City of Los Angeles Fire and Police Pension Plan

Actuarial Valuation and Review Of Retirement and Other Postemployment Benefits (OPEB) as of June 30, 2013

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.

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November 14, 2013

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, 2013 Actuarial Valuations

Dear Board Members:

Enclosed please find the June 30, 2013 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 Associate Actuary

ST/kek
Enclosures

5280040v2/07916.001

Exhibit A

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

		June 30, 2013	June 30, 2012	Percent Change
I.	**Total Membership**			
	A. Current Active Members	13,224	13,396	-1.28%
	B. Current Vested Former Members[(1)]	133	62	114.52%
	C. Current Retirees, Beneficiaries, and Dependents	12,432	12,380	0.42%
II.	**Valuation Salary**			
	A. Total Annual Payroll	$1,367,236,866	$1,341,913,739	1.89%
	B. Average Monthly Salary	8,616	8,348	3.21%
III.	**Benefits to Current Retirees and Beneficiaries[(2)]**			
	A. Total Annual Benefits	$771,307,548	$744,481,620	3.60%
	B. Average Monthly Benefit Amount	5,170	5,011	3.17%
IV.	**Total System Assets[(3)]**			
	A. Actuarial Value	$15,671,112,222	$15,179,275,167	3.24%
	B. Market Value	15,748,371,630	14,132,070,728	11.44%
V.	**Unfunded Actuarial Accrued Liability (UAAL)**			
	A. Retirement Benefits	$2,974,712,451	$2,778,919,652	7.05%
	B. Health Subsidy Benefits	1,620,392,962	1,571,926,881	3.08%

(1) *The June 30, 2013 valuation includes 71 terminated members due only a refund of contributions.*

(2) *Includes July COLA.*

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

Exhibit A (continued)

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

VI.	Budget Items	FY 2014-2015		FY 2013-2014[2]		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	19.43%	19.49%	19.32%	19.38%	0.11%	0.11%
	2. Amortization of UAAL	17.00%	17.05%	15.28%	15.33%	1.72%	1.72%
	3. Total Retirement Contribution	36.43%	36.54%	34.60%	34.71%	1.83%	1.83%
	B. Health Subsidy Contribution						
	1. Normal Cost as a Percent of Pay	4.06%	4.07%	3.92%	3.92%[3]	0.14%	0.15%
	2. Amortization of UAAL	7.21%	7.23%	6.93%	6.96%[3]	0.28%	0.27%
	3. Total Health Contribution	11.27%	11.30%	10.85%	10.88%[3]	0.42%	0.42%
	C. Total Contribution (A+B)	47.70%	47.84%	45.45%	45.59%	2.25%	2.25%

(1) *Alternative contribution payment date for FY 2014-2015:*	*Retirement*	*Health*	*Total*
End of Pay Periods	*37.82%*	*11.69%*	*49.51%*

(2) *Before adjustments to phase in over three years the City contribution rate impact of new actuarial assumptions adopted in the June 30, 2011 valuation.*

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

Exhibit A (continued)

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

		June 30, 2013	June 30, 2012	Change
VII	**Funded Ratio**			
	(Based on Valuation Value of Assets)			
	A. Retirement Benefits	83.1%	83.7%	-0.6%
	B. Health Subsidy Benefits	38.5%	37.1%	1.4%
	C. Total	77.3%	77.7%	-0.4%

		June 30, 2013	June 30, 2012	Change
VIII	**Funded Ratio**			
	(Based on Market Value of Assets)			
	A. Retirement Benefits	83.5%	77.9%	5.6%
	B. Health Subsidy Benefits	38.7%	34.5%	4.2%
	C. Total	77.7%	72.4%	5.3%

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)
06/30/2004	12.86%	2.83%	15.69%	1,001,004
06/30/2005	20.56%	5.03%	25.59%	1,037,445
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

(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, 2013

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

November 14, 2013

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, 2013. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2014-2015 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 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 Associate Actuary

ST/gxk

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Purpose

This report has been prepared by The Segal Company to present a valuation of the City of Los Angeles Fire and Police Pension Plan as of June 30, 2013. 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, 2013, provided by LAFPP;
- The assets of the Plan as of June 30, 2013, 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. 59 and Pg. 45

- The ratio of the valuation value of assets to actuarial accrued liabilities decreased from 83.7% to 83.1%. On a market value of assets basis, the funded ratio increased from 77.9% to 83.5%. The Unfunded Actuarial Accrued Liability (UAAL) has increased from $2.779 billion to $2.975 billion. The reduction in the funded ratio and the increase in the UAAL are primarily the result of a lower than expected return on investment (after smoothing), offset by other favorable actuarial experience during 2012/2013. A complete reconciliation of the System'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 increased from 34.60% of payroll to 36.43% of payroll. Using a projected annual payroll of $1.367 billion as of June 30, 2013, there would be an increase in contributions from $473 million to $498 million. The increase was primarily due to a lower than expected return on investments (after smoothing) and gain layers being fully amortized offset somewhat by lower than expected salary increases and lower than expected retiree COLA increases during 2012/2013.
- On September 1, 2011, the Board elected to phase in the impact of new actuarial assumptions adopted for the June 30, 2011 valuation on the City's retirement and health plan contributions over a three-year period, beginning with the 2012-2013 fiscal year. As this is the last year of the phase-in period, the recommended contribution rates for the 2014-2015 fiscal year contained in this report do not need to be adjusted for the phase-in.

- 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, 2013 is $77.3 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 loss as of June 30, 2012 was $1.047 billion.

- The unrecognized investment gains represent about 0.5% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the $77.3 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 83.1% to 83.5%.
  - If the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer contribution rate would decrease from 36.4% of payroll to 36.1% of payroll.

Reference: Pg. 60

- As adopted by the Board, any investment gains/losses established after July 1, 2008 will be recognized over a seven-year period and the actuarial value of assets will be further adjusted, if necessary, to be within 40% of the market value of assets. A description of the actuarial assumptions and methods can be found in Section 4, Exhibit V of this report.

Reference: Pg. 5

- Item 9 of Chart 7 shows that under the asset smoothing method, the $77.3 million in net deferred gains will be recognized in the next six years, but in a very non-level (uneven) pattern. In particular, there will be losses recognized in the next two years, followed by two years of gains, then one year of losses, and finally one year of gains, so as to ultimately recognize all of the current total net deferred gains of $77.3 million. This means that, absent any new gains or losses in the future, there will be two more years of increases in the employer contribution rate, followed by two years of decreases, then one year of increase, and finally one year of decrease, before the $77.3 million in net deferred gains are fully recognized.

  In keeping with model actuarial practice for this situation, effective July 1, 2013 the asset smoothing method could be modified by combining the net deferred gains of $77.3 million from the current valuation into a single six-year smoothing "layer" and thereby recognizing those net deferred gains over the next six years in six level amounts of approximately $12.9 million in each year. This would reduce the volatility associated with the current pattern of deferred gain/loss recognition and thereby result in both more stable funded ratios (on an actuarial value basis) and more level employer contribution rates.

Please note that this change would have no impact on the current June 30, 2013 valuation results as the total amount of unrecognized gains as of June 30, 2013 would remain unchanged. Also, note that we recommend using a six-year smoothing period for the combined deferred gains as that will complete the recognition of those net gains over the same time period as under the current separate smoothing layers. We will provide more discussion of this policy option during our presentation of June 30, 2013 valuation.

- The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. Because these new Statements are not effective until the fiscal year ending June 30, 2014 for Plan reporting and the fiscal year ending June 30, 2015 for employer reporting, the financial reporting information in this report continues to be in accordance with Statements 25 and 27.
- The actuarial valuation report as of June 30, 2013 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.

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Summary of Key Valuation Results

	2013	2012
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	36.43%	34.60%[1]
On July 15	36.54%	34.71%[1]
At the end of each biweekly pay period	37.82%	35.92%[1]
Funding elements for plan year beginning July 1:		
Normal cost	$395,002,367	$394,282,664[1]
Market value of retirement assets	14,729,975,934	13,268,686,932
Valuation value of retirement assets (VVA)	14,657,712,639	14,251,913,532
Actuarial accrued liability	17,632,425,090	17,030,833,184
Unfunded actuarial accrued liability on valuation value of retirement assets basis	2,974,712,451	2,778,919,652
Unfunded actuarial accrued liability on market value of retirement assets basis	2,902,449,156	3,762,146,252
Funded ratio on valuation value of retirement assets basis[2]	83.1%	83.7%
Funded ratio on market value of retirement assets basis	83.5%	77.9%
GASB 25/27 for fiscal year ending June 30:		
Annual required contributions	$375,448,092	$321,593,433
Actual contributions	375,448,092	321,593,433
Percentage contributed	100.0%	100.0%
Demographic data for plan year beginning July 1:		
Number of retired members and beneficiaries	12,432	12,380
Number of vested former members[3]	133	62
Number of active members (includes DROP members)	13,224	13,396
Projected total payroll	$1,367,236,866	$1,341,913,739
Projected average payroll	103,391	100,173

(1) *Revised to reflect payroll as of June 30, 2013. The June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact of new actuarial assumptions adopted for the June 30, 2011 valuation.*

(2) *The funded ratios on VVA basis excluding Harbor Port Police are 83.2% and 83.7% for 2013 and 2012, respectively.*

(3) *The June 30, 2013 valuation includes 71 terminated members due only a refund of member contributions.*

Actuarial Certification

November 14, 2013

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, 2013, in accordance with generally accepted actuarial principles and practices. Actuarial valuations are performed annually for this retirement program with the last valuation completed on June 30, 2012. 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 VI and on participant and financial data provided by LAFPP.

The actuarial computations made are for funding plan benefits and for satisfying the financial accounting requirements under GASB Statements No. 25 and 27. Accordingly, additional determinations will be needed for other purposes, such as judging benefit security at termination.

In addition to all schedules that are shown in the actuarial section of the CAFR, a listing of supporting schedules included in the statistical and financial sections of the Plan's CAFR prepared by Segal Consulting is provided below:

1) Schedule of funding progress
2) Schedule of employer contributions
3) Supplementary Information Required by the GASB (Exhibit IV)

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

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Associate 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: 2004 – 2013

Year Ended June 30	Active Members[1]	DROP Members	Vested Terminated Members[2]	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2004	12,649	928	0	11,782	0.93
2005	12,656	1,178	0	11,746	0.93
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

(1) *Includes DROP members provided in the next column.*
(2) *Includes 71 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 payroll of active members. In this year's valuation, there were 13,224 active members with an average age of 41.9, average years of service of 15.0 years and average payroll of $103,391. The 13,396 active members in the prior valuation had an average age of 41.5, average service of 14.5 years and average payroll of $100,173.

Inactive Members
In this year's valuation, there were a total of 133 members with a vested right to a deferred or immediate vested benefit or a return of member contributions versus 62 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, 2013

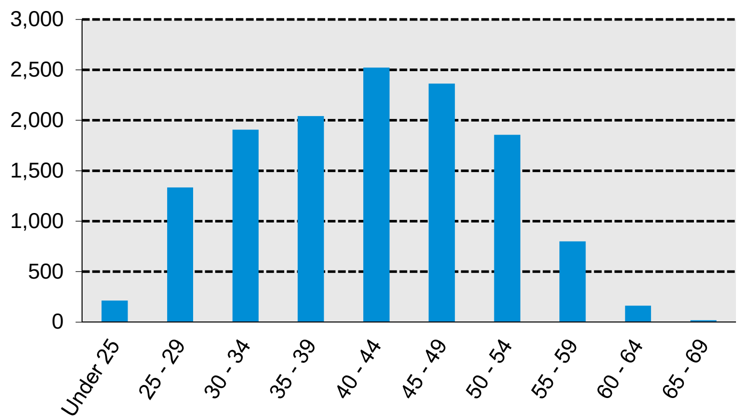
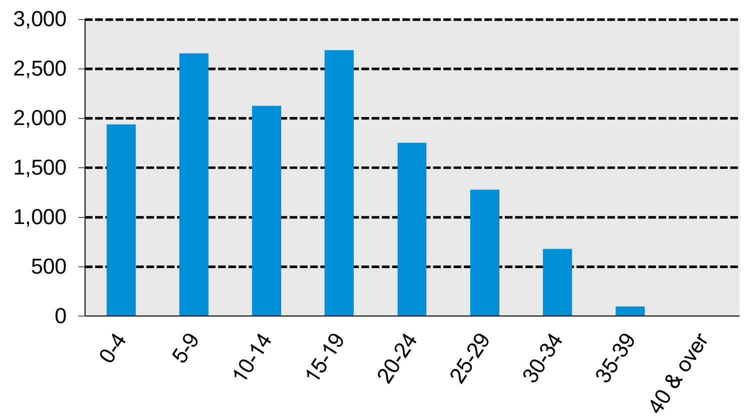


CHART 3

Distribution of Active Members (Including DROP Members) by Years of Service as of June 30, 2013



Retired Members and Beneficiaries

As of June 30, 2013, 10,040 retired members and 2,392 beneficiaries were receiving total monthly benefits of $64,275,629. For comparison, in the previous valuation, there were 10,013 retired members and 2,367 beneficiaries receiving monthly benefits of $62,040,135.

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 of pension.

Disability
Service

CHART 4

Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2013 (Includes July 1 COLA)

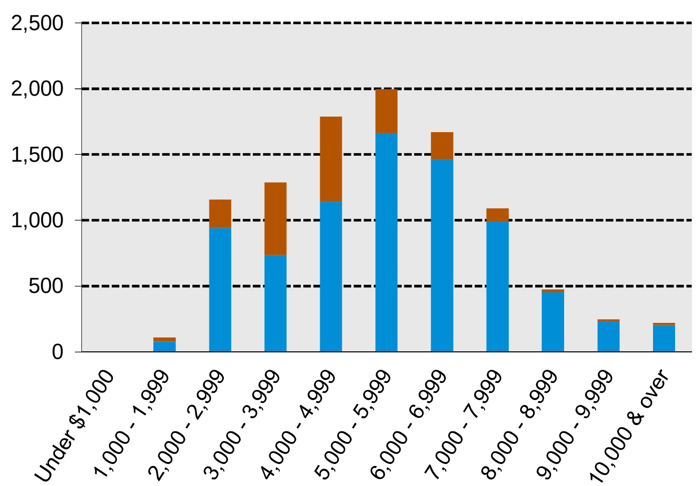
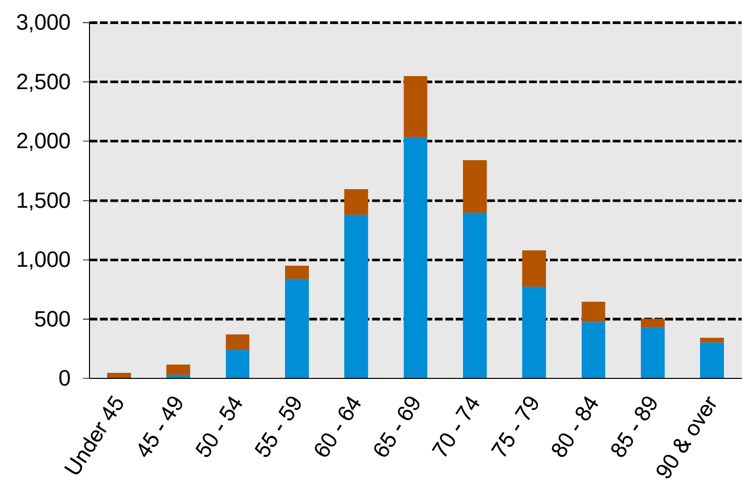


CHART 5

Distribution of Retired Members and by Type and by Age as of June 30, 2013 (Includes July 1 COLA)



