

**San Diego City
Employees' Retirement System**

**Actuarial Valuation
as of June 30, 2012
for the
City of San Diego**

Produced by **Cheiron**

January 2013

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LETTER OF TRANSMITTAL

January 4, 2013

Board of Administration
 San Diego City Employees' Retirement System
 401 West A Street, Suite 400
 San Diego, California 92101

Re: San Diego City Employees' Retirement System June 30, 2012 Actuarial Valuation

Dear Members of the Board:

At your request, we have performed the June 30, 2012 Actuarial Valuation of the San Diego City Employees' Retirement System (SDCERS). The valuation results with respect to the City of San Diego (City) are contained in this valuation report. The table below presents the key results of the valuation for the City.

Table I-1		
SDCERS - City of San Diego		
Valuation Date	6/30/2012	6/30/2011
Unfunded Actuarial Liability (in millions)	\$ 2,279.3	\$ 2,177.8
Funding Ratio	68.6%	68.5%
City Contribution Rate	59.48%	46.59%
Fiscal Year	2014	2013
Annual Required Contribution (GASB):		
-if paid at the beginning of the year	\$ 275.4 million	\$ 231.1 million
-if paid throughout the year	\$ 285.5 million	\$ 239.6 million

- Unfunded Actuarial Liability (UAL):** The City's UAL has increased by \$101.5 million. The primary cause of this increase was a return on assets less than expected. The rate of return on the actuarial value of assets was 6.40%, or 1.10% below the assumed return, leading to a \$62.2 million increase in the UAL. The remainder of the \$101.5 million UAL increase was attributable to several factors, including liabilities greater than expected of \$40.2 million.
- Funding Ratio:** This is the ratio of the system's actuarial value of assets to actuarial liabilities, which increased by 0.1%.



- *Contributions (GASB ARC):* City contributions were determined under full compliance with the Governmental Accounting Standards Board (GASB) Statement Number 25, defining the annual required contribution (ARC) for the City for fiscal year July 1, 2013 through June 30, 2014 (FY 2014). Since the plan is closed to new hires (other than Police Members) effective July 20, 2012, a level dollar amortization was applied to that portion of the UAL to follow the present GASB standards. The portion of the UAL associated with the open Police plan will continue to be amortized as a level percentage of pay. The results of this valuation produced an increase in the City's ARC of \$44.3 million, of which \$27.0 million is attributable to the plan closure for non-Police Members and the change in amortization method. When measured as a percent of membership payroll, the ARC rose by 12.89%.

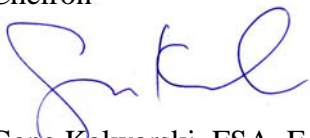
More details on plan experience for the past year can be found in the valuation report. Furthermore, this valuation was prepared using census data and financial information as of the valuation date, June 30, 2012. Changes in membership and investment experience following that date are not reflected in this report.

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

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

Finally, this report was prepared exclusively for the San Diego City Employees' Retirement System for the purpose described herein and for the use by the plan auditor in completing an audit related to the matters herein. This report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron



Gene Kalwarski, FSA, EA, MAAA
Principal Consulting Actuary



David Holland, ASA, EA, MAAA
Associate Actuary

cc: Alice Alsberghe

**SECTION I
BOARD SUMMARY**

The primary purpose of the actuarial valuation is to report, as of the valuation date, on the following:

- The financial condition of the SDCERS-City of San Diego Defined Benefit Plan,
- Past and expected trends in the financial condition of SDCERS-City of San Diego,
- The City's contribution rates for Fiscal Year 2014, and
- Information required by the Governmental Accounting Standards Board (GASB).

In this Section, we present a summary of the principal valuation results. This summary includes the basis upon which the June 30, 2012 valuation was completed and an examination of the current financial condition of SDCERS-City of San Diego. In addition, we present a review of the key historical trends followed by the projected financial outlook for SDCERS-City of San Diego.

A. Valuation Basis

As a result of Proposition B, effective July 20, 2012 SDCERS is closed to new City employees, except for the Police plan, which will remain open. In compliance with current GASB standards, the non-Police portion of the UAL has been amortized with level dollar amounts rather than as a level percent of pay. For the non-Police portion, we have also collapsed the existing UAL layers into a single amount that will be amortized over 15 years. The portion of the UAL associated with the open Police plan will continue to be amortized with the existing layers as a level percentage of pay.

