



City and County of San Francisco Employees' Retirement System

GASB 67/68 Report as of June 30, 2016

Produced by Cheiron

November 2016

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LETTER OF TRANSMITTAL

November 1, 2016

Retirement Board
City and County of San Francisco
Employees' Retirement System
1145 Market Street, 5th Floor
San Francisco, CA 94103

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under the Government Accounting Standards Board Statements 67 and 68 (GASB 67 and 68) for the City and County of San Francisco Employees' Retirement System ("System") and for the participating employers, respectively. This information includes:

- Determination of the discount rate as of June 30, 2016,
- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Note disclosures and required supplementary information under GASB 67 for the System,
- Determination of collective amounts under GASB 68, and
- Schedules for the financial reporting of participating employers under GASB 68.

If you have any questions about the report or would like additional information, please let us know.

Sincerely,
Cheiron



William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary



Anne D. Harper, FSA, EA, MAAA
Consulting Actuary

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION I – BOARD SUMMARY

Highlights

The measurement date for the City and County of San Francisco Employees' Retirement System ("System") is June 30, 2016. Measurements are based on the fair value of assets as of June 30, 2016 and the Total Pension Liability as of the valuation date, June 30, 2015, updated to June 30, 2016.

Subsequent to the 2015 valuation date and prior to the measurement date, the State Appeals Court determined that the full funding requirement for payment of the Supplemental COLA included in Proposition C was unconstitutional as applied to members who worked after November 6, 1996 and before Proposition C passed. As a result, Supplemental COLAs that would have been granted to these members in 2013 and 2014 except for the full funding requirement have been restored. During fiscal year ending June 30, 2016, these members were paid lump sums for the retroactive 2013 and 2014 Supplemental COLA payments. We adjusted our update procedures to include the restoration of the 2013 and 2014 Supplemental COLAs for this group of members and the increased expectation of future Supplemental COLAs which are significantly more likely without the full funding requirement. We have accounted for this change as a change in benefits.

At its July 2016 Board meeting, the SFERS Board determined that in light of the Court of Appeals conclusions, Proposition C should not be interpreted to apply the full funding requirement to members who retired before November 6, 1996. Since this decision was made after the measurement date of June 30, 2016, it is not reflected in this report. In any case, we understand that the Superior Court granted a preliminary injunction preventing the Board's decision from being implemented pending the resolution of litigation.

The beginning and end of year measurements are based on different assumptions including different discount rates, different demographic assumptions that were adopted based on the July 1, 2009 through June 30, 2014 experience study, and updated Supplemental COLA assumptions. The discount rate was 7.46% as of June 30, 2015 and 7.50% as of June 30, 2016. A detailed description of the demographic assumption changes can be found in the experience study report and the updated Supplemental COLA assumptions are described in Appendix B of this report.

The table on the next page provides a summary of the key collective results during this measurement period.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION I – BOARD SUMMARY

		Measurement Date	
		6/30/2016	6/30/2015
Net Pension Liability	\$	5,812,778	\$ 2,296,033
Deferred Outflows		(1,794,715)	(173,476)
Deferred Inflows		243,531	745,870
Net Impact on Statement of Net Position	\$	4,261,594	\$ 2,868,427
Pension Expense (\$ Amount)	\$	1,919,972	\$ 115,289
Pension Expense (% of Payroll)		67.69%	4.36%

Amounts in Thousands

The Net Pension Liability (NPL) increased significantly by about \$3,517 million since the prior measurement date, primarily due to investment losses (\$1,384 million), the Appeals Court's elimination of the full funding requirement for certain members (\$1,294 million), and the impact of the revised demographic assumptions and change in discount rate (\$1,087 million). There were also actuarial liability gains that slightly reduced the NPL. The investment losses are recognized over five years, and the actuarial gains and assumption changes are recognized over the average remaining service life, which is also five years. The Appeals Court decision is a change in plan benefits which is recognized immediately. Unrecognized amounts are reported as deferred inflows and deferred outflows.

As of the end of the measurement year, the System and its participating employers would report a Net Pension Liability of \$5,812,778,000, Deferred Inflows of \$243,531,000, and Deferred Outflows of \$1,794,716,000. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to the System would be \$4,261,594,000 at the end of the measurement year.

For the measurement year ending June 30, 2016, the collective annual pension expense is \$1,919,972,000 or 67.69% of covered-employee payroll. This amount is not related to participating employers' contributions to the System (\$526,805,000), but instead represents the change in the net impact on participating employers' Statements of Net Position plus employer contributions (\$4,261,594,000 – \$2,868,427,000 + \$526,805,000). The collective pension expense is significantly larger than the collective expense for the prior year. The majority of this increase is due to the Appeals Court decision, the impact of which is recognized in its entirety this year. Volatility in pension expense from year to year is to be expected. It will largely be driven by investment gains or losses, but other changes can also have a significant impact. A breakdown of the components of the net pension expense is shown in the report.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2015 MEASUREMENT DATE**

SECTION II – CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the City and County of San Francisco Employees' Retirement System ("System") and under GASB 68 for the employers that participate in the System. This report is for the use of the System, the participating employers, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for the System.

In preparing our report, we relied on information (some oral and some written) supplied by the System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements 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; and, changes in plan provisions or applicable law.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for the System for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary

Anne D. Harper, FSA, EA, MAAA
Consulting Actuary

SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 7.50%.

The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for the July 1, 2014 actuarial valuation. That policy includes contributions equal to the employer portion of the Entry Age normal cost for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the unfunded actuarial liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. The remaining Unfunded Actuarial Liability not attributable to Charter amendments as of July 1, 2013, is amortized over a 19-year period commencing July 1, 2014. Experience gains and losses and assumption or method changes on or after July 1, 2014 are amortized over 20 years. For the July 1, 2016 valuation, the increase in the Unfunded Actuarial Liability attributable to the Supplemental COLAs granted on July 1, 2013 and July 1, 2014 are amortized over 17-years and 5-years respectively. All amortization schedules are established as a level percentage of payroll so payments increase 3.75% each year.

