Segal Consulting

San Diego County Employees Retirement Association

Actuarial Valuation and Review
As of June 30, 2017

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

Segal Consulting

100 Montgomery Street, Suite 500 San Francisco, CA 94104
T 415.263.8200 F 415.263.8200 F 415.376.1167 www.segalco.com

November 9, 2017

Board of Retirement
San Diego County Employees Retirement Association
2275 Rio Bonito Way, Suite 200
San Diego, CA 92108-1685

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2017. It summarizes the actuarial data used in the valuation and establishes the funding requirements for July 1, 2018 to June 30, 2019 (FY 2019).

This report was prepared in accordance with generally accepted actuarial principles and practices at SDCERA's request to assist in administering the Plan. The census information and the financial information was provided by SDCERA. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA.

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: 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 contained herein. To the best of our knowledge, the information supplied in this report is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report with you and 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

By: ______________________
Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

AW/bbf

5509185v1/05536.002

SECTION 1

VALUATION SUMMARY

Purpose ... i
Significant Findings in This Valuation ... ii
Summary of Key Valuation Results ... v
Summary of Key Valuation Demographic and Financial Data ... vi
Important Information About Actuarial Valuations ... vii

SECTION 2

VALUATION RESULTS

A. Member Data ... 1
B. Financial Information ... 4
C. Actuarial Experience ... 9
D. Employer and Member Contributions ... 14
E. Funded Ratio ... 21
F. Volatility Ratios ... 23

SECTION 3

SUPPLEMENTAL INFORMATION

EXHIBIT A
Table of Plan Coverage ... 24
EXHIBIT B
Members in Active Service and Projected Average Compensation as of June 30, 2017 ... 33
EXHIBIT C
Reconciliation of Member Data – June 30, 2016 to June 30, 2017 ... 40
EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis ... 41
EXHIBIT E
Summary Statement of Plan Assets ... 42
EXHIBIT F
Actuarial Balance Sheet ... 43
EXHIBIT G
Summary of Reported Reserve Information as of June 30, 2017 ... 44
EXHIBIT H
Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2016 ... 45
EXHIBIT I
Section 415 Limitations ... 46
EXHIBIT J
Definitions of Pension Terms ... 47

SECTION 4

REPORTING INFORMATION

EXHIBIT I
Summary of Actuarial Valuation Results ... 49
EXHIBIT II
Actuarial Assumptions and Actuarial Cost Method ... 51
EXHIBIT III
Summary of Plan Provisions ... 62
Appendix A
Member Contribution Rates ... 70
Appendix B
Unfunded Actuarial Accrued Liability Amortization Schedule As of June 30, 2017 ... 83

Purpose

This report has been prepared by Segal Consulting (Segal) to present a valuation of the San Diego County Employees Retirement Association (SDCERA or Association) as of June 30, 2017. 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 Association, as administered by the Board of Retirement (Board);
- The characteristics of covered active members, deferred terminated members, retired members and beneficiaries as of June 30, 2017, provided by SDCERA;
- The assets of the Plan as of June 30, 2017, provided by SDCERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the Association's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by SDCERA's staff. This information has not been audited by us, but it has been reviewed and found to be reasonably consistent, both internally and with prior year's information.

Reference: Pgs. 83 - 85

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both Normal Cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. Effective with the June 30, 2004 valuation, the Association's Unfunded Actuarial Accrued Liability (UAAL) has been amortized using 20-year fixed (i.e., decreasing) layered amortization periods. The use of 20-year periods for gains and losses and for assumption changes was last reaffirmed when the Board performed a substantive review of the pension component of the actuarial funding policy in 2013.

As a result of the review in 2013, effective with the June 30, 2013 valuation, any change in the UAAL that arises due to plan amendments is amortized over separate 15-year decreasing amortization periods. Also, any change in the UAAL that arises due to retirement incentives is amortized over separate decreasing amortization periods of up to 5 years.

The per pay period contribution rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2018 through June 30, 2019 (FY 2019).

Significant Findings in This Actuarial Valuation

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

Reference: Pg. 63

- As requested by SDCERA, we provided in our letter dated March 15, 2017 the recalculated General Tier C contribution rates for FY 2018 previously included in the June 30, 2016 valuation. The recalculated rates reflect a clarification provided by SDCERA as to the minimum eligibility requirements for a service retirement from age 55 with 5 years of service as assumed in the prior valuations to age 52 with 5 years of service. We have reflected the recalculated General Tier C contribution rate in the results for the June 30, 2016 valuation as shown in this report.[1]

Reference: Pgs.22, 45

- The valuation value of assets and the actuarial accrued liabilities are used to calculate a portion of the employer's contribution rates. The ratio of the valuation value of assets to the actuarial accrued liabilities increased from 76.9% to 77.4%. On a market value of assets basis the funded ratio increased from 71.5% to 76.3%. The Association's Unfunded Actuarial Accrued Liability (UAAL) increased 1.6% from $3.32 billion as of June 30, 2016 to $3.37 billion as of June 30, 2017. The increase in the UAAL is mainly due to (a) unfavorable investment return (over the past 5 years after smoothing), (b) actual contributions less than expected over FY 2017, and (c) other actuarial losses, offset somewhat by (d) lower than expected salary increases and (e) lower than expected COLA increases. A complete reconciliation of the Association's UAAL is provided in Section 3, Exhibit H.

Reference: Pg. 19

- The average employer contribution rate calculated in this valuation has increased from 41.87% of payroll to 42.52% of payroll. The increase is due to (a) unfavorable investment return (over the past 5 years after smoothing) and (b) actual contributions less than expected over FY 2017, offset somewhat by (c) lower than expected salary increases, (d) lower than expected COLA increases and (e) other actuarial gains. A complete reconciliation of the Association's average employer rate is provided in Section 2, Subsection D, Chart 15.

Reference: Pg. 20

- The average member rate calculated in this valuation decreased from 12.00% of payroll to 11.87% of payroll primarily due to changes in the membership demographics. A reconciliation of the Association's average member rate is provided in Section 2, Subsection D, Chart 16.

---

[1] There is a reduction in the Actuarial Accrued Liability (AAL) and associated UAAL of about $0.3 million as a result of the above recalculation. Since the changes in AAL and UAAL are somewhat immaterial and the Association has previously prepared its Comprehensive Financial Accounting Report using the original liabilities included in the June 30, 2016 valuation, we have not revised the June 30, 2016 liabilities shown in this report.

Reference: Pg. 6

- As indicated in Section 2, Subsection B, Chart 7, the total unrecognized investment loss as of June 30, 2017 was $171.7 million (as compared to an unrecognized loss of $777.4 million in the June 30, 2016 valuation). This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes over the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that even if the assets earn the assumed rate of investment return of 7.25% per year (net of expenses) on a market value basis, there would be investment losses on the actuarial value of assets in the next few years. Therefore, if the actual net market return is equal to the assumed 7.25% rate and all other actuarial assumptions are met, the contribution requirements would increase in each of the next few years as those losses are recognized.

  The unrecognized investment losses represent 1.5% of the market value of assets as of June 30, 2017 (as compared to 7.6% unrecognized investment losses as of June 30, 2016). Unless offset by future investment gains or other favorable experience, the recognition of the $171.7 million market losses is expected to have an impact on the Association's future funded ratio and the average employer contributions. This potential impact may be illustrated as follows:

  - If the deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 77.4% to 76.3%.

    For comparison purposes, if all the deferred losses in the June 30, 2016 valuation had been recognized immediately in the June 30, 2016 valuation, the funded percentage would have decreased from 76.9% to 71.5%.

  - If the deferred losses were recognized immediately in the valuation value of assets, the average employer contribution rate would increase from 42.52% of payroll to 43.50% of payroll.

    For comparison purposes, if all the deferred losses in the June 30, 2016 valuation had been recognized immediately in the June 30, 2016 valuation, the average employer contribution rate would have increased from 42.20% of payroll to 46.79% of payroll.

- The actuarial valuation report as of June 30, 2017 is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected and will affect the actuarial cost of the plan.

Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:

- differences between actual experience and anticipated experience;
- changes in actuarial assumptions or methods;
- changes in statutory provisions; and
- differences between the contribution rates determined by the valuation and those adopted by the Board.

Summary of Key Valuation Results (Dollar amounts in thousands)

	June 30, 2017		June 30, 2016	
Employer Contribution Rates:[1]	Total Rate	Estimated Annual Amount[2]	Total Rate	Estimated Annual Amount[2]
General, other than Tier C	39.95%	$285,526	39.45%	$281,953
General Tier C (CalPEPRA)	33.52%	78,267	32.98%	77,006
General Combined	38.37%	363,793	37.86%	358,959
Safety, other than Tier C	56.82%	142,323	55.74%	139,616
Safety Tier C (CalPEPRA)	48.96%	26,705	47.89%	26,121
Safety Combined	55.42%	169,028	54.34%	165,737
All Categories combined	42.52%	$532,821	41.87%	$524,696
Average Member Contribution Rates:[1]	Total Rate	Estimated Annual Amount[2]	Total Rate	Estimated Annual Amount[2]
General Tier 1	10.83%	$183	11.00%	$186
General Tier A	12.14%	74,057	12.33%	75,216
General Tier B	9.54%	9,826	9.53%	9,815
General Tier C	8.27%	19,310	8.33%	19,450
Safety Tier A	15.30%	32,516	15.44%	32,814
Safety Tier B	12.70%	4,820	12.67%	4,809
Safety Tier C	14.69%	8,013	14.77%	8,056
All Categories combined	11.87%	$148,725	12.00%	$150,346

	June 30, 2017	June 30, 2016
Funded Status:		
Actuarial accrued liability (AAL)	$14,937,872	$14,349,090
Valuation value of assets (VVA)	11,566,926	11,030,635
Market value of assets (MVA), net of non-valuation reserves	11,395,274	10,253,230
Unfunded actuarial accrued liability on VVA basis	3,370,946	3,318,455
Unfunded actuarial accrued liability on MVA basis	3,542,598	4,095,860
Funded ratio on VVA basis (VVA/AAL)	77.4%	76.9%
Funded ratio on MVA basis (MVA/AAL)	76.3%	71.5%
Key Assumptions:		
Interest rate	7.25%	7.25%
Inflation rate	3.00%	3.00%
Across the board inflation	0.50%	0.50%

(1) *Before reflection of any member rate that may be "picked-up" by the employer.*

(2) *Based on June 30, 2017 projected annual compensation.*

Summary of Key Valuation Demographic and Financial Data

	June 30, 2017	June 30, 2016	Change From Prior Year
Active Members:			
Number of members	17,994	17,768	1.3%
Average age	44.4	44.6	-0.2
Average service	11.1	11.2	-0.1
Projected total compensation	$1,253,223,398	$1,206,940,234	3.8%
Average projected compensation	$69,647	$67,928	2.5%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	14,371	13,934	3.1%
Disability retired	1,700	1,680	1.2%
Beneficiaries	2,176	2,120	2.6%
Total	18,247	17,734	2.9%
Average age	69.5	69.2	0.3
Average monthly benefit	$3,041	$2,963	2.6%
Deferred Terminated Members:			
Number of deferred terminated members[1]	5,659	5,413	4.5%
Average age	46.3	46.3	0.0
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	$11,407,678	$10,269,058	11.1%
Return on market value of assets	12.08%	0.48%	N/A
Actuarial value of assets	$11,579,330	$11,046,463	4.8%
Return on actuarial value of assets	5.72%	5.49%	N/A
Valuation value of assets[2]	$11,566,926	$11,030,635	4.9%
Return on valuation value of assets	5.74%	5.70%	N/A

[1] *Includes members who choose to leave contributions on deposit with less than five years of service.*

[2] *Excludes non-valuation reserves such as Supplemental Benefit Reserve, 401(h) Reserve and Contingency Reserve.*

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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

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

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

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

cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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

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

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, deferred 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 members population has changed over the past ten valuations can be seen in this chart.

CHART 1

Member Population: 2008 – 2017

As of June 30	Active Members	Deferred Terminated Members	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2008	18,041	5,147	12,991	1.01
2009	17,699	5,238	13,453	1.06
2010	16,981	5,254	13,922	1.13
2011	16,523	5,125	14,496	1.19
2012	16,457	5,039	15,166	1.23
2013	16,891	5,000	15,820	1.23
2014	17,466	5,091	16,373	1.23
2015	17,656	5,274	17,186	1.27
2016	17,768	5,413	17,734	1.30
2017	17,994	5,659	18,247	1.33

Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 17,994 active members with an average age of 44.4, average years of service of 11.1 years and average projected compensation of $69,647. The 17,768 active members in the prior valuation had an average age of 44.6, average service of 11.2 years and average projected compensation of $67,928.

Deferred Terminated Members

In this year's valuation, there were 5,659 members with a vested right to a deferred or immediate vested benefit, including those entitled to a return of their member contributions versus 5,413 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 by Age as of June 30, 2017

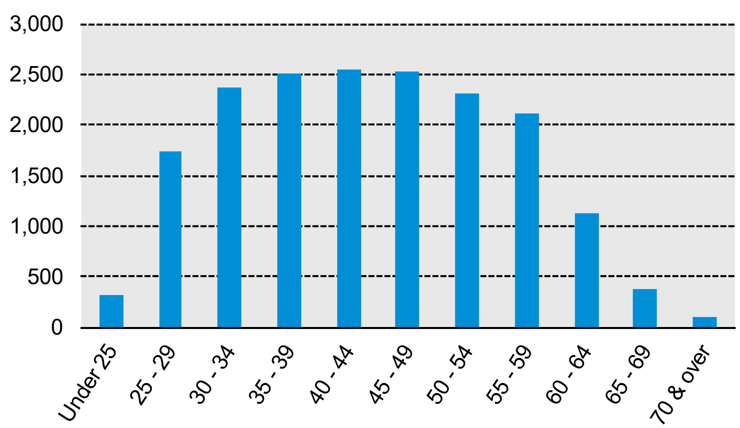
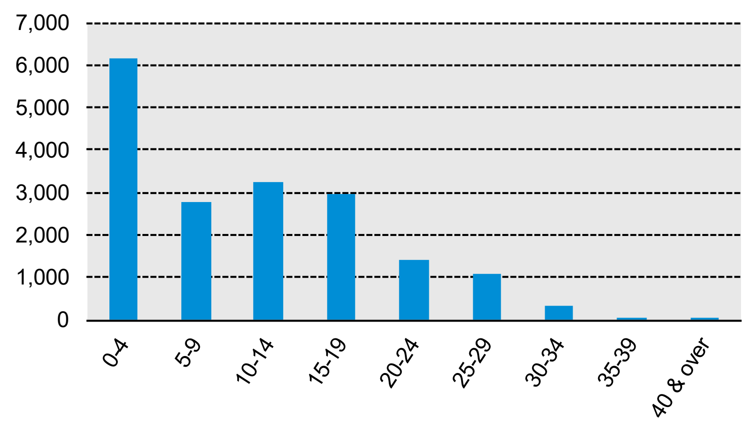


CHART 3

Distribution of Active Members by Years of Service as of June 30, 2017



Retired Members and Beneficiaries
As of June 30, 2017, 16,071 retired members and 2,176 beneficiaries were receiving total monthly benefits of $55,481,205. For comparison, in the previous valuation, there were 15,614 retired members and 2,120 beneficiaries receiving monthly benefits of $52,547,445.