In FY 2014 GASB 67, which applies to pension plans, will replace the current GASB 25, and in FY 2015 GASB 68, which applies to plan sponsors, will replace the current GASB 27. GASB 67 and GASB 68 will require additional disclosures, which will be implemented in future valuations. Also, GASB 67 and 68 do not include the concept of an ARC, which in recent years has been the basis for determining SDCERS' recommended plan sponsor contribution. Before the June 30, 2013 valuation begins, SDCERS' funding policy will need to be reviewed by the Board in light of the new GASB statements to determine the basis for recommended contributions in FY 2015 and beyond.

In this year's valuation there was a change in the methodology used to allocate total benefit liabilities between the actuarial (i.e., past service) liabilities, and future normal costs (i.e. future service liabilities). The change in method did not impact the value of total benefit liabilities. There have been no significant changes to the actuarial assumptions. More details on the assumptions and methods can be found in Appendix B.

Throughout this report there will be references to General-Old Plan, General-2009 Plan, Police-Old Plan, Police-2009 Plan, and Police-2012 Plan. "Old Plan" refers to General and Police Members hired before July 1, 2009, "2009 Plan" refers to such members hired on or after July 1, 2009 (and before January 1, 2012 for Police Members), and "2012 Plan" refers to Police Members hired on or after January 1, 2012.

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New plans were implemented for Fire Members hired on or after January 1, 2012, and Lifeguard Members hired on or after July 1, 2011. However, the data for this valuation did not include any Members in those plans. Finally, there is a new plan for Police Members hired on or after August 1, 2012, and a Proposition B plan for Police Members hired on or after July 1, 2013. More details on the plan provisions can be found in Appendix C.

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BOARD SUMMARY

B. Current Financial Condition of SDCERS-City of San Diego

The following discussion summarizes the key results of the June 30, 2012 valuation and how they compare to the results from the June 30, 2011 valuation.

1. City Membership

Table I-2 shows that total membership in SDCERS-City of San Diego increased by 1.3% from 2011 to 2012. The increase was attributable to the growth in inactive membership (terminated vested, disabled, retirees, and beneficiaries), as the active membership count actually declined by 0.9%. Active Member payroll decreased by 0.6%, for an average increase of 0.3%.

Table I-2			
SDCERS - City of San Diego - Membership Total			
Item	June 30, 2012	June 30, 2011	% Change
Active Counts	7,724	7,792	-0.9%
Terminated Vested	2,892	2,894	-0.1%
Disabled	1,221	1,236	-1.2%
Retirees	5,796	5,480	5.8%
Beneficiaries	1,188	1,186	0.2%
Total City Members	18,821	18,588	1.3%
Active Member Payroll	\$ 511,090,601	\$ 514,264,749	-0.6%
Average Pay per Active Member	\$ 66,169	\$ 65,999	0.3%

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**SECTION I
BOARD SUMMARY**

2. City Assets and Liabilities

Table I-3 presents a comparison between the June 30, 2012 and June 30, 2011 SDCERS-City of San Diego assets, liabilities, unfunded actuarial liability, and funding ratios.

The key results shown in Table I-3 indicate that due to the total actuarial liability increase of 5.0% and the actuarial value of assets increase of 5.1%, the funding ratio increased from 68.5% as of June 30, 2011 to 68.6% as of June 30, 2012. SDCERS employs a commonly used actuarial smoothing method on the market value that dampens market volatility, so the actuarial value of assets increased even though the market value decreased (-1.0%). Had the funding ratio been measured on a market value of assets basis, the ratio would be 66.1% as of June 30, 2012.

Section II-C provides additional information explaining the development of the actuarial value of assets.