The Unfunded Actuarial Liability is based on an Actuarial Value of Assets that smooths investment gains and losses over five years and a measurement of the Actuarial Liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of Actuarial Liability in the funding valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed, a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the Actuarial Value of Assets. For members who did not work after November 6, 1996 and before Proposition C passed, the Market Value of Assets must also exceed the actuarial liability at the beginning of the year for a Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. The large majority of members receive a 1.50% Supplemental COLA when granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, we developed an assumption as of June 30, 2016 for the probability and amount of Supplemental COLA for each future year. The table on the following page shows the net assumed Supplemental COLA for members with a 2.00% Basic COLA for sample years. Appendix B contains complete information on the assumption.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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SECTION III – DETERMINATION OF DISCOUNT RATE

Assumed Supplemental COLA for Members with a 2.00% Basic COLA		
July 1,	96 – Prop C	Before 96 or After Prop C
2018	0.750%	0.000%
2023	0.750%	0.220%
2028	0.750%	0.322%
2033	0.750%	0.370%
2038+	0.750%	0.375%

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the System's fiduciary net position was projected to be available to make projected future benefit payments for current members until FYE 2093 when only a portion of the projected benefit payments are expected to be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 2.85% to the extent they are not available. The single equivalent rate used to determine the Total Pension Liability as of June 30, 2016 rounded to four decimals is 7.50%.

Appendix D shows the details of this calculation.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION IV – PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2016, is measured as of a valuation date of June 30, 2015 and projected to June 30, 2016. Because the TPL shown in the prior report was measured as of June 30, 2014 and projected to June 30, 2015, it will not match the amounts measured as of June 30, 2015 that are shown in this exhibit. The impact of the demographic assumption changes incorporated into the July 1, 2015 valuation and the impact of the State Court of Appeals decision to remove the full funding contingency on granting a Supplemental COLA for the Post 96 Retirees had a significant impact on the System and the TPL. Details of the impact of these changes can be found in Table V-1.

The table below shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure. The Valuation Collective TPL shown as of June 30, 2015 includes the assumption changes and the impact of the Appeals Court decision.

Table IV-1			
Projection of Collective TPL from Valuation to Measurement Date			
Discount Rate	6.50%	7.50%	8.50%
Valuation Collective Total Pension Liability, 6/30/2015			
Actives	\$ 11,517,481	\$ 9,792,390	\$ 8,393,136
Deferred Vested	536,979	455,155	391,293
Retirees	16,004,416	14,544,353	13,306,558
Total	\$ 28,058,876	\$ 24,791,898	\$ 22,090,987
Service Cost	755,413	596,429	476,082
Benefit Payments	1,256,146	1,256,146	1,256,146
Interest	1,807,809	1,835,100	1,845,257
Collective Total Pension Liability, 6/30/2016	\$ 29,365,952	\$ 25,967,281	\$ 23,156,180

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION V – GASB 67 REPORTING INFORMATION

Note Disclosures

The table below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the measurement year.

Table V-1 Change in Collective Net Pension Liability			
	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/2015	\$ 22,724,102	\$ 20,428,069	\$ 2,296,033
Changes for the year:			
Service cost	567,576		567,576
Interest	1,669,996		1,669,996
Changes of benefits	1,293,714		1,293,714
Differences between expected and actual experience	(119,270)		(119,270)
Changes of assumptions	1,087,309		1,087,309
Contributions - employer		526,805	(526,805)
Contributions - member		322,764	(322,764)
Net investment income		150,190	(150,190)
Benefit payments	(1,256,146)	(1,256,146)	0
Administrative expense		(17,179)	17,179
Net changes	<u>3,243,179</u>	<u>(273,566)</u>	<u>3,516,745</u>
Balances at 6/30/2016	<u>\$ 25,967,281</u>	<u>\$ 20,154,503</u>	<u>\$ 5,812,778</u>

Amounts in Thousands

During the measurement year, the collective NPL increased by approximately \$3,517 million. The service cost and interest cost increased the collective NPL by approximately \$2,238 million while contributions and investment income offset by administrative expenses decreased the collective NPL by approximately \$983 million.

The changes in benefits increased the collective NPL by approximately \$1,294 million. The discount rate was increased from 7.46% to 7.50%, which decreased the TPL by approximately \$124 million. Demographic assumption changes increased the TPL by approximately \$1,211 million. There were actuarial experience gains during the year of approximately \$119 million.

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION V – GASB 67 REPORTING INFORMATION

relatively small change in the discount rate. The table below shows the sensitivity of the collective NPL to the discount rate.

Table V-2			
Sensitivity of Collective NPL to Changes in Discount Rate			
	1% Decrease 6.50%	Discount Rate 7.50%	1% Increase 8.50%
Total Pension Liability	\$ 29,365,952	\$ 25,967,281	\$ 23,156,180
Plan Fiduciary Net Position	<u>20,154,503</u>	<u>20,154,503</u>	<u>20,154,503</u>
Collective Net Pension Liability	<u>\$ 9,211,449</u>	<u>\$ 5,812,778</u>	<u>\$ 3,001,677</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.6%	77.6%	87.0%

Amounts in Thousands

A one percent decrease in the discount rate increases the TPL by approximately 13% and increases the collective NPL by approximately 58%. A one percent increase in the discount rate decreases the TPL by approximately 11% and decreases the collective NPL by approximately 48%.

Required Supplementary Information

The schedules of Required Supplementary Information generally start with information as of the implementation of GASB 67, and eventually will build up to 10 years of information. The schedule on the next page shows the changes in collective NPL and related ratios required by GASB for the three years since implementation.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION V – GASB 67 REPORTING INFORMATION

**Table V-3
Schedule of Changes in Collective Net Pension Liability and Related Ratios**

	FYE 2016	FYE 2015	FYE 2014
<u>Total Pension Liability</u>			
Service cost (MOY)	\$ 567,576	\$ 523,644	\$ 509,200
Interest (includes interest on service cost)	1,669,996	1,621,582	1,542,266
Changes of benefit terms	1,293,714	0	0
Differences between expected and actual experience	(119,270)	(197,981)	0
Changes of assumptions	1,087,309	216,845	(73,315)
Benefit payments, including refunds of member contributions	<u>(1,256,146)</u>	<u>(1,131,030)</u>	<u>(1,072,526)</u>
Net change in total pension liability	\$ 3,243,179	\$ 1,033,060	\$ 905,625
Total pension liability - beginning	<u>22,724,102</u>	<u>21,691,042</u>	<u>20,785,417</u>
Total pension liability - ending	<u>\$ 25,967,281</u>	<u>\$ 22,724,102</u>	<u>\$ 21,691,042</u>
<u>Plan fiduciary net position</u>			
Contributions - employer	\$ 526,805	\$ 592,643	\$ 532,882
Contributions - member	322,764	301,682	289,020
Net investment income	150,190	763,429	3,175,431
Benefit payments, including refunds of member contributions	(1,256,146)	(1,131,030)	(1,072,526)
Administrative expense	<u>(17,179)</u>	<u>(19,262)</u>	<u>(15,745)</u>
Net change in plan fiduciary net position	\$ (273,566)	\$ 507,462	\$ 2,909,062
Plan fiduciary net position - beginning	<u>20,428,069</u>	<u>19,920,607</u>	<u>17,011,545</u>
Plan fiduciary net position - ending	<u>\$ 20,154,503</u>	<u>\$ 20,428,069</u>	<u>\$ 19,920,607</u>
Net pension liability - ending	<u>\$ 5,812,778</u>	<u>\$ 2,296,033</u>	<u>\$ 1,770,435</u>
Plan fiduciary net position as a percentage of the total pension liability	77.61%	89.90%	91.84%
Covered employee payroll	\$ 2,836,498	\$ 2,642,752	\$ 2,507,162
Net pension liability as a percentage of covered employee payroll	204.93%	86.88%	70.62%

