table on the next page)*	
3	Valuation value of assets				
4	Unfunded actuarial accrued liability				
5	Amortization of unfunded accrued liability	34,353,371	2.93%	33,755,181	2.88%
6	Allocated amount for admin expenses, calculated with payroll in 10	678,258	0.06%	678,258	0.06%
7	Total recommended contribution, payable July 1	84,043,024	7.17%	80,026,375	6.82%
8	Total recommended contribution, payable July 15	84,296,658	7.19%	80,267,887	6.84%
9	Total recommended contribution, payable biweekly	87,137,662	7.43%	82,973,112	7.07%
10	Projected payroll used for developing normal cost rate	1,172,054,899		N/A	

Tier 6 Members (without Harbor Port Police)		June 30, 2015 Amount	June 30, 2015 % of Payroll	June 30, 2014 Amount[1]	June 30, 2014 % of Payroll
1	Employer normal cost	$5,804,592	6.67%	$6,300,440	7.24%
2	Actuarial accrued liability	*(Tiers 5 and 6 are combined. See table on the next page)*		*(Tiers 5 and 6 are combined. See table on the next page)*	
3	Valuation value of assets				
4	Unfunded actuarial accrued liability				
5	Amortization of unfunded accrued liability	2,549,764	2.93%	2,506,252	2.88%
6	Allocated amount for admin expenses, calculated with payroll in 10	50,359	0.06%	50,359	0.06%
7	Total recommended contribution, payable July 1	8,404,715	9.66%	8,857,051	10.18%
8	Total recommended contribution, payable July 15	8,430,080	9.69%	8,883,780	10.21%
9	Total recommended contribution, payable biweekly	8,714,194	10.01%	9,183,185	10.55%
10	Projected payroll used for developing normal cost rate	87,022,646		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2015.*

Combined Tiers 5 and 6 UAAL Contribution Rate Calculations for the City

		June 30, 2015				June 30, 2014	
		Tier 5	*Tier 6*	*Combined Tiers 5 and 6*		*Combined Tiers 5 and 6*	
				Amount	% of Payroll	Amount	% of Payroll
2	Actuarial accrued liability	$1,741,315,404	$3,517,573	$1,744,832,977		$1,611,134,074	
3	Valuation value of assets			1,160,575,753		1,026,241,087	
4	Unfunded actuarial accrued liability			584,257,224		584,892,987	
5	Amortization of unfunded accrued liability			36,903,135	2.93%	36,261,433	2.88%
	Projected payroll used for developing combined UAAL rate	1,172,054,899	87,022,646	1,259,077,545		N/A	

All Tiers Combined (without Harbor Port Police)

		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$60,620,744	4.35%	$57,327,479	4.11%
2	Actuarial accrued liability	2,954,027,580		2,775,672,021	
3	Valuation value of assets	1,337,783,937		1,195,429,540	
4	Unfunded actuarial accrued liability	1,616,243,643		1,580,242,481	
5	Amortization of unfunded accrued liability	103,538,651	7.43%	98,601,085	7.08%
6	Allocated amount for admin expenses, calculated with payroll in 10	806,267	0.06%	806,267	0.06%
7	Total recommended contribution, payable July 1	164,965,662	11.84%	156,734,831	11.25%
8	Total recommended contribution, payable July 15	165,463,513	11.88%	157,207,841	11.28%
9	Total recommended contribution, payable biweekly	171,040,039	12.28%	162,506,131	11.66%
10	Projected payroll used for developing normal cost rate	1,393,258,487		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2015.*

Harbor Port Police Tier 5

		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$617,701	5.61%	$560,352	5.09%
2	Actuarial accrued liability	*(Tiers 5 and 6 are combined. See table on the next page)*		*(Tiers 5 and 6 are combined. See table on the next page)*	
3	Valuation value of assets				
4	Unfunded actuarial accrued liability				
5	Amortization of unfunded accrued liability	119,672	1.09%	125,501	1.14%
6	Allocated amount for admin expenses, calculated with payroll in 10	6,371	0.06%	6,371	0.06%
7	Total recommended contribution, payable July 1	743,744	6.76%	692,224	6.29%
8	Total recommended contribution, payable July 15	745,989	6.78%	694,313	6.31%
9	Total recommended contribution, payable biweekly	771,130	7.00%	717,713	6.52%
10	Projected payroll used for developing normal cost rate	11,008,872		N/A	

Harbor Port Police Tier 6

		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$53,114	5.88%	$70,681	7.82%
2	Actuarial accrued liability	*(Tiers 5 and 6 are combined. See table on the next page)*		*(Tiers 5 and 6 are combined. See table on the next page)*	
3	Valuation value of assets				
4	Unfunded actuarial accrued liability				
5	Amortization of unfunded accrued liability	9,852	1.09%	10,304	1.14%
6	Allocated amount for admin expenses, calculated with payroll in 10	523	0.06%	523	0.06%
7	Total recommended contribution, payable July 1	63,489	7.02%	81,508	9.02%
8	Total recommended contribution, payable July 15	63,681	7.05%	81,754	9.04%
9	Total recommended contribution, payable biweekly	65,827	7.28%	84,509	9.35%
10	Projected payroll used for developing normal cost rate	903,852		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2015.*