B. FINANCIAL INFORMATION

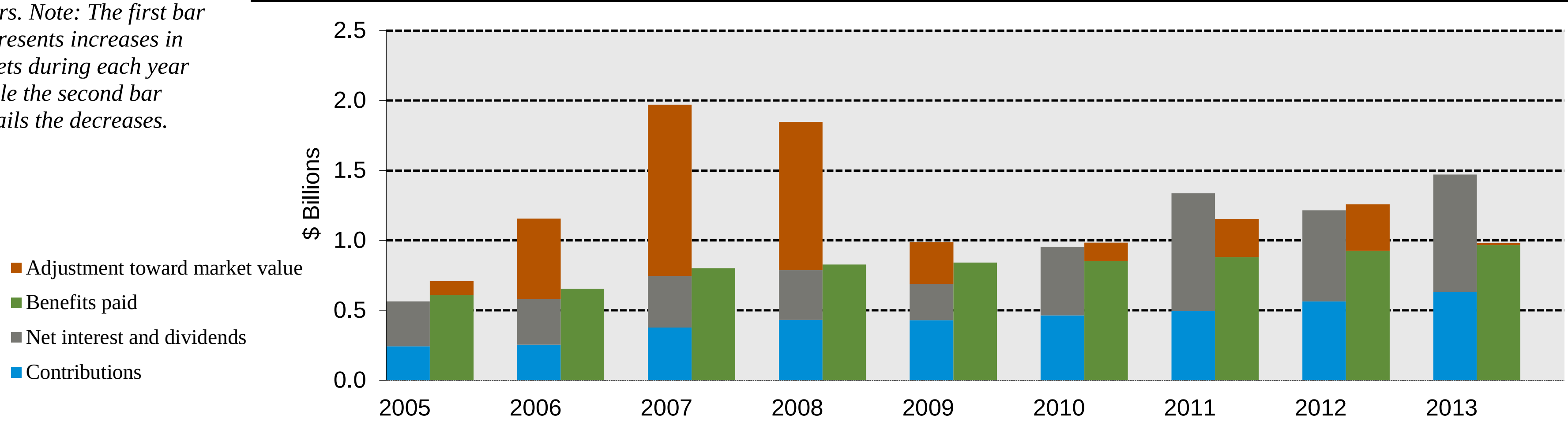
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

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 nine 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, 2005 – 2013



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, 2013

		Original Amount	Percent Not Recognized	Amount Not Recognized	
1.	Market value of assets (for Retirement and Health Subsidy Benefits)				$15,748,371,630
2.	Calculation of unrecognized return[1]				
	(a) Year ended June 30, 2013	$851,978,845	85.71%	$730,267,581	
	(b) Year ended June 30, 2012	-1,024,245,456	71.43%	-731,603,897	
	(c) Year ended June 30, 2011	1,641,626,618	57.14%	938,072,353	
	(d) Year ended June 30, 2010	737,173,630	42.86%	315,931,556	
	(e) Year ended June 30, 2009	-4,113,928,646	28.57%	-1,175,408,185	
	(f) Total unrecognized return				77,259,408
3.	Preliminary actuarial value: (1) - (2f)				15,671,112,222
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: (3) + (4)				$15,671,112,222
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				99.5%
7.	Market value of retirement assets				$14,729,975,934
8.	Valuation value of retirement assets: (5) ÷ (1) x (7)				$14,657,712,639
9.	Deferred return recognized in each of the next 6 years (for Retirement and Health Subsidy Benefits):				
	(a) Amount recognized on June 30, 2014				-$272,485,001
	(b) Amount recognized on June 30, 2015				-272,485,001
	(c) Amount recognized on June 30, 2016				315,219,091
	(d) Amount recognized on June 30, 2017				209,908,572
	(e) Amount recognized on June 30, 2018				-24,609,516
	(f) Amount recognized on June 30, 2019				121,711,263
	(g) Subtotal (may not total exactly due to rounding)				$77,259,408

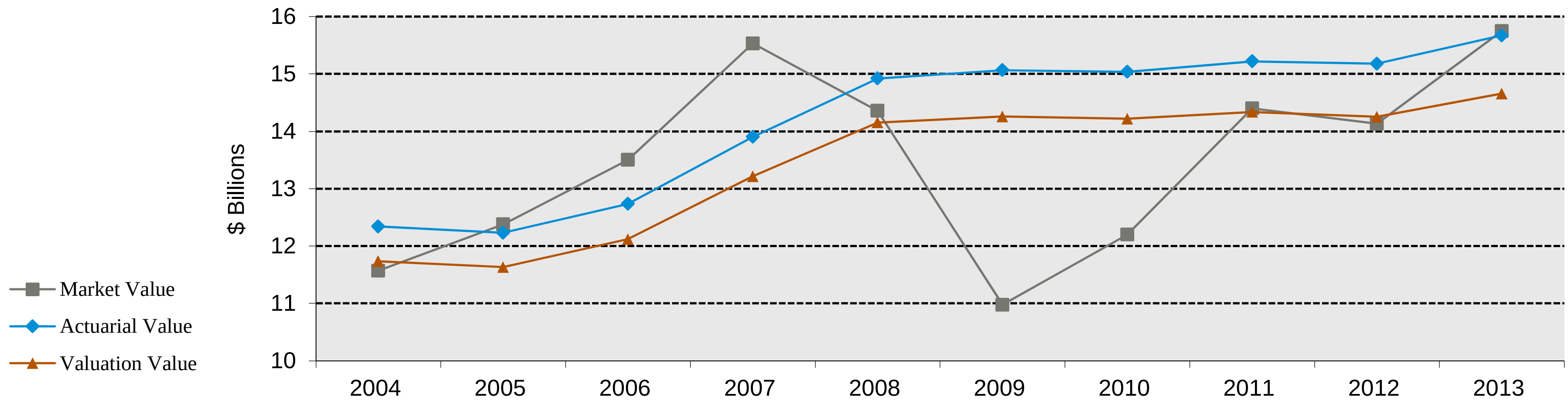
[1] *Total return minus expected return on a market value basis*

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, 2004 – 2013**



* *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 loss of $93,089,459 was due mainly to an investment loss of $335,685,338 offset by salary increases less than expected and less than expected COLA increases for retirees. 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, 2013

1.	Net loss from investments[1]	-$335,685,338
2.	Net gain from other experience[2]	242,595,879
3.	Net experience loss: (1) + (2)	-$93,089,459

(1) *Details in Chart 10.*

(2) *Details in Chart 13. The net gain is attributed to actual liability experience from June 30, 2012 to June 30, 2013, compared to the projected experience as predicted by the actuarial assumptions as of June 30, 2012.*

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 is 7.75%. The actual rate of return on the actuarial value of assets basis for the 2013 plan year was 5.43%.

Since the actual return for the year was lower than the assumed return, LAFPP experienced an actuarial loss during the year ended June 30, 2013 with regard to its investments.

This chart shows the loss due to investment experience.

CHART 10

Actuarial Value Investment Experience for Year Ended June 30, 2013

	All Assets[1]	Assets for Retirement Only
1. Actual return	$827,790,619	$768,133,723
2. Average value of assets	15,244,309,223	14,242,826,599
3. Actual rate of return: (1) ÷ (2)	5.43%	5.39%
4. Assumed rate of return	7.75%	7.75%
5. Expected return: (2) x (4)	$1,181,433,965	$1,103,819,061
6. Actuarial loss: (1) – (5)	-$353,643,346	-$335,685,338

[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.

CHART 11

Investment Return[1] – Actuarial Value vs. Market Value: 2005 – 2013

	Actuarial Value Investment Return		Market Value Investment Return	
Year Ended June 30	Amount	Percent	Amount	Percent
2005	$259,388,778	2.12%	$1,131,871,641	9.83%
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%
Nine-Year Average Return		5.47%		6.42%

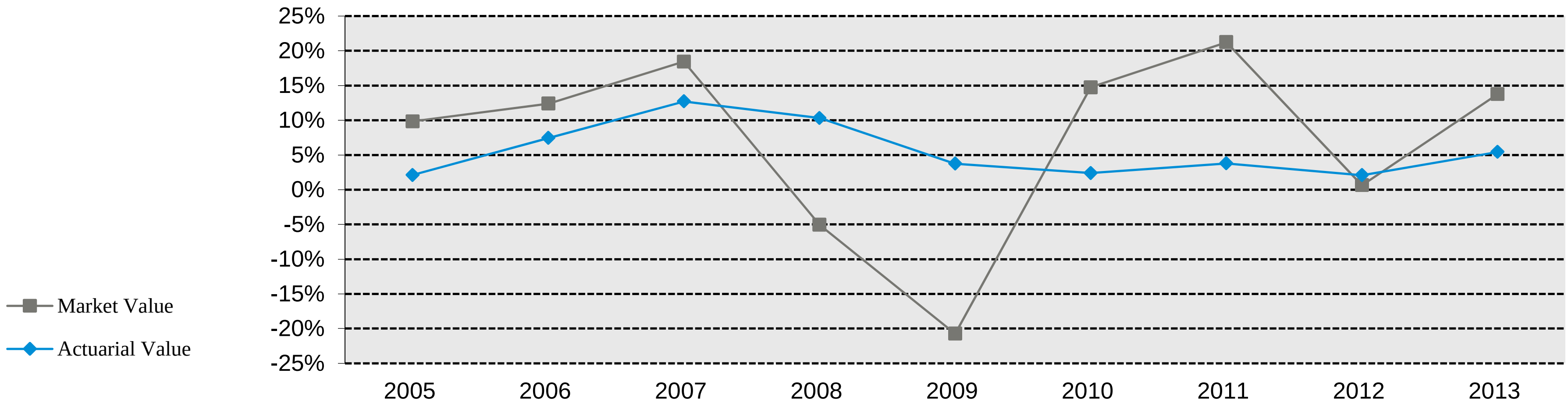
[1] *Includes all assets for Retirement and Health Subsidy Benefits*

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 2005 - 2013.

CHART 12

Market and Actuarial Rates of Return for Years Ended June 30, 2005 - 2013



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, 2013 amounted to $242,595,879, which is 1.4% 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, 2013 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, 2013

1.	Gain due to lower than expected salary increases for continuing actives	$98,772,783
2.	Gain due to lower than expected COLA for continuing retirees and beneficiaries	96,545,120
3.	Miscellaneous gain	47,277,976
4.	Net gain	$242,595,879

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 36.43% of payroll if paid at beginning of year.

The 36.43% contribution rate determined in the June 30, 2013 valuation does not need adjustment for the phase-in of the City's contribution rate impact of new actuarial assumptions adopted for the June 30, 2011 valuation since this is the last year of the three-year phase-in period.

Note: The 34.60% contribution rate determined in the June 30, 2012 valuation is before adjustments to reflect the three-year phase-in of the change in the City's contribution rate.

CHART 14
Recommended Contribution

Tier 1 Members	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount	June 30, 2012 % 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	129,264,317		137,677,049	
5. Valuation value of assets	-60,385,842		-57,012,559	
6. Unfunded actuarial accrued liability	189,650,159		194,689,608	
7. Amortization of unfunded accrued liability	16,369,906	N/A	16,566,492	N/A
8. Total recommended contribution, payable July 1	16,369,906	N/A	16,566,492	N/A
9. Total recommended contribution, payable July 15	16,420,898	N/A	16,618,096	N/A
10. Total recommended contribution, payable biweekly	16,992,404	N/A	17,196,466	N/A
11. Projected payroll used for developing normal cost rate	0		N/A	

Tier 2 Members	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount(2)	June 30, 2012 % of Payroll
1. Total normal cost	$1,980,572	25.53%	$1,968,694	25.38%
2. Expected employee contributions, discounted to beginning of year	-18,543	-0.24%	-13,962	-0.18%
3. Employer normal cost: (1) + (2)	1,962,029	25.29%	1,954,732	25.20%
4. Actuarial accrued liability	5,750,599,959		5,876,071,732	
5. Valuation value of assets	5,325,896,864		5,511,921,957	
6. Unfunded actuarial accrued liability	424,703,095		364,149,775	
7. Amortization of unfunded accrued liability(1)	45,233,017	3.34%	39,328,079	2.90%
8. Total recommended contribution, payable July 1	47,195,046	N/A	41,282,811	N/A
9. Total recommended contribution, payable July 15	47,342,058	N/A	41,411,407	N/A
10. Total recommended contribution, payable biweekly	48,989,731	N/A	42,852,671	N/A
11. Projected payroll used for developing normal cost rate	7,756,871		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,356,140,663.
(2) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14
Recommended Contribution (Continued)

Tier 3 Members	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[2]	June 30, 2012 % of Payroll
1. Total normal cost	$25,424,524	26.47%	$25,401,383	26.44%
2. Expected employee contributions, discounted to beginning of year	-8,626,047	-8.98%	-8,627,247	-8.98%
3. Employer normal cost: (1) + (2)	16,798,477	17.49%	16,774,136	17.46%
4. Actuarial accrued liability	885,747,303		833,469,294	
5. Valuation value of assets	697,379,467		650,850,007	
6. Unfunded actuarial accrued liability	188,367,836		182,619,287	
7. Amortization of unfunded accrued liability[1]	18,910,270	1.39%	13,697,021	1.01%
8. Total recommended contribution, payable July 1	35,708,747	N/A	30,471,157	N/A
9. Total recommended contribution, payable July 15	35,819,980	N/A	30,566,074	N/A
10. Total recommended contribution, payable biweekly	37,066,643	N/A	31,629,883	N/A
11. Projected payroll used for developing normal cost rate	96,071,797		N/A	

Tier 4 Members	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[2]	June 30, 2012 % of Payroll
1. Total normal cost	$9,909,303	24.81%	$9,891,642	24.77%
2. Expected employee contributions, discounted to beginning of year	-3,228,045	-8.08%	-3,238,644	-8.11%
3. Employer normal cost: (1) + (2)	6,681,258	16.73%	6,652,998	16.66%
4. Actuarial accrued liability	457,533,164		433,422,742	
5. Valuation value of assets	331,958,922		315,214,843	
6. Unfunded actuarial accrued liability	125,574,242		118,207,899	
7. Amortization of unfunded accrued liability[1]	10,378,491	0.77%	8,001,230	0.59%
8. Total recommended contribution, payable July 1	17,059,749	N/A	14,654,228	N/A
9. Total recommended contribution, payable July 15	17,112,890	N/A	14,699,876	N/A
10. Total recommended contribution, payable biweekly	17,708,479	N/A	15,211,484	N/A
11. Projected payroll used for developing normal cost rate	39,933,959		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,356,140,663.
(2) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14
Recommended Contribution (Continued)

Tier 5 Members (without Harbor Port Police)	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[1]	June 30, 2012 % of Payroll
1. Total normal cost	$346,185,482	29.30%	$345,589,098	29.25%
2. Expected employee contributions, discounted to beginning of year	-113,085,463	-9.57%	-113,896,715	-9.64%
3. Employer normal cost: (1) + (2)	233,100,019	19.73%	231,692,383	19.61%
4. Actuarial accrued liability	*(Tiers 5 and 6 are*		*(Tiers 5 and 6 are*	
5. Valuation value of assets	*combined. See table*		*combined. See table*	
6. Unfunded actuarial accrued liability	*on the next page.)*		*on the next page.)*	
7. Amortization of unfunded accrued liability	136,947,464	11.59%	127,129,528	10.76%
8. Total recommended contribution, payable July 1	370,047,483	31.32%	358,821,911	30.37%
9. Total recommended contribution, payable July 15	371,200,177	31.42%	359,939,637	30.46%
10. Total recommended contribution, payable biweekly	384,119,269	32.51%	372,466,823	31.52%
11. Projected payroll used for developing normal cost rate	1,181,501,190		N/A	

Tier 6 Members (without Harbor Port Police)	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[1]	June 30, 2012 % of Payroll
1. Total normal cost	$8,126,197	26.32%	$8,061,944	26.11%
2. Expected employee contributions, discounted to beginning of year	-3,272,028	-10.60%	-3,266,770	-10.58%
3. Employer normal cost: (1) + (2)	4,854,169	15.72%	4,795,174	15.53%
4. Actuarial accrued liability	*(Tiers 5 and 6 are*		*(Tiers 5 and 6 are*	
5. Valuation value of assets	*combined. See table*		*combined. See table*	
6. Unfunded actuarial accrued liability	*on the next page.)*		*on the next page.)*	
7. Amortization of unfunded accrued liability	3,578,926	11.59%	3,322,349	10.76%
8. Total recommended contribution, payable July 1	8,433,095	27.31%	8,117,523	26.29%
9. Total recommended contribution, payable July 15	8,459,364	27.40%	8,142,809	26.37%
10. Total recommended contribution, payable biweekly	8,753,780	28.35%	8,426,208	27.29%
11. Projected payroll used for developing normal cost rate	30,876,846		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14
Recommended Contribution (Continued)