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

CHART 4

Distribution of Retired Members by Type and by Monthly Amount as of June 30, 2017

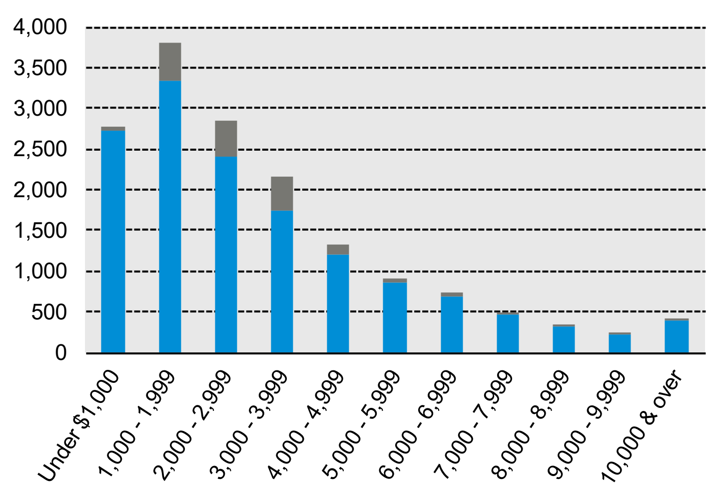
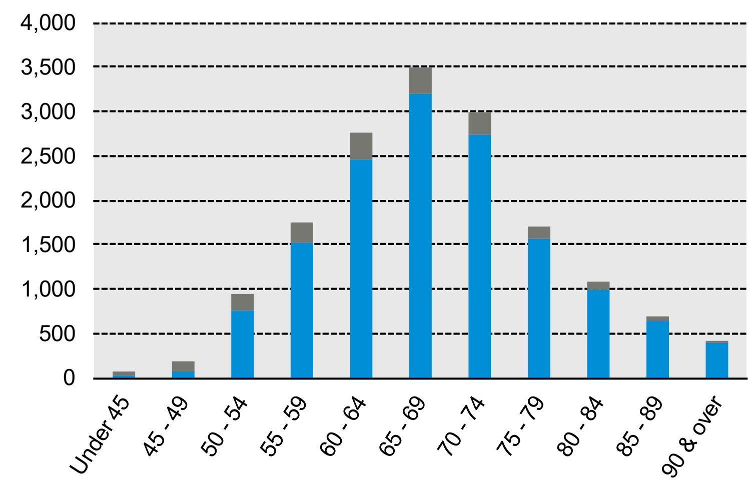


CHART 5

Distribution of Retired Members by Type and by Age as of June 30, 2017



Disability
Service

B. FINANCIAL INFORMATION

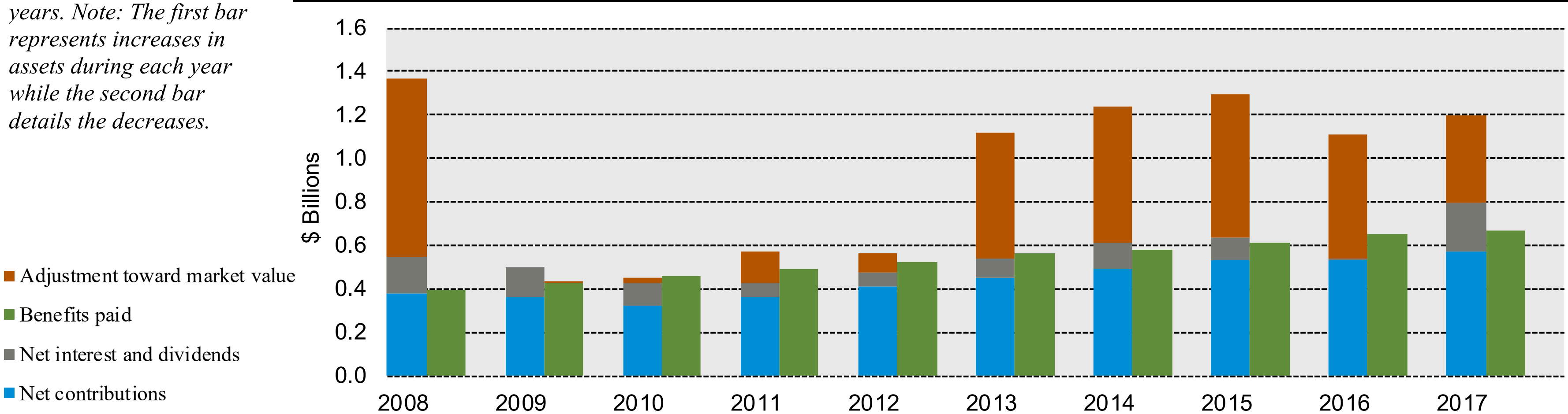
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

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

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2008 – 2017



Actuarial and Valuation Value of Assets

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value over five years. Under this 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 determination of the actuarial and valuation value of assets is provided on the following page.

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

CHART 7
Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2017

Six Month Period From	Six Month Period To	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain (Loss)	Deferred Factor	Deferred Return
1/2013	6/2013	$62,787,174	$350,146,351	$(287,359,177)	0.1	$(28,735,918)
7/2013	12/2013	529,642,752	350,592,044	179,050,708	0.2	35,810,142
1/2014	6/2014	678,501,180	369,454,642	309,046,538	0.3	92,713,962
7/2014	12/2014	119,504,895	394,295,090	(274,790,196)	0.4	(109,916,078)
1/2015	6/2015	109,066,220	397,349,983	(288,283,763)	0.5	(144,141,881)
7/2015	12/2015	(191,207,912)	386,704,127	(577,912,039)	0.6	(346,747,224)
1/2016	6/2016	240,985,994	377,344,430	(136,358,436)	0.7	(95,450,905)
7/2016	12/2016	428,031,532	371,539,799	56,491,733	0.8	45,193,386
1/2017	6/2017	807,091,824	385,289,150	421,802,674	0.9	379,622,407

1.	Total Deferred Return	$(171,652,110)
2.	Net Market Value of Assets	$11,407,677,542
3.	a. Actuarial Value of Assets (Item 2 – Item 1)	$11,579,329,652
	b. Ratio of Actuarial Value of Assets to Net Market Value of Assets (Item 3a / Item 2)	101.5%
4.	Non-valuation reserves	
	a. Supplemental Benefit Reserve	$61,658
	b. 401(h) Reserve	10,612,786
	c. Disability Supplemental Benefit Reserve	1,492,420
	d. Contingency Reserve	236,455
	e. Undistributed Reserve	0
	f. Subtotal	$12,403,319
5.	Valuation Value of Assets (Item 3a – Item 4f)	$11,566,926,333
6.	Amount of Deferred Returns to be recognized in the following valuations:	
	a. June 30, 2018	$(90,926,474)
	b. June 30, 2019	(128,905,352)
	c. June 30, 2020	(76,023,590)
	d. June 30, 2021	82,023,038
	e. June 30, 2022	42,180,267
	f. Subtotal	$(171,652,110)

Note: Results may not add due to rounding.

CHART 8

Allocation of Valuation Value of Assets as of June 30, 2017

The allocation of the valuation reserves between General and Safety is provided below:

		General	Safety	Total
1.	Beginning of Year Asset Allocation	$7,834,733,297	$3,195,902,054	$11,030,635,351
2.	Percentage of Total Employee Contributions Excluding Pickups	69.22%	30.78%	100.00%
3.	Employee Contributions[1]	$77,932,745	$34,646,306	$112,579,051
4.	Employer Contributions Including Pickups[1]	$308,693,548	$130,133,592	$438,827,140
5.	Annual Allowances for Retired Members (From Last Year's Valuation Report)	$466,074,244	$164,495,092	$630,569,336
6.1.	Benefit Payments Allocated in Proportion to (5)	$474,909,846	$167,613,508	$642,523,354
6.2.	Refunds, Allocated in Proportion to (2)	$2,463,170	$1,095,296	$3,558,466
7.	Subtotal = (1) + (3) + (4) – (6.1) – (6.2)	$7,743,986,574	$3,191,973,148	$10,935,959,722
8.	Total Valuation Value of Assets			$11,566,926,333
9.	Residual to Allocate = (8) – (7)			$630,966,611
10.	Allocate Residual in Proportion to (7)	$446,800,929	$184,165,682	$630,966,611
11.	End of Year Asset Allocation = (7) + (10)	$8,190,787,503	$3,376,138,830	$11,566,926,333

[1] *Breakdown between General and Safety was provided by SDCERA.*

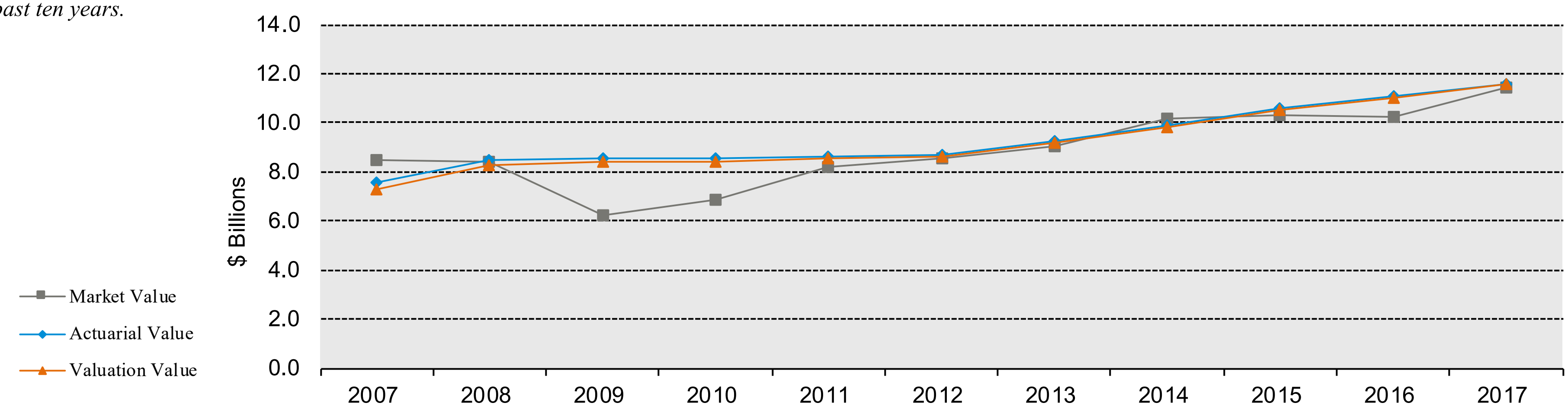
Note: Results may not add due to rounding.

The market value, actuarial value, and valuation value of assets are representations of SDCERA's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation value is significant because SDCERA'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 market value, actuarial value and valuation value over the past ten years.

CHART 9

Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2007 –2017



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 experience loss was $144.8 million, a loss of $165.3 million from investments (compared to the 7.25% assumed rate of return on the valuation value of assets used in the June 30, 2016 valuation) and a gain of $20.5 million from all other sources. The gain from all other sources was 0.1% of the actuarial accrued liability. 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 10

Actuarial Experience for Year Ended June 30, 2017

1.	Net gain/(loss) from investments on valuation value of assets[1]	$(165,322,000)
2.	Net gain/(loss) from other experience[2]	20,538,000
3.	Net experience gain/(loss): (1) + (2)	$(144,784,000)

[1] *Details in Chart 11*

[2] *See Section 3, Exhibit H. Does not include the effect of plan or assumption changes, if any.*

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 SDCERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets used was 7.25% for FY 2017 (based on the June 30, 2016 actuarial valuation). The actual rate of return on a valuation basis for FY 2017 was 5.74%.

Since the actual return for the year was less than the assumed return, SDCERA experienced an actuarial loss on the valuation value of assets during the year ended June 30, 2017 with regard to its investments.

This chart shows the gain due to investment experience.

CHART 11

Investment Experience for Year Ended June 30, 2017 – Valuation, Actuarial and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	$630,967,000	$629,271,000	$1,235,025,000
2. Average value of assets	10,983,298,000	10,998,261,000	10,220,855,000
3. Actual rate of return: (1) ÷ (2)	5.74%	5.72%	12.08%
4. Assumed rate of return	7.25%	7.25%	7.25%
5. Expected return: (2) x (4)	796,289,000	797,374,000	741,012,000
6. Actuarial gain/(loss): (1) – (5)	$(165,322,000)	$(168,103,000)	$494,013,000

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 a valuation, actuarial, and market basis for the last ten years.