Combined Tiers 5 and 6 UAAL Contribution Rate Calculations for Harbor Port Police

		June 30, 2015				June 30, 2014	
		Tier 5	Tier 6	Combined Tiers 5 and 6		Combined Tiers 5 and 6	
				Amount	% of Payroll	Amount	% of Payroll
2	Actuarial accrued liability	$8,656,647	$18,657	$8,675,304		$7,610,864	
3	Valuation value of assets			6,549,369		5,444,904	
4	Unfunded actuarial accrued liability			2,125,935		2,165,960	
5	Amortization of unfunded accrued liability			129,524	1.09%	135,805	1.14%
	Projected payroll used for developing combined UAAL rate	11,008,872	903,852	11,912,724		N/A	

Harbor Port Police Combined (Tiers 5 and 6)

		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$670,815	5.63%	$631,033	5.30%
2	Actuarial accrued liability	8,675,304		7,610,864	
3	Valuation value of assets	6,549,369		5,444,904	
4	Unfunded actuarial accrued liability	2,125,935		2,165,960	
5	Amortization of unfunded accrued liability	129,524	1.09%	135,805	1.14%
6	Allocated amount for admin expenses, calculated with payroll in 10	6,894	0.06%	6,894	0.06%
7	Total recommended contribution, payable July 1	807,233	6.78%	773,732	6.50%
8	Total recommended contribution, payable July 15	809,670	6.80%	776,067	6.51%
9	Total recommended contribution, payable biweekly	836,957	7.03%	802,222	6.73%
10	Projected payroll used for developing normal cost rate	11,912,724		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2015.*

All Tiers Combined		June 30, 2015		June 30, 2014	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$61,291,559	4.36%	$57,958,512	4.12%
2	Actuarial accrued liability	2,962,702,884		2,783,282,885	
3	Valuation value of assets	1,344,333,306		1,200,874,444	
4	Unfunded actuarial accrued liability	1,618,369,578		1,582,408,441	
5	Amortization of unfunded accrued liability	103,668,175	7.38%	98,736,890	7.03%
6	Allocated amount for admin expenses, calculated with payroll in 10	813,160	0.06%	813,160	0.06%
7	Total recommended contribution, payable July 1	165,772,894	11.80%	157,508,562	11.21%
8	Total recommended contribution, payable July 15	166,273,181	11.83%	157,983,908	11.24%
9	Total recommended contribution, payable biweekly	171,876,995	12.23%	163,308,352	11.62%
10	Projected payroll used for developing normal cost rate	1,405,171,211		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2015.*

EXHIBIT D

Cash Flow Projections

The ARC generally exceeds the current pay-as-you-go (“paygo”) cost of an OPEB plan. Over time the paygo cost will tend to grow and may even eventually exceed the ARC in a well-funded plan. The following table projects the paygo cost as the projected net fund payment over the next ten years.

Year Ending June 30	Projected Number of Retirees*			Projected Benefit Payments		
	Current	Future	Total	Current	Future	Total
2016	16,837	223	17,060	$115,709,167	$1,821,201	$117,530,368
2017	16,501	963	17,464	120,490,621	8,622,576	129,113,197
2018	16,164	1,439	17,603	125,513,604	13,579,178	139,092,782
2019	15,773	2,111	17,884	129,545,820	20,932,635	150,478,455
2020	15,367	3,063	18,430	133,205,034	31,925,830	165,130,864
2021	14,932	3,938	18,870	136,472,329	43,067,598	179,539,927
2022	14,478	4,478	18,956	139,090,771	51,157,190	190,247,961
2023	14,011	5,062	19,073	141,236,577	60,019,601	201,256,178
2024	13,522	5,646	19,168	143,048,118	69,248,505	212,296,623
2025	13,020	6,262	19,282	144,718,196	79,285,575	224,003,771

* *Includes spouses of retirees. Does not include retirees and spouses who have yet to commence retiree health benefits.*

EXHIBIT E

Summary Statement of Income and Expenses on an Actuarial Value Basis for All Retirement and Health Subsidy Benefits Assets