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

	June 30, 2013				June 30, 2012	
	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	$10,362,261,669	$4,876,790	$10,367,138,459		$9,712,750,034	
5. Valuation value of assets			8,332,485,531		7,804,172,923	
6. Unfunded actuarial accrued liability			2,034,652,928		1,908,577,111	
7. Amortization of unfunded accrued liability			140,526,390	11.59%	130,451,877	10.76%
Projected payroll used for developing combined UAAL rate	1,181,501,190	30,876,846	1,212,378,036		N/A	

All Tiers Combined (without Harbor Port Police)	June 30, 2013		June 30, 2012	
	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$391,626,078	28.89%	$390,912,761	28.83%
2. Expected employee contributions, discounted to beginning of year	-128,230,125	-9.46%	-129,043,338	-9.52%
3. Employer normal cost: (1) + (2)	263,395,953	19.43%	261,869,423	19.31%
4. Actuarial accrued liability	17,590,283,202		16,993,390,851	
5. Valuation value of assets	14,627,334,942		14,225,147,171	
6. Unfunded actuarial accrued liability	2,962,948,260		2,768,243,680	
7. Amortization of unfunded accrued liability	231,418,074	17.06%	208,044,699	15.34%
8. Total recommended contribution, payable July 1	494,814,027	36.49%	469,914,122	34.65%
9. Total recommended contribution, payable July 15	496,355,367	36.60%	471,377,899	34.76%
10. Total recommended contribution, payable biweekly	513,630,307	37.87%	487,783,534	35.97%
11. Projected payroll used for developing normal cost rate	1,356,140,663		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14

Recommended Contribution (Continued)

Harbor Port Police Tier 5	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[1]	June 30, 2012 % of Payroll
1. Total normal cost	$3,340,822	30.47%	$3,334,530	30.41%
2. Expected employee contributions, discounted to beginning of year	-1,126,342	-10.27%	-1,112,972	-10.15%
3. Employer normal cost: (1) + (2)	2,214,480	20.20%	2,221,558	20.26%
4. Actuarial accrued liability	*(Tiers 5 and 6 are*		*(Tiers 5 and 6 are*	
5. Valuation value of assets	*combined. See table*		*combined. See table*	
6. Unfunded actuarial accrued liability	*on the next page.)*		*on the next page.)*	
7. Amortization of unfunded accrued liability	1,032,214	9.41%	919,984	8.39%
8. Total recommended contribution, payable July 1	3,246,694	29.61%	3,141,542	28.65%
9. Total recommended contribution, payable July 15	3,256,808	29.70%	3,151,328	28.74%
10. Total recommended contribution, payable biweekly	3,370,156	30.73%	3,261,005	29.74%
11. Projected payroll used for developing normal cost rate	10,965,241		N/A	

Harbor Port Police Tier 6	June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[1]	June 30, 2012 % of Payroll
1. Total normal cost	$35,467	27.09%	$35,373	27.01%
2. Expected employee contributions, discounted to beginning of year	-13,878	-10.60%	-13,856	-10.58%
3. Employer normal cost: (1) + (2)	21,589	16.49%	21,517	16.43%
4. Actuarial accrued liability	*(Tiers 5 and 6 are*		*(Tiers 5 and 6 are*	
5. Valuation value of assets	*combined. See table*		*combined. See table*	
6. Unfunded actuarial accrued liability	*on the next page.)*		*on the next page.)*	
7. Amortization of unfunded accrued liability	12,328	9.41%	10,988	8.39%
8. Total recommended contribution, payable July 1	33,917	25.90%	32,505	24.82%
9. Total recommended contribution, payable July 15	34,022	25.98%	32,606	24.90%
10. Total recommended contribution, payable biweekly	35,206	26.88%	33,741	25.76%
11. Projected payroll used for developing normal cost rate	130,962		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14

Recommended Contribution (Continued)

Combined Tiers 5 and 6 UAAL Contribution Rate Calculations for the Harbor Port Police	June 30, 2013				June 30, 2012	
	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	$42,137,673	$4,215	$42,141,888		$37,442,333	
5. Valuation value of assets			30,377,697		26,766,361	
6. Unfunded actuarial accrued liability			11,764,191		10,675,972	
7. Amortization of unfunded accrued liability			1,044,542	9.41%	930,972	8.39%
Projected payroll used for developing combined UAAL rate	10,965,241	130,962	11,096,203		N/A	

Harbor Port Police Combined (Tiers 5 and 6)	June 30, 2013		June 30, 2012	
	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$3,376,289	30.44%	$3,369,903	30.37%
2. Expected employee contributions, discounted to beginning of year	-1,140,220	-10.28%	-1,126,828	-10.16%
3. Employer normal cost: (1) + (2)	2,236,069	20.16%	2,243,075	20.21%
4. Actuarial accrued liability	42,141,888		37,442,333	
5. Valuation value of assets	30,377,697		26,766,361	
6. Unfunded actuarial accrued liability	11,764,191		10,675,972	
7. Amortization of unfunded accrued liability	1,044,542	9.41%	930,972	8.39%
8. Total recommended contribution, payable July 1	3,280,611	29.57%	3,174,047	28.60%
9. Total recommended contribution, payable July 15	3,290,830	29.66%	3,183,934	28.69%
10. Total recommended contribution, payable biweekly	3,405,363	30.69%	3,294,746	29.69%
11. Projected payroll used for developing normal cost rate	11,096,203		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.

CHART 14
Recommended Contribution (Continued)

	June 30, 2013		June 30, 2012	
All Tiers Combined	Amount	% of Payroll	Amount[1]	% of Payroll
1. Total normal cost	$395,002,367	28.89%	$394,282,664	28.84%
2. Expected employee contributions, discounted to beginning of year	-129,370,345	-9.46%	-130,170,166	-9.52%
3. Employer normal cost: (1) + (2)	265,632,022	19.43%	264,112,498	19.32%
4. Actuarial accrued liability	17,632,425,090		17,030,833,184	
5. Valuation value of assets	14,657,712,639		14,251,913,532	
6. Unfunded actuarial accrued liability	2,974,712,451		2,778,919,652	
7. Amortization of unfunded accrued liability	232,462,616	17.00%	208,975,671	15.28%
8. Total recommended contribution, payable July 1	498,094,638	36.43%	473,088,169	34.60%
9. Total recommended contribution, payable July 15	499,646,197	36.54%	474,561,834	34.71%
10. Total recommended contribution, payable biweekly	517,035,670	37.82%	491,078,281	35.92%
11. Projected payroll used for developing normal cost rate	1,367,236,866		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.

If paid by the City at the beginning of the year, the calculated normal cost is 19.43% payroll. The remaining 17.00% of payroll will amortize the unfunded actuarial accrued liability over an equivalent single amortization period of about 16.3 years.

The contribution rates as of June 30, 2013 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, 2012 to June 30, 2013

Recommended Contribution as of June 30, 2012 (Assuming Payment at the Beginning of the Year)	34.60%*
Effect of contributions less than recommended contribution, from one-year delay between valuation and rate implementation and phase-in of impact of new actuarial assumptions adopted for the June 30, 2011 valuation.	0.53%
Effect of investment loss	1.65%
Effect of difference in actual versus expected salary increase	-0.49%
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.35%
Effect of retiree COLA less than assumed	-0.48%
Effect of gain layers being fully amortized	0.42%
Effect of other actuarial gains	-0.15%
Total change	1.83%
Recommended Contribution as of June 30, 2013 (Assuming Payment at the Beginning of the Year)	36.43%

* *Revised using payroll as of June 30, 2013. Contribution rate is before adjustments to phase in over three years the City contributions rate impact of new actuarial assumptions adopted for the June 30, 2011 valuation.*

E. INFORMATION REQUIRED BY GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes for governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 16 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 16

Required Versus Actual Contributions

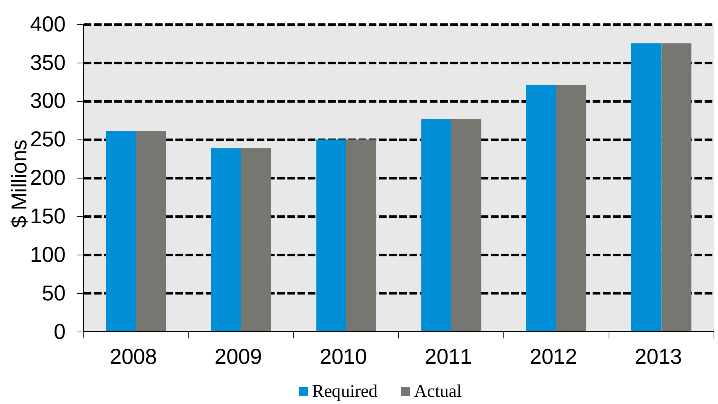
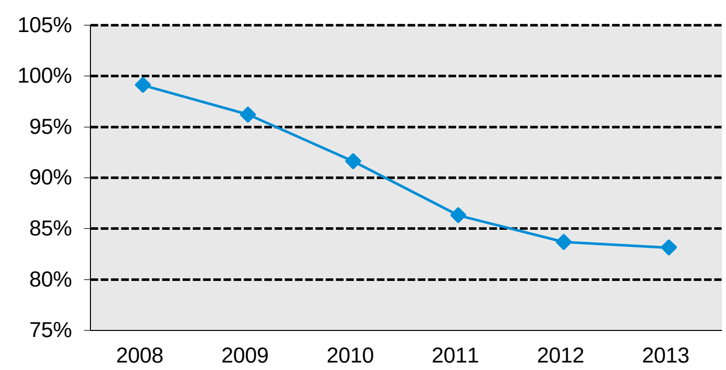


CHART 17

Funded Ratio



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 10.8. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 10.8% of one-year's payroll. Since LAFPP amortizes actuarial gains and losses over a period of 20 years, there would be a 0.7% 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 12.9. This is about 20% 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, 2008 – 2012

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2008[(1)]	11.3	11.8
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

(1) 2008 payroll was based on actual payroll reported by LAFPP for 2007-2008, but payroll for subsequent years was based on estimated payroll projected by Segal for the plan year beginning July 1.

EXHIBIT A
Table of Plan Coverage
Total

Category	Year Ended June 30 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	13,224	13,396	-1.3%
Average age	41.9	41.5	N/A
Average service	15.0	14.5	N/A
Projected total payroll	$1,367,236,866	$1,341,913,739	1.9%
Projected average payroll	$103,391	$100,173	3.2%
Account balances	$1,643,447,305	$1,554,523,952	5.7%
Total active vested members	4,416	4,601	-4.0%
Vested terminated members:			
Number*	133	62	114.5%
Average age**	46.2	45.8	N/A
Average monthly benefit at age 50**	$2,130	$2,058	3.5%
Retired members:			
Number in pay status	7,904	7,830	0.9%
Average age at retirement	51.6	51.5	N/A
Average age	69.4	69.2	N/A
Average monthly benefit (includes July COLA)	$5,662	$5,483	3.3%
Disabled members:			
Number in pay status	2,136	2,183	-2.2%
Average age at retirement	44.0	44.0	N/A
Average age	68.5	67.9	N/A
Average monthly benefit (includes July COLA)	$4,594	$4,475	2.7%
Beneficiaries:			
Number in pay status	2,392	2,367	1.1%
Average age	77.0	77.0	N/A
Average monthly benefit (includes July COLA)	$4,059	$3,946	2.9%

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

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

EXHIBIT A

Table of Plan Coverage

i. Tier 1

Category	Year Ended June 30 2013	Year Ended June 30 2012	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	104	113	-8.0%
Average age at retirement	46.4	46.4	N/A
Average age	85.5	85.0	N/A
Average monthly benefit (includes July COLA)	$2,331	$2,283	2.1%
Disabled members:			
Number in pay status	98	115	-14.8%
Average age at retirement	36.8	36.8	N/A
Average age	82.0	81.5	N/A
Average monthly benefit (includes July COLA)	$2,993	$2,853	4.9%
Beneficiaries:			
Number in pay status	353	372	-5.1%
Average age	84.8	84.4	N/A
Average monthly benefit (includes July COLA)	$2,578	$2,499	3.2%

EXHIBIT A

Table of Plan Coverage

ii. Tier 2

Category	Year Ended June 30 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	58	87	-33.3%
Average age	56.8	55.9	N/A
Average service	33.7	33.0	N/A
Projected total payroll	$7,756,871	$10,952,917	-29.2%
Projected average payroll	$133,739	$125,896	6.2%
Account balances	$14,075,264	$20,489,001	-31.3%
Total active vested members	58	87	-33.3%
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	4,886	5,048	-3.2%
Average age at retirement	50.4	50.4	N/A
Average age	73.3	72.8	N/A
Average monthly benefit (includes July COLA)	$4,971	$4,846	2.6%
Disabled members:			
Number in pay status	1,635	1,673	-2.3%
Average age at retirement	45.2	45.2	N/A
Average age	71.6	70.7	N/A
Average monthly benefit (includes July COLA)	$4,851	$4,743	2.3%
Beneficiaries:			
Number in pay status	1,836	1,814	1.2%
Average age	78.0	77.8	N/A
Average monthly benefit (includes July COLA)	$4,243	$4,137	2.6%

EXHIBIT A

Table of Plan Coverage

iii. Tier 3

Category	Year Ended June 30 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	895	922	-2.9%
Average age	47.1	46.3	N/A
Average service	19.2	18.3	N/A
Projected total payroll	$96,071,797	$95,621,046	0.5%
Projected average payroll	$107,343	$103,710	3.5%
Account balances	$130,445,439	$122,795,491	6.2%
Total active vested members	892	918	-2.8%
Vested terminated members:			
Number*	56	54	3.7%
Average age**	45.9	45.5	N/A
Average monthly benefit at age 50**	$1,832	$1,780	2.9%
Retired members:			
Number in pay status	171	151	13.2%
Average age at retirement	52.5	52.3	N/A
Average age	60.0	59.5	N/A
Average monthly benefit (includes July COLA)	$2,726	$2,556	6.7%
Disabled members:			
Number in pay status	247	247	0.0%
Average age at retirement	39.7	39.7	N/A
Average age	54.3	53.6	N/A
Average monthly benefit (includes July COLA)	$3,471	$3,382	2.6%
Beneficiaries:			
Number in pay status	76	68	11.8%
Average age	53.5	52.7	N/A
Average monthly benefit (includes July COLA)	$3,828	$3,958	-3.3%

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

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

EXHIBIT A

Table of Plan Coverage

iv. Tier 4

Category	Year Ended June 30 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	363	383	-5.2%
Average age	44.3	43.6	N/A
Average service	19.6	19.0	N/A
Projected total payroll	$39,933,959	$40,787,414	-2.1%
Projected average payroll	$110,011	$106,495	3.3%
Account balances	$56,473,797	$56,069,673	0.7%
Total active vested members	166	184	-9.8%
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	171	153	11.8%
Average age at retirement	45.9	45.6	N/A
Average age	52.6	51.6	N/A
Average monthly benefit (includes July COLA)	$4,484	$4,287	4.6%
Disabled members:			
Number in pay status	42	41	2.4%
Average age at retirement	42.0	42.1	N/A
Average age	51.8	50.8	N/A
Average monthly benefit (includes July COLA)	$4,527	$4,442	1.9%
Beneficiaries:			
Number in pay status	3	3	0.0%
Average age	50.6	49.6	N/A
Average monthly benefit (includes July COLA)	$7,830	$7,661	2.2%

EXHIBIT A

Table of Plan Coverage

v. Tier 5 (without Harbor Port Police)