CHART 12

Investment Return – Valuation Value, Actuarial Value and Market Value: 2008 – 2017
(Dollar amount in thousands)

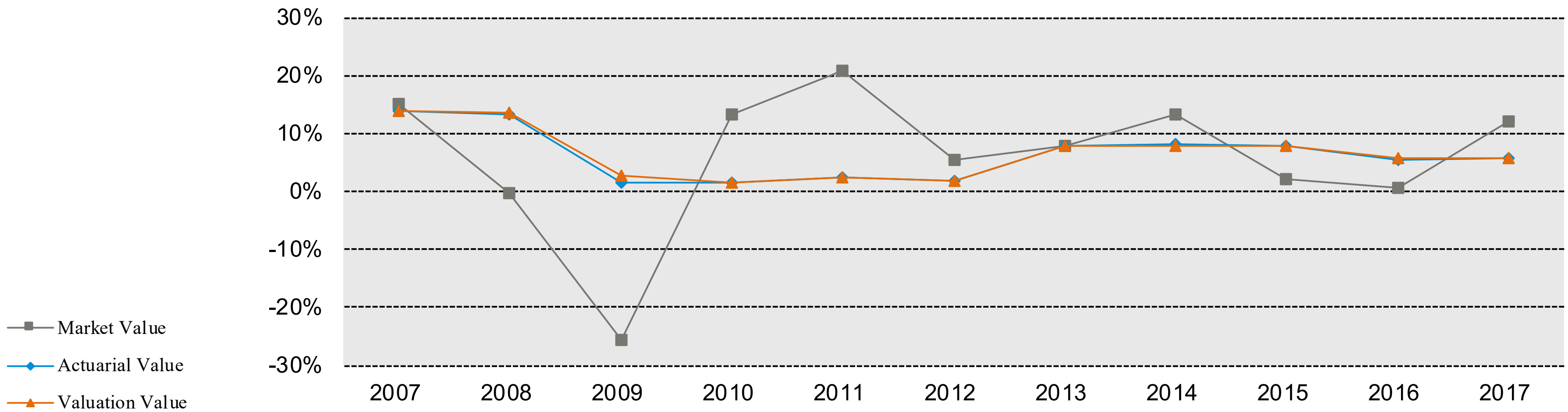
Year Ended June 30	Valuation Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2008	$989,464	13.65%	$988,906	13.14%	$(15,355)	(0.18%)
2009	217,866	2.65%	128,063	1.51%	(2,153,974)	(25.71%)
2010	127,686	1.53%	129,275	1.52%	820,376	13.39%
2011	202,986	2.42%	203,518	2.39%	1,425,637	20.91%
2012	146,477	1.72%	146,380	1.70%	443,667	5.46%
2013	665,804	7.77%	666,122	7.72%	658,746	7.78%
2014	711,249	7.77%	744,721	8.10%	1,208,144	13.39%
2015	774,537	7.91%	763,461	7.74%	228,595	2.25%
2016	597,709	5.70%	577,770	5.49%	49,754	0.48%
2017	630,967	5.74%	629,271	5.72%	1,235,025	12.08%
Average Last 10 Years		5.63%		5.44%		4.20%
Average Last 5 Years		6.98%		6.95%		7.08%

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 2008 - 2017.

CHART 13

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2007 - 2017



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,
- salary increases different than assumed, and
- data adjustments for retiree benefits and active pay for performance.

The net gain from this other experience for the year ended June 30, 2017 amounted to $20.5 million, which was 0.1% of the actuarial accrued liability. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability.

D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost	The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.
Contribution to the Unfunded Actuarial Accrued Liability (UAAL)	The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.50%. (i.e., 3.00% inflation plus 0.50% across-the-board salary increase).

With the June 30, 2004 valuation, the Association's UAAL has been amortized over 20-year fixed (i.e. decreasing) layered amortization periods. Effective with the June 30, 2013 valuation, any new UAAL resulting from plan amendments is amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing periods of up to 5 years; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains or losses are amortized over separate decreasing 20-year periods.

The recommended employer contributions are provided on Charts 14a and 14b.

Employer Normal Cost and UAAL contribution rates are calculated assuming payments made at the end of every pay period.

Member Contributions:

Non- Tier C Members

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for non-Tier C General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Compensation for General and Safety members. A One-Year Final Average Compensation is used for General Tier 1, General Tier A and Safety Tier A. A Three-Year Final Average Compensation is used for General Tier B and Safety Tier B. That age is 60 for General Tier 1 and Tier B members, 55 for General Tier A members and 50 for Safety Tier A and Tier B members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members pay one-half of the total normal cost necessary to fund their cost-of-living benefits. Accumulation includes semi-annual crediting of interest at half of the assumed investment earning rate. The member contribution rates are provided in Appendix A. Please note that the member rates provided in the report are the full rate before reflecting any employer pickup, if any.

Tier C Members

Pursuant to Section 7522.30(a) of the Government Code, Tier C members are required to contribute at least 50% of the Normal Cost rate. We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees (reference Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the Tier C members and we have not taken into account the requirements of Section 7522.30(e).

The member contribution rates are provided in Appendix A.

CHART 14a

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	June 30, 2017 Actuarial Valuation		June 30, 2016 Actuarial Valuation	
General Members other than Tier C	Rate	Estimated Annual Amount [1]	Rate	Estimated Annual Amount [1]
Normal Cost [2]	14.70%	$105,062	14.80%	$105,777
UAAL[2]	25.25%	180,464	24.65%	176,176
Total Contribution	39.95%	$285,526	39.45%	$281,953
General Tier C Members (CalPEPRA)				
Normal Cost [2]	8.27%	$19,310	8.33%	$19,450
UAAL[2]	25.25%	58,957	24.65%	57,556
Total Contribution	33.52%	$78,267	32.98%	$77,006
Total General Members				
Normal Cost [2]	13.12%	$124,372	13.21%	$125,227
UAAL[2]	25.25%	239,421	24.65%	233,732
Total Contribution	38.37%	$363,793	37.86%	$358,959

[1] *Amounts are in thousands and are based on June 30, 2017 projected annual payroll (also in thousands):*

General Tier 1	$1,687
General Tier A	610,027
General Tier B	102,994
General Tier C	233,493
General Subtotal	$948,201

[2] *A breakdown of the employer's total Normal Cost and UAAL to fund for each type of benefit is provided in Chart 14b.*

CHART 14a (continued)

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	June 30, 2017 Actuarial Valuation		June 30, 2016 Actuarial Valuation	
Safety Members other than Tier C	Rate	Estimated Annual Amount [1]	Rate	Estimated Annual Amount [1]
Normal Cost [2]	22.55%	$56,484	22.62%	$56,658
UAAL[2]	34.27%	85,839	33.12%	82,958
Total Contribution	56.82%	$142,323	55.74%	$139,616
Safety Tier C Members (CalPEPRA)				
Normal Cost [2]	14.69%	$8,013	14.77%	$8,056
UAAL[2]	34.27%	18,692	33.12%	18,065
Total Contribution	48.96%	$26,705	47.89%	$26,121
Total Safety Members				
Normal Cost [2]	21.15%	$64,497	21.22%	$64,714
UAAL[2]	34.27%	104,531	33.12%	101,023
Total Contribution	55.42%	$169,028	54.34%	$165,737
All Categories Combined				
Normal Cost [2]	15.07%	$188,869	15.16%	$189,941
UAAL[2]	27.45%	343,952	26.71%	334,755
Total Contribution	42.52%	$532,821	41.87%	$524,696

[1] *Amounts are in thousands and are based on June 30, 2017 projected annual payroll (also in thousands):*

Safety Tier A	$212,523
Safety Tier B	37,954
Safety Tier C	54,544
Safety Subtotal	$305,021
General & Safety Total	$1,253,222

[2] *A breakdown of the employer's total Normal Cost and UAAL to fund for each type of benefit is provided in Chart 14b.*

CHART 14b

Breakdown of the Employer's Normal Cost and UAAL Contributions to Fund for Each Type of Benefit (% of Payroll)

	Elements of Normal Cost		
Normal Cost	General	Safety	Overall
Service Retirement [1]	8.58%	11.17%	9.21%
Vested Termination and Refunds	2.70%	2.24%	2.59%
Non Service and Service Connected Disability	1.58%	7.14%	2.93%
Non Service and Service Connected Death	0.26%	0.60%	0.34%
Total Employer Normal Cost	13.12%	21.15%	15.07%
Total Employee Normal Cost[1]	10.90%	14.87%	11.87%
Employer Plus Employee Normal Cost	24.02%	36.02%	26.94%

[1] *Assuming that employee normal cost is only used to fund service retirement benefit.*

	Elements of UAAL[2]		
Unfunded Actuarial Accrued Liability [2]	General	Safety	Overall
Service Retirement	24.28%	30.38%	25.77%
Vested Termination and Refunds	0.08%	-0.07%[3]	0.04%
Non Service and Service Connected Disability	0.72%	3.67%	1.44%
Non Service and Service Connected Death	0.17%	0.29%	0.20%
Total Employer Unfunded Actuarial Accrued Liability	25.25%	34.27%	27.45%

[2] *Assuming that the liability for all inactive members is fully funded.*

[3] *Actuarial Accrued Liability which is used in the calculation of UAAL is negative when the present value of future benefit is less than the present value of future normal cost.*

The contribution rates as of June 30, 2017 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. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Contribution
The chart below details the changes in the recommended employer 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 Employer Contribution from June 30, 2016 to June 30, 2017 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Annual Dollar Cost [1]
Recommended Average Employer Contribution Rate as of June 30, 2016, Before Reflecting Any Employer Pickups	41.87%	$524,696
Effect of investment loss [2]	0.94%	$11,780
Effect of difference between actual and expected contributions	0.62%	7,770
Effect of difference between actual and expected total and individual salary increases	-0.32%	-3,961
Effect of difference between actual and expected cost-of-living benefit increases for retirees and beneficiaries	-0.54%	-6,767
Effect of change in demographics of members	-0.09%	-1,128
Effect of other actuarial gains or losses	0.04%	431
Total Change	0.65%	$8,125
Recommended Average Employer Contribution Rate as of June 30, 2017, Before Reflecting Any Employer Pickups	42.52%	$532,821

(1) *Based on June 30, 2017 projected annual payroll of $1,253,223,398.*

(2) *Return on valuation value of assets was 5.74% and less than the 7.25% assumed in the June 30, 2016 valuation.*

The member contribution rates as of June 30, 2017 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 Rate
The chart below details the changes in the average member contribution rate from the prior valuation to the current year's valuation.

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

CHART 16

Reconciliation of Recommended Member Contribution from June 30, 2016 to June 30, 2017 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Annual Dollar Cost[1]
Recommended Average Member Contribution Rate as of June 30, 2016, Before Reflecting Any Employer Pickups	12.00%	$150,346
Effect of change in demographics of members	-0.13%	-$1,621
Total Change	-0.13%	-$1,621
Recommended Average Member Contribution Rate as of June 30, 2017, Before Reflecting Any Employer Pickups	11.87%	$148,725

[1] *Based on June 30, 2017 projected annual payroll of $1,253,223,398.*

E. FUNDED RATIO

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the actuarial value of assets and market value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratio for this plan. Chart 18 on the next page shows the Plan's schedule of funding progress for the last ten years.

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

CHART 17

Funded Ratio for Plan Years Ending June 30, 2007 - 2017

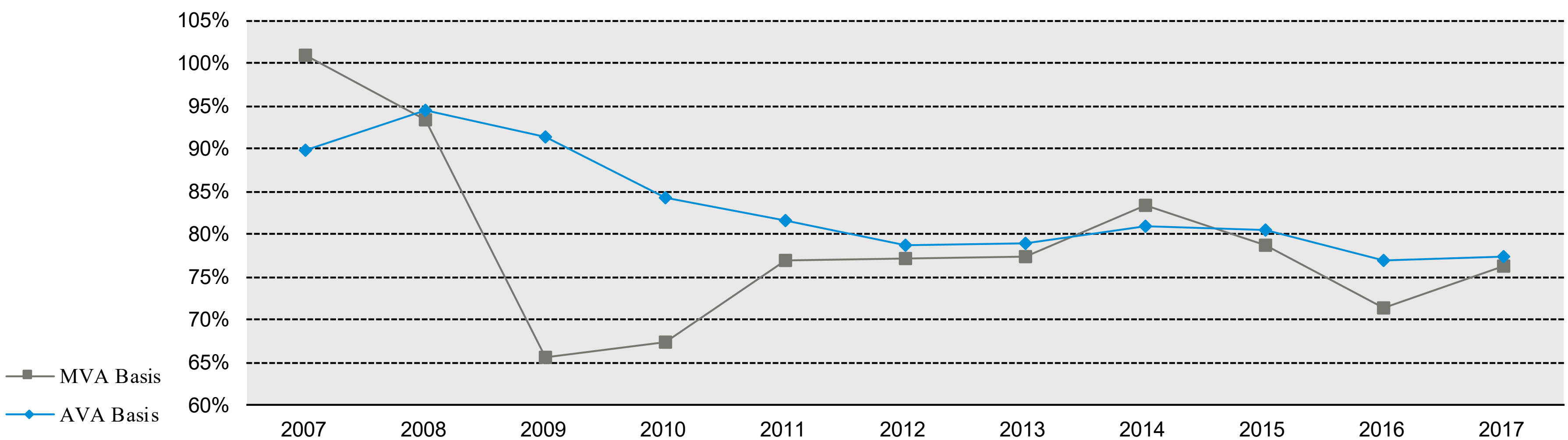


CHART 18

Schedule of Funding Progress

Actuarial Valuation Date	Valuation Value of Assets[1] (a)	Actuarial Accrued Liability (AAL)[2] (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	$8,236,926,000	$8,722,294,000	$485,368,000	94.44%	$1,135,432,000	42.75%
06/30/2009	8,413,065,000	9,198,636,000	785,571,000	91.46%	1,129,171,000	69.57%
06/30/2010	8,433,310,000	9,999,161,000	1,565,851,000	84.34%	1,095,582,000	142.92%
06/30/2011	8,542,291,000	10,482,657,000	1,940,366,000	81.49%	1,090,413,000	177.95%
06/30/2012	8,607,483,000	10,943,172,000	2,335,689,000	78.66%	1,052,366,000	221.95%
06/30/2013	9,186,032,000	11,631,237,000	2,445,205,000	78.98%	1,067,792,000	229.00%
06/30/2014	9,824,431,000	12,141,149,000	2,316,718,000	80.92%	1,122,864,000	206.32%
06/30/2015	10,535,337,000	13,080,080,000	2,544,743,000	80.54%	1,163,363,000	218.74%
06/30/2016	11,030,635,000	14,349,090,000	3,318,455,000	76.87%	1,206,941,000	274.95%
06/30/2017	11,566,926,000	14,937,872,000	3,370,946,000	77.43%	1,253,222,000	268.98%

(1) *Excludes assets for Supplemental Benefit and Health Benefit Reserves.*

(2) *Excludes liabilities held for Supplemental Benefit and Health Benefit Reserves.*