Amounts in Thousands

Because an Actuarially Determined Contribution (ADC) has been calculated historically, technically the full 10 years of information in the following schedule is required. The actual covered employee payroll and the ratio of contributions to covered employee payroll has been left blank prior to FYE 2013 because we do not have that information. The covered employee payroll shown in this exhibit is pensionable pay for all years reported. In previous GASB reports, total reported pay was shown.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2015 MEASUREMENT DATE**

SECTION V – GASB 67 REPORTING INFORMATION

Table V-4 Schedule of Collective Employer Contributions										
	FYE 2016	FYE 2015	FYE 2014	FYE 2013	FYE 2012	FYE 2011	FYE 2010	FYE 2009	FYE 2008	FYE 2007
Actuarially Determined Contribution	\$ 526,805	\$ 592,643	\$ 532,882	\$ 442,870	\$ 410,797	\$ 308,823	\$ 223,614	\$ 119,751	\$ 134,060	\$ 132,601
Contributions in Relation to the Actuarially Determined Contribution	<u>526,805</u>	<u>592,643</u>	<u>532,882</u>	<u>442,870</u>	<u>410,797</u>	<u>308,823</u>	<u>223,614</u>	<u>119,751</u>	<u>134,060</u>	<u>132,601</u>
Contribution Deficiency/(Excess)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
Covered-Employee Payroll	\$2,836,498	\$2,642,752	\$2,507,162	\$2,448,734						
Contributions as a Percentage of Covered-Employee Payroll	18.57%	22.43%	21.25%	18.09%						

Amounts in Thousands

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2016.

Notes to Schedule

Valuation Date	7/1/2014
Timing	Actuarially determined contribution rates are calculated in the actuarial valuation one year prior to the beginning of the plan year
<u>Key Methods and Assumptions Used to Determine Contribution Rates:</u>	
Actuarial cost method	Entry Age
Asset valuation method	5-year smoothed market
Amortization method	Benefit changes made prior to July 1, 2014 are amortized over closed 20-year periods as a level percentage of payroll The UAL as of July 1, 2013 not attributable to benefit changes was amortized over a closed 19-year period starting July 1, 2014 Assumption changes and experience gains and losses are amortized over a closed 20-year period as a level percentage of payroll Increases in the UAL due to Supplemental COLAs are amortized over a closed 5-year period
Discount rate	7.50%
Amortization growth rate	3.75%
Price inflation	3.25%
Salary increases	3.75% plus merit component based on employee classification and years of service
Mortality	For healthy annuitants, the sex distinct RP-2000 Annuitant Mortality projected to 2020 using Scale AA For active members, the sex distinct RP-2000 Employee Mortality projected to 2030 for females and 2005 for males using Scale AA

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2016 can be found in the July 1, 2014 actuarial valuation report.



**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION VI – GASB 68 COLLECTIVE INFORMATION

We understand that all of the employers elected to use the 2014 measurement date for their initial reporting under GASB 68 on their June 30, 2015 reporting date. As a result, the schedules in this report are to be used for employer reporting as of June 30, 2017 reporting dates and the schedules from our prior report are to be used for employer reporting as of June 30, 2016.

Because the System is a cost-sharing multiple-employer pension plan, each employer participating in the System must reflect a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows in their financial statements. This section develops the collective amounts that are allocated to participating employers.

The impact of benefit changes which were \$1,294 million are recognized immediately in the pension expense.

The impact of experience gains or losses and assumption changes on the TPL are recognized in expense over the average expected remaining service life of all active and inactive members of the System. As of the measurement date, this recognition period was 5.0 years.

During the year, there was an experience gain of approximately \$119 million. Approximately \$24 million of that gain was recognized as a reduction in collective pension expense in the current year and an identical amount will be recognized in each of the next four years. Unrecognized experience gains from prior periods were approximately \$158 million, of which \$40 was recognized as a reduction in collective pension expense in the current year. The combination of unrecognized experience gains results in a collective deferred inflow of \$214 million as of June 30, 2016.

Assumption changes since the last measurement date increased the TPL by \$1,087 million. Approximately \$217 million of that increase was recognized as an increase in pension expense in the current year and an identical amount will be recognized in each of the next four years. Unrecognized increases to the TPL from prior period assumption changes were approximately \$173 million, of which \$43 was recognized as an increase in collective pension expense in the current year. The combination of the unrecognized current and prior assumption changes that increased the TPL results in a collective deferred outflow of resources as of June 30, 2016 of approximately \$1,000 million.

Unrecognized decreases in the TPL from prior assumption changes were approximately \$44 million, of which approximately \$15 million was recognized as a decrease in collective pension expense in the current year, leaving a collective deferred inflow of resources as of June 30, 2016 of approximately \$29 million.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of approximately \$1,384 million. Approximately \$277 million of that loss was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized net investment gains from prior periods were approximately \$543 million of which \$231 million was recognized as a reduction in collective pension expense in the current year. The combination of unrecognized

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION VI – GASB 68 COLLECTIVE INFORMATION

investment losses this year and unrecognized net investment gains from prior periods results in a collective deferred outflow of resources as of June 30, 2016 of approximately \$795 million.

The table below summarizes the current balances of collective deferred outflows and deferred inflows of resources along with the net recognition over the next five years.

Table VI-1														
Schedule of Collective Deferred Inflows and Outflows of Resources														
	Deferred Outflows of Resources	Deferred Inflows of Resources												
Differences between expected and actual experience	\$ 0	\$ 214,205												
Changes in assumptions	999,954	29,326												
Net difference between projected and actual earnings on pension plan investments	<u>794,761</u>	<u>0</u>												
Total	<u>\$ 1,794,715</u>	<u>\$ 243,531</u>												
<p>Amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:</p> <p style="text-align: center;">Measurement year ended June 30:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">2017</td> <td style="text-align: right;">228,948</td> </tr> <tr> <td style="text-align: right;">2018</td> <td style="text-align: right;">228,948</td> </tr> <tr> <td style="text-align: right;">2019</td> <td style="text-align: right;">622,784</td> </tr> <tr> <td style="text-align: right;">2020</td> <td style="text-align: right;">470,505</td> </tr> <tr> <td style="text-align: right;">2021</td> <td style="text-align: right;">0</td> </tr> <tr> <td style="text-align: right;">Thereafter \$</td> <td style="text-align: right;">0</td> </tr> </table>			2017	228,948	2018	228,948	2019	622,784	2020	470,505	2021	0	Thereafter \$	0
2017	228,948													
2018	228,948													
2019	622,784													
2020	470,505													
2021	0													
Thereafter \$	0													

Amounts in Thousands

The collective annual pension expense recognized by the City can be calculated two different ways. First, it is the change in the amounts reported on the City's Statements of Net Position that relate to the System and are not attributable to employer contributions. That is, it is the change in collective NPL plus the changes in collective deferred outflows and inflows plus participating employer contributions.