	Year Ended June 30, 2015		Year Ended June 30, 2014	
Contribution income:				
Employer contributions	$628,808,763		$578,805,107	
Employee contributions	126,770,882		124,394,889	
Net contribution income		$755,579,645		$703,199,996
Investment income:				
Interest, dividends and other income	$1,524,766,970		$1,325,729,463	
Recognition of capital appreciation	87,669,422		227,580,333	
Less investment and administrative fees	-84,478,748		-84,910,347	
Net investment fees*		1,527,957,644		1,468,399,449
Total income available for benefits		$2,283,537,289		$2,171,599,445
Less benefit payments		-$1,029,319,785		-$963,356,954
Less administrative expenses		-19,178,885		0
Change in reserve for future benefits		$1,235,038,619		$1,208,242,491

* *Prior to 2015, administrative expenses were shown as part of investment and administrative fees.*

EXHIBIT F

Summary Statement of Assets for Retirement and Health Subsidy Benefits

	Year Ended June 30, 2015		Year Ended June 30, 2014	
Cash equivalents		$1,030,837		$1,449,555
Accounts receivable:				
Accrued interest and dividends	$53,667,875		$58,230,583	
Contributions	6,686,968		6,109,845	
Due from brokers	204,331,276		265,172,222	
Total accounts receivable		264,686,119		329,512,650
Investments:				
Equities	$13,533,110,602		$12,691,081,303	
Fixed income investments	3,843,514,633		4,311,621,954	
Real estate	1,581,094,151		1,419,813,952	
Total investments at market value		18,957,719,386		18,422,517,209
Total assets		$19,223,436,342		$18,753,479,414
Less accounts payable:				
Accounts payable and benefits in process	-$34,359,392		-$28,597,595	
Due to brokers	-245,774,104		-265,350,594	
Mortgage payable	-206,202,144		-168,520,538	
Total accounts payable		-$486,335,640		-$462,468,727
Net assets at market value		$18,737,100,702		$18,291,010,687*
Net assets at actuarial value		$18,114,393,332		$16,879,354,713
Net assets at valuation value (health benefits)		$1,344,333,306		$1,200,874,444

* *Based on unaudited market value of assets. Subsequent to the June 30, 2014 valuation, the market value of assets was changed to $18,303,840,134.*

EXHIBIT G

Development of the Fund Through June 30, 2015 for All Retirement and Health Subsidy Benefits Assets

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return[1]	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2007	$286,167,278[2]	$91,263,474	$1,590,968,304	-	$800,819,28	$13,902,764,838
2008	333,672,743	98,074,219	1,414,391,128	-	827,959,24	14,920,943,683
2009	326,876,839	103,685,447	557,346,783	-	842,565,35	15,066,287,394
2010	357,165,140	106,411,630	360,741,904	-	853,749,42	15,036,856,639
2011	388,773,459	105,471,264	568,411,044	-	878,952,80	15,220,559,597
2012	444,565,284	120,099,124	320,400,668	-	926,349,50	15,179,275,167
2013	508,387,283	121,777,655	827,790,619	-	966,118,50	15,671,112,222
2014	578,805,107	124,394,889	1,468,399,449	-	963,356,95	16,879,354,713
2015	628,808,763	126,770,882	1,527,957,644	$19,178,885	1,029,319,78	18,114,393,332

[1] *Net of investment fees and administrative expenses prior to 2015. Starting in 2015, administrative expenses are shown separately.*

[2] *Includes $6,220,076 (discounted to $6,058,515) of Harbor Port Police assets transferred in October, 2007.*

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Commissioners has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

EXHIBIT H

Determination of Actuarial Value of Assets for All Retirement and Health Subsidy Benefits

	Original Amount	Portion Not Recognized	Amount Not Recognized	
1. Market value of assets (for Retirement and Health Subsidy Benefits)				$18,737,100,702
2. Calculation of unrecognized return[1]				
(a) Year ended June 30, 2015	-$643,447,599	6/7	-$551,526,513	
(b) Year ended June 30, 2014	1,571,818,656	5/7	1,122,727,611	
(c) Combined base for year ended June 30, 2013[2]	77,259,408	4/6	51,506,272	
(d) Total unrecognized return				622,707,370
3. Preliminary actuarial value: (1) - (2d)				18,114,393,332
4. Adjustment to be within 40% corridor				0
5. Final actuarial value of assets: (3) + (4)				$18,114,393,332
6. Actuarial value as a percentage of market value: (5) ÷ (1)				96.7%
7. Market value of health assets				$1,390,546,626
8. Valuation value of health assets: (5) ÷ (1) x (7)				$1,344,333,306
9. Deferred return recognized in each of the next 6 years (for Retirement and Health Subsidy Benefits):				
(a) Amount recognized on June 30, 2016				$145,501,004
(b) Amount recognized on June 30, 2017				145,501,004
(c) Amount recognized on June 30, 2018				145,501,004
(d) Amount recognized on June 30, 2019				145,501,004
(e) Amount recognized on June 30, 2020				132,624,437
(f) Amount recognized on June 30, 2021				-91,921,083
(g) Subtotal (may not total exactly due to rounding)				$622,707,370

[1] *Total return minus expected return on a market value basis. Effective with the calculations for period ended June 30, 2015, both actual and expected returns on market value have been adjusted to exclude administrative expense paid during the plan year.*

[2] *Net deferred unrecognized investment gains as of June 30, 2013 have been combined into a single layer to be recognized over the six-year period effective July 1, 2013.*

The chart below details the changes in the ARC from the prior valuation to the current year's valuation.