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 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 SDCERA, the current AVR is about 9.1. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 9.1% of one-year's payroll. Since SDCERA amortizes actuarial gains and losses over a period of 20 years, there would be a 0.6% 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 SDCERA, the current LVR is about 11.9. This is about 31% 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 19

Volatility Ratios for Years Ended June 30, 2009 – 2017

	Asset Volatility Ratios			Liability Volatility Ratios		
Year Ended June 30	**General**	**Safety**	**Total**	**General**	**Safety**	**Total**
2009	5.1	6.8	5.5	7.6	10.2	8.1
2010	5.8	7.8	6.3	8.4	11.6	9.1
2011	7.0	9.3	7.5	8.9	12.1	9.6
2012	7.5	10.0	8.1	9.7	12.9	10.4
2013	8.0	10.2	8.5	10.3	12.9	10.9
2014	8.6	10.7	9.1	10.2	12.6	10.8
2015	8.4	10.4	8.9	10.7	13.0	11.2
2016	8.0	10.1	8.5	11.1	14.4	11.9
2017	8.5	10.9	9.1	11.1	14.6	11.9

EXHIBIT A

Table of Plan Coverage

i. General Total

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	14,418	14,207	1.5%
Average age	45.2	45.5	-0.3
Average service	10.9	11.0	-0.1
Projected total compensation	$948,202,289	$913,255,807	3.8%
Projected average compensation	$65,765	$64,282	2.3%
Account balances	$606,922,125	$548,720,003	10.6%
Total active vested members	9,280	9,432	-1.6%
Deferred terminated members	5,024	4,797	4.7%
Retired members			
Number in pay status	12,434	12,093	2.8%
Average age	70.2	70.0	0.2
Average monthly benefit	$2,880	$2,807	2.6%
Disabled members			
Number in pay status	961	955	0.6%
Average age	66.1	65.9	0.2
Average monthly benefit	$2,225	$2,162	2.9%
Beneficiaries			
Number in pay status	1,790	1,757	1.9%
Average age	75.8	75.5	0.3
Average monthly benefit	$1,658	$1,607	3.2%

EXHIBIT A

Table of Plan Coverage

ii. General Tier 1

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	23	25	-8.0%
Average age	52.6	52.6	0.0
Average service	16.4	15.5	0.9
Projected total compensation	$1,687,449	$1,748,962	-3.5%
Projected average compensation	$73,367	$69,958	4.9%
Account balances	$1,193,005	$1,163,238	2.6%
Total active vested members	23	25	-8.0%
Deferred terminated members	1,350	1,418	-4.8%
Retired members			
Number in pay status	3,689	3,788	-2.6%
Average age	74.8	74.6	0.2
Average monthly benefit	$1,875	$1,878	-0.2%
Disabled members			
Number in pay status	176	183	-3.8%
Average age	75.8	75.3	0.5
Average monthly benefit	$2,317	$2,280	1.6%
Beneficiaries			
Number in pay status	1,014	1,027	-1.3%
Average age	81.1	80.9	0.2
Average monthly benefit	$1,780	$1,727	3.1%

EXHIBIT A

Table of Plan Coverage

iii. General Tier A

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	8,367	9,004	-7.1%
Average age	50.3	49.9	0.4
Average service	16.6	15.8	0.8
Projected total compensation	$610,027,104	$635,370,739	-4.0%
Projected average compensation	$72,909	$70,565	3.3%
Account balances	$536,972,427	$500,352,031	7.3%
Total active vested members	8,330	8,962	-7.1%
Deferred terminated members	2,423	2,424	0.0%
Retired members[1]			
Number in pay status	8,727	8,292	5.2%
Average age	68.3	68.0	0.3
Average monthly benefit	$3,308	$3,234	2.3%
Disabled members[1]			
Number in pay status	783	771	1.6%
Average age	64.1	63.7	0.4
Average monthly benefit	$2,205	$2,135	3.3%
Beneficiaries[1]			
Number in pay status	776	730	6.3%
Average age	68.8	68.1	0.7
Average monthly benefit	$1,498	$1,439	4.1%

[1] *This includes members from General Tier 2 and General Tier A.*

EXHIBIT A

Table of Plan Coverage

iv. General Tier B

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	1,575	1,620	-2.8%
Average age	41.5	40.6	0.9
Average service	5.2	4.3	0.9
Projected total compensation	$102,994,290	$99,355,126	3.7%
Projected average compensation	$65,393	$61,330	6.6%
Account balances	$34,337,778	$27,295,492	25.8%
Total active vested members	910	434	109.7%
Deferred terminated members	458	410	11.7%
Retired members			
Number in pay status	17	12	41.7%
Average age	63.7	62.5	1.2
Average monthly benefit	$1,729	$1,706	1.3%
Disabled members			
Number in pay status	2	1	100.0%
Average age	37.4	32.1	5.3
Average monthly benefit	$1,941	$1,792	8.3%
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

EXHIBIT A

Table of Plan Coverage

v. General Tier C

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	4,453	3,558	25.2%
Average age	36.7	36.5	0.2
Average service	2.1	1.6	0.5
Projected total pensionable compensation	$233,493,446	$176,780,980	32.1%
Projected average pensionable compensation	$52,435	$49,685	5.5%
Account balances	$34,418,914	$19,909,242	72.9%
Total active vested members	17	11	54.5%
Deferred terminated members	793	545	45.5%
Retired members			
Number in pay status	1	1	0.0%
Average age	64.6	63.6	1.0
Average monthly benefit	$280	$274	2.2%
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	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	N/A	N/A	N/A

EXHIBIT A

Table of Plan Coverage

vi. Safety Total

Category	Year Ended June 30: 2017	Year Ended June 30: 2016	Change From Prior Year
Active members in valuation			
Number	3,576	3,561	0.4%
Average age	41.3	41.2	0.1
Average service	12.2	12.0	0.2
Projected total pensionable compensation	$305,021,109	$293,684,426	3.9%
Projected average pensionable compensation	$85,297	$82,472	3.4%
Account balances	$239,455,269	$204,735,861	17.0%
Total active vested members	2,583	2,526	2.3%
Deferred terminated members	635	616	3.1%
Retired members			
Number in pay status	1,937	1,841	5.2%
Average age	64.0	63.7	0.3
Average monthly benefit	$5,446	$5,375	1.3%
Disabled members			
Number in pay status	739	725	1.9%
Average age	61.5	60.9	0.6
Average monthly benefit	$4,027	$3,925	2.6%
Beneficiaries			
Number in pay status	386	363	6.3%
Average age	66.7	66.0	0.7
Average monthly benefit	$2,695	$2,667	1.0%

EXHIBIT A

Table of Plan Coverage

vii. Safety Tier A

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	2,294	2,416	-5.0%
Average age	45.5	44.9	0.6
Average service	16.9	16.2	0.7
Projected total compensation	$212,522,681	$215,217,623	-1.3%
Projected average compensation	$92,643	$89,080	4.0%
Account balances	$209,091,806	$184,733,867	13.2%
Total active vested members	2,287	2,410	-5.1%
Deferred terminated members	498	507	-1.8%
Retired members[(1)]			
Number in pay status	1,937	1,841	5.2%
Average age	64.0	63.7	0.3
Average monthly benefit	$5,446	$5,375	1.3%
Disabled members[(1)]			
Number in pay status	736	722	1.9%
Average age	61.6	61.0	0.6
Average monthly benefit	$4,032	$3,929	2.6%
Beneficiaries[(1)]			
Number in pay status	386	363	6.3%
Average age	66.7	66.0	0.7
Average monthly benefit	$2,695	$2,667	1.0%

[(1)] *This includes members from Safety Tier 1, Safety Tier 2 and Safety Tier A.*

EXHIBIT A

Table of Plan Coverage

viii. Safety Tier B

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	473	486	-2.7%
Average age	36.0	34.9	1.1
Average service	5.5	4.6	0.9
Projected total compensation	$37,954,099	$36,232,862	4.8%
Projected average compensation	$80,241	$74,553	7.6%
Account balances	$14,429,474	$10,677,774	35.1%
Total active vested members	296	116	155.2%
Deferred terminated members	70	58	20.7%
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	3	3	0.0%
Average age	36.3	35.3	1.0
Average monthly benefit	$2,841	$2,786	2.0%
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

EXHIBIT A

Table of Plan Coverage

ix. Safety Tier C

Category	Year Ended June 30 2017	Year Ended June 30 2016	Change From Prior Year
Active members in valuation			
Number	809	659	22.8%
Average age	32.6	32.2	0.4
Average service	2.6	2.1	0.5
Projected total pensionable compensation	$54,544,328	$42,233,941	29.1%
Projected average pensionable compensation	$67,422	$64,088	5.2%
Account balances	$15,933,989	$9,324,220	70.9%
Total active vested members	0	0	N/A
Deferred terminated members	67	51	31.4%
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	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	N/A	N/A	N/A

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

i. General 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	1	--	--	--	1	--	--	--	--	--
	$53,154	--	--	--	$53,154	--	--	--	--	--
40 - 44	7	--	--	--	7	--	--	--	--	--
	96,388	--	--	--	96,388	--	--	--	--	--
45 - 49	2	--	--	--	2	--	--	--	--	--
	70,941	--	--	--	70,941	--	--	--	--	--
50 - 54	5	--	--	--	4	1	--	--	--	--
	77,203	--	--	--	82,543	$55,841	--	--	--	--
55 - 59	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
60 - 64	6	--	--	--	5	1	--	--	--	--
	62,476	--	--	--	64,461	52,550	--	--	--	--
65 - 69	2	--	1	--	1	--	--	--	--	--
	28,412	--	$17,501	--	39,322	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	23	--	1	--	20	2	--	--	--	--
	$73,367	--	$17,501	--	$78,078	$54,196	--	--	--	--

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

ii. General Tier A

		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	7	- -	5	2	- -	- -	- -	- -	- -	- -
	$52,191	- -	$51,867	$53,002	- -	- -	- -	- -	- -	- -
30 - 34	313	6	147	154	6	- -	- -	- -	- -	- -
	61,644	$50,483	64,088	59,445	$69,371	- -	- -	- -	- -	- -
35 - 39	967	3	295	518	150	1	- -	- -	- -	- -
	73,013	50,018	72,203	74,529	69,241	$161,516	- -	- -	- -	- -
40 - 44	1,297	7	212	548	491	39	- -	- -	- -	- -
	73,917	50,860	71,494	74,209	75,293	69,812	- -	- -	- -	- -
45 - 49	1,432	10	167	406	503	241	102	3	- -	- -
	76,081	70,269	66,340	72,838	80,430	81,950	$70,320	$71,603	- -	- -
50 - 54	1,525	6	103	394	375	274	292	79	2	- -
	74,116	53,043	64,510	71,641	69,163	81,870	80,600	73,674	$57,104	- -
55 - 59	1,545	4	125	322	399	264	292	116	23	- -
	73,507	65,216	64,548	67,576	66,783	76,657	84,175	90,469	66,156	- -
60 - 64	897	- -	89	204	258	132	133	68	10	3
	68,979	- -	64,559	64,566	67,484	67,587	70,992	92,538	71,206	$59,345
65 - 69	303	1	42	86	77	45	31	11	6	4
	68,217	18,956	64,088	71,422	62,710	67,564	77,682	67,884	97,777	51,599
70 & over	81	1	5	20	19	19	7	4	3	3
	71,670	35,986	69,129	75,631	52,980	73,097	73,052	118,106	84,371	92,875
Total	8,367	38	1,190	2,654	2,278	1,015	857	281	44	10
	$72,909	$56,466	$67,825	$71,182	$72,018	$77,492	$78,937	$85,556	$72,446	$66,306

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

iii. General Tier B

		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	1	- -	1	- -	- -	- -	- -	- -	- -	- -
	$56,806	- -	$56,806	- -	- -	- -	- -	- -	- -	- -
25 - 29	116	59	57	- -	- -	- -	- -	- -	- -	- -
	52,786	$53,868	51,665	- -	- -	- -	- -	- -	- -	- -
30 - 34	404	153	251	- -	- -	- -	- -	- -	- -	- -
	65,333	61,796	67,489	- -	- -	- -	- -	- -	- -	- -
35 - 39	336	164	172	- -	- -	- -	- -	- -	- -	- -
	67,109	66,660	67,537	- -	- -	- -	- -	- -	- -	- -
40 - 44	204	91	112	- -	- -	1	- -	- -	- -	- -
	65,745	72,296	60,613	- -	- -	$44,541	- -	- -	- -	- -
45 - 49	172	68	103	1	- -	- -	- -	- -	- -	- -
	67,933	72,067	65,169	$71,540	- -	- -	- -	- -	- -	- -
50 - 54	121	48	72	- -	1	- -	- -	- -	- -	- -
	69,983	70,228	67,507	- -	$236,422	- -	- -	- -	- -	- -
55 - 59	128	51	77	- -	- -	- -	- -	- -	- -	- -
	65,202	68,522	63,002	- -	- -	- -	- -	- -	- -	- -
60 - 64	67	23	44	- -	- -	- -	- -	- -	- -	- -
	64,772	71,558	61,225	- -	- -	- -	- -	- -	- -	- -
65 - 69	22	8	14	- -	- -	- -	- -	- -	- -	- -
	64,297	49,078	72,993	- -	- -	- -	- -	- -	- -	- -
70 & over	4	1	3	- -	- -	- -	- -	- -	- -	- -
	51,631	37,522	56,334	- -	- -	- -	- -	- -	- -	- -
Total	1,575	666	906	1	1	1	- -	- -	- -	- -
	$65,393	$66,046	$64,741	$71,540	$236,422	$44,541	- -	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