Alternatively, annual pension expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table on the next page, we believe it helps to understand the level and volatility of the collective pension expense.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

SECTION VI – GASB 68 COLLECTIVE INFORMATION

	Measurement Year Ending	
	2016	2015
Change in Net Pension Liability	\$ 3,516,745	\$ 525,598
Change in Deferred Outflows	(1,621,239)	(173,476)
Change in Deferred Inflows	(502,339)	(829,476)
Employer Contributions	<u>526,805</u>	<u>592,643</u>
Pension Expense	\$ 1,919,972	\$ 115,289
Pension Expense as % of Payroll	67.69%	4.36%
Operating Expenses		
Service cost	\$ 567,576	\$ 523,644
Employee contributions	(322,764)	(301,682)
Administrative expenses	<u>17,179</u>	<u>19,262</u>
Total	\$ 261,991	\$ 241,224
Financing Expenses		
Interest cost	\$ 1,669,996	\$ 1,621,582
Expected return on assets	<u>(1,534,677)</u>	<u>(1,505,960)</u>
Total	\$ 135,319	\$ 115,622
Changes		
Benefit changes	\$ 1,293,714	\$ 0
Recognition of assumption changes	246,168	28,706
Recognition of liability gains and losses	(63,450)	(39,596)
Recognition of investment gains and losses	<u>46,230</u>	<u>(230,667)</u>
Total	\$ 1,522,662	\$ (241,557)
Pension Expense	\$ 1,919,972	\$ 115,289

Amounts in Thousands

First, there are components referred to as operating expenses. These are items directly attributable to the operation of the plan during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the System for the year.

Second, there are the financing expenses: the interest on the Total Pension Liability, including service cost, less the expected return on assets.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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SECTION VI – GASB 68 COLLECTIVE INFORMATION

The final category is changes. This category will drive most of the volatility in pension expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses. The total collective pension expense increased from the prior year by about \$1,805 million. The recognition of changes increased by approximately \$1,764 million, which accounts for most of the total increase in pension expense.

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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

Proportionate Shares

GASB 68 requires that the proportionate share for each employer be determined based on the “employer’s projected long-term contribution effort to the pension ... as compared to the total projected long-term contribution effort of all employers ...” Proportionate shares for each participating employer in the System are determined based on the ratio of each participating employer’s actual contribution to the System during the measurement year to the sum of the actual contributions for all participating employers. The table below shows the actual employer contributions and proportionate shares for each participating employer for the current and prior measurement years.

Table VII-1 Determination of Employers' Proportionate Share					
Employer	June 30, 2016		June 30, 2015		
	Employer Contribution	Proportionate Share	Employer Contribution	Proportionate Share	
City and County	\$ 496,343	94.2175%	\$ 556,511	93.9032%	
Trial Courts	7,039	1.3362%	8,288	1.3985%	
Unified School District	15,645	2.9698%	18,483	3.1187%	
Community College District	7,779	1.4766%	9,361	1.5795%	
Total	\$ 526,805	100.0000%	\$ 592,643	100.0000%	

Amounts in Thousands

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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the proportionate share of the collective NPL (using three different discount rates), the collective deferred outflows, the collective deferred inflows, and the collective pension expense allocated to each participating employer as of June 30, 2015.

Table VII-2 Schedule of Employers' Proportionate Share of Collective Amounts at June 30, 2016								
Employer	Proportionate Share	Share of NPL @ 6.50%	Share of NPL @ 7.50%	Share of NPL @ 8.50%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense	
City and County	94.2175%	\$ 8,678,794	\$ 5,476,653	\$ 2,828,104	\$ 1,690,935	\$ 229,448	\$ 1,808,949	
Trial Courts	1.3362%	123,079	77,668	40,107	23,980	3,254	25,654	
Unified School District	2.9698%	273,557	172,625	89,142	53,299	7,232	57,018	
Community College District	1.4766%	136,019	85,833	44,324	26,501	3,596	28,351	
Total	100.0000%	\$ 9,211,449	\$ 5,812,778	\$ 3,001,677	\$ 1,794,715	\$ 243,531	\$ 1,919,972	

Amounts in Thousands

The proportionate share allocated to each individual employer will change on each measurement date. The net effect of the change in proportion on the share of the collective NPL, collective deferred outflows, and collective deferred inflows allocated to each employer becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of the System's active and inactive members (5 years).

Similarly, the difference between each employer's actual contributions and the employer's proportionate share of collective employer contributions becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of the System's active and inactive members (5 years). Because proportionate shares are determined based on each employer's actual contributions, there is no difference between the actual contributions and the proportionate share of collective contributions for each employer.

The table on the following page shows the change in proportion and the impact of that change in proportion on the proportionate share of the collective NPL, collective deferred outflows, and collective deferred inflows. It also shows any contribution differences.

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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

**Table VII-3
Schedule of Employers' Changes in Proportion and Contribution Differences**

Employer	Proportionate Shares		Impact of Change in Proportion				Contributions		
	6/30/2015	6/30/2016	Net Pension Liability	Deferred Outflows	Deferred Inflows	Net Effect	Actual	Proportionate Share	Difference
City and County	93.9032%	94.2175%	\$ 7,215	\$ 545	\$ (2,344)	\$ 9,014	\$ 496,343	\$ 496,343	\$ 0
Trial Courts	1.3985%	1.3362%	(1,433)	(108)	465	(1,790)	7,039	7,039	0
Unified School District	3.1187%	2.9698%	(3,421)	(258)	1,111	(4,273)	15,645	15,645	0
Community College District	1.5795%	1.4766%	(2,362)	(178)	767	(2,951)	7,779	7,779	0
Total	100.0000%	100.0000%	\$ 0	\$ 0	\$ 0	\$ 0	\$ 526,805	\$ 526,805	\$ 0

Amounts in Thousands

The table below shows the reconciliation of deferred outflows and inflows due to proportion changes for each participating employer from the prior measurement date to the current measurement date.