EXHIBIT I

Reconciliation of Recommended Contribution from June 30, 2014 to June 30, 2015

Recommended Contribution as of June 30, 2014	11.10%[1]
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.27%
Effect of actual contributions less than expected	0.04%
Effect of combined investment and demographic experience	0.02%
Effect of new per capita costs and other health assumptions	0.03%
Effect of age-adjusted per capita costs	0.31%
Effect of miscellaneous factors including change in active normal cost	0.03%
Recommended Contribution as of June 30, 2015	11.80%

(1) *Based on contributions at beginning of year.*

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2015
Actuarial cost method	Entry age normal, level percent of pay
Amortization method	Closed amortization periods. On September 6, 2012, the Board adopted the following amortization policy:

Type of Base	Amortization Period (Closed)
Actuarial Gains or Losses[1]	20
Assumption or Method Changes	25
Plan Amendments	15
ERIPs	5
Actuarial Surplus	30

Asset valuation method	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized over a period of six years from July 1, 2013. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	7.50%
Inflation rate	3.25%
Across-the-board pay increase	0.75%
Projected payroll increases	4.00%
Health care cost trend rate (to calculate following year's premium)	
• Medical	6.75% in 2015-2016, then decreasing by 0.25% for each year for seven years until it reaches an ultimate rate of 5%.
• Dental	5.00% for all years
• Medicare Part B Premium	5.00% for all years

(1) *Retiree health assumption changes are treated as gains and losses and amortized over 20 years.*

Actuarial assumptions (continued):

• Medical Subsidy Trend	▪ For all non-Medicare retirees, increase at lesser of 7% or medical trend. ▪ For Medicare retirees with single party premium, increase with medical trend. ▪ For Medicare retirees with 2-party premium less than or equal to the maximum subsidy as of July 1, 2015 (e.g. Fire Kaiser), increase with medical trend. ▪ For Medicare retirees with 2-party premium greater than the maximum subsidy as of July 1, 2015 (e.g. Police Blue Cross PPO), increase with lesser of 7% or medical trend.

Plan membership – Excluding retirees and beneficiaries not receiving subsidy:	June 30, 2015	June 30, 2014
Current retirees and beneficiaries	10,491	10,390
Current active participants	13,068	13,097
Terminated participants entitled but not yet eligible	58	75
Total	23,617	23,562

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2010 through June 30, 2013 Actuarial Experience Study dated July 3, 2014 and the Economic Actuarial Assumption for June 30, 2014 Actuarial Valuation dated July 3, 2014. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all members. These assumptions have been adopted by the Board.

Demographic Assumptions:

Mortality Rates

Healthy: RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set back one year for members.

RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set forward one year for beneficiaries.

Disabled: RP-2000 Combined Healthy Mortality Table (separate for males and females), projected to 2022 with scale BB set forward one year.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision appropriate to reasonably anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates Before Retirement:

Pre-Retirement Mortality:

	Rate (%)	
	Mortality	
Age	Male	Female
20	0.03	0.02
25	0.04	0.02
30	0.04	0.02
35	0.07	0.04
40	0.10	0.06
45	0.13	0.10
50	0.19	0.15
55	0.30	0.22
60	0.52	0.36

All pre-retirement deaths are assumed to be service connected.

Termination Rates Before Retirement (continued):

	Rate (%)	
	Disability*	
Age	Fire	Police
20	0.02	0.02
25	0.02	0.03
30	0.03	0.05
35	0.06	0.08
40	0.15	0.22
45	0.23	0.36
50	0.28	0.46
55	1.02	0.08
60	3.00	1.18

* *90% of disabilities are assumed to be service connected.*
Disability rates are not applied to members eligible for DROP.

Termination Rates Before Retirement (continued):

	Rate (%) Termination (< 5 Years of Service)	
Years of Service	**Fire**	**Police**
0 - 1	8.00%	8.00%
1 - 2	2.50	3.00
2 – 3	1.50	2.50
3 – 4	0.75	2.50
4 – 5	0.50	1.75

	Rate (%) Termination (5+ Years of Service) *	
Age	**Fire**	**Police**
20	1.00%	2.00%
25	1.00	2.00
30	0.85	1.70
35	0.54	1.20
40	0.37	0.85
45	0.17	0.66
50	0.02	0.24
55	0.00	0.00
60	0.00	0.00

* *No termination is assumed after a member is eligible for retirement. This includes all active members currently in Tier 2. Members in Tiers 3, 5 and 6 who are not eligible to receive a deferred vested retirement benefit are assumed to receive refund of member contributions.*