Entry Age Normal (EAN) Liabilities	June 30, 2012	June 30, 2011	% Change
Actives	\$ 2,352,526,805	\$ 2,290,825,686	2.7%
Terminated Vested	284,094,147	282,131,441	0.7%
Disabled	445,229,719	444,219,844	0.2%
Retirees	4,003,952,290	3,731,195,224	7.3%
Beneficiaries	175,927,694	168,802,807	4.2%
Total Actuarial (EAN) Liability	\$ 7,261,730,655	\$ 6,917,175,002	5.0%
Market Value Assets	\$ 4,799,827,000	\$ 4,848,058,570	-1.0%
Actuarial Value Assets	\$ 4,982,441,649	\$ 4,739,398,719	5.1%
Unfunded Actuarial Liability	\$ 2,279,289,006	\$ 2,177,776,283	4.7%
Funding Ratio-Actuarial Value	68.6%	68.5%	0.1%

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BOARD SUMMARY**

3. Components of UAL Change between June 30, 2011 and June 30, 2012

The unfunded actuarial liability (UAL) for SDCERS-City of San Diego increased by \$101.5 million, from \$2,177.8 million to \$2,279.3 million. Table I-4 below presents the specific components of the change in the UAL.

The key findings in Table I-4 are that investment experience less than projected increased the UAL by \$91.4 million and liability experience increased the UAL by \$40.2 million. The change in methodology used to compute the actuarial liability under the Entry Age Normal (EAN) funding method increased the UAL by \$7.9 million. The change in method did not impact the value of total benefit liabilities. More details on the method change can be found in Appendix B.

Table I-4	
SDCERS - City of San Diego-Change in UAL	
(In Millions)	
1. UAL at June 30, 2011	\$ 2,177.8
2. Expected change in UAL*	(46.6)
3. Investment experience less than projected	91.4
4. Liability experience loss	40.2
5. Liability loss due to method change	7.9
6. Employee contributions paid less than expected	8.4
7. Purchased service credits paid for during the year **	0.2
8. Total change in UAL: sum of 2 through 7	101.5
9. UAL at June 30, 2012: 1 + 8	\$ 2,279.3

* Includes projected phase-in of investment gains or losses.

** Attributable to Members who have entered into a purchased service credit contract after June 30, 2011. Only Members hired before July 1, 2005 are still eligible to purchase additional "airtime" service credits.

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**SECTION I
BOARD SUMMARY**

4. City Contributions

The City's contribution for FY 2014 measured as a percent of membership payroll increased from 46.59% to 59.48%. In dollars, the required beginning of year contribution increased by \$44.3 million, from \$231.1 million to \$275.4 million. This increase in the ARC was \$39.2 million more than the expected increase of \$5.1 million, assuming continued phase-in of investment experience from prior years.

The largest component of the increase was the effect of the Proposition B plan closure and change to level dollar amortization for the non-Police portion of the UAL, which increased the ARC by \$27.0 million. The change in method noted earlier in the report caused a \$0.3 million reduction in the ARC, as the reduction in normal cost more than offset the increase in the UAL payment. More details on the method change can be found in Appendix B.

Table I-5 below presents the specific components of the change in the ARC. In Section IV we provide more detail on the development of this contribution.

Table I-5	
SDCERS - City of San Diego-Change in ARC	
(In Millions)	
1. ARC at June 30, 2011	\$ 231.1
2. Expected change in ARC*	5.1
3. Investment experience less than projected	8.3
4. Liability experience loss	4.7
5. Reduction due to method change	(0.3)
6. Employee contributions paid less than expected	0.8
7. Effect of Proposition B plan closure and level dollar amortization	27.0
8. Other misc changes	(1.3)
9. Total change in ARC: sum of 2 through 9	44.3
10. ARC at June 30, 2012: 1 + 10	\$ 275.4

* Includes projected phase-in of investment gains or losses.