**Table VII-4
Reconciliation of Deferred Outflows and Inflows Due to Proportion Change**

Employer	Deferred Outflows				Deferred Inflows			
	6/30/2015	Current Year Net Effect	Recognition	6/30/2016	6/30/2015	Current Year Net Effect	Recognition	6/30/2016
City and County	\$ 3,221	\$ 9,014	\$ 2,608	\$ 9,627	\$ (7,698)	\$ 0	\$ (2,566)	\$ (5,132)
Trial Courts	422	0	141	282	(2,423)	(1,790)	(964)	(3,249)
Unified School District	7,867	0	2,304	5,564	0	(4,273)	(855)	(3,419)
Community College District	3,231	0	1,077	2,154	(4,622)	(2,951)	(1,746)	(5,827)
Total	\$ 14,742	\$ 9,014	\$ 6,130	\$ 17,626	\$ (14,742)	\$ (9,014)	\$ (6,130)	\$ (17,626)

Amounts in Thousands

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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the reconciliation of deferred outflows and inflows due to contribution differences for each participating employer from the prior measurement date to the current measurement date.

Table VII-5 Reconciliation of Deferred Outflows and Inflows Due to Contribution Differences									
Employer	Deferred Outflows				Deferred Inflows				
	Current Year		Recognition		Current Year		Recognition		
	6/30/2015	Difference	6/30/2015	6/30/2016	6/30/2015	Difference	6/30/2015	6/30/2016	
City and County	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Trial Courts	0	0	0	0	0	0	0	0	0
Unified School District	0	0	0	0	0	0	0	0	0
Community College District	0	0	0	0	0	0	0	0	0
Total	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below summarizes the deferred outflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

Table VII-6							
Schedule of Employers' Deferred Outflows at June 30, 2016							
Employer	Proportionate Shares	Experience	Assumption Changes	Investment Return	Proportion Change	Contribution Difference	
City and County	94.2175%	\$ 0	\$ 942,132	\$ 748,804	\$ 9,627	\$ 0	
Trial Courts	1.3362%	0	13,361	10,619	282	0	
Unified School District	2.9698%	0	29,696	23,602	5,564	0	
Community College District	1.4766%	0	14,766	11,736	2,154	0	
Total	100.0000%	\$ 0	\$ 999,954	\$ 794,761	\$ 17,626	\$ 0	

Amounts in Thousands

The table below summarizes the deferred inflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

Table VII-7							
Schedule of Employers' Deferred Inflows at June 30, 2016							
Employer	Proportionate Shares	Experience	Assumption Changes	Investment Return	Proportion Change	Contribution Difference	
City and County	94.2175%	\$ 201,818	\$ 27,630	\$ 0	\$ 5,132	\$ 0	
Trial Courts	1.3362%	2,862	392	0	3,249	0	
Unified School District	2.9698%	6,361	871	0	3,419	0	
Community College District	1.4766%	3,163	433	0	5,827	0	
Total	100.0000%	\$ 214,205	\$ 29,326	\$ 0	\$ 17,626	\$ 0	

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the net amount of deferred outflows and inflows to be recognized in each of the next five years and the total thereafter.

Table VII-8							
Schedule of Employers' Recognition of Deferred Outflows and Inflows at June 30, 2016							
Employer	Recognition for Measurement Year Ending						Thereafter
	2017	2018	2019	2020	2021		
City and County	\$ 215,751	\$ 215,751	\$ 589,380	\$ 445,101	\$ 0	\$ 0	0
Trial Courts	2,236	2,236	7,358	5,929	0	0	0
Unified School District	8,248	8,248	18,596	13,118	0	0	0
Community College District	2,712	2,712	7,451	6,357	0	0	0
Total	\$ 228,948	\$ 228,948	\$ 622,784	\$ 470,505	\$ 0	\$ 0	0

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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SECTION VII – GASB 68 REPORTING INFORMATION FOR EMPLOYERS

The table below shows the calculation of the pension expense for each participating employer. The calculation is shown first as the sum of the proportionate share of the collective pension expense and the amounts recognized for proportion changes and contribution differences. The right side of the table shows the calculation as the sum of the changes in NPL and deferred amounts not attributable to contributions.

Table VII-9 Schedule of Employers' Pension Expense for the Measurement Year Ending June 30, 2016									
Employer	Collective			Employer Pension Expense	Change in Employer			Employer Contributions	Employer Pension Expense
	Pension Expense	Change in Proportion	Contribution Difference		Net Pension Liability	Deferred Outflows	Deferred Inflows		
City and County	\$ 1,808,949	\$ 42	\$ 0	\$ 1,808,992	\$ 3,320,604	\$ (1,534,442)	\$ (473,513)	\$ 496,343	\$ 1,808,992
Trial Courts	25,654	(823)	0	24,831	45,557	(21,413)	(6,351)	7,039	24,831
Unified School District	57,018	1,449	0	58,468	101,018	(45,585)	(12,611)	15,645	58,468
Community College District	28,351	(669)	0	27,682	49,567	(22,684)	(6,980)	7,779	27,682
Total	\$ 1,919,972	\$ 0	\$ 0	\$ 1,919,972	\$ 3,516,745	\$ (1,624,123)	\$ (499,455)	\$ 526,805	\$ 1,919,972

Amounts in Thousands

The table below summarizes the information needed for each employer's schedules of required supplementary information.

Table VII-10 Schedule of Employers' RSI Information at June 30, 2016									
Employer	Proportionate Shares	Proportionate Share of NPL	Covered- Employee Payroll	Share of NPL as a % of Payroll	Plan Fiduciary Net Position as % of TPL	Contractually Required Contribution	Actual Contributions	Contribution Deficiency	Contributions as a % of Payroll
City and County	94.2175%	\$ 5,476,653	\$ 2,681,695	204.2%	77.6%	\$ 496,343	\$ 496,343	\$ 0	18.5%
Trial Courts	1.3362%	77,668	37,996	204.4%	77.6%	7,039	7,039	0	18.5%
Unified School District	2.9698%	172,625	77,547	222.6%	77.6%	15,645	15,645	0	20.2%
Community College District	1.4766%	85,833	39,259	218.6%	77.6%	7,779	7,779	0	19.8%
Total	100.0000%	\$ 5,812,778	\$ 2,836,498	204.9%	77.6%	\$ 526,805	\$ 526,805	\$ 0	18.6%

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX A – MEMBERSHIP INFORMATION