Category	Year Ended June 30 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	11,240	11,538	-2.6%
Average age	42.2	41.4	N/A
Average service	15.2	14.4	N/A
Projected total payroll	$1,181,501,190	$1,166,080,092	1.3%
Projected average payroll	$105,116	$101,064	4.0%
Account balances	$1,433,703,589	$1,349,183,921	6.3%
Total active vested members	3,294	3,403	-3.2%
Vested terminated members:			
Number*	64	8	700.0%
Average age**	48.5	47.9	N/A
Average monthly benefit at age 50**	$4,144	$3,939	5.2%
Retired members:			
Number in pay status	2,564	2,361	8.6%
Average age at retirement	54.4	54.5	N/A
Average age	62.9	62.5	N/A
Average monthly benefit (includes July COLA)	$7,385	$7,262	1.7%
Disabled members:			
Number in pay status	112	105	6.7%
Average age at retirement	43.6	43.6	N/A
Average age	49.4	48.7	N/A
Average monthly benefit (includes July COLA)	$4,752	$4,577	3.8%
Beneficiaries:			
Number in pay status	124	110	12.7%
Average age	54.7	55.2	N/A
Average monthly benefit (includes July COLA)	$5,604	$5,585	0.3%

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

** *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 2013	2012	Change From Prior Year
Active members in valuation:			
Number	560	354	58.2%
Average age	27.4	26.8	N/A
Average service	0.7	0.2	N/A
Projected total payroll	$30,876,846	$17,494,367	76.5%
Projected average payroll	$55,137	$49,419	11.6%
Account balances	$2,386,378	$383,108	522.9%
Total active vested members	0	0	N/A
Vested terminated members:			
Number*	12	0	N/A
Average age**	N/A	N/A	N/A
Average monthly benefit at age 50**	$0	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 beginning with the June 30, 2013 valuation.*

** *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 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	106	111	-4.5%
Average age	37.9	37.7	N/A
Average service	8.3	8.0	N/A
Projected total payroll	$10,965,241	$10,897,354	0.6%
Projected average payroll	$103,446	$98,174	5.4%
Account balances	$6,345,443	$5,594,758	13.4%
Total active vested members	6	9	-33.3%
Vested terminated members:			
Number*	1	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	8	4	100.0%
Average age at retirement	55.1	53.8	N/A
Average age	58.5	56.5	N/A
Average monthly benefit (includes July COLA)	$6,477	$5,342	21.2%
Disabled members:			
Number in pay status	2	2	0.0%
Average age at retirement	40.1	40.1	N/A
Average age	48.1	47.1	N/A
Average monthly benefit (includes July COLA)	$4,885	$4,780	2.2%
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 beginning with the June 30, 2013 valuation.*

** *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 2013	Year Ended June 30 2012	Change From Prior Year
Active members in valuation:			
Number	2	1	100.0%
Average age	30.9	33.1	N/A
Average service	0.2	0.9	N/A
Projected total payroll	$130,962	$80,550	62.6%
Projected average payroll	$65,481	$80,550	-18.7%
Account balances	$17,396	$7,999	117.5%
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, 2013
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	213	213	- -	- -	- -	- -	- -	- -	- -	- -
	$54,338	$54,338	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	1,335	922	412	1	- -	- -	- -	- -	- -	- -
	80,580	74,755	$93,542	$111,253	- -	- -	- -	- -	- -	- -
30 - 34	1,908	513	1,185	210	- -	- -	- -	- -	- -	- -
	92,500	81,073	95,804	101,773	- -	- -	- -	- -	- -	- -
35 - 39	2,041	181	675	927	258	- -	- -	- -	- -	- -
	99,663	83,277	96,426	102,914	$107,941	- -	- -	- -	- -	- -
40 - 44	2,521	77	282	680	1,347	135	- -	- -	- -	- -
	105,860	80,243	96,103	103,815	109,273	$117,105	- -	- -	- -	- -
45 - 49	2,363	22	91	236	748	957	308	1	- -	- -
	112,130	76,866	94,525	104,076	108,692	116,194	$121,682	$131,905	- -	- -
50 - 54	1,857	11	10	61	243	544	667	316	5	- -
	117,388	102,455	95,402	105,716	107,537	115,415	119,648	126,464	$154,797	- -
55 - 59	800	- -	2	11	73	109	255	299	51	- -
	120,277	- -	101,458	103,623	106,620	114,600	117,118	125,969	138,718	- -
60 - 64	164	- -	- -	1	15	7	42	62	36	1
	119,410	- -	- -	99,751	108,457	119,071	112,523	120,666	130,419	$120,781
65 - 69	19	- -	- -	- -	5	1	6	3	4	- -
	116,135	- -	- -	- -	103,386	142,052	115,776	111,129	129,887	- -
70 & over	3	- -	- -	- -	- -	- -	1	- -	- -	2
	116,127	- -	- -	- -	- -	- -	99,399	- -	- -	124,491
Total	13,224	1,939	2,657	2,127	2,689	1,753	1,279	681	96	3
	$103,391	$75,379	$95,602	$103,305	$108,739	$115,949	$119,365	$125,659	$136,076	$123,254

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
35 - 39	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
50 - 54	16	--	--	--	--	--	--	16	--	--
	$131,064	--	--	--	--	--	--	$131,064	--	--
55 - 59	35	--	--	--	--	--	--	32	3	--
	138,790	--	--	--	--	--	--	138,966	$136,917	--
60 - 64	5	--	--	--	--	--	--	2	3	--
	110,546	--	--	--	--	--	--	107,741	112,415	--
65 - 69	1	--	--	--	--	--	--	--	1	--
	135,066	--	--	--	--	--	--	--	135,066	--
70 & over	1	--	--	--	--	--	--	--	--	1
	114,393	--	--	--	--	--	--	--	--	$114,393
Total	58	--	--	--	--	--	--	50	7	1
	$133,739	--	--	--	--	--	--	$135,188	$126,152	$114,393

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013

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	53	- -	- -	2	51	- -	- -	- -	- -	- -
	$107,098	- -	- -	$100,908	$107,341	- -	- -	- -	- -	- -
40 - 44	300	- -	- -	9	276	15	- -	- -	- -	- -
	105,226	- -	- -	99,323	105,336	$106,748	- -	- -	- -	- -
45 - 49	301	1	2	4	157	126	11	- -	- -	- -
	108,493	$87,060	$90,393	99,480	106,570	111,704	$107,675	- -	- -	- -
50 - 54	153	- -	- -	- -	55	64	32	2	- -	- -
	109,155	- -	- -	- -	107,575	110,299	109,608	$108,751	- -	- -
55 - 59	62	- -	- -	- -	35	19	7	1	- -	- -
	106,510	- -	- -	- -	103,433	108,930	115,523	105,173	- -	- -
60 - 64	19	- -	- -	- -	11	3	5	- -	- -	- -
	110,849	- -	- -	- -	108,047	122,548	109,993	- -	- -	- -
65 - 69	6	- -	- -	- -	4	1	1	- -	- -	- -
	110,240	- -	- -	- -	104,997	142,052	99,399	- -	- -	- -
70 & over	1	- -	- -	- -	- -	- -	1	- -	- -	- -
	99,399	- -	- -	- -	- -	- -	99,399	- -	- -	- -
Total	895	1	2	15	589	228	57	3	- -	- -
	$107,343	$87,060	$90,393	$99,576	$105,983	$111,028	$109,637	$107,558	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	10	- -	- -	10	- -	- -	- -	- -	- -	- -
	$100,999	- -	- -	$100,999	- -	- -	- -	- -	- -	- -
35 - 39	120	- -	- -	107	13	- -	- -	- -	- -	- -
	101,245	- -	- -	100,540	$107,048	- -	- -	- -	- -	- -
40 - 44	54	- -	1	29	17	7	- -	- -	- -	- -
	105,944	- -	$98,070	100,466	107,337	$126,377	- -	- -	- -	- -
45 - 49	104	- -	- -	11	4	50	39	- -	- -	- -
	116,522	- -	- -	101,984	98,868	116,364	$122,636	- -	- -	- -
50 - 54	67	- -	- -	5	- -	3	43	16	- -	- -
	119,636	- -	- -	104,608	- -	114,003	117,338	$131,563	- -	- -
55 - 59	8	- -	- -	- -	- -	- -	1	7	- -	- -
	114,962	- -	- -	- -	- -	- -	114,393	115,043	- -	- -
60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	363	- -	1	162	34	60	83	23	- -	- -
	$110,011	- -	$98,070	$100,779	$106,230	$117,414	$119,792	$126,535	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	25	- -	- -	- -	- -	- -	- -	- -	- -
	$65,445	$65,445	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	1,063	657	405	1	- -	- -	- -	- -	- -	- -
	86,512	82,151	$93,525	$111,253	- -	- -	- -	- -	- -	- -
30 - 34	1,781	429	1,154	198	- -	- -	- -	- -	- -	- -
	93,947	85,531	95,764	101,587	- -	- -	- -	- -	- -	- -
35 - 39	1,828	158	659	817	194	- -	- -	- -	- -	- -
	99,734	85,447	96,366	103,214	$108,159	- -	- -	- -	- -	- -
40 - 44	2,141	67	272	636	1,053	113	- -	- -	- -	- -
	106,201	83,368	96,014	104,051	110,327	$117,905	- -	- -	- -	- -
45 - 49	1,944	15	89	216	586	781	256	1	- -	- -
	112,582	82,091	94,618	104,180	109,284	116,907	$121,985	$131,905	- -	- -
50 - 54	1,614	8	10	54	187	476	592	282	5	- -
	117,872	84,667	95,402	105,090	107,578	116,078	120,359	126,039	$154,797	- -
55 - 59	691	- -	2	11	37	90	244	259	48	- -
	120,577	- -	101,458	103,623	108,971	115,797	117,014	124,738	138,831	- -
60 - 64	140	- -	- -	1	4	4	37	60	33	1
	120,888	- -	- -	99,751	109,585	116,463	112,864	121,097	132,056	$120,781
65 - 69	12	- -	- -	- -	1	- -	5	3	3	- -
	117,505	- -	- -	- -	96,941	- -	119,051	111,129	128,160	- -
70 & over	1	- -	- -	- -	- -	- -	- -	- -	- -	1
	134,589	- -	- -	- -	- -	- -	- -	- -	- -	134,589
Total	11,240	1,359	2,591	1,934	2,062	1,464	1,134	605	89	2
	$105,116	$83,368	$95,557	$103,488	$109,545	$116,645	$119,756	$124,928	$136,856	$127,685

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	188	188	- -	- -	- -	- -	- -	- -	- -	- -
	$52,861	$52,861	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	259	259	- -	- -	- -	- -	- -	- -	- -	- -
	55,757	55,757	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	79	79	- -	- -	- -	- -	- -	- -	- -	- -
	56,052	56,052	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	18	18	- -	- -	- -	- -	- -	- -	- -	- -
	61,246	61,246	- -	- -	- -	- -	- -	- -	- -	- -
40 - 44	11	9	1	1	- -	- -	- -	- -	- -	- -
	62,528	56,106	$90,831	$92,023	- -	- -	- -	- -	- -	- -
45 - 49	5	5	- -	- -	- -	- -	- -	- -	- -	- -
	55,923	55,923	- -	- -	- -	- -	- -	- -	- -	- -
50 - 54	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
55 - 59	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	560	558	1	1	- -	- -	- -	- -	- -	- -
	$55,137	$55,007	$90,831	$92,023	- -	- -	- -	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	12	5	7	- -	- -	- -	- -	- -	- -	- -
	$93,720	$92,652	$94,484	- -	- -	- -	- -	- -	- -	- -
30 - 34	37	4	31	2	- -	- -	- -	- -	- -	- -
	98,645	96,510	97,277	$124,114	- -	- -	- -	- -	- -	- -
35 - 39	22	5	16	1	- -	- -	- -	- -	- -	- -
	98,586	94,018	98,909	116,268	- -	- -	- -	- -	- -	- -
40 - 44	15	1	8	5	1	- -	- -	- -	- -	- -
	101,410	88,076	99,541	103,661	$118,441	- -	- -	- -	- -	- -
45 - 49	9	1	- -	5	1	- -	2	- -	- -	- -
	116,634	93,001	- -	107,857	134,666	- -	$141,378	- -	- -	- -
50 - 54	7	3	- -	2	1	1	- -	- -	- -	- -
	132,748	149,888	- -	125,367	97,675	$131,164	- -	- -	- -	- -
55 - 59	4	- -	- -	- -	1	- -	3	- -	- -	- -
	130,436	- -	- -	- -	131,164	- -	130,193	- -	- -	- -
60 - 64	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	106	19	62	15	4	1	5	- -	- -	- -
	$103,446	$102,639	$97,675	$111,521	$120,487	$131,164	$134,667	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Payroll as of June 30, 2013
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
25 - 29	1	1	--	--	--	--	--	--	--	--
	$47,221	$47,221	--	--	--	--	--	--	--	--
30 - 34	1	1	--	--	--	--	--	--	--	--
	83,741	83,741	--	--	--	--	--	--	--	--
35 - 39	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
50 - 54	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	2	2	--	--	--	--	--	--	--	--
	$65,481	$65,481	--	--	--	--	--	--	--	--

EXHIBIT C
Reconciliation of Member Data

	Active Members *	Vested Former Members	Disableds	Retired Members	Beneficiaries	Total
Number as of June 30, 2012	13,396	62	2,183	7,830	2,367	25,838
New members	264	N/A	N/A	N/A	163	427
Terminations – with vested rights	-79**	79**	0	0	0	0
Refund of member contributions	-66	0	0	0	0	-66
Retirements	-276	-9	N/A	285	N/A	0
New disabilities	-12	0	12	0	N/A	0
Died with or without beneficiary	-4	0	-61	-214	-136	-415
Rehired	1	-1	0	0	N/A	0
Certain period expired	N/A	N/A	0	0	-2	-2
Data adjustments	0	2	2	3	0	7
Number as of June 30, 2013	13,224	133**	2,136	7,904	2,392	25,789

* *Includes DROP members.*

** *Includes 71 terminated members due only a refund of member contributions (beginning with the June 30, 2013 valuation).*

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, 2013		Year Ended June 30, 2012	
Contribution income:				
Employer contributions	$508,387,283		$444,565,284	
Employee contributions	121,777,655		120,099,124	
Net contribution income		$630,164,938		$564,664,408
Investment income:				
Interest, dividends and other income	$910,081,993		$717,830,011	
Recognition of capital appreciation	-13,657,580		-331,120,612	
Less investment and administrative fees	-68,633,794		-66,308,731	
Net investment income		827,790,619		320,400,668
Total income available for benefits		$1,457,955,557		$885,065,076
Less benefit payments		-$966,118,502		-$926,349,506
Change in reserve for future benefits		$491,837,055		-$41,284,430

EXHIBIT E

Summary Statement of Assets for Retirement and Health Subsidy Benefits

	Year Ended June 30, 2013		Year Ended June 30, 2012	
Cash equivalents		$6,698,082		$6,035,672
Accounts receivable:				
Accrued interest and dividends	$50,434,963		$48,403,624	
Contributions	5,490,442		5,144,476	
Due from brokers	387,602,407		134,347,236	
Total accounts receivable		443,527,812		187,895,336
Investments:				
Equities	$9,730,129,629		$8,159,789,338	
Fixed income investments	5,027,650,664		4,950,895,821	
Real estate	1,231,595,540		1,238,053,578	
Total investments at market value		15,989,375,833		14,348,738,737
Total assets		$16,439,601,727		$14,542,669,745
Less accounts payable:				
Accounts payable and benefits in process	-$33,329,259		-$26,005,492	
Due to brokers	-465,475,707		-177,103,395	
Mortgage payable	-192,425,131		-207,490,130	
Total accounts payable		-$691,230,097		-$410,599,017
Net assets at market value		$15,748,371,630		$14,132,070,728*
Net assets at actuarial value		$15,671,112,222		$15,179,275,167
Net assets at valuation value (retirement benefits)		$14,657,712,639		$14,251,913,532

* *Based on unaudited market value of assets. Subsequent to the June 30, 2012 valuation, the market value of assets was changed to $14,271,638,533.*