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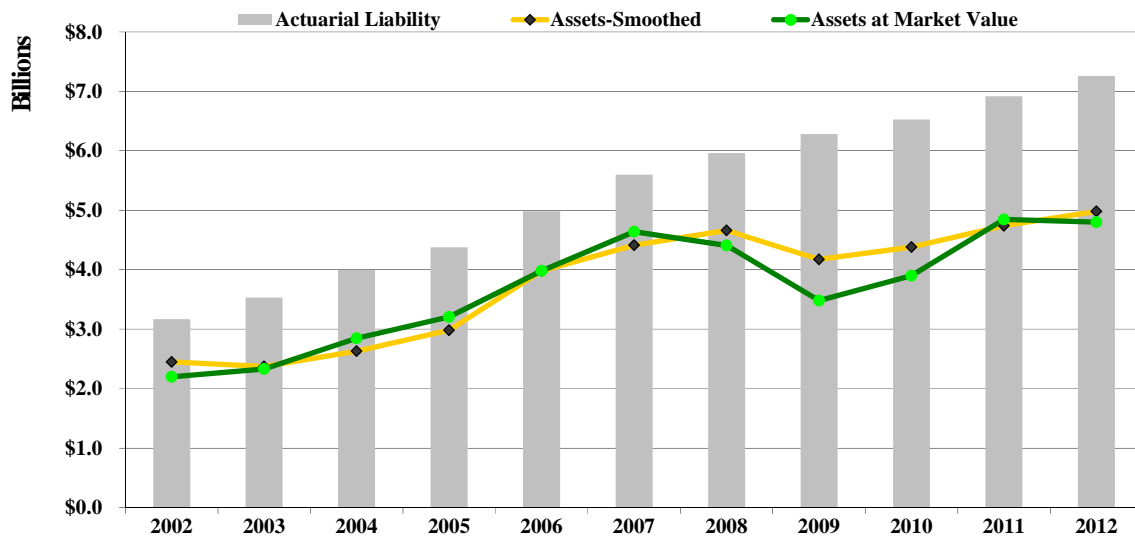
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BOARD SUMMARY

C. Historical Trends for SDCERS-City of San Diego

Despite the fact that most of the attention given to the valuation focuses on the most recently computed unfunded actuarial liability (UAL), funding ratio, and the City’s contribution rate, it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension fund. It is more important to judge a current year’s valuation result relative to historical trends, and trends expected into the future.

In the chart below, we present the historical trends of the market value and smoothed assets compared to actuarial liabilities and SDCERS-City of San Diego funding ratios since 2002.

SDCERS-City of San Diego Assets and Liabilities 2002-2012



Funding Ratio	77.3%	67.2%	65.8%	68.2%	79.9%	78.8%	78.1%	66.5%	67.1%	68.5%	68.6%
UAL (billions)	\$ 0.72	\$ 1.16	\$ 1.37	\$ 1.39	\$ 1.00	\$ 1.18	\$ 1.30	\$ 2.11	\$ 2.15	\$ 2.18	\$ 2.28*

* The UAL for 2007 and after is calculated using the Entry Age Normal method; 2006 and prior years are calculated using the Projected Unit Credit method.

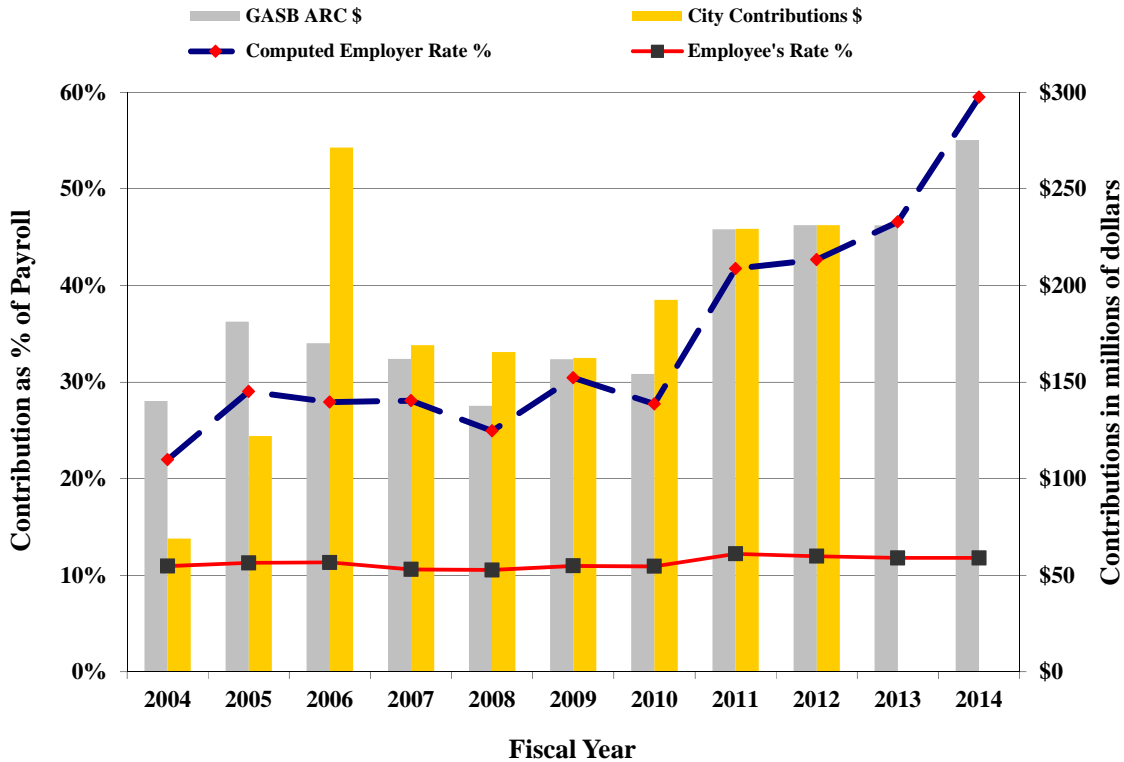
The chart indicates that in 2003, the funding ratio declined significantly due to investment performance, and reached a low of 65.8% in 2004. From 2004 to 2008, the ratio improved significantly, primarily due to strong investment performance. In 2009, the funding ratio declined significantly due to investment losses but has since been increasing slightly each year.