Retirement Rates:

Age	Fire Tiers 2&4	Fire Tiers 3&5	Fire Tier 6	Police Tiers 2&4	Police Tiers 3&5	Police Tier 6
	Rate(%)					
41	1.00%	0.00%	0.00%	10.00%	0.00%	0.00%
42	1.00	0.00	0.00	10.00	0.00	0.00
43	1.00	0.00	0.00	10.00	0.00	0.00
44	1.00	0.00	0.00	10.00	0.00	0.00
45	1.00	0.00	0.00	10.00	0.00	0.00
46	1.00	0.00	0.00	7.00	0.00	0.00
47	1.00	0.00	0.00	7.00	0.00	0.00
48	2.00	0.00	0.00	7.00	0.00	0.00
49	2.00	0.00	0.00	7.00	0.00	0.00
50	3.00	3.00	3.00	12.00	7.00	8.00
51	4.00	3.00	3.00	12.00	6.00	10.00
52	5.00	3.00	4.00	12.00	6.00	10.00
53	10.00	3.00	5.00	15.00	6.00	15.00
54	15.00	7.00	5.00	20.00	10.00	15.00
55	20.00	12.00	10.00	20.00	18.00	18.00
56	20.00	14.00	12.00	25.00	18.00	18.00
57	20.00	16.00	15.00	25.00	20.00	20.00
58	20.00	20.00	18.00	25.00	22.00	22.00
59	20.00	25.00	20.00	25.00	25.00	25.00
60	20.00	25.00	25.00	25.00	25.00	25.00
61	20.00	30.00	30.00	25.00	25.00	25.00
62	25.00	35.00	30.00	25.00	25.00	25.00
63	25.00	40.00	35.00	30.00	25.00	25.00
64	30.00	40.00	40.00	40.00	30.00	30.00
65	100.00	100.00	100.00	100.00	100.00	100.00

DROP Program: DROP participants are considered active members until they leave DROP and begin receiving retirement benefits. Members are assumed to remain in the DROP for 5 years. Of all members expected to retire with a service retirement benefit, we project a 95% probability that members have elected DROP before retirement if they will have also satisfied the requirements for participating in the DROP for 5 years.

Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.25% per year; plus 0.75% “across the board” salary increases; plus the following Merit and Longevity increases based on years of service.

Years of Service	Additional Salary Increase
0	7.50%
1	6.50
2	5.00
3	4.75
4	3.75
5	3.00
6	2.25
7	2.00
8	1.75
9	1.75
10	1.25
11+	0.75

Measurement Date:	June 30, 2015
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Definition of Active Members:	First day of biweekly payroll following employment for new department employees or immediately following transfer from other city department.
Actuarial Value of Assets:	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized over a period of six years from July 1, 2013. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets.
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the current age minus Service Credit. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. Normal Cost and amortization of unfunded are computed as a percent of pay and applied to actual payroll.
Funding Policy:	The City of Los Angeles Fire & Police Pension Plan makes contributions equal to the Normal Cost adjusted by amounts to amortize any Surplus or Unfunded Actuarial Accrued Liability (UAAL). Both the Normal Cost and the Actuarial Accrued Liability are determined under the Entry Age cost method. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis.

On September 6, 2012, the Board adopted the following amortization policy:

Type of Base	Amortization Period (Closed)
Actuarial Gains or Losses[1]	20
Assumption or Method Changes	25
Plan Amendments	15
ERIPs	5
Actuarial Surplus	30

(1) *Retiree health assumption changes are treated as gains and losses and amortized over 20 years.*

Data: Detailed census data and financial data for postemployment benefits were provided by the City of Los Angeles Fire and Police Pension Plan.

Future Benefit Accruals: 1.0 year of service per year.

Net Investment Return: 7.50%, net of investment expenses.

Administrative Expenses Out of the total 1.00% of payroll in administrative expense, 0.06% of payroll payable bi-weekly is allocated to the Retiree Health Plan. This is equal to 0.06% of payroll payable at beginning of the year.

Spouse Age Difference Husbands are assumed to be 3 years older than wives.

Participation

Service Range (Years)	Assumption for Future Retirees Under 65	Assumption for Future Retirees Over 65
10-14	45%	80%
15-19	60	85
20-24	75	90
25 and over	95	95

Medicare Coverage 100% of future retirees are assumed to elect Medicare Parts A & B.

Dental Coverage 80% of future retirees are assumed to elect dental coverage.

Spousal Coverage Of future retirees receiving a medical subsidy 80% are assumed to elect coverage for married and surviving spouses or domestic partners. For those retired on valuation date, spousal coverage is based on census data.

Implicit Subsidy No implicit subsidy exists since retiree medical premiums are underwritten separately from active premiums, except for one small group (Fire Blue and Fire California Care) that has some active/retiree experience blending.