EXHIBIT F

Development of the Fund Through June 30, 2013 for All Retirement and Health Subsidy Benefits Assets

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return[1]	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

(1) *Net of investment fees and administrative expenses*

(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, 2013

1.	Unfunded actuarial accrued liability at beginning of year	$2,778,919,652
2.	Total normal cost at beginning of year	387,161,523
3.	Actual employer and member contributions	-497,225,747
4.	Interest	212,767,564
5.	Expected unfunded actuarial accrued liability[1]: (1) + (2) + (3) + (4)	2,881,622,992
6	Actuarial (gain)/loss due to all changes:	
	(a) Investment loss	335,685,338
	(b) Salary increases less than expected	-98,772,783
	(c) COLA increases less than expected for retirees	-96,545,120
	(d) Other experience gain[2]	-47,277,976
	(e) Total changes	93,089,459
7.	Unfunded actuarial accrued liability at end of year: (5) + (6e)	$2,974,712,451

(1) *Includes a contribution loss of about $108 million due to one-year delay in implementation of the contribution rates determined in the June 30, 2012 valuation and phase-in of impact of new actuarial assumptions adopted for the June 30, 2011 valuation.*

(2) *Includes a gain of about $11 million from more than expected deaths among retirees.*

EXHIBIT H
Table of Amortization Bases

Tier 1

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Unfunded Actuarial Accrued Liability	07/01/2013	$189,650,159	24	$16,369,906
Total		$189,650,159		$16,369,906

Tier 2

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[2]
Unfunded Actuarial Accrued Liability	07/01/2013	-$692,571,033	24	-$41,104,552
Experience Loss	07/01/2009	49,266,597	11	5,254,129
Experience Loss	07/01/2010	199,981,595	12	19,854,889
Assumption Change	07/01/2010	1,524,301	24	90,468
Experience Loss	07/01/2011	197,225,978	13	18,355,159
Assumption Change	07/01/2011	355,661,007	24	21,108,718
Experience Loss	07/01/2012	239,667,369	19	16,704,976
Experience Loss	07/01/2013	73,947,281	20	4,969,230
Total		$424,703,095		$45,233,017

(1) *Level dollar amortization.*

(2) *Level percentage of payroll amortization.*

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 3

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption Change	07/01/1989	-$10,944,614	6	-$1,977,934
Plan Amendment	07/01/1990	208,390	7	32,799
Assumption Change	07/01/1990	-4,681,268	7	-736,788
Assumption Change	07/01/1992	2,072,273	9	261,813
Assumption Change	07/01/1995	-19,405,506	12	-1,926,648
Plan Amendment	07/01/1996	2,787,306	13	259,405
Asset Method Change	07/01/1996	-18,017,957	13	-1,676,871
Plan Amendment	07/01/1998	5,704,575	15	474,362
Assumption Change	07/01/1998	9,594,466	15	797,824
Experience Gain	07/01/1999	-6,906,836	1	-6,906,836
Experience Gain	07/01/2000	-15,570,428	2	-7,913,743
Plan Amendment	07/01/2000	1,023,685	17	77,407
Experience Gain	07/01/2001	-17,443,665	3	-6,007,584
Assumption Change	07/01/2001	-31,958,090	18	-2,316,615
Experience Loss	07/01/2002	58,702,542	4	15,410,361
Experience Loss	07/01/2003	93,314,954	5	19,915,454
Experience Loss	07/01/2004	6,921,427	6	1,250,855
Assumption Change	07/01/2004	-9,953,094	21	-646,403
Experience Loss	07/01/2005	16,102,675	7	2,534,410
Assumption Change	07/01/2005	31,556,182	22	1,984,977
Experience Loss	07/01/2006	13,095,566	8	1,832,256
Assumption Change	07/01/2006	33,339,397	23	2,035,234
Experience Gain	07/01/2007	-21,045,488	15	-1,750,029
Assumption Change	07/01/2007	-5,631,949	24	-334,260
Experience Gain	07/01/2008	-17,187,243	12	-1,706,411
Assumption Change	07/01/2008	8,858,115	25	511,979

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 3

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Loss	07/01/2009	9,364,379	11	998,682
Experience Loss	07/01/2010	2,035,014	12	202,043
Assumption Change	07/01/2010	27,643,345	27	1,521,919
Plan Amendment [2]	07/01/2011	-18,820	28	-1,013
Experience Loss	07/01/2011	1,063,745	13	98,999
Assumption Change	07/01/2011	26,693,925	28	1,437,207
Experience Loss	07/01/2012	11,039,114	19	769,434
Experience Loss	07/01/2013	6,011,719	20	403,985
Total		$188,367,836		$18,910,270

[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 H

Table of Amortization Bases (Continued)

Tier 4

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption Change	07/01/1989	-$4,289,662	6	-$775,237
Plan Amendment	07/01/1990	81,677	7	12,855
Assumption Change	07/01/1990	-1,834,787	7	-288,778
Assumption Change	07/01/1992	812,212	9	102,616
Assumption Change	07/01/1995	-7,605,844	12	-755,135
Plan Amendment	07/01/1996	1,092,466	13	101,672
Asset Method Change	07/01/1996	-7,062,007	13	-657,237
Plan Amendment	07/01/1998	2,235,868	15	185,923
Assumption Change	07/01/1998	3,760,483	15	312,701
Experience Gain	07/01/1999	-2,707,084	1	-2,707,084
Experience Gain	07/01/2000	-6,102,715	2	-3,101,734
Plan Amendment	07/01/2000	398,889	17	30,162
Experience Gain	07/01/2001	-4,033,281	3	-1,389,059
Assumption Change	07/01/2001	-5,348,968	18	-387,742
Experience Loss	07/01/2002	9,890,749	4	2,596,481
Experience Loss	07/01/2003	36,721,690	5	7,837,213
Experience Loss	07/01/2004	6,950,816	6	1,256,166
Assumption Change	07/01/2004	-5,973,846	21	-387,971
Experience Loss	07/01/2005	9,870,946	7	1,553,595
Assumption Change	07/01/2005	16,248,659	22	1,022,089
Experience Loss	07/01/2006	4,841,770	8	677,432
Assumption Change	07/01/2006	16,546,618	23	1,010,103
Experience Gain	07/01/2007	-8,973,599	15	-746,196
Assumption Change	07/01/2007	-3,378,285	24	-200,503
Experience Gain	07/01/2008	-4,161,884	12	-413,207
Assumption Change	07/01/2008	11,685,976	25	675,423

EXHIBIT H

Table of Amortization Bases (Continued)

Tier 4

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Loss	07/01/2009	10,992,842	11	1,172,352
Experience Loss	07/01/2010	4,549,249	12	451,666
Assumption Change	07/01/2010	13,767,843	27	757,996
Plan Amendment[2]	07/01/2011	1,546,878	28	83,284
Experience Loss	07/01/2011	5,698,105	13	530,303
Assumption Change	07/01/2011	13,301,908	28	716,178
Experience Loss	07/01/2012	9,425,179	19	656,941
Experience Loss	07/01/2013	6,625,380	20	445,223
Total		$125,574,242		$10,378,491

(1) *Level percentage of payroll amortization.*

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

EXHIBIT H

Table of Amortization Bases (Continued)

Tiers 5 and 6 (without Harbor Port Police)

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Original Base	07/01/2002	-$175,461,739	19	-$12,229,801
Experience Gain	07/01/2003	-193,456,367	5	-41,287,824
Experience Loss	07/01/2004	72,951,067	6	13,183,874
Assumption Change	07/01/2004	-277,065,790	21	-17,994,019
Experience Loss	07/01/2005	180,251,846	7	28,369,953
Assumption Change	07/01/2005	487,473,154	22	30,663,503
Experience Loss	07/01/2006	51,124,976	8	7,153,111
Assumption Change	07/01/2006	331,106,350	23	20,212,691
Experience Gain	07/01/2007	-202,044,224	15	-16,800,906
Assumption Change	07/01/2007	-79,828,250	24	-4,737,860
Experience Gain	07/01/2008	-74,636,838	12	-7,410,213
Assumption Change	07/01/2008	344,721,968	25	19,924,155
Experience Loss	07/01/2009	329,339,296	11	35,123,007
Experience Loss	07/01/2010	196,994,225	12	19,558,292
Assumption Change	07/01/2010	295,251,141	27	16,255,213
Plan Amendment [2]	07/01/2011	5,938,279	28	319,718
Experience Loss	07/01/2011	121,590,879	13	11,316,054
Assumption Change	07/01/2011	255,128,974	28	13,736,198
Experience Loss	07/01/2012	249,883,139	19	17,417,022
Experience Loss	07/01/2013	115,390,840	20	7,754,222
Total		$2,034,652,928		$140,526,390

[1] *Level percentage of payroll amortization.*

[2] *Loss due to new retirees from non-DROP status and new DROP members during 7/1/2011 – 7/14/2011.*

EXHIBIT H

Table of Amortization Bases (Continued)

Harbor Port Police (Tiers 5 and 6)

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience Gain	07/01/2008	-$158,889	12	-$15,775
Assumption Change	07/01/2008	139,394	25	8,057
Experience Loss	07/01/2009	6,073,401	11	647,709
Experience Loss	07/01/2010	1,653,737	12	164,189
Assumption Change	07/01/2010	1,109,700	27	61,095
Plan Amendment [2]	07/01/2011	42,979	28	2,314
Experience Gain	07/01/2011	-434,619	13	-40,449
Assumption Change	07/01/2011	766,583	28	41,273
Experience Loss	07/01/2012	1,318,520	19	91,902
Experience Loss	07/01/2013	1,253,385	20	84,227
Total		$11,764,191		$1,044,542

[1] *Level percentage of payroll amortization.*

[2] *Loss 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 $205,000 for 2013 and $210,000 for 2014. 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.

EXHIBIT J
Definitions of Pension Terms

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 2,392 beneficiaries in pay status)		12,432
2.	Members inactive during year ended June 30, 2013 with vested rights		133
3.	Members active during the year ended June 30, 2013		13,224
	Fully vested	4,416	
	Not vested	8,808	

The actuarial factors as of the valuation date are as follows:			
	Assets		
1.	Valuation value of retirement assets ($15,748,371,630 at market value[1] as reported by LAFPP and $15,671,112,222 at actuarial value[1])		$14,657,712,639
2.	Present value of future normal costs		
	Employee	$1,316,849,252	
	Employer	2,732,872,722	
	Total		$4,049,721,974
3.	Unfunded actuarial accrued liability		2,974,712,451
4.	Present value of current and future assets		$21,682,147,064
	Liabilities		
5.	Present value of future benefits		
	Retired members and beneficiaries	$9,820,906,432	
	Inactive members with vested rights	24,953,935	
	Active members	11,836,286,697	
	Total		$21,682,147,064

[1] *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	$395,002,367
2.	Expected employee contributions	-129,370,345
3.	Employer normal cost: (1) + (2)	$265,632,022
4.	Payment on projected unfunded actuarial accrued liability	232,462,616
5.	Total recommended contribution: (3) + (4), payable beginning of year	$498,094,638
6.	Total recommended contribution: adjusted for July 15 payment	$499,646,197
7.	Total recommended contribution: adjusted for biweekly payment	$517,035,670
8.	Projected payroll	$1,367,236,866
9.	Item 5 as a percentage of projected payroll: (5) ÷ (8)	36.43%
10.	Item 6 as a percentage of projected payroll: (6) ÷ (8)	36.54%
11.	Item 7 as a percentage of projected payroll: (7) ÷ (8)	37.82%

EXHIBIT II

Supplementary Information Required by GASB – Schedule of Employer Contributions

Retirement Benefits

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2008[1]	$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%

(1) *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.*

EXHIBIT III

Supplementary Information Required by GASB – 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%

EXHIBIT IV

Supplementary Information Required by GASB

Valuation date	June 30, 2013
Actuarial cost method	Entry Age Cost Method
Amortization method	For Tier 1, level dollar amortization is used ending on June 30, 2037. For Tiers 2, 3 and 4, level percent of payroll amortization with multiple layers is used as a percent of TOTAL valuation payroll from the respective employer (i.e., City or Harbor Port Police). For Tiers 5 and 6, level percent of payroll with multiple layers is used as a percent of combined payroll for these tiers from the respective employer (i.e., City or Harbor Port Police). Actuarial gains/losses are amortized over 20 years. Assumption changes are amortized over 25 years. Plan changes are amortized over 15 years.
Asset valuation method	Market value of assets less unrecognized returns in each of the last five 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. Unrecognized return established before July 1, 2008 was recognized over a five-year period. 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	7.75%
Inflation rate	3.50%
Real across-the-board salary increase	0.75%
Projected salary increases*	Ranges from 5.25% to 12.25% based on service.
Cost of living adjustments	3.50% of Tiers 1 and 2 retirement income and 3.00% of Tiers 3, 4, 5, and 6 retirement income.

Plan membership:	
Retired members and beneficiaries receiving benefits	12,432
Terminated members entitled to, but not yet receiving benefits	133
Active members	13,224
Total	25,789

** See Exhibit V for these increases.*

EXHIBIT V
Actuarial Assumptions and Actuarial Cost Method

The following assumptions were adopted by the Board based on the Actuarial Experience Study as of June 30, 2010 and the Economics Assumptions Study as of June 30, 2010.

Mortality Rates

Healthy:	RP-2000 Combined Healthy Mortality Table (separate for males and females) set back four years for members. RP-2000 Combined Healthy Mortality Table (separate for males and females) set back two years for beneficiaries.
Disabled:	RP-2000 Combined Healthy Mortality Table (separate for males and females) set back two years. The tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality, 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	0.05	0.03
40	0.08	0.05
45	0.11	0.08
50	0.16	0.12
55	0.24	0.19
60	0.42	0.31

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	0.11
40	0.15	0.29
45	0.26	0.46
50	0.42	0.56
55	1.40	1.08
60	4.40	1.46

* *90% of disabilities are assumed to be service connected.*

Termination Rates Before Retirement (continued):

Rate (%) Withdrawal (< 5 Years of Service)		
Service	**Fire**	**Police**
0 - 1	8.00	8.00
1 - 2	3.00	4.00
2 – 3	2.00	3.00
3 – 4	1.00	3.00
4 – 5	1.00	2.50

Rate (%) Vested Termination (5+ Years of Service) *		
Age	**Fire**	**Police**
20	1.50	2.50
25	1.50	2.50
30	1.20	2.20
35	0.70	1.70
40	0.41	1.20
45	0.20	0.82
50	0.04	0.28
55	0.00	0.00
60	0.00	0.00

* *No vested termination is assumed after a member is eligible for retirement.*

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%	8.00%	0.00%	0.00%
42	1.00	0.00	0.00	8.00	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	8.00	0.00	0.00
47	1.00	0.00	0.00	8.00	0.00	0.00
48	2.00	0.00	0.00	8.00	0.00	0.00
49	2.00	0.00	0.00	8.00	0.00	0.00
50	3.00	5.00	3.00	8.00	10.00	8.00
51	3.00	5.00	3.00	10.00	10.00	10.00
52	4.00	5.00	4.00	10.00	10.00	10.00
53	5.00	5.00	5.00	15.00	10.00	15.00
54	5.00	8.00	5.00	15.00	13.00	15.00
55	10.00	10.00	10.00	20.00	16.00	18.00
56	15.00	12.00	12.00	20.00	18.00	18.00
57	15.00	15.00	15.00	20.00	22.00	22.00
58	15.00	18.00	18.00	25.00	25.00	25.00
59	15.00	20.00	20.00	25.00	30.00	30.00
60	20.00	25.00	25.00	25.00	30.00	30.00
61	20.00	30.00	30.00	25.00	30.00	30.00
62	20.00	30.00	30.00	25.00	30.00	30.00
63	25.00	35.00	35.00	30.00	30.00	30.00
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. For this valuation, of all members expected to retire with a service retirement benefit, we project a 95% probability that a member has elected 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. We assume that all deferred vested members receive a deferred vested benefit.
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:	86%
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 3.50% 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:	7.75%, net of investment and administrative expenses

Salary Increases:

Annual Rate of Compensation Increase	
Inflation: 3.50% 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	8.00%
1	7.00%
2	4.50%
3	4.00%
4	3.50%
5	3.20%
6	2.75%
7	2.50%
8	2.25%
9	2.25%
10	2.00%
11 or more	1.00%

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. Unrecognized returns established before July 1, 2008 are recognized over a five-year period and unrecognized returns established after July 1, 2008 are recognized over a seven-year period. 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 ("replacement life").
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).
Changes in Assumptions	There were no changes in actuarial assumptions since the prior valuation.