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BOARD SUMMARY**

In the chart below, we present the historical trends for the SDCERS-City of San Diego contribution rates, actual contributions made by the City and the actuarially computed GASB ARC.

SDCERS-City of San Diego City and Member Contribution Rates FY 2004-2014



The computed employer contribution rate grew from just above 20% in FY 2004 to nearly 30% in FY 2005, and then remained in that range for the next five fiscal years. For FY 2011, the computed employer rate increased to over 40% of payroll due to asset losses, and in FY 2014 increased significantly again due to the required level dollar amortization of the non-Police portion of the UAL. The employer rate will continue to increase as the payroll gradually shrinks due to the partial closure of the plan to new hires. The chart indicates that the Members' contribution rate has remained relatively stable throughout the fiscal years shown in contrast to the volatility in the employer rates.

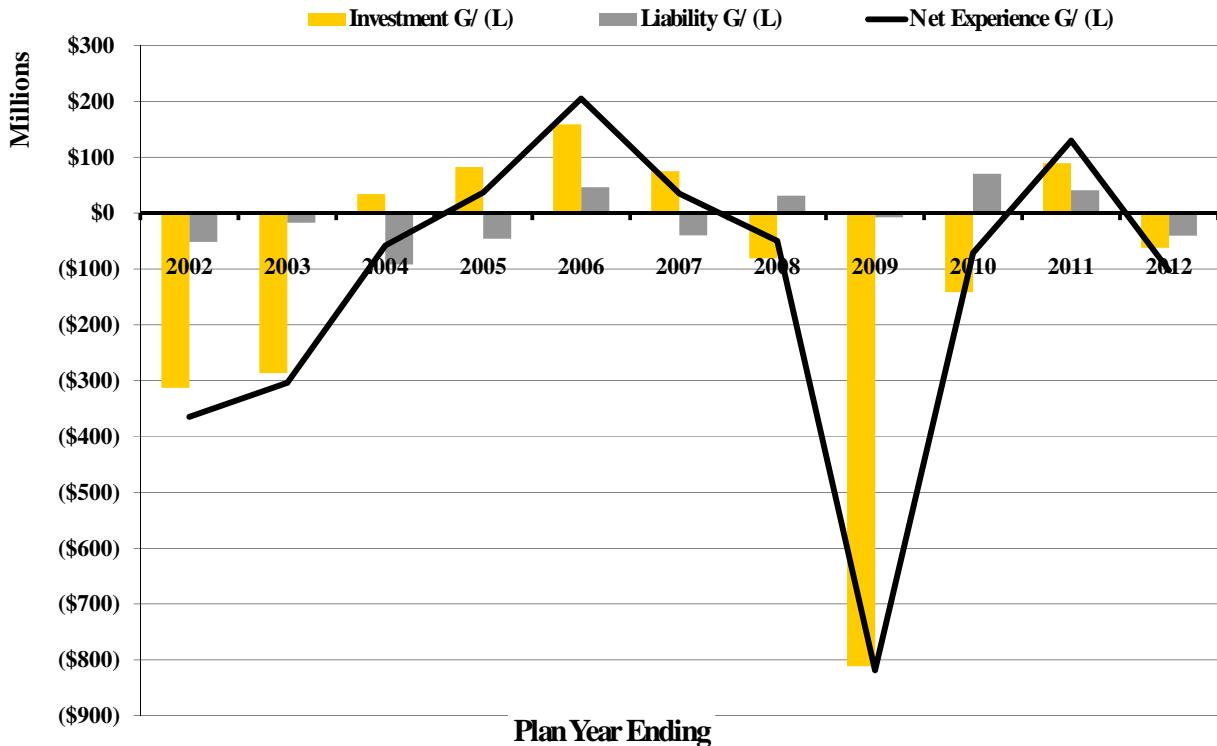
This chart also compares the actual contributions made by the City to the annual required contribution (ARC) based on the Board's adopted funding practice of Normal Cost plus amortization of the various UAL components, including the requirement beginning in fiscal year 2009 that there be no negative amortization. The chart indicates that the City has been consistently paying at or above the ARC since FY 2006. For FY 2010, City contributions were significantly in excess of expected due to the final McGuigan settlement payment.