Per Capita Cost Development – Not Subject to Retiree Medical Freeze:

Retirees Under Age 65

Future retirees under age 65 are assumed, upon retirement, to elect carriers in the percentages and corresponding premiums and subsidies as noted in the table below. Current retirees and current eligible survivors under age 65 are assumed to continue to cover themselves (and their spouse or domestic partner) – but all children are assumed to age out at the valuation date.

2015 – 2016 Fiscal Year		**Single Party**			**Married/With Domestic Partner**			**Eligible Survivor**		
Carrier	**Assumed Election Percent**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**
Fire										
Fire Medical	75	$1,059.81	$1,435.13	**$1,059.81**	$1,518.17	$1,435.13	**$1,435.13**	$485.53	$787.87	**$485.53**
Fire Kaiser	15	$648.30	$1,435.13	**$648.30**	$1,286.58	$1,435.13	**$1,286.58**	$648.30	$787.87	**$648.30**
Fire Blue Cross	5	$1,372.98	$1,435.13	**$1,372.98**	$1,703.42	$1,435.13	**$1,435.13**	$1,157.51	$787.87	**$787.87**
Fire California Care	5	$1,344.38	$1,435.13	**$1,344.38**	$1,372.98	$1,435.13	**$1,372.98**	$828.97	$787.87	**$787.87**
Police										
Blue Cross PPO	65	$917.07	$1,435.13	**$917.07**	$1,737.78	$1,435.13	**$1,435.13**	$917.07	$787.87	**$787.87**
Blue Cross HMO	15	$702.79	$1,435.13	**$702.79**	$1,336.26	$1,435.13	**$1,336.26**	$702.79	$787.87	**$702.79**
Police Kaiser	20	$580.36	$1,435.13	**$580.36**	$1,149.96	$1,435.13	**$1,149.96**	$580.36	$787.87	**$580.36**

** *Members who are subject to the retiree medical subsidy freeze have monthly health insurance subsidy maximums fixed at the level in effect on July 1, 2011, as shown on page 43.*

For the valuation of current retirees, subsidies valued are based on actual subsidies provided in the data reported for the Health Plan.

Per Capita Cost Development – Not Subject to Retiree Medical Freeze:

Retirees Age 65 and Older

Future retirees and current retirees under age 65 are assumed, upon reaching age 65, to elect carriers in the percentages and corresponding premiums and subsidies as noted in the table below. Current retirees and current eligible survivors over age 65 are assumed to continue to cover themselves (and their spouse or domestic partner) – but all children are assumed to age out at the valuation date.

2015 – 2016 Fiscal Year		**Single Party**			**Married/With Domestic Partner**			**Eligible Survivor**		
Carrier	**Assumed Election Percent**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**	**Monthly Premium**	**Maximum Subsidy**	**Subsidy**
Fire										
Fire Medical	85	$578.65	$523.25	**$523.25**	$893.33	$837.93	**$837.93**	$501.15	$523.25	**$501.15**
Fire Kaiser	15	$384.28	$523.25	**$384.28**	$758.56	$758.56	**$758.56**	$384.28	$523.25	**$384.28**
Fire Blue Cross	0	$795.84	$523.25	**$523.25**	$1,659.95	$1,387.36	**$1,387.36**	$795.84	$523.25	**$523.25**
Fire California Care	0	$493.74	$523.25	**$493.74**	$1,399.09	$1,399.09	**$1,399.09**	$493.74	$523.25	**$493.74**
Police										
Blue Cross PPO	75	$544.07	$523.25	**$523.25**	$1,007.97	$987.15	**$987.15**	$544.07	$523.25	**$523.25**
Blue Cross HMO	10	$478.79	$523.25	**$478.79**	$995.29	$995.29	**$995.29**	$478.79	$523.25	**$478.79**
Police Kaiser	15	$256.70	$523.25	**$256.70**	$508.38	$508.38	**$508.38**	$256.70	$523.25	**$256.70**

** *Members who are subject to the retiree medical subsidy freeze have monthly health insurance subsidy maximums fixed at the level in effect on July 1, 2011, as shown on page 45.*

For the valuation of current retirees, subsidies valued are based on actual subsidies provided in the data reported for the Health Plan.