EXHIBIT VI
Summary of Plan Provisions

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	<u>Years of Service</u>	<u>Benefit</u>
	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	Age 50 with 10 years of service.
Amount	See Tier 3 Service Retirement.
Tier 5, Tier 6 (§ 4.2004, § 1704)	
Age & Service Requirement	Age 50 and 20 years of service.
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, 2013 In accordance with GASB Statements No. 43 and No. 45

Segal Consulting

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November 14, 2013

Board of 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, 2013 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, 2013, 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 LAFPP. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA and Thomas Bergman, ASA, MAAA.

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 Associate 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, 2013. 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

- The recommended contribution rate has increased from 10.84% of payroll ($145.5 million) to 11.30% of payroll ($154.5 million), assuming contributions are made by the City on July 15. The increase in the recommended contribution amount is due in part to lower than expected return on investments (after smoothing), smaller than expected projected total payroll to amortize prior year's UAAL, change in active normal cost (from change in membership demographic and refinements in valuation procedures as suggested by the actuarial auditor); these are offset somewhat by lower per capita medical costs. 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 37.1% to 38.5% in this valuation. On a market value of asset basis, the funded ratio has increased from 34.6% to 38.7%. The unfunded actuarial accrued liability (UAAL) has increased from $1,572 million to $1,620 million. A reconciliation of the change in the UAAL is provided in Section 2, Chart 2.
- The discount rate for this valuation is 7.75%, 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.
- On September 1, 2011, the Board elected to phase in the impact of new actuarial assumptions on the City's retirement and health plan contributions determined in the June 30, 2011 valuation over a three-year period, beginning with the 2012-2013 fiscal year. As this is the last year of the phase-in period, the recommended contribution rates for the 2014-2015 fiscal year contained in this report do not need to be adjusted for the phase-in.
- As indicated in Section 3, Exhibit H of this report, the total unrecognized investment gain as of June 30, 2013 is $77.3 million for the assets for Retirement and

Health Subsidy Benefits. For comparison purposes, the total unrecognized investment loss as of June 30, 2012 was $1,047.2 million.

- The deferred gains of $77.3 million represent 0.5% of the market value of assets as of June 30, 2013. Unless offset by future investment losses, or other unfavorable experience, the recognition of the $77.3 million market gains 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 gains were recognized immediately in the valuation value of assets, the funded percentage would increase from 38.5% to 38.7%.
  - If the deferred gains were recognized immediately in the valuation value of assets, the aggregate employer rate (payable throughout the fiscal year) would decrease from 11.30% to 11.04% of payroll.
- Item 9 of Exhibit H shows that under the asset smoothing method, the $77.3 million in net deferred gains will be recognized in the next six years, but in a very non-level (uneven) pattern. In particular, there will be losses recognized in the next two years, followed by two years of gains, then one year of losses, and finally one year of gains, so as to ultimately recognize all of the current total net deferred gains of $77.3 million. This means that, absent any new gains or losses in the future, there will be two more years of increases in the employer contribution rate, followed by two years of decreases, then one year of increase, and finally one year of decrease, before the $77.3 million in net deferred gains are fully recognized.

  In keeping with model actuarial practice for this situation, effective July 1, 2013 the asset smoothing method could be modified by combining the net deferred gains of $77.3 million from the current valuation into a single six-year smoothing "layer" and thereby recognizing those net deferred gains over the next six years in six level amounts of approximately $12.9 million in each year. This would reduce the volatility associated with the current pattern of deferred gain/loss recognition and thereby result in both more stable funded ratios (on an actuarial value basis) and more level employer contribution rates.

  Please note that this change would have no impact on the current June 30, 2013 valuation results as the total amount of unrecognized gains as of June 30, 2013 would remain unchanged. Also, note that we recommend using a six-year smoothing period for the combined deferred gains as that will complete the recognition of those net gains over the same time period as under the current separate smoothing layers. We will provide more discussion of this policy option during our presentation of June 30, 2013 valuation.
- The actuarial valuation report as of June 30, 2013 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.

- Actuarial Standard of Practice (ASOP) No. 6 states, "The actuary should consider the variation in rates by age for the benefits being modeled and use appropriate age bands if the rates vary significantly." In this valuation, we have not yet adjusted the assumed per capita costs as shown in Exhibit II by age. However, we would suggest reviewing the assumptions necessary in developing age-specific costs as part of the triennial experience study before the June 30, 2014 valuation to determine if such adjustments would be warranted because we do not believe that it would measurably affect the valuation results. ASOP 6 is currently undergoing review and possible modifications, deferring any possible adjustment should allow Segal to incorporate any changes in developing the adjustment factors.

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

SUMMARY OF VALUATION RESULTS

	June 30, 2013	June 30, 2012
Actuarial Accrued Liability (AAL)	$2,633,792,545	$2,499,288,516
Actuarial Value of Assets	$1,013,399,583	927,361,635
Unfunded Actuarial Accrued Liability	1,620,392,962	1,571,926,881
Funded Ratio on Actuarial Value of Assets	38.48%	37.11%
Market Value of Assets	$1,018,395,096	$863,383,796
Funded Ratio on Market Value of Assets	38.67%	34.55%
Annual Required Contribution (ARC) for coming year		
Normal cost (beginning of year)	$55,452,797	$52,066,253*,**
Amortization of the unfunded actuarial accrued liability	98,573,613	92,860,431*,**
Total Annual Required Contribution at beginning of year	$154,026,410	$144,926,684*,**
ARC as a percentage of pay at beginning of year	11.27%	10.80%*,**
Total Annual Required Contribution (payable throughout the year)	$159,883,569	$150,562,722*,**
ARC as a percentage of pay (payable throughout the year)	11.69%	11.22%*,**
Total Annual Required Contribution (payable July 15)	$154,506,201	$145,463,449*,**
ARC as a percentage of pay (payable July 15)	11.30%	10.84%*,**
Projected total payroll	$1,367,236,866	$1,341,913,740
Total Participants (including retirees/beneficiaries not receiving subsidy)	25,177	25,227
Total Participants (excluding retirees/beneficiaries not receiving subsidy)	23,553	23,563
Annual OPEB Cost (AOC) for Coming Year		
Annual Required Contributions (payable end of fiscal year)	$165,963,457	$155,200,296
Interest on Net OPEB Obligations	9,980,446	9,844,356
ARC Adjustments	-8,441,233	-8,123,225
Total Annual OPEB Cost	$167,502,670	$156,921,427
AOC as percentage of pay	12.25%	11.69%

** Before reflecting payroll for the June 30, 2013 valuation. The contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.*

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

November 14, 2013

ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting has conducted an actuarial valuation of certain benefit obligations of City of Los Angeles Fire and Police Pension Plan's other postemployment benefit program as of June 30, 2013, 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

Thomas Bergman, ASA, MAAA, EA
Assistant Actuary

Andy Yeung

Andy Yeung, FCA, ASA, MAAA, EA
Vice President and Associate 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, 2013	**June 30, 2012**
Participant Category		
Current retirees, beneficiaries, and dependents	$1,534,402,716	$1,468,570,880
Current active members	1,650,607,074	1,549,642,635
Terminated members entitled but not yet eligible	6,856,137	0
Total	$3,191,865,927	$3,018,213,515

	June 30, 2013	**June 30, 2012**
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	$1,013,399,583	$927,361,635
2. Present value of future normal costs	558,073,382	518,924,999
3. Unfunded actuarial accrued liability	1,620,392,962	1,571,926,881
4. Present value of current and future assets	$3,191,865,927	$3,018,213,515
Liabilities		
5. Actuarial Present Value of total Projected Benefits	$3,191,865,927	$3,018,213,515

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, 2013	June 30, 2012
Participant Category		
Current retirees, beneficiaries, and dependents	$1,534,402,716	$1,468,570,880
Current active members	1,092,533,692	1,030,717,636
Terminated members entitled but not yet eligible	6,856,137	0
Total actuarial accrued liability	$2,633,792,545	$2,499,288,516
Actuarial value of assets	1,013,399,583	927,361,635
Unfunded actuarial accrued liability	$1,620,392,962	$1,571,926,881

Development of Unfunded Actuarial Accrued Liability for the Year Ended June 30, 2013	
1. Unfunded actuarial accrued liability at beginning of year	$1,571,926,881
2. Normal cost from prior valuation	51,143,080
3. Employer contributions	132,939,191
4. Interest on prior year UAAL, normal cost and contributions	115,914,418
5. Expected unfunded actuarial accrued liability (1 + 2 – 3 + 4)	$1,606,045,188
6. Change due to actuarial investment loss	17,958,009
7. Change due to health and starting cost assumption changes	-38,854,049
8. Change due to miscellaneous demographic losses, including changes in valuation program[1][2]	35,243,814
9. Unfunded actuarial accrued liability at end of year	$1,620,392,962

(1) *About ¾ of this change in liability is due to miscellaneous demographic losses and the remaining ¼ is due to refinements in valuation procedures as suggested by the actuarial auditor.*

(2) *Excludes a loss of $12,387,603 from contributions less than recommended from one-year delay between valuation and rate implementation.*

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	Outstanding Balance	Years Remaining	Annual Payment(1)
Combined Base	06/30/2006	25,520,697	23	2,237,548
Experience Gain	06/30/2012	-3,775,948	19	-358,363
Experience Loss	06/30/2013	568,696	20	52,761
Total		22,313,445		1,931,946

Tier 2

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment(2)
Combined Base	06/30/2006	918,542,653	23	56,073,280
Experience Gain	06/30/2012	-79,378,021	19	-5,532,701
Experience Loss	06/30/2013	11,740,672	20	788,969
Total		850,905,304		51,329,548

(1) *Level dollar amortization.*
(2) *Level percentage of payroll amortization.*

CHART 3 - Table of Amortization Bases (Continued)

Tier 3

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2006	70,128,346	23	4,281,049
Experience Gain	06/30/2012	-4,450,612	19	-310,210
Experience Loss	06/30/2013	13,070,888	20	878,359
Total		78,748,622		4,849,198

[1] *Level percentage of payroll amortization.*

Tier 4

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2006	50,811,707	23	3,101,848
Experience Gain	06/30/2012	-3,257,336	19	-227,039
Experience Loss	06/30/2013	1,622,876	20	109,057
Total		49,177,247		2,983,866

[1] *Level percentage of payroll amortization.*

CHART 3 - Table of Amortization Bases (Continued)

Tiers 5 and 6 (without Harbor Port Police)

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined Base	06/30/2006	654,078,161	23	39,928,802
Experience Gain	06/30/2012	-36,706,933	19	-2,558,498
Experience Gain	06/30/2013	-195,938	20	-13,167
Total		617,175,290		37,357,137

[1] *Level percentage of payroll amortization.*

Harbor Port Police (Tiers 5 and 6)

Type	Date Established	Outstanding Balance	Years Remaining	Annual Payment[1]
Initial Base	06/30/2007	2,629,102	23	160,496
Experience Gain	06/30/2012	-484,231	19	-33,751
Experience Gain	06/30/2013	-71,817	20	-4,826
Total		2,073,054		121,919

[1] *Level percentage of payroll amortization.*

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)

Cost Element	Determined as of June 30 — 2013 Amount	2013 Percentage of Compensation	2012[(1),(2)] Amount	2012[(1),(2)] Percentage of Compensation
1. Normal cost	55,452,797	4.06%	$52,066,253	3.88%
2. Amortization of the unfunded actuarial accrued liability	98,573,613	7.21%	92,860,431	6.92%
3. Total Annual Required Contribution at beginning of year	154,026,410	11.27%	$144,926,684	10.80%
4. Adjustment for timing (payable throughout the year)	5,857,159	0.42%	5,636,038	0.42%
5. Total Annual Required Contribution (payable throughout the year)	159,883,569	11.69%	$150,562,722	11.22%
6. Adjustment for timing (payable July 15)	$479,791	0.03%	$536,765	0.04%
7. Total Annual Required Contribution (payable July 15)	$154,506,201	11.30%	$145,463,449	10.84%
8. Projected Total Payroll	$1,367,236,866		$1,341,913,739	

[(1)] *June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.*

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

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	**2013**	**2012**
		Amount	**Amount**
1.	Annual Required Contribution (payable at end of fiscal year)	$165,963,457	$155,200,296
2.	Interest on Beginning of Year Net OPEB Obligation (NOO)	9,980,446	9,844,356
3.	ARC adjustment	-8,441,233	-8,123,225
4.	Annual OPEB Cost	$167,502,670	$156,921,427
5.	AOC as percentage of pay	12.25%	11.69%
6.	Projected Total Payroll	$1,367,236,866	$1,341,913,739

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
2008	$98,033,338[1]	$78,257,328[1]	79.83%
2009	98,444,833[2]	88,178,910[2]	89.57
2010	106,648,282[2]	106,648,282[2]	100.00
2011	111,681,208[2]	111,681,208[2]	100.00
2012	122,971,851[2]	122,971,851[2]	100.00
2013	132,939,191[2]	132,939,191[2]	100.00

Required Supplementary Information – Schedule of Employer Contributions

GASB 45

Fiscal Year Ended June 30	Annual OPEB Cost	Actual Contributions[3]	Percentage Contributed
2008	$105,876,005	$84,517,914	79.83%
2009	106,452,937	94,916,833	89.16
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[4]	142,812,695	98.79

(1) *Shown at beginning of year.*

(2) *Payable as of July 15.*

(3) *Shown with interest to end of year.*

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

Note that the ARCs shown for 2008 and 2009 were greater than the actual contributions as those amounts have to be adjusted to reflect the maximum amortization period as required by GASB 43/45.