iii. General Tier C

		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	222	222	- -	- -	- -	- -	- -	- -	- -	- -
	$40,336	$40,336	- -	- -	- -	- -	- -	- -	- -	- -
25 - 29	1,127	1,123	4	- -	- -	- -	- -	- -	- -	- -
	48,212	48,167	$60,819	- -	- -	- -	- -	- -	- -	- -
30 - 34	1,086	1,086	- -	- -	- -	- -	- -	- -	- -	- -
	54,489	54,489	- -	- -	- -	- -	- -	- -	- -	- -
35 - 39	680	679	1	- -	- -	- -	- -	- -	- -	- -
	54,136	54,143	49,687	- -	- -	- -	- -	- -	- -	- -
40 - 44	455	453	2	- -	- -	- -	- -	- -	- -	- -
	56,354	56,333	61,125	- -	- -	- -	- -	- -	- -	- -
45 - 49	308	307	1	- -	- -	- -	- -	- -	- -	- -
	52,997	53,014	47,783	- -	- -	- -	- -	- -	- -	- -
50 - 54	240	239	1	- -	- -	- -	- -	- -	- -	- -
	55,184	55,245	40,542	- -	- -	- -	- -	- -	- -	- -
55 - 59	206	204	2	- -	- -	- -	- -	- -	- -	- -
	55,916	56,038	43,441	- -	- -	- -	- -	- -	- -	- -
60 - 64	88	87	1	- -	- -	- -	- -	- -	- -	- -
	57,931	57,232	118,775	- -	- -	- -	- -	- -	- -	- -
65 - 69	37	37	- -	- -	- -	- -	- -	- -	- -	- -
	57,795	57,795	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	4	4	- -	- -	- -	- -	- -	- -	- -	- -
	63,180	63,180	- -	- -	- -	- -	- -	- -	- -	- -
Total	4,453	4,441	12	- -	- -	- -	- -	- -	- -	- -
	$52,435	$52,417	$59,100	- -	- -	- -	- -	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

iv. Safety Tier A

		Years of Service							
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	18	- -	17	1	- -	- -	- -	- -	- -
	$81,388	- -	$81,702	$76,061	- -	- -	- -	- -	- -
30 – 34	203	1	126	74	2	- -	- -	- -	- -
	85,333	$83,148	84,607	86,521	$88,181	- -	- -	- -	- -
35 – 39	376	- -	105	209	62	- -	- -	- -	- -
	86,212	- -	84,812	86,063	89,084	- -	- -	- -	- -
40 – 44	491	1	52	132	242	64	- -	- -	- -
	89,088	186,757	84,576	83,528	90,088	$98,914	- -	- -	- -
45 – 49	568	1	34	75	197	197	64	- -	- -
	96,101	104,021	85,063	85,466	91,874	102,987	$106,120	- -	- -
50 – 54	380	3	22	54	69	88	126	18	- -
	100,134	86,712	93,613	88,362	86,826	99,937	110,997	$121,600	- -
55 – 59	180	1	7	25	44	44	40	19	- -
	98,043	124,668	83,300	84,953	87,739	106,227	103,408	112,907	- -
60 – 64	62	- -	3	17	13	12	10	6	1
	90,734	- -	84,374	81,621	91,274	89,357	104,258	96,603	$103,807
65 – 69	16	- -	2	4	7	1	2	- -	- -
	104,241	- -	116,603	118,570	87,910	119,519	112,743	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	2,294	7	368	591	636	406	242	43	1
	$92,643	$108,390	$85,255	$85,717	$90,021	$101,673	$108,189	$114,271	$103,807

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

v. Safety Tier B

		Years of Service							
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	2	1	1	- -	- -	- -	- -	- -	- -
	$71,926	$76,362	$67,490	- -	- -	- -	- -	- -	- -
25 - 29	127	44	82	1	- -	- -	- -	- -	- -
	74,170	71,869	75,325	$80,712	- -	- -	- -	- -	- -
30 - 34	158	54	104	- -	- -	- -	- -	- -	- -
	76,533	75,013	77,322	- -	- -	- -	- -	- -	- -
35 - 39	73	27	40	3	3	- -	- -	- -	- -
	81,599	87,100	80,710	64,947	$60,595	- -	- -	- -	- -
40 - 44	42	19	23	- -	- -	- -	- -	- -	- -
	89,372	100,393	80,269	- -	- -	- -	- -	- -	- -
45 - 49	26	9	14	1	1	1	- -	- -	- -
	89,187	102,399	84,142	73,371	72,933	$72,988	- -	- -	- -
50 - 54	15	10	5	- -	- -	- -	- -	- -	- -
	89,475	95,930	76,565	- -	- -	- -	- -	- -	- -
55 - 59	21	10	11	- -	- -	- -	- -	- -	- -
	96,528	93,204	99,550	- -	- -	- -	- -	- -	- -
60 - 64	9	3	6	- -	- -	- -	- -	- -	- -
	100,006	118,021	90,998	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	473	177	286	5	4	1	- -	- -	- -
	$80,241	$83,138	$78,888	$69,785	$63,679	$72,988	- -	- -	- -

EXHIBIT B

Members in Active Service and Projected Average Compensation as of June 30, 2017
By Age and Years of Service

v. Safety Tier C

		Years of Service							
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35 & over**
Under 25	85	85	- -	- -	- -	- -	- -	- -	- -
	$59,586	$59,586	- -	- -	- -	- -	- -	- -	- -
25 - 29	332	332	- -	- -	- -	- -	- -	- -	- -
	62,948	62,948	- -	- -	- -	- -	- -	- -	- -
30 - 34	195	195	- -	- -	- -	- -	- -	- -	- -
	65,475	65,475	- -	- -	- -	- -	- -	- -	- -
35 - 39	64	64	- -	- -	- -	- -	- -	- -	- -
	65,685	65,685	- -	- -	- -	- -	- -	- -	- -
40 - 44	47	47	- -	- -	- -	- -	- -	- -	- -
	67,711	67,711	- -	- -	- -	- -	- -	- -	- -
45 - 49	24	24	- -	- -	- -	- -	- -	- -	- -
	72,584	72,585	- -	- -	- -	- -	- -	- -	- -
50 - 54	31	31	- -	- -	- -	- -	- -	- -	- -
	104,305	104,305	- -	- -	- -	- -	- -	- -	- -
55 - 59	26	26	- -	- -	- -	- -	- -	- -	- -
	112,518	112,518	- -	- -	- -	- -	- -	- -	- -
60 - 64	5	5	- -	- -	- -	- -	- -	- -	- -
	105,169	105,169	- -	- -	- -	- -	- -	- -	- -
65 - 69	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	809	809	- -	- -	- -	- -	- -	- -	- -
	$67,422	$67,422	- -	- -	- -	- -	- -	- -	- -

EXHIBIT C

Reconciliation of Member Data – June 30, 2016 to June 30, 2017

	Active Members	Deferred Terminated Members	Disabled Pensioners	Retired Members	Beneficiaries	Total
Number as of June 30, 2016	17,768	5,413	1,680	13,934	2,120	40,915
New members	1,433	150	N/A	N/A	N/A	1,583
Terminations – with vested rights	-471	471	0	0	0	0
Contribution refunds	-150	-131	N/A	N/A	N/A	-281
Retirements	-566	-185	0	751	N/A	0
New disabilities	-44	-2	55	-9	N/A	0
Return to work	50	-49	-1	0	N/A	0
Died with or without beneficiary	-25	-8	-34	-317	58	-326
Data adjustments	-1	0	0	12	-2	9
Number as of June 30, 2017	17,994	5,659	1,700	14,371	2,176	41,900

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended June 30, 2017		Year Ended June 30, 2016	
Contribution income:				
Employer contributions	$459,235,784		$425,305,597	
Member contributions	112,579,051		104,636,306	
Retiree contributions for Health Program fees[1]	634,038		N/A	
Net contribution income		$572,448,873		$529,941,903
Investment income:				
Interest, dividends and other income	$308,699,104		$98,545,222	
Recognition of capital appreciation	405,944,468		566,906,789	
Less investment fees and administrative expenses	(86,006,216)		(87,681,828)	
Net investment income		628,637,356		577,770,183
Total income available for benefits		$1,201,086,229		$1,107,712,086
Less benefit payments:				
Service retirement and disability benefits	$(640,782,080)		$(607,378,908)	
Death benefits	(1,741,274)		(1,629,046)	
Health benefits	(17,594,425)		(18,443,230)	
Supplemental retirement benefits	(4,543,812)		(16,462,324)	
Member refunds	(3,558,466)		(3,624,725)	
Net benefit payments		$(668,220,057)		$(647,538,233)
Change in assets held for future benefits		$532,866,172		$460,173,853

[1] *Starting with the year ended June 30, 2017, SDCERA has switched to reporting separately the fees collected from the retirees covered under the retiree Health Insurance Allowance (HIA) program in order to defray the expenses associate with administering that Plan. For the year ended June 30, 2016, the fees and the associated administrative expenses for the HIA program were reported on a net basis under prior year's "Less investment fees and administrative expenses" (i.e., $87,681,828).*

Note: Results may not add due to rounding.

EXHIBIT E
Summary Statement of Plan Assets

	Year Ended June 30, 2017		Year Ended June 30, 2016	
Cash equivalents		$278,898,108		$456,051,329
Accounts receivable:				
Contributions	$3,906,867		$9,296,172	
Accrued interest and dividends	22,817,134		16,473,567	
Settlement of securities sold	887,993,561		494,202,783	
Total accounts receivable		$914,717,562		519,972,522
Investments:				
Domestic equity securities	$2,492,006,859		$2,530,809,987	
International equity securities	535,302,865		306,266,530	
Bonds	5,106,653,896		3,963,319,679	
Securities lending collateral	38,382,800		54,236,367	
Real Estate	948,805,541		974,996,044	
Hedge Funds	13,517,725		215,998,090	
Private Equity	753,116,334		642,516,909	
Natural Resources	477,758,904		408,320,936	
Relative Value	351,713,573		335,224,923	
Other investments	673,970,887		511,638,772	
Total investments at market value		11,391,229,384		9,943,328,237
Total assets		$12,584,845,054		$10,919,352,088
Less accounts payable:				
Securities lending & settlement of securities purchased	$(1,153,177,764)		$(627,445,295)	
Professional service	(5,602,137)		(7,994,548)	
Cash in transit	(94,293)		(98,466)	
Others	(18,293,318)		(14,756,149)	
Total accounts payable		$(1,177,167,512)		$(650,294,458)
Net assets at market value		$11,407,677,542		$10,269,057,630
Net assets at actuarial value		$11,579,329,652		$11,046,463,480
Net assets at valuation value		$11,566,926,333		$11,030,635,351

Note: Results may not add due to rounding.

EXHIBIT F

Actuarial Balance Sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that are anticipated to be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan.

Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future recommended employer normal cost contributions, and the present value of future recommended employer amortization payments.

Actuarial Balance Sheet (Dollar Amounts in Thousands)

Assets	General	Safety	Total
1 Total valuation assets	$8,190,788	$3,376,139	$11,566,926
2 Present value of future contributions by members	797,545	376,043	1,173,588
3 Present value of future employer contributions for:			
a Entry age normal cost	933,248	507,877	1,441,126
b Unfunded actuarial accrued liability	2,306,563	1,064,383	3,370,946
4 Total current and future assets	$12,228,144	$5,324,442	$17,552,586
Liabilities			
5 Present value of benefits for retirees and beneficiaries	$6,161,135	$2,626,830	$8,787,965
6 Present value of benefits for deferred terminated members	383,752	75,506	459,258
7 Present value of benefits for active members	5,683,257	2,622,106	8,305,363
8 Total liabilities	$12,228,144	$5,324,442	$17,552,586

Note: Results may not add due to rounding.

EXHIBIT G
Summary of Reported Reserve Information as of June 30, 2017

Reserves
(Dollar Amounts in Thousands)

Member contributions [1]	$1,021,169
County contributions [1]	2,528,042
Retired member reserve [1]	7,194,591
Transition reserves [1]	823,124
Total valuation reserve [1]	$11,566,926
Supplemental benefit, disability supplemental benefit and 401(h) health reserves [2]	12,167
Undistributed reserve [2]	0
Contingency reserve [2]	237
Total reserves	$11,579,330
Net deferred gains (losses) [2]	(171,652)
Net market value	$11,407,678

[1] *Included in development of valuation value of assets.*

[2] *Excluded in development of valuation value of assets.*

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2017

		(Amounts in Thousands)
1.	Unfunded Actuarial Accrued Liability as of June 30, 2016	$3,318,455
2.	Normal Cost	333,633
3.	Expected employer and member contributions	(656,019)
4.	Interest	230,093
5.	Expected Unfunded Actuarial Accrued Liability	$3,226,162
6.	Changes due to:	
	(a) Investment return less than expected	$165,322
	(b) Actual contributions less than expected [1]	108,405
	(c) Lower than expected salary increase	(40,360)
	(d) Lower than expected cost-of-living increase in benefits for retirees and beneficiaries	(94,030)
	(e) Other experience (gains) or losses [2]	5,447
	(f) Total changes	$144,784
7.	Unfunded Actuarial Accrued Liability as of June 30, 2017	$3,370,946

[1] *The actual contributions were less than expected due to the scheduled one-year lag in implementing the higher contribution rates calculated in the June 30, 2016 valuation for FY 2018. (The actual contributions would have been greater than expected due to the one-year lag if lower contribution rates were calculated in the June 30, 2016 valuation.)*

[2] *Includes $0.3 million due to a clarification provided by SDCERA as to the age and service requirements to retire for General Tier C members.*

Note: Net gain from other non-investment experience of $20.3 million (as shown on page 9) is equal to: 6(b) + 6(c) + 6(d) + 6(e).

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 amount indexed for inflation. The amount of that limit is $215,000 for 2017. 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.

Section 415(b) limit has been applied to the benefit data for members in pay status provided by SDCERA for valuation purposes.

For non-PEPRA members, 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.

Contributions rates determined in this valuation have not been reduced for the Section 415 limitations for members in active and deferred statuses, so actual limitations will result in gains as they occur.

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 level cost, as a percentage of payroll, 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 (or is exceeded by) the assets of the Plan. There are many approaches to recognizing the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

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

Investment Return: 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 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 2,176 beneficiaries in pay status)		18,247
2.	Members inactive during year ended June 30, 2017 with vested rights[(1)]		5,659
3.	Members active during the year ended June 30, 2017		17,994

The actuarial factors as of the valuation date are as follows (amounts in thousands):

1.	Normal cost		$337,594
2.	Present value of future benefits		17,552,586
3.	Present value of future normal costs		2,614,714
4.	Actuarial accrued liability		14,937,872
	Retired members and beneficiaries	$8,787,965	
	Inactive members with vested rights[(1)]	459,258	
	Active members	5,690,649	
5.	Valuation value of assets		11,566,926
6.	Unfunded actuarial accrued liability		$3,370,946

[(1)] *Includes terminated members due a refund of member contributions.*

EXHIBIT I (continued)

Summary of Actuarial Valuation Results (Dollar Amounts in Thousands)

The determination of the required contribution is as follows:	Dollar Amount[1]	% of Payroll
1. Total normal cost	$337,594	26.94%
2. Expected employee contributions	(148,725)	(11.87%)
3. Employer normal cost: (1) + (2)	$188,869	15.07%
4. Amortization of unfunded actuarial accrued liability	343,952	27.45%
5. Total required contribution: (3) + (4)	$532,821	42.52%

[1] *Based on June 30, 2017 projected annual compensation.*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2012 through June 30, 2015 Actuarial Experience Study dated June 2, 2016. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers.