Per Capita Cost Development – Subject to Retiree Medical Subsidy Freeze:

	Single Party	Married/With Domestic Partner	Eligible Survivor
Under 65 – All Plans	$1,097.41	$1,097.41	$595.60
Over 65			
Fire Medical	$480.41	$795.09	$480.41
Fire Kaiser	$384.28*	$758.56	$384.28*
Fire Blue Cross	$480.41	$1,084.08	$480.41
Fire California Care	$480.41	$1,084.08	$480.41
Police Blue Cross PPO	$480.41	$848.75	$480.41
Police Blue Cross HMO	$478.79*	$972.41	$478.79*
Police Kaiser	$256.70*	$508.38	$256.70*

**Future single-party subsidy levels limited to $480.41.*

Adjustment of Per Capita Medical Costs for Age, Gender and Spouse Status

Applied to Per Capita Costs under Age 65 for 2015-2016

	Retiree		Spouse	
Age	Male	Female	Male	Female
55	0.8961	0.8961	0.8961	0.8961
60	1.0642	1.0642	1.0642	1.0642
64	1.2209	1.2209	1.2209	1.2209

Applied to Per Capita Costs Age 65 or Older for 2015-2016

	Retiree		Spouse	
Age	Male	Female	Male	Female
65	0.9137	0.9137	0.9137	0.9137
70	1.0590	1.0590	1.0590	1.0590
75	1.1413	1.1413	1.1413	1.1413
80+	1.2290	1.2290	1.2290	1.2290

Note that these factors have been revised since our assumptions letter dated August 27, 2015. The factors shown above should more closely align with the premiums as of the valuation on June 30, 2015.

Health Care Premium Cost Trend Rates:

Trends to be applied in following fiscal years, to all health plans.

Trend is to be applied to premium for shown fiscal year to calculate next fiscal year's projected premium.

First Fiscal Year (July 1, 2015 through June 30, 2016).

The fiscal year trend rates are the following:

	Trend (applied to calculate following year premium)	
Fiscal Year	**Non-Medicare**	**Medicare**
2015-2016	6.75%	6.75%
2016-2017	6.50%	6.50%
2017-2018	6.25%	6.25%
2018-2019	6.00%	6.00%
2019-2020	5.75%	5.75%
2020-2021	5.50%	5.50%
2021-2022	5.25%	5.25%
2022 and later	5.00%	5.00%

Dental Premium Trend	5.00% for all years
Medicare Part B Premium Trend	5.00% for all years

Health Care Reform:

As stated in our June 30, 2011 retiree health report, based on direction provided to Segal, the impact of the excise tax that will be imposed in 2018 by the Affordable Care Act (ACA) and related statutes on certain health plans was not included in calculating the contribution rates for the employer. We understand that the recently adopted Statements No. 74 and 75 by the Governmental Accounting Standards Board (GASB) for financial reporting purposes is expected to require the inclusion of the excise tax in the liability. Statement No. 74 is effective for fiscal years beginning after June 15, 2016 for plan reporting and statement No. 75 is effective for fiscal years beginning after June 15, 2017 for employer reporting.

For the June 30, 2015 valuation, we have continued to exclude the projected excise tax from the valuation results (i.e., the projected excise tax has not been used to set the contribution rates for the employer).

Expected annual rate of increase in the Board's health subsidy amount: For employees not subject to freeze, we assume that the Board's health subsidy amount will increase at the same rate as medical trend.

Plan Design: Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Changes in Assumptions:

Premiums and maximum subsidies were updated.

The participation assumption for future retirees under 65 with 20-24 years of service at retirement was updated.

Per capita costs were adjusted for age, gender and spouse status.

Medical election assumptions for future Fire retirees upon age 65 were updated.

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

SUBSIDY FOR MEMBERS NOT ELIGIBLE FOR MEDICARE A & B

Eligibility	Retired Members who retired with 10 or more years of service. Benefits commence no earlier than age 55. Members who retired prior to July 1, 1998 are subject to an eligibility requirement of age 60 with 10 or more years of service. Subsidy is paid only to Members on service or disability retirements.
	Surviving spouses and surviving domestic partners are eligible for health benefits upon the Member's date of death if the Member had attained age 55 prior to death. Otherwise, health benefits for survivors shall commence on the date that the Member would have reached age 55.
	Basic subsidy is paid until age 65, or after age 65 if Member is not covered by Medicare Parts A and B.
Amount of Subsidy	4% per year of service, to a maximum of 100%, times Maximum Subsidy, subject to a maximum of the actual premium paid to the Board's approved health carrier.
Maximum Subsidy	As of July 1, 2015, maximum is $1,435.13 per month. For surviving spouse or domestic partner, the maximum subsidy is $787.87 per month.
Increase in Subsidy	For employees not subject to freeze, the Board's health subsidy amount may increase at lesser of 7% or medical trend as shown in Exhibit II - Healthcare Premium Cost Trend Rates.
Dependent Portion	Difference between basic subsidy maximum amount and single-party premium.

SUBSIDY FOR MEMBERS ELIGIBLE FOR MEDICARE A & B

Eligibility: Retired Members over age 65 with 10 or more years of service who participate in Medicare Parts A & B.

Amount of Subsidy to Participant: For retirees, health subsidy is provided subject to the following vesting schedule:

Completed Years of Service	Vested Percentage
10-14	75%
15-19	90%
20+	100%

Surviving spouses or surviving domestic partners are eligible for benefits upon the death of the Member.