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)]**
06/30/2008	$767,647	$1,836,840	$1,069,193	41.79%	$1,206,589	88.61%
06/30/2009	809,677	2,038,659	1,228,982	39.72%	1,357,249	90.55%
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%

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[3] (e)	Net Increase in NOO (d) - (e) (f)	NOO as of End of Fiscal Year (g)
07/01/2006	$55,162,681[1]	$0	$0	$55,162,681	$55,162,681	$0	$0
07/01/2007	105,876,005[2][3]	0	0	105,876,005	84,517,914	21,358,091	21,358,091
07/01/2008	105,967,196[3][4]	1,708,647	-1,222,906	106,452,937	94,916,833	11,536,103	32,894,194
07/01/2009	126,897,238[3]	2,631,536	-1,924,395	127,604,379	114,816,430	12,787,949	45,682,143
07/01/2010	172,841,037[3]	3,654,571	-2,850,327	173,645,281	119,975,864	53,669,417	99,351,560
07/01/2011	158,264,914[3]	7,700,361	-6,187,819	159,777,456	132,105,073	27,672,383	127,023,943
07/01/2012	142,812,695[3][5]	9,844,356	-8,088,345	144,568,706	142,812,695	1,756,011	128,779,954

(1) *Payable at the beginning of the year. For years 2007 and prior it appears that the ARC may not have been determined in compliance with GASB 43 and 45 due to the maximum amortization period and/or the medical trend rate employed. All results for 2007 and prior years were provided by the Plan based on valuations by the prior actuary.*

(2) *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.*

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

(4) *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.*

(5) *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, 2013	June 30, 2012
Retired members:		
Number of non-disabled retirees	7,194	7,110
Number of disabled retirees	1,426	1,442
Total Number of retirees	8,620	8,552
Average age of retirees	70.5	70.2
Number of spouses/domestic partners of retirees receiving subsidy	5,920	5,945
Average age of spouses/domestic partners of retirees receiving subsidy	66.2	65.9
Beneficiaries:		
Number	1,643	1,615
Average age	79.1	79.0
Active members in valuation:		
Number	13,224	13,396
Average age	41.9	41.5
Average years of service	15.0	14.5
Vested terminated members(1)**:**		
Number	66	N/A
Average age	46.1	

(1) *Excludes terminated members not eligible for retiree health benefit due to service or due only a refund of member contributions as of June 30, 2013. Terminated members were previously not expected to elect retiree health benefits in the retiree health valuation as of June 30, 2012.*

EXHIBIT A (Continued)

Summary of Participant Data – Includes All Retirees and Beneficiaries

	June 30, 2013	June 30, 2012
Retired members:		
Number of non-disabled retirees	7,904	7,830
Number of disabled retirees	1,745	1,780
Total Number of retirees	9,649	9,610
Average age of retirees	69.4	69.1
Number of spouses/domestic partners of retirees receiving subsidy	5,920	5,945
Average age of spouses/domestic partners of retirees receiving subsidy	66.2	65.9
Beneficiaries:		
Number	2,238	2,221
Average age	77.8	77.8
Active members in valuation:		
Number	13,224	13,396
Average age	41.9	41.5
Average years of service	15.0	14.5
Vested terminated members[1]:		
Number	66	N/A
Average age	46.1	

(1) *Excludes terminated members not eligible for retiree health benefit due to service or due only a refund of member contributions as of June 30, 2013. Terminated members were previously not expected to elect retiree health benefits in the retiree health valuation as of June 30, 2012.*

EXHIBIT B

Reconciliation of Participant Data with Pension Valuation

	June 30, 2013	June 30, 2012
Retired members:		
Pension valuation	7,904	7,830
Retirees with no subsidy due to service or decision not to enroll	-234	-397
Deferred retirees eligible for future health benefits	-476	-323
Health valuation	7,194	7,110
Disabled members:		
Pension valuation	2,136	2,183
Disableds with no subsidy due to service or decision not to enroll	-473	-557
Deferred disableds eligible for future health benefits	-237	-184
Health valuation	1,426	1,442
Beneficiaries:		
Pension valuation	2,392	2,367
Surviving spouses with no subsidy due to service or decision not to enroll	-586	-673
Deferred surviving spouses eligible for future health benefits	-163	-79
Health valuation	1,643	1,615
Active members:		
Pension valuation	13,224	13,396
Health valuation	13,224	13,396
Vested terminated members:		
Pension valuation*	133	62
Inactive vested with insufficient service or due only a refund of member contributions	-67	N/A**
Health valuation	66	0

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

***Terminated members were previously not expected to elect retiree health benefits in the retiree health valuation as of June 30, 2012.*

EXHIBIT B (Continued)
Reconciliation of Participant Data with Pension Valuation

	June 30, 2013	June 30, 2012
Retired members:		
Pension valuation	7,904	7,830
Retirees with no subsidy due to service	0	0
Health valuation[1]	7,904	7,830
Disabled members:		
Pension valuation	2,136	2,183
Disableds with no subsidy due to service	-391	-403
Health valuation[1]	1,745	1,780
Beneficiaries:		
Pension valuation	2,392	2,367
Surviving spouses with no subsidy due to service	-154	-146
Health valuation[1]	2,238	2,221
Active members:		
Pension valuation	13,224	13,396
Health valuation	13,224	13,396

[1] *Includes all eligible retirees and surviving spouses/domestic partners whether or not they are receiving a subsidy as of June 30, 2012.*

EXHIBIT C

Allocation of ARC by Tier

Tier 1 Members		June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount	June 30, 2012 % of Payroll
1	Employer normal cost	$0	N/A	$0	N/A
2	Actuarial accrued liability	17,998,049		17,912,459	
3	Valuation value of assets	-4,315,396		-4,147,468	
4	Unfunded actuarial accrued liability	22,313,445		22,059,927	
5	Amortization of unfunded accrued liability	$1,931,946	N/A	1,879,185	N/A
6	Total recommended contribution, July 1	$1,931,946	N/A	1,879,185	N/A
7	Total recommended contribution, July 15	1,937,964	N/A	1,885,039	N/A
8	Total recommended contribution, biweekly	2,005,412	N/A	1,950,645	N/A
9	Projected payroll used for developing normal cost rate	0		N/A	

Tier 2 Members		June 30, 2013 Amount	June 30, 2013 % of Payroll	June 30, 2012 Amount[(2)]	June 30, 2012 % of Payroll
1	Employer normal cost	$266,366	3.43%	$267,255	3.45%
2	Actuarial accrued liability	916,213,818		910,399,074	
3	Valuation value of assets	65,308,514		83,111,819	
4	Unfunded actuarial accrued liability	850,905,304		827,287,255	
5	Amortization of unfunded accrued liability [(1)]	51,329,548	3.78%	49,398,274	3.64%
6	Total recommended contribution, July 1	51,595,914	N/A	49,665,529	N/A
7	Total recommended contribution, July 15	51,756,635	N/A	49,820,237	N/A
8	Total recommended contribution, biweekly	53,557,951	N/A	51,554,159	N/A
9	Projected payroll used for developing normal cost rate	7,756,871		N/A	

[(1)] UAAL rate is calculated using the City's total payroll of $1,356,140,663.
[(2)] Amounts are revised to reflect payroll as of June 30, 2013.

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

Tier 3 Members

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[2]	% of Payroll
1	Employer normal cost	$4,137,966	4.31%	$3,998,749	4.16%
2	Actuarial accrued liability	144,822,800		121,265,503	
3	Valuation value of assets	66,074,178		56,502,731	
4	Unfunded actuarial accrued liability	78,748,622		64,762,772	
5	Amortization of unfunded accrued liability [1]	4,849,198	0.36%	3,881,091	0.29%
6	Total recommended contribution, payable July 1	8,987,164	N/A	7,879,840	N/A
7	Total recommended contribution, payable July 15	9,015,159	N/A	7,904,386	N/A
8	Total recommended contribution, payable biweekly	9,328,919	N/A	8,179,486	N/A
9	Projected payroll used for developing normal cost rate	96,071,797		N/A	

Tier 4 Members

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[2]	% of Payroll
1	Employer normal cost	$1,519,950	3.81%	$1,486,166	3.72%
2	Actuarial accrued liability	78,606,030		71,157,622	
3	Valuation value of assets	29,428,783		24,266,025	
4	Unfunded actuarial accrued liability	49,177,247		46,891,597	
5	Amortization of unfunded accrued liability [1]	2,983,866	0.22%	2,809,833	0.21%
6	Total recommended contribution, payable July 1	4,503,816	N/A	4,295,999	N/A
7	Total recommended contribution, payable July 15	4,517,845	N/A	4,309,381	N/A
8	Total recommended contribution, payable biweekly	4,675,082	N/A	4,459,363	N/A
9	Projected payroll used for developing normal cost rate	39,933,959		N/A	

(1) UAAL rate is calculated using the City's total payroll of $1,356,140,663.
(2) Amounts are revised to reflect payroll as of June 30, 2013.

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

Tier 5 Members (without Harbor Port Police)

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$46,837,667	3.96%	$45,066,400	3.81%
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	36,405,725	3.08%	35,784,022	3.03%
6	Total recommended contribution, payable July 1	83,243,392	7.05%	80,850,422	6.84%
7	Total recommended contribution, payable July 15	83,502,694	7.07%	81,102,270	6.87%
8	Total recommended contribution, payable biweekly	86,408,886	7.31%	83,924,919	7.10%
9	Projected payroll used for developing normal cost rate	1,181,501,190		N/A	

Tier 6 Members (without Harbor Port Police)

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll[2]
1	Employer normal cost	$2,149,535	6.96%	$2,150,892	6.97%
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	951,412	3.08%	935,164	3.03%
6	Total recommended contribution, payable July 1	3,100,947	10.04%	3,086,056	10.00%
7	Total recommended contribution, payable July 15	3,110,606	10.07%	3,095,669	10.03%
8	Total recommended contribution, payable biweekly	3,218,867	10.42%	$3,203,410	10.38%
9	Projected payroll used for developing normal cost rate	30,876,846		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.
(2) After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

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

		June 30, 2013				June 30, 2012	
		Tier 5	Tier 6	Combined Tiers 5 and 6		Combined Tiers 5 and 6	
					% of Payroll		% of Payroll
4	Actuarial accrued liability	$1,469,493,241	$371,521	$1,469,864,762		$1,372,964,288	
5	Valuation value of assets			852,689,472		764,151,136	
6	Unfunded actuarial accrued liability			617,175,290		608,813,152	
7	Amortization of unfunded accrued liability			37,357,137	3.08%	$36,719,186	3.03%
	Projected payroll used for developing combined UAAL rate	1,181,501,190	$30,876,846	$1,212,378,036		N/A	

All Tiers Combined (without Harbor Port Police)

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll[2]
1	Employer normal cost	$54,911,484	4.05%	$52,969,462	3.91%
2	Actuarial accrued liability	2,627,505,459		2,493,698,946	
3	Valuation value of assets	1,009,185,551		923,884,243	
4	Unfunded actuarial accrued liability	1,618,319,908		1,569,814,703	
5	Amortization of unfunded accrued liability	98,451,695	7.26%	94,687,569	6.98%
6	Total recommended contribution, payable July 1	153,363,179	11.31%	147,657,031	10.89%
7	Total recommended contribution, payable July 15	153,840,903	11.34%	148,116,982	10.92%
8	Total recommended contribution, payable biweekly	159,195,117	11.74%	$153,271,982	11.30%
9	Projected payroll used for developing normal cost rate	$1,356,140,663		N/A	

(1) *Amounts are revised to reflect payroll as of June 30, 2013.*
(2) *After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.*

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

Harbor Port Police Tier 5

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll
1	Employer normal cost	$533,197	4.86%	$513,670	4.68%
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	120,480	1.10%	121,438	1.11%
6	Total recommended contribution, payable July 1	653,677	5.96%	635,108	5.79%
7	Total recommended contribution, payable July 15	655,713	5.98%	637,086	5.81%
8	Total recommended contribution, payable biweekly	678,534	6.19%	659,259	6.01%
9	Projected payroll used for developing normal cost rate	10,965,241		N/A	

Harbor Port Police Tier 6

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll[2]
1	Employer normal cost	$8,116	6.20%	$6,684	5.10%
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	1,439	1.10%	1,450	1.11%
6	Total recommended contribution, payable July 1	9,555	7.30%	8,134	6.21%
7	Total recommended contribution, payable July 15	9,585	7.32%	8,160	6.23%
8	Total recommended contribution, payable biweekly	9,918	7.57%	8,444	6.44%
9	Projected payroll used for developing normal cost rate	130,962		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2013.*
[2] *After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.*

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

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

		June 30, 2013				June 30, 2012	
		Tier 5	Tier 6	Combined Tiers 5 and 6		Combined Tiers 5 and 6	
					% of Payroll		% of Payroll
2	Actuarial accrued liability	$6,287,086	$0	$6,287,086		$5,589,570	
3	Valuation value of assets			4,214,032		3,477,392	
4	Unfunded actuarial accrued liability			2,073,054		2,112,178	
5	Amortization of unfunded accrued liability			121,919	1.10%	122,888	1.11%
	Projected payroll used for developing combined UAAL rate	10,965,241	$130,962	11,096,203		N/A	

Harbor Port Police Combined (Tiers 5 and 6)

		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll[2]
1	Employer normal cost	$541,313	4.88%	$520,354	4.69%
2	Actuarial accrued liability	6,287,086		5,589,570	
3	Valuation value of assets	4,214,032		3,477,392	
4	Unfunded actuarial accrued liability	2,073,054		2,112,178	
5	Amortization of unfunded accrued liability	121,919	1.10%	122,888	1.11%
6	Total recommended contribution, payable July 1	663,232	5.98%	643,242	5.80%
7	Total recommended contribution, payable July 15	665,298	6.00%	645,246	5.82%
8	Total recommended contribution, payable biweekly	688,452	6.20%	667,703	6.02%
9	Projected payroll used for developing normal cost rate	11,096,203		N/A	

[1] *Amounts are revised to reflect payroll as of June 30, 2013.*
[2] *After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.*

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

All Tiers Combined		June 30, 2013		June 30, 2012	
		Amount	% of Payroll	Amount[1]	% of Payroll[2]
1	Employer normal cost	$55,452,797	4.06%	$53,489,816	3.92%
2	Actuarial accrued liability	2,633,792,545		2,499,288,516	
3	Valuation value of assets	1,013,399,583		927,361,635	
4	Unfunded actuarial accrued liability	1,620,392,962		1,571,926,881	
5	Amortization of unfunded accrued liability	98,573,614	7.21%	94,810,457	6.93%
6	Total recommended contribution, payable July 1	154,026,411	11.27%	148,300,273	10.85%
7	Total recommended contribution, payable July 15	154,506,201	11.30%	148,762,228	10.88%
8	Total recommended contribution, payable biweekly	159,883,569	11.69%	153,939,685	11.26%
9	Projected payroll used for developing normal cost rate	1,367,236,866		N/A	

(1) Amounts are revised to reflect payroll as of June 30, 2013.
(2) After reflecting updated Tier 6 contribution rate as provided in Segal's letter dated February 27, 2013.

Note that June 30, 2012 contribution rates are before adjustments to phase in over three years the City contribution rate impact due to the new actuarial assumptions adopted for the June 30, 2011 valuation.

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
2014	16,183	147	16,330	$101,882,122	$1,080,934	$102,963,056
2015	15,943	566	16,509	107,622,417	4,608,286	112,230,703
2016	15,643	1,225	16,868	112,383,118	10,725,095	123,108,213
2017	15,297	2,035	17,332	116,646,689	19,046,252	135,692,941
2018	14,939	2,798	17,737	120,651,432	27,559,977	148,211,409
2019	14,528	3,695	18,223	123,649,357	38,058,641	161,707,998
2020	14,093	4,259	18,352	126,039,072	45,742,538	171,781,610
2021	13,656	4,850	18,506	127,904,752	54,009,064	181,913,816
2022	13,213	5,489	18,702	129,693,834	63,138,373	192,832,207
2023	12,763	6,146	18,909	131,181,023	72,945,648	204,126,671

* *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, 2013		Year Ended June 30, 2012	
Contribution income:				
Employer contributions	$508,387,283		$444,565,284	
Employee contributions	121,777,655		120,099,124	
Net contribution income		$630,164,938		$564,664,408
Investment income:				
Interest, dividends and other income	$910,081,993		$717,830,011	
Recognition of capital appreciation	-13,657,580		-331,120,612	
Less investment and administrative fees	-68,633,794		-66,308,731	
Net investment income		827,790,619		320,400,668
Total income available for benefits		$1,457,955,557		$885,065,076
Less benefit payments		-$966,118,502		-$926,349,506
Change in reserve for future benefits		$491,837,055		-$41,284,430

EXHIBIT F

Summary Statement of Assets for Retirement and Health Subsidy Benefits

	Year Ended June 30, 2013		Year Ended June 30, 2012	
Cash equivalents		$6,698,082		$6,035,672
Accounts receivable:				
Accrued interest and dividends	$50,434,963		$48,403,624	
Contributions	5,490,442		5,144,476	
Due from brokers	387,602,407		134,347,236	
Total accounts receivable		443,527,812		187,895,336
Investments:				
Equities	$9,730,129,629		$8,159,789,338	
Fixed income investments	5,027,650,664		4,950,895,821	
Real estate	1,231,595,540		1,238,053,578	
Total investments at market value		15,989,375,833		14,348,738,737
Total assets		$16,439,601,727		$14,542,669,745
Less accounts payable:				
Accounts payable and benefits in process	-$33,329,259		-$26,005,492	
Due to brokers	-465,475,707		-177,103,395	
Mortgage payable	-192,425,131		-207,490,130	
Total accounts payable		-$691,230,097		-$410,599,017
Net assets at market value		$15,748,371,630		$14,132,070,728*
Net assets at actuarial value		$15,671,112,222		$15,179,275,167
Net assets at valuation value (health benefits)		$1,013,399,583		$927,361,635

**Based on unaudited market value of assets. Subsequent to the June 30, 2012 valuation, the market value of assets was changed to $14,271,638,533.*

EXHIBIT G

Development of the Fund Through June 30, 2013 for All Retirement and Health Subsidy Benefits Assets

Year Ended June 30	Employer Contributions	Employee Contributions	Net Investment Return[1]	Benefit Payments	Actuarial Value of Assets at End of Year
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	16,671,112,222

(1) *Net of investment fees and administrative expenses*

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.