Economic Assumptions

Net Investment Return: 7.25%; net of investment and administrative expenses.

Employee Contribution Crediting Rate: One-half of the net investment return credited semi-annually.

Consumer Price Index: Increase of 3.00% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for Tier 1 and Tier A, and 2% maximum change per year for Tier B and Tier C.

Payroll Growth: Inflation of 3.00% per year plus "across the board" real salary increases of 0.50% per year.

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy Retirement: For General Members and all Beneficiaries: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years.

Disabled Retirement: For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward five years for males and four years for females.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year.

Pre-Retirement Mortality Rates: For General and Safety Members: Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional scale MP2015D times 75%. For General, all pre-retirement deaths are assumed to be non-service connected death while for Safety, all pre-retirement deaths are assumed to be service connected death.

The above mortality tables contain about a 20% margin, based on actual to expected deaths, as a provision to anticipate future mortality improvement, based on a review of mortality experience as of the measurement date.

Member Contribution Rates: For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females weighted 30% male and 70% female.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years weighted 75% male and 25% female.

Termination Rates Before Retirement:

Mortality Rates:

General and Safety:

Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional scale MP2015D times 75%.

Rate (%)

Mortality

	General		Safety	
Age	Male	Female	Male	Female
25	0.03	0.01	0.03	0.01
30	0.03	0.02	0.03	0.02
35	0.04	0.02	0.04	0.02
40	0.04	0.03	0.04	0.03
45	0.07	0.05	0.07	0.05
50	0.11	0.08	0.11	0.08
55	0.20	0.13	0.20	0.13
60	0.35	0.19	0.35	0.19
65	0.60	0.27	0.60	0.27

For General members, all pre-retirement deaths are assumed to be non-service connected. For Safety members, all pre-retirement deaths are assumed to be service connected.

Disability Rates:

	Rate (%)			
	Non-Service Connected Disability		Service Connected Disability	
Age	General	Safety	General	Safety
20	0.00	0.00	0.00	0.03
25	0.00	0.00	0.01	0.08
30	0.01	0.00	0.03	0.18
35	0.02	0.05	0.04	0.33
40	0.05	0.08	0.06	0.52
45	0.09	0.08	0.13	0.63
50	0.11	0.08	0.17	1.22
55	0.14	0.10	0.26	1.84
60	0.17	0.12	0.31	2.30
65	0.22	0.05	0.23	2.50

Withdrawal Rates:

	Rate (%)	
	Termination (< 5 Years of Service)*	
Years of Service	General	Safety
0	11.75	9.00
1	8.50	7.00
2	7.00	4.00
3	5.75	3.00
4	5.50	2.90

* 65% of all terminating members will choose a refund of contributions and 35% will choose a deferred vested benefit.

	Rate (%)	
	Termination (5+ Years of Service) **	
Age	General	Safety
20	5.35	3.30
25	4.84	3.12
30	4.20	2.40
35	3.64	1.76
40	2.86	1.24
45	2.44	0.88
50	2.40	1.04
55	2.40	1.08
60	2.40	1.00
65	2.40	0.40

** 20% of all terminating members will choose a refund of contributions and 80% will choose a deferred vested benefit. Termination rates are zero at ages where members are expected to retire.

Retirement Rates:

	Rates (%)					
	General			Safety		
Age	Tier 1 and Tier A	Tier B	Tier C	Tier A	Tier B	Tier C
45	-	-	-	2.0	2.0	-
46	-	-	-	2.0	2.0	-
47	-	-	-	2.0	2.0	-
48	-	-	-	3.0	3.0	-
49	65.0	-	-	9.0	3.5	-
50	6.0	-	-	14.0	11.0	14.0
51	4.0	-	-	12.0	11.0	9.5
52	4.0	-	4.0	11.0	10.0	9.5
53	5.0	-	4.0	15.0	11.0	9.5
54	6.0	-	4.0	15.0	12.0	10.5
55	10.0	5.0	4.0	15.0	19.0	16.5
56	10.0	6.0	4.5	18.0	22.0	19.0
57	10.0	7.0	5.5	18.0	20.0	20.0
58	11.0	7.0	5.5	19.0	20.0	20.0
59	15.0	7.0	5.5	20.0	20.0	22.0
60	18.0	9.0	7.0	22.0	22.0	22.0
61	20.0	13.0	10.0	25.0	25.0	25.0
62	23.0	19.0	14.0	25.0	25.0	25.0
63	24.0	19.0	15.0	25.0	25.0	25.0
64	25.0	19.0	15.0	25.0	25.0	25.0
65	31.0	30.0	26.0	50.0	50.0	50.0
66	35.0	30.0	30.0	50.0	50.0	50.0
67	33.0	30.0	30.0	50.0	50.0	50.0
68	32.0	30.0	30.0	50.0	50.0	50.0
69	31.0	30.0	30.0	50.0	50.0	50.0
70	35.0	35.0	35.0	100.0	100.0	100.0
71	35.0	35.0	35.0	100.0	100.0	100.0
72	35.0	35.0	35.0	100.0	100.0	100.0
73	35.0	35.0	35.0	100.0	100.0	100.0
74	40.0	40.0	40.0	100.0	100.0	100.0
75 and later	100.0	100.0	100.0	100.0	100.0	100.0

Retirement Age and Benefit for Deferred Vested Members:	<u>Reciprocal and Non-reciprocal Members</u> General: Age 57 Safety: Age 51 We assume that 20% of General and 30% of Safety future deferred vested members will continue to work for a reciprocal employer. For these members, we assume 4.25% and 4.50% compensation increases per annum for General and Safety members, respectively.
Future Benefit Accruals:	1.0 year of service per year.
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 pay period following employment.
Percent Married:	75% of male members and 55% of female members are assumed to be married at retirement or pre-retirement death.
Age of Spouse:	Male retirees are 3 years older than their spouses, and Female retirees are 2 years younger than their spouses.

Individual Salary Increases:

Annual Rate of Compensation Increase

Inflation: 3.00% per year; plus "across the board" real salary increases of 0.50% per year; plus the following merit and promotional increases:

Years of Service	General	Safety
0	6.75%	8.50%
1	5.00	6.25
2	4.50	5.00
3	3.50	4.75
4	2.50	4.50
5	1.50	2.25
6	1.40	1.60
7	1.30	1.40
8	1.20	1.20
9	1.10	1.10
10	1.00	1.00
11	0.95	1.00
12	0.90	1.00
13	0.85	1.00
14	0.80	1.00
15+	0.75	1.00

Increase in Section 7522.10 Compensation Limit: Increase of 3.00% per year from the valuation date.

Pay for Performance and Other Premium Pays: We have utilized the actual premium pay elements in the census data for each individual active member provided by CPAS.

Service Converted From Unused Sick Leave: The following assumptions for service converted from unused sick leave as a percentage of service at retirement are used:

General:	2.00%
Safety:	2.25%

Pursuant to Section 31641.02, the cost of this benefit for Non-Tier C members will be charged only to employers and will not affect member contribution rates.

Actuarial Value of Assets: The actuarial value of assets is determined by recognizing any difference between actual and expected market return over 10 six-month interest crediting periods.

Valuation Value of Assets: The actuarial value of assets reduced by the following reserves: (1) 401(h) Health Benefit Reserve; (2) Undistributed Reserve; (3) Contingency Reserve; (4) Supplemental Benefit Reserve; and (5) Disability Supplemental Benefit Reserve.

Actuarial Cost Method: Entry Age Actuarial Cost Method. Entry Age is the age at the member’s hire date. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.

Amortization Policy: The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2012 shall continue to be amortized over separate 20-year period amortization layers based on the valuations during which each separate layer was previously established.

Any new UAAL as a result of assumption changes, method changes and actuarial gains or losses identified in the annual valuation as of June 30, 2013 and later will be amortized over a period of 20 years.

Any new UAAL as a result of plan amendments will be amortized over a period of 15 years.

Any new UAAL as a result of Golden Handshakes or Early Retirement Incentive Programs (ERIP) will be amortized over a period of up to 5 years.

The UAAL shall be amortized over "closed" amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

The UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

If the AAL is overfunded (i.e., the Valuation Value of Assets exceeds 120% of the Actuarial Accrued Liability so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an "open" amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL, will be amortized over 20 years as the first of a new series of amortization layers.

Changes in Actuarial Assumptions and Methods: There have been changes in actuarial assumptions since the previous actuarial valuation. Previously, these assumptions were as follows:

Changes in Actuarial Assumptions and Methods (continued)

Retirement Rates:

Age	Rates (%) General Tier C
52	-
53	-
54	-
55	4.0
56	4.5
57	5.5
58	5.5
59	5.5
60	7.0
61	10.0
62	14.0
63	15.0
64	15.0
65	26.0
66	30.0
67	30.0
68	30.0
69	30.0
70	35.0
71	35.0
72	35.0
73	35.0
74	40.0
75 and later	100.0

EXHIBIT III
Summary of Plan Provisions

This exhibit summarizes the major provisions of the SDCERA included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	All permanent employees of the County of San Diego or contracting district, scheduled to work 20 or more hours weekly, are eligible, subject to classification below:
General Tier 1	All General members with membership dates before March 8, 2002 who made a specific and irrevocable election to opt out of Tier A. This also included those General Members in deferred status on March 8, 2002.
General Tier A	All General members with membership dates or continuing employment on or after March 8, 2002 and before August 28, 2009, except as noted above.
General Tier B	All General members with membership dates on or after August 28, 2009 and before January 1, 2013.
General Tier C	All General members with membership dates on or after January 1, 2013.
Safety Tier A	All Safety members with membership dates before August 28, 2009.
Safety Tier B	All Safety members with membership dates on or after August 28, 2009 and before January 1, 2013.
Safety Tier C	All Safety members with membership dates on or after January 1, 2013.
Final Average Compensation for Benefit Determination:	
General Tier 1, General Tier A and Safety Tier A	Highest consecutive 26 bi-weekly pay periods of compensation earnable (§31462.1) (FAC).

General Tier B and Safety Tier B	Three-year average of highest consecutive 78 bi-weekly pay periods of compensation earnable (§31462)(F3AC).
General Tier C and Safety Tier C	Highest consecutive thirty-six months of pensionable compensation (§7522.32) (FAS3).
Compensation Limit:	
General Tier C and Safety Tier C	Pensionable Compensation is limited to $118,775 for 2017 ($142,530, if not enrolled in Social Security). The limit is indexed for inflation on an annual basis.
Service:	Years of service (Yrs).
Service Retirement Eligibility:	
General Tier 1 and Tier A	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 30 years of service credit, regardless of age (§31672).
General Tier B	Age 55 with 10 years of service credit, or age 70 regardless of service credit, or after 30 years of service credit, regardless of age (§31672).
General Tier C	Age 52 with 5 years of service credit (§7522.20(a)) or age 70 regardless of service credit (§31672.3).
Safety Tier A and Tier B	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 20 years of service credit, regardless of age (§31663.25).
Safety Tier C	Age 50 with 5 years of service credit (§7522.25(a)) or age 70 regardless of service credit (§31672.3).

Benefit Formula:

	Retirement Age	Benefit Formula
General Tier 1 (§31676.12)	50	(1.34%xFAC – 1/3x1.34%x$350 x 12) x Yrs
	55	(1.77%xFAC – 1/3x1.77%x$350 x 12) x Yrs
	60	(2.34%xFAC – 1/3x2.34%x$350 x 12) x Yrs
	62	(2.62%xFAC – 1/3x2.62%x$350 x 12) x Yrs
	65 or later	(2.62%xFAC – 1/3x2.62%x$350 x 12) x Yrs
	Retirement Age	**Benefit Formula**
General Tier A (§31676.17)	50	(2.00%xFAC – 1/3x2.00%x$350 x 12) x Yrs
	55	(2.50%xFAC – 1/3x2.50%x$350 x 12) x Yrs
	60	(3.00%xFAC – 1/3x3.00%x$350 x 12) x Yrs
	62	(3.00%xFAC – 1/3x3.00%x$350 x 12) x Yrs
	65 or later	(3.00%xFAC – 1/3x3.00%x$350 x 12) x Yrs
	Retirement Age	**Benefit Formula**
General Tier B (§31676.12)	50	(1.34%xF3AC – 1/3x1.34%x$350 x 12) x Yrs
	55	(1.77%xF3AC – 1/3x1.77%x$350 x 12) x Yrs
	60	(2.34%xF3AC – 1/3x2.34%x$350 x 12) x Yrs
	62	(2.62%xF3AC – 1/3x2.62%x$350 x 12) x Yrs
	65 or later	(2.62%xF3AC – 1/3x2.62%x$350 x 12) x Yrs
	Retirement Age	**Benefit Formula**
General Tier C (§7522.20(a))	55	1.30% x FAS3 x Yrs
	60	1.80% x FAS3 x Yrs
	62	2.00% x FAS3 x Yrs
	65	2.30% x FAS3 x Yrs
	67 or later	2.50% x FAS3 x Yrs

	Retirement Age	Benefit Formula
Safety Tier A (Non-Integrated) (§31664.1)	50	(3.00% x FAC x Yrs)
	55	(3.00% x FAC x Yrs)
	60 or later	(3.00% x FAC x Yrs)
	Retirement Age	**Benefit Formula**
Safety Tier B (Non-Integrated) (§31664.2)	50	(2.29% x F3AC x Yrs)
	55	(3.00% x F3AC x Yrs)
	60 or later	(3.00% x F3AC x Yrs)
	Retirement Age	**Benefit Formula**
Safety Tier C (§7522.25(d))	50	2.00% x FAS3 x Yrs
	55	2.50% x FAS3 x Yrs
	57 or later	2.70% x FAS3 x Yrs

Maximum Benefit:

Non-Tier C	100% of Final Average Compensation (§31676.12, §31676.17, §31664.1, §31664.2)
Tier C	None

Non Service Connected Disability:

General Members

Eligibility	Five years of service (§31720).
Benefit Formula	1.8% of Final Average Compensation per year of service. If the benefit does not exceed one-third of Final Average Compensation, the service is projected to 62, and the total benefit cannot be more than one-third of Final Average Compensation (§31727.1).