Maximum Subsidy: As of July 1, 2015, the single coverage maximum subsidy for retirees and surviving spouse or domestic partner is $523.25. The multi-person coverage maximum subsidy is $1,399.09 and depends on the carrier elected.

The Board's health subsidy amount may:

- For Medicare retirees with single party premium, increase with medical trend as shown in Exhibit II - Healthcare Premium Cost Trend Rates.
- For Medicare retirees with 2-party premium less than or equal to the maximum subsidy as of July 1, 2015 (e.g, Fire Medical), increase with medical trend as shown shown in Exhibit II - Healthcare Premium Cost Trend Rates, and
- For Medicare retirees with 2-party premium greater than the maximum subsidy as of July 1, 2015 (e.g., Police Blue Cross), increase with lesser of 7% or medical trend as shown in Exhibit II - Healthcare Premium Cost Trend Rates.

Dependent Portion: Calculation based on Board of Fire and Police Pension Commissioners Resolution No. 9320: equal to the amount payable on behalf of the dependents of a retired member in the same plan, with the same years of service, who qualifies for an under 65 or Part B/D only subsidy, whichever is greater, providing such subsidy does not exceed the civilian retiree dependent subsidy.

Subsidy Freeze: The retiree health benefits program was changed to freeze the medical subsidy for nonretired members not enrolled in the DROP as of July 14, 2011 who did not begin to contribute an additional 2% of employee contributions to the Pension Plan.

- The frozen subsidy is different for Medicare and non-Medicare retirees.
- The freeze applies to the medical subsidy limits in effect for the 2011/2012 plan year.
- The freeze does not apply to the dental subsidy or the Medicare Part B premium reimbursement.

__**Medicare Part B -Related Subsidy**__

Medicare Part B Premium Reimbursement	For retired Members enrolled in Medicare A & B who are receiving a subsidy, the Plan provides payment of Part B premiums ($104.90 for calendar years 2015 and 2016, for all eligible retirees and beneficiaries).

Dental Subsidy

Eligibility	Retired Members who retired with 10 or more years of service. Benefits commence no earlier than age 55. Subsidy is paid only to Members on service or disability retirements. Surviving spouses/domestic partners are not eligible for benefits upon the death of the Member.
Amount of Subsidy	4% per year of service, to a maximum of 100%, times Maximum Subsidy, subject to a maximum of the single-party premium paid to City approved dental carrier.
Maximum Subsidy	Lesser of monthly amount paid to active Fire and Police Members and retired CERS Members. Effective July 1, 2015, maximum is $43.24 per month.

Retiree Contributions: To the extent the subsidies are less than the medical or dental premiums, the retiree contributes the cost difference.

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial Present Value of Total Projected Benefits (APB): Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees: The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Value of Assets (AVA):	The value of assets used by the actuary in the valution. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio:	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return (discount rate):	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Covered Payroll:	Annual reported salaries for all active participants on the valuation date.
ARC as a Percentage of Covered Payroll:	The ratio of the annual required contribution to covered payroll.
Health Care Cost Trend Rates:	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC):	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Net OPEB Obligation (NOO): The NOO is the cumulative difference between the annual OPEB cost and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions.

Annual OPEB Cost (AOC): Annual OPEB cost is the measure required by GASB 45 of a sole or agent employer's "cost" of participating in an OPEB plan. When an employer has no net OPEB obligation, annual OPEB cost is equal to the ARC. When a net OPEB obligation has a liability (positive) balance, annual OPEB cost is equal to (a) the ARC, plus (b) one year's interest on the beginning balance of the net OPEB obligation, less (c) an adjustment to the ARC to offset, approximately, the amount included in the ARC for amortization of the past contribution deficiencies. When a net OPEB obligation has an asset (negative) balance, the interest adjustment should be deducted from and the ARC adjustment should be added to the ARC, to determine annual OPEB cost.

ARC Adjustment: The ARC adjustment is an amortization payment based on the prior year NOO. The purpose of the interest and ARC adjustments is to avoid "double-counting" annual OPEB cost and liabilities. Without the adjustments, annual OPEB cost and the net OPEB obligation (liability) would be overstated by the portion of the amortization amount previously recognized in annual OPEB cost. With the adjustments, annual OPEB cost should be approximately equal to the ARC that would have been charged if all prior ARCs had been paid in full, plus one year's interest on the net OPEB obligation.

Employer Contributions: For the purposes of GASB 43/45, an employer has contributed to an OPEB plan if the employer has (a) provided benefits directly to retired plan members or their beneficiaries, (b) paid insurance premiums to insure the payment of benefits, or (c) irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 – *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under these statements, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards introduce an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the Net OPEB Obligation (NOO). In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan. Exhibit IV of Section 4 contain a definition of terms as well as more information about GASB 43/45 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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