Table A-1			
Active Member Data - By Group			
	July 1, 2015	July 1, 2014	% Change
Total			
Count	30,837	29,516	4.5%
Average Current Age	47.4	47.7	-0.3
Average Service	11.6	12.0	-0.4
Annual Pensionable Earnings*	\$ 2,700,739,913	\$ 2,538,718,769	6.4%
Average Pensionable Earnings	\$ 87,581	\$ 86,012	1.8%
Police			
Count	2,118	2,048	3.4%
Average Current Age	41.8	42.1	-0.3
Average Service	13.1	13.4	-0.3
Annual Pensionable Earnings*	\$ 254,388,969	\$ 248,894,514	2.2%
Average Pensionable Earnings	\$ 120,108	\$ 121,531	-1.2%
Fire			
Count	1,486	1,415	5.0%
Average Current Age	44.9	45.2	-0.3
Average Service	14.4	14.7	-0.3
Annual Pensionable Earnings*	\$ 187,030,689	\$ 180,724,242	3.5%
Average Pensionable Earnings	\$ 125,862	\$ 127,720	-1.5%
Miscellaneous			
Count	27,233	26,053	4.5%
Average Current Age	47.9	48.3	-0.4
Average Service	11.3	11.8	-0.5
Annual Pensionable Earnings*	\$ 2,259,320,255	\$ 2,109,100,013	7.1%
Average Pensionable Earnings	\$ 82,963	\$ 80,954	2.5%

* Fiscal Year ending June 30, 2015 and June 30, 2014, excludes DROP members

Table A-3			
Active DROP Member Data - Total System			
	July 1, 2015	July 1, 2014	% Change
Total Active DROP			
Count	2	10	-80.0%
Average Current Age	59.5	57.7	1.8
Total Annual Benefit*	\$ 207,068	\$ 1,071,691	-80.7%
Average Annual Benefit	\$ 103,534	\$ 107,169	-3.4%
Total DROP Account Balance	\$ 423,995	\$ 2,775,810	-84.7%

* Benefits provided in June 30, valuation data.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX A – MEMBERSHIP INFORMATION

Table A-4			
Non-Active Member Data - Total System			
	July 1, 2015	July 1, 2014	Change
Retired			
Count	21,029	20,408	3.0%
Average Age	70.1	70.0	0.1
Total Annual Benefit*	\$ 894,343,016	\$ 847,676,865	5.5%
Average Annual Benefit	\$ 42,529	\$ 41,536	2.4%
Disabled			
Count	2,612	2,611	0.0%
Average Age	68.3	67.8	0.5
Total Annual Benefit*	\$ 147,219,197	\$ 143,550,974	2.6%
Average Annual Benefit	\$ 56,363	\$ 54,979	2.5%
Beneficiaries			
Count	3,844	3,833	0.3%
Average Age	77.3	77.4	-0.1
Total Annual Benefit*	\$ 115,519,467	\$ 112,731,965	2.5%
Average Annual Benefit	\$ 30,052	\$ 29,411	2.2%
Payee Total			
Count	27,485	26,852	2.4%
Average Age	70.9	70.8	0.1
Total Annual Benefit*	\$ 1,157,081,680	\$ 1,103,959,803	4.8%
Average Annual Benefit	\$ 42,099	\$ 41,113	2.4%
Inactives			
Count	7,092	6,441	10.1%
Average Age	48.0	48.2	-0.2
Total Contribution Balance with Interest	\$ 205,789,703	\$ 180,445,160	14.0%
Average Contribution Balance with Interest	\$ 29,017	\$ 28,015	3.6%

* Benefits provided in June 30, valuation data

Please refer to the July 1, 2014 actuarial valuation report for a more complete summary of the data.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2016 is provided below, including any assumptions that differ from those used in the July 1, 2015 actuarial valuation. Please refer to the July 1, 2015 actuarial valuation report for a complete description of all other assumptions.

Key Actuarial Assumptions

Expected Return on Assets 7.50 percent net of investment expenses effective July 1, 2014 - June 30, 2016

Municipal Bond Yield 3.85 percent as of June 30, 2015
2.85 percent as of June 30, 2016
Bond Buyer 20-Bond GO Index, July 2, 2015 and June 30, 2016

Discount Rate 7.46 percent as of June 30, 2015
7.50 percent as of June 30, 2016

Administrative Expenses 0.45 percent of payroll as of June 30, 2015
0.60 percent of payroll as of June 30, 2016

Basic COLA:

	Old Miscellaneous and all New Plans	Old Police & Fire, Pre 7/1/75 Retirements	Old Police & Fire, Charters A8.595 and A8.596	Old Police & Fire, Charters A8.559 and A8.585
June 30, 2015	2.00%	3.00%	4.00%	5.00%
June 30, 2016	2.00%	2.70%	3.30%	4.40%

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

**Supplemental
COLA:
Before 96 or
After Prop C
Group**

July 1,	June 30, 2015		June 30, 2016	
	Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75 Retirements	Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75 Retirements
2016	0.000%	0.000%	N/A	N/A
2017	0.225%	0.075%	0.000%	0.000%
2018	0.285%	0.095%	0.000%	0.000%
2019	0.315%	0.105%	0.060%	0.032%
2020	0.345%	0.115%	0.112%	0.060%
2021	0.345%	0.115%	0.152%	0.081%
2022	0.360%	0.120%	0.186%	0.099%
2023	0.375%	0.125%	0.220%	0.117%
2024	0.375%	0.125%	0.247%	0.132%
2025	0.375%	0.125%	0.270%	0.144%
2026	0.375%	0.125%	0.290%	0.155%
2027	0.375%	0.125%	0.307%	0.164%
2028	0.375%	0.125%	0.322%	0.172%
2029	0.375%	0.125%	0.335%	0.179%
2030	0.375%	0.125%	0.346%	0.185%
2031	0.375%	0.125%	0.355%	0.189%
2032	0.375%	0.125%	0.363%	0.194%
2033	0.375%	0.125%	0.370%	0.197%
2034	0.375%	0.125%	0.375%	0.200%
2035+	0.375%	0.125%	0.375%	0.200%

96 – Prop C: June 30, 2015 - Same assumed Supplemental COLA as shown in table above
Group June 30, 2016 - 0.75% for all future years

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset smoothing method, and an amortization method as described below.

1. Actuarial Cost Method

The Entry Age actuarial cost method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member’s date of hire and assumed retirement. The Actuarial Liability is the difference between the present value of future benefits and the present value of future normal costs. The normal cost and Actuarial Liability are calculated on an individual basis. The sum of the individual amounts is the normal cost and Actuarial LIABILITY for the System.

2. Asset Valuation Method

For the purpose of determining contribution rates, an Actuarial Value of Assets is used that dampens the volatility in the Market Value of Assets, resulting in a smoother pattern of contribution rates.

The Actuarial Value of Assets is calculated by recognizing 20% of each of the past five years of actual investment earnings compared to the expected earnings on the Actuarial Value of Assets.