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The chart below for SDCERS-City of San Diego presents the pattern of annual gains and losses, broken into the investment and liability components. The chart does not include any changes in SDCERS' assets and liabilities attributable to changes to actuarial methods, procedures or assumptions or plan benefit changes.

SDCERS-City of San Diego Historical Gain/(Loss) 2002-2012



The key insights from this chart are:

- The System experienced investment losses (gold bars) in 2002 and 2003, which were partially offset by investment gains from 2004 to 2007. However, the investment losses from 2008 through 2010 more than offset those gains.
- The investment loss in 2009 was by far the most significant gain or loss during the last ten years.
- From 2002 to 2007 (except for 2006), there was a pattern of liability losses. The liability experience has been more varied over the past few years.

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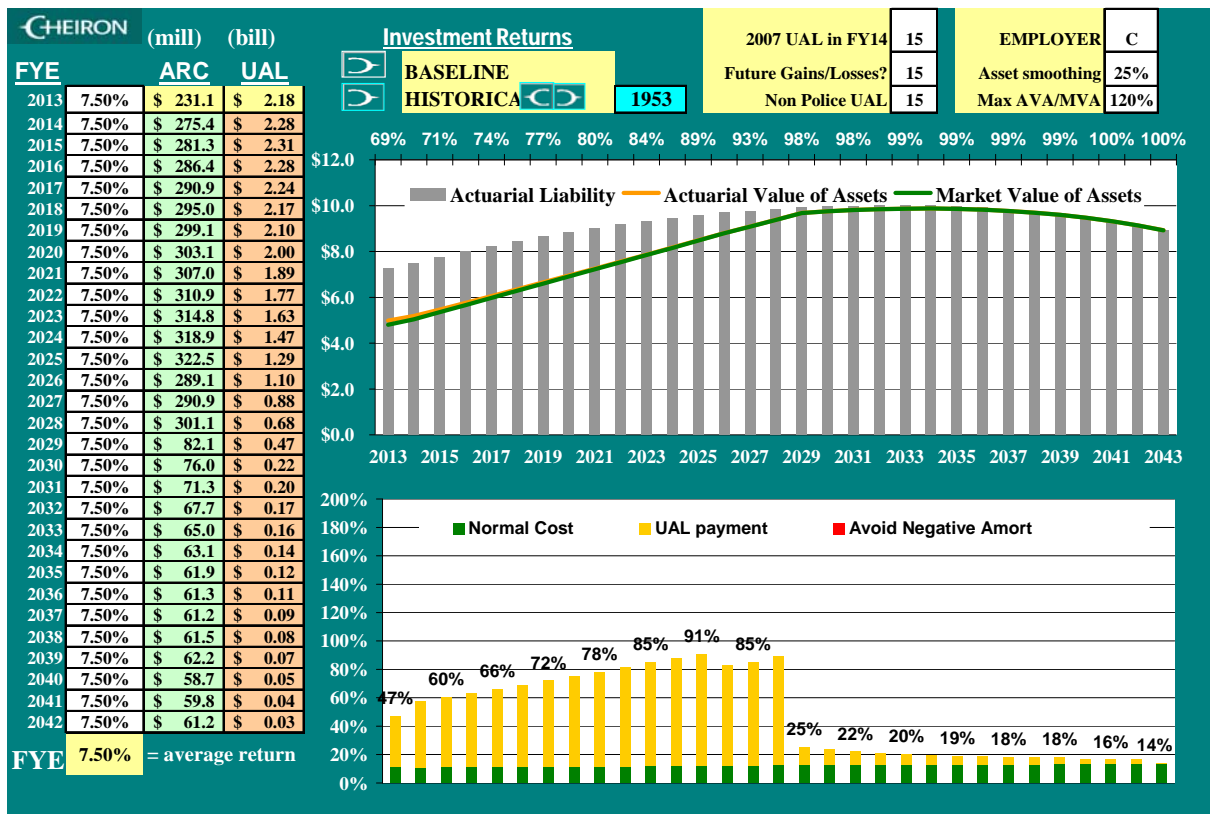
SECTION I
BOARD SUMMARY