Safety Members

Eligibility	Five years of service (§31720).
Benefit Formula	1.8% of Final Average Compensation per year of service. If the benefit does not exceed one-third of Final Average Compensation, the service is projected to 55, and

	the total benefit cannot be more than one-third of Final Average Compensation (§31727.2).
Service Connected Disability:	
All Members	
Eligibility	No age or service requirements (§31720).
Benefit Formula	50% of the Final Average Compensation or 100% of Service Retirement benefit, if larger (§31727.4).
Pre-Retirement Death:	
Non Service Connected (Not Vested) Before Eligible to Retire	
Eligibility	None.
Benefit	Refund of employee contributions with interest, plus one month's eligible compensation for each year of service to a maximum of six month's compensation (§31781). OR
Non Service Connected (Vested)	
Eligibility	Five years of service.
Benefit	60% of the greater of Service Retirement or Non Service Connected Disability Retirement benefit payable to surviving eligible spouse or eligible children (§31765.1, §31781.1), in lieu of above. Alternatively, the spouse may choose a combined benefit of: • A lump sum payment of up to 6 month's compensation (see above), and • A monthly (60%) benefit reduced by actuarial equivalent of the lump sum payment (§31781.3).
Service Connected Death	50% of the Final Average Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787). In addition, safety members are entitled to benefits under Sections 31787.5 and 31787.6.

Death After Retirement:	
All Members	
Service or Non Service Connected Disability Retirement	Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse (§31760.1) and $3,500 lump sum benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the day of retirement (§31760.1), or at least two years prior to the date of death, having attained age 55 on or prior to the date of death (§31760.2).
Service Connected Disability Retirement	Unless another option was selected at retirement, 100% of member's unmodified allowance continued to eligible spouse (§31786).
Withdrawal Benefits:	
Less than Five Years of SDCERA/ Reciprocal Service Credit	Refund of accumulated employee contributions with interest or entitled to earned benefits commencing at anytime after eligible to retire (§31628, §31629.5).
Five or More Years of SDCERA/ Reciprocal Service Credit	If accumulated employee contributions left on deposit, eligible for retirement benefits at any time after meeting eligibility criteria to retire (§31700).
Post-retirement Cost-of-Living Benefits:	
General Tier 1, General Tier A and Safety Tier A	Future changes based on changes to the Consumer Price Index for the San Diego area to a maximum of 3% per year, excess "banked" (§31870.1).
General Tier B, Safety Tier B, General Tier C and Safety Tier C	Future changes based on changes to the Consumer Price Index for the San Diego area to a maximum of 2% per year, excess "banked" (§31870).
County Contributions:	Effective with the June 30, 2004 actuarial valuation, the amortization period for Unfunded Actuarial Accrued Liability was changed to a 20-year fixed (decreasing) layered amortization period.

Supplemental Benefit Allowance and Health Insurance Allowance:	The Association provides a supplemental benefit allowance and a health insurance allowance for eligible retirees. These benefits have been excluded from this valuation.
Member Contributions:	Please refer to Appendix A for the specific rates.
General Tier 1	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAC (§31621.2).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier A	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAC (§31621.8).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier B	
Basic	Provide for an average annuity at age 60 equal to 1/100 of F3AC (§31621.2).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier C	Provide for 50% of total Normal Cost Rate.
Safety Tier A	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAC (§31639.25).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Safety Tier B	
Basic	Provide for an average annuity at age 50 equal to 1/100 of F3AC (§31639.25).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Safety Tier C	Provide for 50% of total Normal Cost Rate.

Other Information:	General and Safety Non-Tier C members with 30 or more years of qualifying service credit are exempt from paying member contributions (§31625.2 and §31625.3).
Plan Changes:	There have been no changes in plan provisions since the previous actuarial valuation. However, the service retirement eligibility for members in General Tier C has been clarified by SDCERA. Previously, the eligibility requirements were interpreted as follows:
Service Retirement Eligibility:	
General Tier C	Age 55 with 5 years of service credit (§7522.20(a)) or age 70 regardless of service credit (§31672.3).

NOTE: *The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.*

Appendix A
Member Contribution Rates

Comparison of Member Rate at Entry Age 35 for General and Entry Age 30 for Safety Members.

	June 30, 2017			June 30, 2016			
General	Basic	COLA	Total	Basic	COLA	Total	Increase/Decrease in Rate
Tier 1[1]	7.93%	3.05%	10.98%	7.93%	3.05%	10.98%	0.00%
Tier A[1]	9.11%	4.07%	13.18%	9.11%	4.07%	13.18%	0.00%
Tier B[1]	7.61%	1.71%	9.32%	7.61%	1.71%	9.32%	0.00%
Tier C	N/A	N/A	8.27%	N/A	N/A	8.33%	-0.06%

	June 30, 2017			June 30, 2016			
Safety	Basic	COLA	Total	Basic	COLA	Total	Increase/Decrease in Rate
Tier A	9.78%	6.14%	15.92%	9.78%	6.14%	15.92%	0.00%
Tier B	9.36%	2.99%	12.35%	9.36%	2.99%	12.35%	0.00%
Tier C	N/A	N/A	14.69%	N/A	N/A	14.77%	-0.08%

[1] *Rates shown are for salaries in excess of $350 per month.*

Appendix A

Member Contribution Rates

i. General Tier 1 Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic		COLA		Total	
	First $350	Over $350	First $350	Over $350	First $350	Over $350
15	3.83%	5.74%	1.47%	2.21%	5.30%	7.95%
16	3.83%	5.74%	1.47%	2.21%	5.30%	7.95%
17	3.89%	5.84%	1.49%	2.24%	5.38%	8.08%
18	3.96%	5.94%	1.52%	2.28%	5.48%	8.22%
19	4.03%	6.04%	1.55%	2.32%	5.58%	8.36%
20	4.10%	6.15%	1.57%	2.36%	5.67%	8.51%
21	4.17%	6.26%	1.61%	2.41%	5.78%	8.67%
22	4.24%	6.36%	1.63%	2.44%	5.87%	8.80%
23	4.31%	6.47%	1.66%	2.49%	5.97%	8.96%
24	4.39%	6.58%	1.69%	2.53%	6.08%	9.11%
25	4.47%	6.70%	1.72%	2.58%	6.19%	9.28%
26	4.54%	6.81%	1.75%	2.62%	6.29%	9.43%
27	4.62%	6.93%	1.77%	2.66%	6.39%	9.59%
28	4.70%	7.05%	1.81%	2.71%	6.51%	9.76%
29	4.78%	7.17%	1.84%	2.76%	6.62%	9.93%
30	4.86%	7.29%	1.87%	2.80%	6.73%	10.09%
31	4.94%	7.41%	1.90%	2.85%	6.84%	10.26%
32	5.03%	7.54%	1.93%	2.90%	6.96%	10.44%
33	5.11%	7.66%	1.96%	2.94%	7.07%	10.60%
34	5.19%	7.79%	1.99%	2.99%	7.18%	10.78%
35	5.29%	7.93%	2.03%	3.05%	7.32%	10.98%
36	5.37%	8.06%	2.07%	3.10%	7.44%	11.16%
37	5.47%	8.20%	2.10%	3.15%	7.57%	11.35%
38	5.56%	8.34%	2.14%	3.21%	7.70%	11.55%
39	5.65%	8.48%	2.17%	3.26%	7.82%	11.74%

i. General Tier 1 Members' Contribution Rates from the June 30, 2017 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic		COLA		Total	
	First $350	Over $350	First $350	Over $350	First $350	Over $350
40	5.75%	8.63%	2.21%	3.32%	7.96%	11.95%
41	5.85%	8.78%	2.25%	3.38%	8.10%	12.16%
42	5.95%	8.93%	2.29%	3.43%	8.24%	12.36%
43	6.06%	9.09%	2.33%	3.49%	8.39%	12.58%
44	6.17%	9.25%	2.37%	3.56%	8.54%	12.81%
45	6.27%	9.41%	2.41%	3.62%	8.68%	13.03%
46	6.39%	9.58%	2.45%	3.68%	8.84%	13.26%
47	6.49%	9.74%	2.49%	3.74%	8.98%	13.48%
48	6.61%	9.91%	2.54%	3.81%	9.15%	13.72%
49	6.72%	10.08%	2.58%	3.87%	9.30%	13.95%
50	6.83%	10.25%	2.63%	3.94%	9.46%	14.19%
51	6.95%	10.43%	2.67%	4.01%	9.62%	14.44%
52	7.07%	10.60%	2.71%	4.07%	9.78%	14.67%
53	7.19%	10.79%	2.77%	4.15%	9.96%	14.94%
54	7.33%	10.99%	2.81%	4.22%	10.14%	15.21%
55	7.41%	11.12%	2.85%	4.27%	10.26%	15.39%
56	7.45%	11.18%	2.87%	4.30%	10.32%	15.48%
57	7.45%	11.17%	2.86%	4.29%	10.31%	15.46%
58	7.42%	11.13%	2.85%	4.28%	10.27%	15.41%
59 & Over	7.32%	10.98%	2.81%	4.22%	10.13%	15.20%

Interest:	7.25%
Inflation:	3.00%
Across the board salary increase:	0.50%
COLA:	3.00%
COLA Loading Factor:	38.44%
Mortality:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females weighted 30% male and 70% female.
Salary Increase:	15 Year Select and Ultimate Salary Increase Assumptions (see EXHIBIT II)
Note:	These rates are determined before any pickups by the employer, if any.

ii. General Tier A Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic		COLA		Total	
	First $350	Over $350	First $350	Over $350	First $350	Over $350
15	4.40%	6.60%	1.97%	2.95%	6.37%	9.55%
16	4.40%	6.60%	1.97%	2.95%	6.37%	9.55%
17	4.48%	6.72%	2.01%	3.01%	6.49%	9.73%
18	4.55%	6.83%	2.04%	3.06%	6.59%	9.89%
19	4.63%	6.95%	2.07%	3.11%	6.70%	10.06%
20	4.71%	7.07%	2.11%	3.16%	6.82%	10.23%
21	4.79%	7.19%	2.15%	3.22%	6.94%	10.41%
22	4.87%	7.31%	2.18%	3.27%	7.05%	10.58%
23	4.96%	7.44%	2.22%	3.33%	7.18%	10.77%
24	5.04%	7.56%	2.25%	3.38%	7.29%	10.94%
25	5.13%	7.69%	2.29%	3.44%	7.42%	11.13%
26	5.21%	7.82%	2.33%	3.50%	7.54%	11.32%
27	5.30%	7.95%	2.37%	3.56%	7.67%	11.51%
28	5.39%	8.09%	2.41%	3.62%	7.80%	11.71%
29	5.49%	8.23%	2.45%	3.68%	7.94%	11.91%
30	5.58%	8.37%	2.49%	3.74%	8.07%	12.11%
31	5.67%	8.51%	2.54%	3.81%	8.21%	12.32%
32	5.77%	8.65%	2.58%	3.87%	8.35%	12.52%
33	5.87%	8.80%	2.63%	3.94%	8.50%	12.74%
34	5.97%	8.95%	2.67%	4.00%	8.64%	12.95%
35	6.07%	9.11%	2.71%	4.07%	8.78%	13.18%
36	6.17%	9.26%	2.76%	4.14%	8.93%	13.40%
37	6.29%	9.43%	2.81%	4.22%	9.10%	13.65%
38	6.39%	9.59%	2.86%	4.29%	9.25%	13.88%
39	6.51%	9.76%	2.91%	4.37%	9.42%	14.13%
40	6.62%	9.93%	2.96%	4.44%	9.58%	14.37%
41	6.74%	10.11%	3.01%	4.52%	9.75%	14.63%
42	6.85%	10.28%	3.07%	4.60%	9.92%	14.88%
43	6.97%	10.46%	3.12%	4.68%	10.09%	15.14%

ii. General Tier A Members' Contribution Rates from the June 30, 2017 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

	Basic		COLA		Total	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350
44	7.09%	10.64%	3.17%	4.76%	10.26%	15.40%
45	7.21%	10.82%	3.23%	4.84%	10.44%	15.66%
46	7.33%	11.00%	3.28%	4.92%	10.61%	15.92%
47	7.46%	11.19%	3.34%	5.01%	10.80%	16.20%
48	7.59%	11.38%	3.39%	5.09%	10.98%	16.47%
49	7.73%	11.59%	3.45%	5.18%	11.18%	16.77%
50	7.82%	11.73%	3.50%	5.25%	11.32%	16.98%
51	7.87%	11.80%	3.52%	5.28%	11.39%	17.08%
52	7.85%	11.78%	3.51%	5.27%	11.36%	17.05%
53	7.83%	11.75%	3.51%	5.26%	11.34%	17.01%
54 & Over	7.73%	11.59%	3.45%	5.18%	11.18%	16.77%

Interest:	7.25%
Inflation:	3.00%
Across the board salary increase:	0.50%
COLA:	3.00%
COLA Loading Factor:	44.73%
Mortality:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females weighted 30% male and 70% female.
Salary Increase:	15 Year Select and Ultimate Salary Increase Assumptions (see EXHIBIT II)
Note:	These rates are determined before any pickups by the employer, if any.