As adopted by the Board, any investment gains/losses established after July 1, 2008 will be recognized over a seven-year period and the actuarial value of assets will be further adjusted, if necessary, to be within 40% of the market 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	Percent Not Recognized[2]	Amount Not Recognized	
1.	Market value of assets (for Retirement and Health Subsidy Benefits)				$15,748,371,630
2.	Calculation of unrecognized return[1]				
	(a) Year ended June 30, 2013	$851,978,845	85.71%	$730,267,581	
	(b) Year ended June 30, 2012	-1,024,245,456	71.43%	-731,603,897	
	(c) Year ended June 30, 2011	1,641,626,618	57.14%	938,072,353	
	(d) Year ended June 30, 2010	737,173,630	42.86%	315,931,556	
	(e) Year ended June 30, 2009	-4,113,928,646	28.57%	-1,175,408,185	
	(f) Total unrecognized return				77,259,408
3.	Preliminary actuarial value: (1) - (2f)				15,671,112,222
4.	Adjustment to be within 40% corridor				0
5.	Final actuarial value of assets: (3) + (4)				$15,671,112,222
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				99.5%
7.	Market value of health assets				$1,018,395,696
8.	Valuation value of health assets: (5) ÷ (1) x (7)				$1,013,399,583
9.	Deferred return recognized in each of the next 6 years (for Retirement and Health Subsidy Benefits):				
	(a) Amount recognized on June 30, 2014				-$272,485,001
	(b) Amount recognized on June 30, 2015				-272,485,001
	(c) Amount recognized on June 30, 2016				315,219,091
	(d) Amount recognized on June 30, 2017				209,908,572
	(e) Amount recognized on June 30, 2018				-24,609,516
	(f) Amount recognized on June 30, 2019				121,711,263
	(g) Subtotal (may not total exactly due to rounding)				$77,259,408

[1] *Total return minus expected return on a market value basis.*

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, 2012 to June 30, 2013

Recommended Contribution as of June 30, 2012[(2)]	10.80%[(1)]
Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.16%
Effect of contributions less than recommended, due to the one-year delay between valuation and rate implementation	0.06%
Effect of combined investment and demographic experience losses[(3)]	0.26%
Effect of new trend and per capita costs	-0.17%
Effect of miscellaneous factors including change in active normal cost[(4)]	0.16%
Recommended Contribution as of June 30, 2013	11.27%[(1)]

(1) Based on contributions at beginning of year.

(2) Before adjustments to phase in over three years the impact of new actuarial assumptions adopted for the June 30, 2011 valuation.

(3) Of this change, about 0.22% of pay is due to investment and demographic experience losses and the remaining 0.04% of pay is due to refinements in valuation procedures as a suggested by the actuarial auditor.

(4) About 1/2 of the change in normal cost is due to change in the demographic (e.g., average entry age, etc.) of the active members and the remaining 1/2 is due to refinements in the valuation program as suggested by the actuarial auditor.

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2013
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

Remaining amortization periods	As of June 30, 2013: 23 years for bases established prior to June 30, 2012 19 years for bases established on June 30, 2012 20 years for bases established on June 30, 2013
Asset valuation method	Market value of assets less unrecognized returns in each of the last five 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. Unrecognized return established before July 1, 2008 was recognized over a five-year period. 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	7.75%
Inflation rate	3.50%
Across-the-board pay increase	0.75%
Projected payroll increases	4.25%
Health care cost trend rate (to calculate following year's premium)	
• Medical	8.0% in 2013-2014, then decreasing by 0.5% for each year for six years until it reaches an ultimate rate of 5%. See Exhibit II for first year adjustments from 2013-2014 to 2014-2015.
• Dental	5.00%
• Medicare Part B Premium	The 2014-2015 premiums are assumed to be 2.5% higher than 2013-2014 premiums (based on 2014 calendar year premium remaining unchanged from 2013). All subsequent fiscal year premiums are assumed to be 5% greater than the prior year premium.

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

Actuarial assumptions (continued):

- Medical Subsidy Trend

For employees not subject to freeze:

- 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, 2013 (e.g. Police Kaiser), increase with medical trend.
- For Medicare retirees with 2-party premium greater than the maximum subsidy as of July 1, 2013 (e.g. Police Blue Cross), increase with lesser of 7% or medical trend.

Plan membership – Excluding retirees and beneficiaries not receiving subsidy:	June 30, 2013
Current retirees and beneficiaries	10,263
Current active participants	13,224
Terminated participants entitled but not yet eligible	66
Total	23,553

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

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

Actuarial Cost Method Entry age normal, level percent of pay.

Administrative Expenses No administrative expenses were valued separately from the claim costs.

Spouse Age Difference Husbands are assumed to be 4 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	70	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.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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

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.

2013 – 2014 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	$1,013.02	$1,256.43	**$1,013.02**	$1,314.64	$1,256.43	**$1,256.43**	$511.42	$681.72	**$511.42**
Fire Kaiser	15	$572.16	$1,256.43	**$572.16**	$1,134.32	$1,256.43	**$1,134.32**	$572.16	$681.72	**$572.16**
Fire Blue Cross	5	$1,174.23	$1,256.43	**$1,174.23**	$1,476.15	$1,256.43	**$1,256.43**	$1,011.43	$681.72	**$681.72**
Fire California Care	5	$1,000.00	$1,256.43	**$1,000.00**	$1,174.23	$1,256.43	**$1,174.23**	$711.23	$681.72	**$681.72**
Police										
Blue Cross PPO	65	$953.34	$1,256.43	**$953.34**	$1,656.20	$1,256.43	**$1,256.43**	$953.34	$681.72	**$681.72**
California Care	15	$601.20	$1,256.43	**$601.20**	$1,142.05	$1,256.43	**$1,142.05**	$601.20	$681.72	**$601.20**
Police Kaiser	20	$521.20	$1,256.43	**$521.20**	$1,032.22	$1,256.43	**$1,032.22**	$521.20	$681.72	**$521.20**

** *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 38.*

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

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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

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.

2013 – 2014 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**
<u>Fire</u>										
Fire Medical	85	$505.42	$452.93	**$452.93**	$780.28	$727.79	**$727.79**	$437.73	$452.93	**$437.73**
Fire Kaiser	10	$383.04	$452.93	**$383.04**	$756.08	$756.08	**$756.08**	$383.04	$452.93	**$383.04**
Fire Blue Cross	5	$688.19	$452.93	**$452.93**	$1,436.43	$1,201.17	**$1,201.17**	$688.19	$452.93	**$452.93**
Fire California Care	0	$452.93	$452.93	**$452.93**	$1,035.91	$1,035.91	**$1,035.91**	$452.93	$452.93	**$452.93**
<u>Police</u>										
Blue Cross PPO	75	$545.70	$452.93	**$452.93**	$1,010.17	$917.40	**$917.40**	$545.70	$452.93	**$452.93**
California Care	10	$456.20	$452.93	**$452.93**	$921.32	$918.05	**$918.05**	$456.20	$452.93	**$452.93**
Police Kaiser	15	$222.77	$452.93	**$222.77**	$440.51	$440.51	**$440.51**	$222.77	$452.93	**$222.77**

** *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 38.*

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:

Members who are subject to the retiree medical subsidy freeze will have monthly health insurance subsidy maximums fixed at the levels shown in the table below:

	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	$755.27	$437.73*
Fire Kaiser	$383.04*	$756.08	$383.04*
Fire Blue Cross	$480.41	$1,097.41	$480.41
Fire California Care	$452.93*	$1,035.91	$452.93*
Police Blue Cross PPO	$480.41	$844.92	$480.41
Police California Care	$456.20*	$921.32	$456.20*
Police Kaiser	$222.77*	$440.51	$222.77*

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

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

The following assumptions were adopted by the Board based on the Actuarial Experience Study as of June 30, 2010 and the Economics Assumptions Study as of June 30, 2010.

Mortality Rates

Healthy: RP-2000 Combined Healthy Mortality Table (separate for males and females) set back four years for members.

RP-2000 Combined Healthy Mortality Table (separate for males and females) set back two years for beneficiaries.

Disabled: RP-2000 Combined Healthy Mortality Table (separate for males and females) set back two years.

The tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality, based on a review of mortality experience as of the measurement date.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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	0.05	0.03
40	0.08	0.05
45	0.11	0.08
50	0.16	0.12
55	0.24	0.19
60	0.42	0.31

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

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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	0.11
40	0.15	0.29
45	0.26	0.46
50	0.42	0.56
55	1.40	1.08
60	4.40	1.46

* *90% of disabilities are assumed to be service connected.*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Termination Rates Before Retirement (continued):

	Rate (%) Withdrawal (< 5 Years of Service)	
Service	**Fire**	**Police**
0 - 1	8.00	8.00
1 - 2	3.00	4.00
2 – 3	2.00	3.00
3 – 4	1.00	3.00
4 – 5	1.00	2.50

	Rate (%) Vested Termination (5+ Years of Service) *	
Age	**Fire**	**Police**
20	1.50	2.50
25	1.50	2.50
30	1.20	2.20
35	0.70	1.70
40	0.41	1.20
45	0.20	0.82
50	0.04	0.28
55	0.00	0.00
60	0.00	0.00

* *No vested termination is assumed after a member is eligible for retirement.*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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%	8.00%	0.00%	0.00%
42	1.00	0.00	0.00	8.00	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	8.00	0.00	0.00
47	1.00	0.00	0.00	8.00	0.00	0.00
48	2.00	0.00	0.00	8.00	0.00	0.00
49	2.00	0.00	0.00	8.00	0.00	0.00
50	3.00	5.00	3.00	8.00	10.00	8.00
51	3.00	5.00	3.00	10.00	10.00	10.00
52	4.00	5.00	4.00	10.00	10.00	10.00
53	5.00	5.00	5.00	15.00	10.00	15.00
54	5.00	8.00	5.00	15.00	13.00	15.00
55	10.00	10.00	10.00	20.00	16.00	18.00
56	15.00	12.00	12.00	20.00	18.00	18.00
57	15.00	15.00	15.00	20.00	22.00	22.00
58	15.00	18.00	18.00	25.00	25.00	25.00
59	15.00	20.00	20.00	25.00	30.00	30.00
60	20.00	25.00	25.00	25.00	30.00	30.00
61	20.00	30.00	30.00	25.00	30.00	30.00
62	20.00	30.00	30.00	25.00	30.00	30.00
63	25.00	35.00	35.00	30.00	30.00	30.00
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. For this valuation, all members currently enrolled in the DROP have 0% retirement rate during the DROP period, then 100% rate at completion of DROP period (assumed to be 5 years).

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.50% per year; plus 0.75% "across the board" salary increases; plus the following Merit and Longevity increases based on age.

Years of Service	Additional Salary Increase
0	8.00%
1	7.00%
2	4.50%
3	4.00%
4	3.50%
5	3.20%
6	2.75%
7	2.50%
8	2.25%
9	2.25%
10	2.00%
11+	1.00%

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Measurement Date:	June 30, 2013
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.
	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five year period. Unrecognized return established after July 1, 2008 is recognized over a seven-year period. 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 Vesting 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.*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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, 2013 through June 30, 2014).

The fiscal year trend rates are the following:

Fiscal Year	Trend (applied to calculate following year premium)
2013-2014	8.00%*
2014-2015	7.50%
2015-2016	7.00%
2016-2017	6.50%
2017-2018	6.00%
2018-2019	5.50%
2019 & later	5.00%

* Before reflecting the impact of fees imposed by the Patient Protection and Affordable Care Act (PPACA). Based on information provided by the health consultants retained by the employee organizations, we will add the following one time annualized adjustments to the per capita health care cost to reflect the estimated fees imposed by PPACA. Those adjustments will continue to be applied until those fees are built into the health premiums submitted by the providers:

Fire Medical	Fire Kaiser	Fire Blue Cross	Fire California Care	Police Blue Cross PPO	Police California Care	Police Kaiser
0.66%	2.50%	4.00%	4.00%	2.50%	2.50%	2.50%

Dental Premium Trend	5.00% for all years
Medicare Part B Premium Trend	The 2014-2015 premiums are assumed to be 2.5% higher than 2013-2014 premiums (based on 2014 calendar year premium remaining unchanged from 2013). All subsequent fiscal year premiums are assumed to 5% greater than the prior year premium.

Health Care Reform:

As previously directed by LAFPP, we have not reflected in the current valuation the impact of potential excise tax imposed by the Patient Protection and Affordable Care Act (PPACA), and the Health Care and Education Reconciliation Act (HCERA), which were signed into law in March of 2010. We understand that FASB requires the disclosure of the tax liability for single employer and non-governmental plans. GASB has not yet offered any guidance on how to comply with this legislation for disclosure purposes and they do not always follow the FASB lead.

In particular, it is our understanding that beginning in 2018, the legislation will impose a 40 percent excise tax on the cost of health plans above a certain threshold. It is our further understanding that the thresholds in 2018 for non-Medicare retirees aged 55 through 64 are $11,850 for single coverage and $30,950 for family coverage as specified in the Health Care Reform. For all other retirees the thresholds in 2018 are $10,200 for single coverage and $27,500 for family coverage. PPACA allows the higher thresholds also to be used for any member “who participates in a plan sponsored by an employer the majority of whose employees covered by the plan are engaged in a high-risk profession or employed to repair or install electrical or telecommunication lines.”

The thresholds in 2019 are indexed and for the purpose of this valuation, they are assumed to increase by 4.50% (i.e., 1% over the assumed 3.5% CPI assumption used in the retirement valuation) over those in 2018. After 2019, the thresholds are assumed to increase by 3.50% (assumed CPI inflation) per year.

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:

- For all non-Medicare retirees, increase at lesser of 7% or medical trend as shown on page 46,
- For Medicare retirees with single party premium, increase with medical trend as shown on page 46,
- For Medicare retirees with 2-Party premium less than or equal to the maximum subsidy as of July 1, 2013 (e.g, Police Kaiser), increase with medical trend as shown on page 46, and
- For Medicare retirees with 2-Party premium greater than the maximum subsidy as of July 1, 2013 (e.g., Police Blue Cross), increase with lesser of 7% or medical trend.

Subsidy Freeze: The retiree health benefits program was changed to freeze the medical subsidy for non-retired 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.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
Administrative Expenses:	No administrative expenses were valued separately from the claim costs.
Changes in Assumptions:	Future health care trend rates were updated.
	Premiums and maximum subsidies were updated.

EXHIBIT III

Summary of Plan

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 City approved health carrier.
Maximum Subsidy	As of July 1, 2013, maximum is $1,256.43 per month. For surviving spouse or domestic partner, the maximum subsidy is $681.72 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.

EXHIBIT III

Summary of Plan (continued)

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, 2013, the single coverage maximum subsidy for retirees and surviving spouse or domestic partner is $452.93. The multi-person coverage maximum subsidy is $1,201.17 and depends on the carrier elected.

For employees not subject to freeze, 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, 2013 (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, 2013 (e.g., Police Blue Cross), increase with lesser of 7% or medical trend as shown in Exhibit II - Healthcare Premium Cost Trend Rates.

EXHIBIT III

Summary of Plan (continued)

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 recently changed to freeze the medical subsidy for non-retired 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 at the 2011/2012 plan year.
- The freeze does not apply to the dental subsidy or the Medicare Part B premium reimbursement.

EXHIBIT III

Summary of Plan (continued)

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 2013 and 2014, 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, 2013, maximum is $42.80 per month.

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

EXHIBIT IV

Definitions of Terms

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.

EXHIBIT V

Accounting Requirements

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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