D. Projected Financial Trends

Our analysis of SDCERS-City of San Diego projected financial trends is an important part of this valuation. Our assessment of the implications of the June 30, 2012 valuation results on the future outlook of SDCERS-City of San Diego in terms of benefit security (assets over liabilities) and the City's expected cost progression is set forth below. In addition, given the concern regarding unfunded liabilities, we also show the City's expected future pay down of unfunded liabilities.

In the chart that follows, we project the SDCERS-City of San Diego assets and liabilities and the City's contributions as a percent of payroll assuming 7.50% returns each and every year and liability growth exactly as anticipated by the Plan assumptions. The upper chart compares the assets (green and yellow lines) and liabilities (gray bars) and the lower chart shows the City contribution rates (UAL rate in yellow bars and Normal Cost rate in green bars). The left side of the exhibit shows the returns assumed each year followed by the annual ARC and UAL in dollar amounts.

SDCERS-City of San Diego Projections FY 2013-2042 (earnings as assumed)



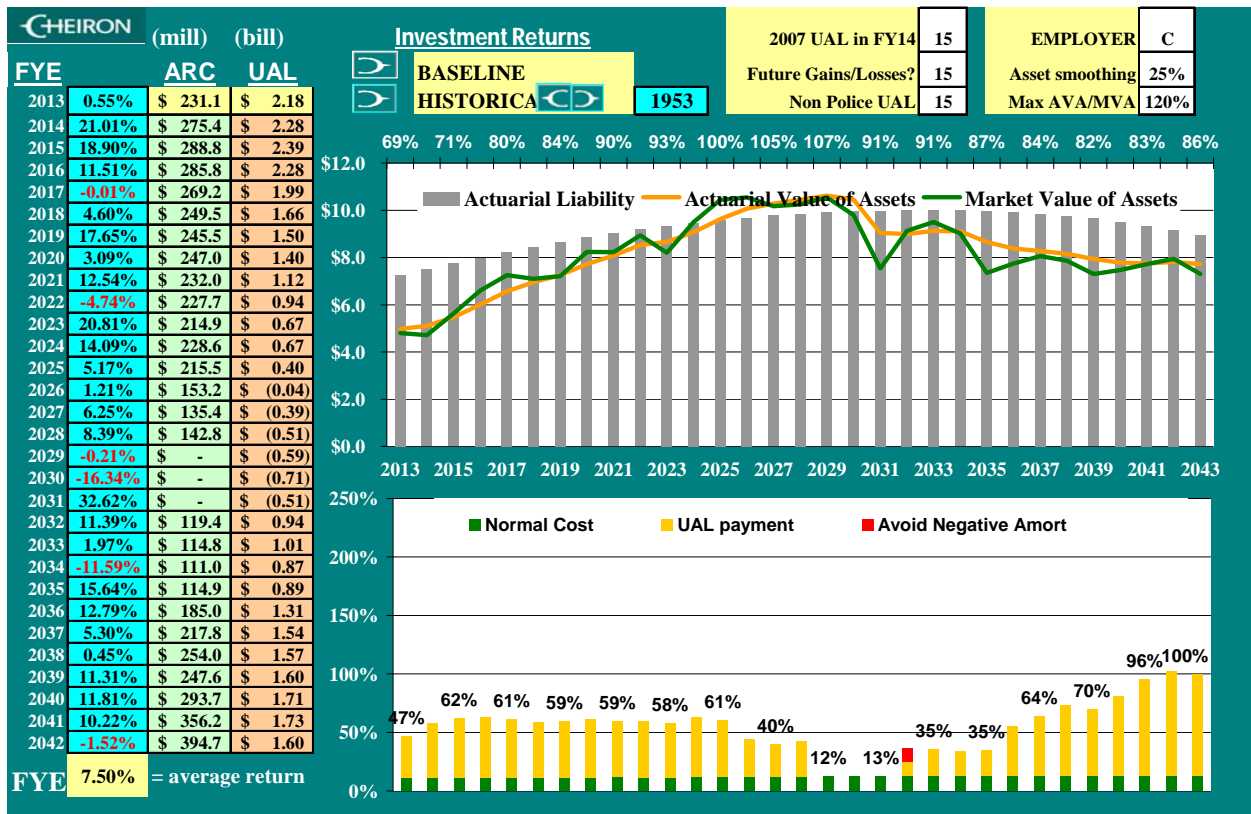
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Based on assuming 7.5% earnings each and every year, the City's funded status (percentages at the top of the upper graph) is ultimately projected to reach 100%. The City's ARC is projected to peak at \$322.5 million in 2025, decline to \$82.1 million four years later and then gradually decrease in the subsequent years.

However, it is critical to note that these projections, while valid as baseline projections, **are not likely to occur** as experience never conforms exactly to assumptions from year to year. As a result, we present the following projection, based on assuming varying returns over the period which on average equal the assumed 7.5% earnings rate. The returns selected generally represent the returns that would have resulted from a passive 60%/40% equity/fixed income portfolio during the period of 1953 to 1983. This period was selected because it happened to mirror the assumed 7.5% investment assumption of SDCERS.

SDCERS-City of San Diego Projections FY 2013-2042 (earnings which vary by year)