iii. General Tier B Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

	Basic		COLA		Total	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350
15	3.67%	5.51%	0.83%	1.24%	4.50%	6.75%
16	3.67%	5.51%	0.83%	1.24%	4.50%	6.75%
17	3.73%	5.60%	0.84%	1.26%	4.57%	6.86%
18	3.80%	5.70%	0.85%	1.28%	4.65%	6.98%
19	3.87%	5.80%	0.87%	1.30%	4.74%	7.10%
20	3.93%	5.90%	0.88%	1.32%	4.81%	7.22%
21	4.00%	6.00%	0.90%	1.35%	4.90%	7.35%
22	4.07%	6.11%	0.91%	1.37%	4.98%	7.48%
23	4.14%	6.21%	0.93%	1.39%	5.07%	7.60%
24	4.21%	6.32%	0.95%	1.42%	5.16%	7.74%
25	4.29%	6.43%	0.96%	1.44%	5.25%	7.87%
26	4.36%	6.54%	0.98%	1.47%	5.34%	8.01%
27	4.43%	6.65%	0.99%	1.49%	5.42%	8.14%
28	4.51%	6.76%	1.01%	1.52%	5.52%	8.28%
29	4.59%	6.88%	1.03%	1.54%	5.62%	8.42%
30	4.66%	6.99%	1.05%	1.57%	5.71%	8.56%
31	4.74%	7.11%	1.06%	1.59%	5.80%	8.70%
32	4.82%	7.23%	1.08%	1.62%	5.90%	8.85%
33	4.91%	7.36%	1.10%	1.65%	6.01%	9.01%
34	4.99%	7.48%	1.12%	1.68%	6.11%	9.16%
35	5.07%	7.61%	1.14%	1.71%	6.21%	9.32%
36	5.16%	7.74%	1.16%	1.74%	6.32%	9.48%
37	5.25%	7.87%	1.18%	1.77%	6.43%	9.64%
38	5.33%	8.00%	1.19%	1.79%	6.52%	9.79%
39	5.43%	8.14%	1.22%	1.83%	6.65%	9.97%
40	5.52%	8.28%	1.24%	1.86%	6.76%	10.14%
41	5.61%	8.42%	1.26%	1.89%	6.87%	10.31%
42	5.71%	8.57%	1.28%	1.92%	6.99%	10.49%

iii. General Tier B Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

	Basic		COLA		Total	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350
43	5.81%	8.72%	1.31%	1.96%	7.12%	10.68%
44	5.91%	8.87%	1.33%	1.99%	7.24%	10.86%
45	6.01%	9.02%	1.35%	2.02%	7.36%	11.04%
46	6.12%	9.18%	1.37%	2.06%	7.49%	11.24%
47	6.22%	9.33%	1.39%	2.09%	7.61%	11.42%
48	6.33%	9.49%	1.42%	2.13%	7.75%	11.62%
49	6.43%	9.64%	1.44%	2.16%	7.87%	11.80%
50	6.53%	9.80%	1.47%	2.20%	8.00%	12.00%
51	6.63%	9.95%	1.49%	2.23%	8.12%	12.18%
52	6.74%	10.11%	1.51%	2.27%	8.25%	12.38%
53	6.83%	10.25%	1.53%	2.30%	8.36%	12.55%
54	6.89%	10.34%	1.55%	2.32%	8.44%	12.66%
55	6.91%	10.37%	1.55%	2.33%	8.46%	12.70%
56	6.90%	10.35%	1.55%	2.32%	8.45%	12.67%
57	6.84%	10.26%	1.53%	2.30%	8.37%	12.56%
58	7.07%	10.61%	1.59%	2.38%	8.66%	12.99%
59 & Over	7.32%	10.98%	1.64%	2.46%	8.96%	13.44%

Interest:	7.25%
Inflation:	3.00%
Across the board salary increase:	0.50%
COLA:	2.00%
COLA Loading Factor:	22.43%
Mortality:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females weighted 30% male and 70% female.
Salary Increase:	15 Year Select and Ultimate Salary Increase Assumptions (see EXHIBIT II)
Note:	These rates are determined before any pickups by the employer, if any.

iv. General Tier C Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions	
	Total
All General Tier C members	8.27%

The General Tier C member contribution rate is 50% of the Normal Cost rate.

Note: It is our understanding that in the determination of pension benefits under the Tier C formulas, the compensation that can be taken into account for 2017 is equal to $118,775. (For an employer that is not enrolled in Social Security, the maximum amount is $142,530 or 120% of $118,775). (reference Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2017. (reference Section 7522.10(d))

v. Safety Tier A Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic	COLA	Total
15	8.51%	5.34%	13.85%
16	8.51%	5.34%	13.85%
17	8.51%	5.34%	13.85%
18	8.51%	5.34%	13.85%
19	8.51%	5.34%	13.85%
20	8.51%	5.34%	13.85%
21	8.51%	5.34%	13.85%
22	8.64%	5.43%	14.07%
23	8.77%	5.51%	14.28%
24	8.91%	5.60%	14.51%
25	9.05%	5.68%	14.73%
26	9.19%	5.77%	14.96%
27	9.33%	5.86%	15.19%
28	9.48%	5.95%	15.43%
29	9.63%	6.05%	15.68%
30	9.78%	6.14%	15.92%
31	9.94%	6.24%	16.18%
32	10.10%	6.34%	16.44%
33	10.26%	6.44%	16.70%
34	10.43%	6.55%	16.98%
35	10.61%	6.66%	17.27%
36	10.79%	6.78%	17.57%
37	10.98%	6.90%	17.88%
38	11.18%	7.02%	18.20%
39	11.39%	7.15%	18.54%
40	11.61%	7.29%	18.90%
41	11.84%	7.44%	19.28%
42	12.07%	7.58%	19.65%
43	12.31%	7.73%	20.04%
44	12.52%	7.86%	20.38%
45	12.51%	7.86%	20.37%

v. Safety Tier A Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic	COLA	Total
46	12.50%	7.85%	20.35%
47	12.48%	7.84%	20.32%
48	12.38%	7.77%	20.15%
49 & Over	12.12%	7.61%	19.73%

Interest:	7.25%
Inflation:	3.00%
Across the board salary increase:	0.50%
COLA:	3.00%
COLA Loading Factor:	62.80%
Mortality:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years weighted 75% male and 25% female.
Salary Increase:	15 Year Select and Ultimate Salary Increase Assumptions (see EXHIBIT II)
Note:	These rates are determined before any pickups by the employer, if any.

vi. Safety Tier B Members' Contribution Rates from the June 30, 2017 Actuarial Valuation
(Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic	COLA	Total
15	8.14%	2.60%	10.74%
16	8.14%	2.60%	10.74%
17	8.14%	2.60%	10.74%
18	8.14%	2.60%	10.74%
19	8.14%	2.60%	10.74%
20	8.14%	2.60%	10.74%
21	8.14%	2.60%	10.74%
22	8.27%	2.64%	10.91%
23	8.40%	2.68%	11.08%
24	8.53%	2.73%	11.26%
25	8.66%	2.77%	11.43%
26	8.80%	2.81%	11.61%
27	8.93%	2.85%	11.78%
28	9.07%	2.90%	11.97%
29	9.22%	2.95%	12.17%
30	9.36%	2.99%	12.35%
31	9.51%	3.04%	12.55%
32	9.67%	3.09%	12.76%
33	9.82%	3.14%	12.96%
34	9.99%	3.19%	13.18%
35	10.16%	3.25%	13.41%
36	10.33%	3.30%	13.63%
37	10.51%	3.36%	13.87%
38	10.70%	3.42%	14.12%
39	10.90%	3.48%	14.38%
40	11.09%	3.54%	14.63%
41	11.29%	3.61%	14.90%
42	11.47%	3.67%	15.14%
43	11.58%	3.70%	15.28%
44	11.61%	3.71%	15.32%
45	11.58%	3.70%	15.28%

vi. Safety Tier B Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions

Entry Age	Basic	COLA	Total
46	11.51%	3.68%	15.19%
47	11.34%	3.62%	14.96%
48	11.72%	3.75%	15.47%
49 & Over	12.12%	3.87%	15.99%

Interest:	7.25%
Inflation:	3.00%
Across the board salary increase:	0.50%
COLA:	2.00%
COLA Loading Factor:	31.96%
Mortality:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years weighted 75% male and 25% female.
Salary Increase:	15 Year Select and Ultimate Salary Increase Assumptions (see EXHIBIT II)
Note:	These rates are determined before any pickups by the employer, if any.

vii. Safety Tier C Members' Contribution Rates from the June 30, 2017 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Adopted Assumptions	
	Total
All Safety Tier C members	14.69%

The Safety Tier C member contribution rate is 50% of the Normal Cost rate.

Note: It is our understanding that in the determination of pension benefits under the Tier C formulas, the compensation that can be taken into account for 2017 is equal to $118,775. (For an employer that is not enrolled in Social Security, the maximum amount is $142,530 or 120% of $118,775). (reference Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2017. (reference Section 7522.10(d))

Appendix B
Unfunded Actuarial Accrued Liability (UAAL) Amortization Schedule as of June 30, 2017

	Date Established	Description	Initial Amount	Outstanding Balance	Years Remaining	Payment
General	June 30, 2004	Reamortize UAAL	$898,323,000	$659,032,000	7	$108,523,000
	June 30, 2005	Actuarial loss	128,924,000	102,005,000	8	14,950,000
	June 30, 2006	Actuarial gain	(122,837,000)	(103,038,000)	9	(13,652,000)
	June 30, 2007	Actuarial gain	(319,377,000)	(280,545,000)	10	(34,020,000)
	June 30, 2008	Actuarial gain	(252,322,000)	(229,813,000)	11	(25,761,000)
	June 30, 2009	Actuarial loss	229,764,000	215,211,000	12	22,484,000
	June 30, 2010	Actuarial loss	275,738,000	263,794,000	13	25,862,000
	June 30, 2010	Assumption change	273,446,000	261,603,000	13	25,647,000
	June 30, 2011	Actuarial loss	272,855,000	265,302,000	14	24,551,000
	June 30, 2012	Actuarial loss	331,062,000	325,524,000	15	28,577,000
	June 30, 2012	Assumption change	(23,270,000)	(22,881,000)	15	(2,009,000)
	June 30, 2013	Actuarial gain	(111,526,000)	(110,414,000)	16	(9,235,000)
	June 30, 2013	Assumption change	284,375,000	281,540,000	16	23,548,000
	June 30, 2014	Actuarial gain	(92,909,000)	(92,483,000)	17	(7,398,000)
	June 30, 2015	Actuarial gain	(25,009,000)	(24,945,000)	18	(1,915,000)
	June 30, 2015	Assumption change	221,787,000	221,219,000	18	16,982,000
	June 30, 2016	Actuarial loss	39,919,000	39,873,000	19	2,946,000
	June 30, 2016	Assumption change	445,570,000	445,063,000	19	32,885,000
	June 30, 2017	Actuarial loss	90,516,000	90,516,000	20	6,455,000
Subtotal				$2,306,563,000		$239,420,000

Appendix B

Unfunded Actuarial Accrued Liability (UAAL) Amortization Schedule as of June 30, 2017 (continued)

	Date Established	Description	Initial Amount	Outstanding Balance	Years Remaining	Payment
Safety	June 30, 2004	Reamortize UAAL	$304,408,000	$223,320,000	7	$36,774,000
	June 30, 2005	Actuarial loss	40,271,000	31,862,000	8	4,670,000
	June 30, 2006	Actuarial gain	(29,564,000)	(24,798,000)	9	(3,286,000)
	June 30, 2007	Actuarial gain	(81,955,000)	(71,992,000)	10	(8,730,000)
	June 30, 2008	Actuarial gain	(88,653,000)	(80,744,000)	11	(9,051,000)
	June 30, 2009	Actuarial loss	82,198,000	76,990,000	12	8,043,000
	June 30, 2010	Actuarial loss	103,299,000	98,826,000	13	9,689,000
	June 30, 2010	Assumption change	140,579,000	134,492,000	13	13,185,000
	June 30, 2011	Actuarial loss	114,781,000	111,603,000	14	10,328,000
	June 30, 2012	Actuarial loss	98,453,000	96,807,000	15	8,498,000
	June 30, 2012	Assumption change	6,803,000	6,689,000	15	587,000
	June 30, 2013	Actuarial gain	(18,694,000)	(18,507,000)	16	(1,548,000)
	June 30, 2013	Assumption change	(20,621,000)	(20,416,000)	16	(1,708,000)
	June 30, 2014	Actuarial loss	4,218,000	4,199,000	17	336,000
	June 30, 2015	Actuarial gain	(14,992,000)	(14,953,000)	18	(1,148,000)
	June 30, 2015	Assumption change	98,607,000	98,354,000	18	7,550,000
	June 30, 2016	Actuarial loss	32,578,000	32,541,000	19	2,404,000
	June 30, 2016	Assumption change	326,213,000	325,842,000	19	24,076,000
	June 30, 2017	Actuarial loss	54,268,000	54,268,000	20	3,870,000
Subtotal				$1,064,383,000		$104,539,000

Appendix B

Unfunded Actuarial Accrued Liability (UAAL) Amortization Schedule as of June 30, 2017 (continued)

	Date Established	Description	Initial Amount	Outstanding Balance	Years Remaining	Payment
General and Safety	June 30, 2004	Reamortize UAAL	$1,202,731,000	$882,352,000	7	$145,297,000
	June 30, 2005	Actuarial loss	169,195,000	133,867,000	8	19,620,000
	June 30, 2006	Actuarial gain	(152,401,000)	(127,836,000)	9	(16,938,000)
	June 30, 2007	Actuarial gain	(401,332,000)	(352,537,000)	10	(42,750,000)
	June 30, 2008	Actuarial gain	(340,974,000)	(310,557,000)	11	(34,812,000)
	June 30, 2009	Actuarial loss	311,963,000	292,201,000	12	30,527,000
	June 30, 2010	Actuarial loss	379,037,000	362,620,000	13	35,551,000
	June 30, 2010	Assumption change	414,025,000	396,095,000	13	38,832,000
	June 30, 2011	Actuarial loss	387,636,000	376,905,000	14	34,879,000
	June 30, 2012	Actuarial loss	429,515,000	422,331,000	15	37,075,000
	June 30, 2012	Assumption change	(16,467,000)	(16,192,000)	15	(1,422,000)
	June 30, 2013	Actuarial gain	(130,220,000)	(128,921,000)	16	(10,783,000)
	June 30, 2013	Assumption change	263,754,000	261,124,000	16	21,840,000
	June 30, 2014	Actuarial gain	(88,691,000)	(88,284,000)	17	(7,062,000)
	June 30, 2015	Actuarial gain	(40,001,000)	(39,898,000)	18	(3,063,000)
	June 30, 2015	Assumption change	320,394,000	319,573,000	18	24,532,000
	June 30, 2016	Actuarial loss	72,497,000	72,414,000	19	5,350,000
	June 30, 2016	Assumption change	771,783,000	770,905,000	19	56,961,000
	June 30, 2017	Actuarial loss	144,784,000	144,784,000	20	10,325,000
Grand Total				$3,370,946,000		$343,959,000

5509185v1/05536.002