3. Amortization Method

The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets. Effective with the July 1, 2014 actuarial valuation, the Board adopted changes to the amortization methods. The amortization is based on level percent of pay, assuming pay increases 3.75% a year.

Source	Method
Charter amendments	15-year closed for active members and 5-year closed for inactive members effective July 1, 2014 20-year closed for amortizations established prior to July 1, 2014
Actuarial gains and losses, assumption, and method changes	20-year closed Remaining portion of 2013 amortization is re-amortized over 19 years as of July 1, 2014
Supplemental COLAs	5-year closed Remaining portion of 2013 amortization is re-amortized over 19 years as of July 1, 2014

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Contributions

The normal cost for members as of the valuation date, increased with interest to the middle of the year, is divided by the total salary expected to be paid during the year (including new entrants) to determine the total normal cost rate. The employer's normal cost rate is the total normal cost rate less the employee contribution rate.

The total employer contribution rate is the sum of the employer normal cost rate, the administrative expense rate, and the UAL rate. The UAL payments are adjusted for interest from the valuation date to the date of expected payment in the following fiscal year. The UAL rate is determined by dividing the UAL payments by the total expected payroll for the fiscal year (including new entrants).

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

The plan provisions are the same as those summarized in the July 1, 2015 actuarial valuation report.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2017*	\$ 20,005,427	\$ 530,674	\$ 284,122	\$ 15,598	\$ 1,320,419	\$ 1,477,083	\$ 20,961,290	\$ 1,320,419	\$ 0
2018	20,961,290	517,664	375,459	15,171	1,400,089	1,548,490	21,987,642	1,400,089	0
2019	21,987,642	503,752	427,048	14,734	1,483,039	1,623,556	23,044,225	1,483,039	0
2020	23,044,225	489,513	487,304	14,300	1,567,738	1,701,126	24,140,129	1,567,738	0
2021	24,140,129	473,432	590,384	13,832	1,658,586	1,782,910	25,314,438	1,658,586	0
2022	25,314,438	456,234	625,409	13,344	1,753,928	1,867,849	26,496,658	1,753,928	0
2023	26,496,658	438,212	613,876	12,836	1,852,072	1,951,524	27,635,362	1,852,072	0
2024	27,635,362	419,668	590,505	12,317	1,951,008	2,031,450	28,713,659	1,951,008	0
2025	28,713,659	400,492	613,756	11,788	2,051,178	2,108,490	29,773,432	2,051,178	0
2026	29,773,432	380,381	648,262	11,241	2,152,819	2,184,463	30,822,478	2,152,819	0
2027	30,822,478	359,733	670,904	10,685	2,255,740	2,259,123	31,845,813	2,255,740	0
2028	31,845,813	339,791	696,357	10,142	2,356,243	2,332,081	32,847,657	2,356,243	0
2029	32,847,657	320,590	723,128	9,611	2,453,827	2,403,619	33,831,556	2,453,827	0
2030	33,831,556	301,945	629,214	9,088	2,549,680	2,469,457	34,673,403	2,549,680	0
2031	34,673,403	283,439	643,508	8,563	2,643,647	2,528,705	35,476,846	2,643,647	0
2032	35,476,846	265,088	666,032	8,039	2,735,793	2,585,455	36,249,590	2,735,793	0
2033	36,249,590	246,663	688,956	7,514	2,825,559	2,640,010	36,992,146	2,825,559	0
2034	36,992,146	227,894	711,932	6,985	2,912,735	2,692,393	37,704,645	2,912,735	0
2035	37,704,645	209,186	281,285	6,458	2,996,047	2,725,975	37,918,587	2,996,047	0
2036	37,918,587	190,752	367,842	5,935	3,075,159	2,741,388	38,137,475	3,075,159	0
2037	38,137,475	172,443	312,167	5,417	3,150,271	2,752,099	38,218,495	3,150,271	0
2038	38,218,495	153,947	317,243	4,898	3,221,758	2,754,844	38,217,872	3,221,758	0
2039	38,217,872	134,742	336,096	4,362	3,290,546	2,752,056	38,145,858	3,290,546	0
2040	38,145,858	115,707	333,650	3,832	3,352,928	2,743,391	37,981,845	3,352,928	0
2041	37,981,845	98,036	263,828	3,331	3,406,086	2,725,763	37,660,056	3,406,086	0

* Fiduciary Net Position based on Chief Investment Officer's Report at the July 13, 2016 Board Meeting

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2042	\$ 37,660,056	\$ 82,057	\$ 197,342	\$ 2,863	\$ 3,448,501	\$ 2,696,915	\$ 37,185,006	\$ 3,448,501	\$ 0
2043	37,185,006	67,501	185,448	2,423	3,482,020	2,658,990	36,612,502	3,482,020	0
2044	36,612,502	54,180	185,065	2,012	3,506,601	2,614,580	35,957,714	3,506,601	0
2045	35,957,714	42,218	187,615	1,635	3,520,868	2,564,569	35,229,614	3,520,868	0
2046	35,229,614	31,935	183,377	1,298	3,524,579	2,509,291	34,428,339	3,524,579	0
2047	34,428,339	23,774	176,799	1,012	3,516,397	2,448,990	33,560,493	3,516,397	0
2048	33,560,493	17,630	171,167	784	3,495,988	2,384,291	32,636,810	3,495,988	0
2049	32,636,810	13,015	164,296	601	3,465,241	2,315,827	31,664,106	3,465,241	0
2050	31,664,106	9,550	156,276	455	3,425,585	2,244,041	30,647,934	3,425,585	0
2051	30,647,934	6,913	165,974	339	3,378,307	2,169,982	29,612,156	3,378,307	0
2052	29,612,156	4,934	159,031	248	3,324,099	2,094,139	28,545,913	3,324,099	0
2053	28,545,913	3,470	149,054	178	3,263,639	2,016,167	27,450,788	3,263,639	0
2054	27,450,788	2,379	138,591	124	3,197,661	1,936,245	26,330,218	3,197,661	0
2055	26,330,218	1,590	127,981	84	3,126,623	1,854,622	25,187,704	3,126,623	0
2056	25,187,704	1,025	187,210	55	3,051,041	1,774,115	24,098,957	3,051,041	0
2057	24,098,957	648	169,352	35	2,971,218	1,694,977	22,992,680	2,971,218	0
2058	22,992,680	388	167,892	21	2,887,662	1,615,281	21,888,559	2,887,662	0
2059	21,888,559	216	157,934	12	2,800,639	1,535,576	20,781,633	2,800,639	0
2060	20,781,633	118	145,211	7	2,710,342	1,455,692	19,672,306	2,710,342	0
2061	19,672,306	57	135,699	3	2,617,134	1,375,864	18,566,789	2,617,134	0
2062	18,566,789	22	136,871	1	2,521,256	1,296,823	17,479,247	2,521,256	0
2063	17,479,247	8	138,022	0	2,422,934	1,219,227	16,413,571	2,422,934	0
2064	16,413,571	3	130,479	0	2,322,481	1,143,037	15,364,608	2,322,481	0
2065	15,364,608	1	120,569	0	2,220,185	1,068,086	14,333,080	2,220,185	0
2066	14,333,080	0	110,200	0	2,116,323	994,489	13,321,447	2,116,323	0

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2067	\$ 13,321,447	\$ 0	\$ 101,062	\$ 0	\$ 2,011,210	\$ 922,480	\$ 12,333,779	\$ 2,011,210	\$ 0
2068	12,333,779	0	92,588	0	1,905,187	852,328	11,373,508	1,905,187	0
2069	11,373,508	0	84,240	0	1,798,605	784,259	10,443,401	1,798,605	0
2070	10,443,401	0	76,348	0	1,691,840	718,476	9,546,385	1,691,840	0
2071	9,546,385	0	68,940	0	1,585,273	655,184	8,685,236	1,585,273	0
2072	8,685,236	0	59,130	0	1,479,300	594,470	7,859,536	1,479,300	0
2073	7,859,536	0	52,120	0	1,374,317	536,479	7,073,819	1,374,317	0
2074	7,073,819	0	46,133	0	1,270,740	481,468	6,330,680	1,270,740	0
2075	6,330,680	0	40,639	0	1,169,016	429,594	5,631,897	1,169,016	0
2076	5,631,897	0	35,556	0	1,069,601	380,970	4,978,823	1,069,601	0
2077	4,978,823	0	20,110	0	972,938	335,282	4,361,276	972,938	0
2078	4,361,276	0	16,545	0	879,459	292,570	3,790,932	879,459	0
2079	3,790,932	0	11,709	0	789,584	253,206	3,266,263	789,584	0
2080	3,266,263	0	8,530	0	703,707	217,170	2,788,256	703,707	0
2081	2,788,256	0	6,297	0	622,199	184,493	2,356,847	622,199	0
2082	2,356,847	0	4,011	0	545,377	155,123	1,970,604	545,377	0
2083	1,970,604	0	457	0	473,524	128,894	1,626,431	473,524	0
2084	1,626,431	0	(2,758)	0	406,909	105,624	1,322,388	406,909	0
2085	1,322,388	0	(4,187)	0	345,745	85,212	1,057,668	345,745	0
2086	1,057,668	0	(4,765)	0	290,182	67,557	830,278	290,182	0
2087	830,278	0	(4,893)	0	240,299	52,490	637,576	240,299	0
2088	637,576	0	(4,888)	0	196,102	39,804	476,390	196,102	0
2089	476,390	0	(4,706)	0	157,504	29,263	343,443	157,504	0
2090	343,443	0	(4,286)	0	124,326	20,633	235,464	124,326	0
2091	235,464	0	(3,702)	0	96,310	13,676	149,128	96,310	0

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2092	149,128	0	(2,992)	0	73,111	8,154	81,178	73,111	0
2093	81,178	0	(1,742)	0	54,304	3,855	28,986	28,986	25,318
2094	28,986	0	(767)	0	39,401	572	(10,610)	0	39,401
2095	(10,610)	0	130	0	27,886	(1,905)	(40,272)	0	27,886
2096	(40,272)	0	1,027	0	19,234	(3,751)	(62,230)	0	19,234
2097	(62,230)	0	1,918	0	12,921	(5,113)	(78,345)	0	12,921
2098	(78,345)	0	4,445	0	8,456	(6,050)	(88,406)	0	8,456
2099	(88,406)	0	5,222	0	5,401	(6,654)	(95,239)	0	5,401
2100	(95,239)	0	6,072	0	3,376	(7,054)	(99,597)	0	3,376
2101	(99,597)	0	6,665	0	2,081	(7,307)	(102,320)	0	2,081
2102	(102,320)	0	7,085	0	1,279	(7,464)	(103,978)	0	1,279
2103	(103,978)	0	7,492	0	798	(7,554)	(104,838)	0	798
2104	(104,838)	0	8,082	0	514	(7,586)	(104,855)	0	514
2105	(104,855)	0	8,611	0	347	(7,561)	(104,151)	0	347
2106	(104,151)	0	8,839	0	246	(7,496)	(103,054)	0	246
2107	(103,054)	0	8,901	0	182	(7,409)	(101,743)	0	182
2108	(101,743)	0	8,874	0	139	(7,310)	(100,318)	0	139
2109	(100,318)	0	8,817	0	109	(7,204)	(98,815)	0	109
2110	(98,815)	0	8,727	0	87	(7,093)	(97,267)	0	87
2111	(97,267)	0	8,597	0	69	(6,981)	(95,721)	0	69
2112	(95,721)	0	8,439	0	56	(6,871)	(94,208)	0	56
2113	(94,208)	0	8,262	0	44	(6,763)	(92,753)	0	44
2114	(92,753)	0	8,002	0	35	(6,663)	(91,450)	0	35
2115	(91,450)	0	7,784	0	26	(6,573)	(90,265)	0	26
2116	(90,265)	0	7,586	0	18	(6,491)	(89,189)	0	18

Amounts in Thousands

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
GASB 67 AND 68 REPORTING FOR JUNE 30, 2016 MEASUREMENT DATE**

APPENDIX D – DETERMINATION OF DISCOUNT RATE

FYE	Projected Beginning Fiduciary Net Position	Normal Cost Contribution - Employer and Employee	UAL Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	
2117	(89,189)	0	7,393	0	12	(6,417)	(88,226)	0	12	
2118	(88,226)	0	7,206	0	7	(6,352)	(87,379)	0	7	
2119	(87,379)	0	6,567	0	4	(6,312)	(87,127)	0	4	
2120	(87,127)	0	6,203	0	2	(6,306)	(87,232)	0	2	
2121	(87,232)	0	5,824	0	1	(6,328)	(87,737)	0	1	
								Discount Rate:	7.50%	2.85%
								Present Value: \$	30,680,198	\$ 16,131
								Total Present Value:	\$ 30,696,328	
								GASB Discount Rate:	7.50%	

Amounts in Thousands

APPENDIX E – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 and 68 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

6. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

APPENDIX E – GLOSSARY OF TERMS

7. Net Pension Liability

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

8. Plan Fiduciary Net Position

The fair or Market Value of Assets.

9. Reporting Date

The last day of the plan or employer's fiscal year.

10. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the Actuarial Liability calculated under the entry age actuarial cost method.



Classic Values, Innovative Advice