With varying annual earnings that average over the period to 7.5%, one can see the volatility in the funding ratios in the top chart, and the fact that the City contribution rate and ARC decline significantly and then increase at the end of the projection period. Note that this chart is based on a particular historical period and is not intended to reflect future expectations.

SECTION I
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This last chart demonstrates the risks faced by SDCERS measured in terms of funding ratios and contribution rates. Whether the System is fully funded or poorly funded, subsequent returns can quickly alter the financial position of the plan dramatically. The point being, it is impossible to judge the financial soundness of a system with a single year point measurement. What is more important to consider is the systems' level of conservatism in funding the plan, and the discipline and ability of the plan sponsor to consistently contribute the ARC as determined by the plan actuary.

SECTION II
ASSETS

Like other public pension plans, SDCERS uses two different asset measurements that are presented in this section: the market value and the actuarial value of assets. The market value represents, as of the valuation date, the value of the assets if they were liquidated on that date. The actuarial value of assets is a value that smoothes annual investment performance over multiple years to reduce the impact of annual investment volatility on employer contribution rates. The actuarial value of assets is used in determining SDCERS' contribution rates for the three participating employer plans.

Each employer receives a separate actuarial valuation report and cost determination. However, the assets of all employer plans are pooled for investment purposes. The apportionment of the assets among the employer plans directly impacts each employer's costs. Therefore, in the interest of ensuring transparency, this section discloses information on the total assets of SDCERS-All Employers. In addition, a brief explanation of how those assets are apportioned to the City of San Diego, the San Diego Unified Port District (Port), and the San Diego County Regional Airport Authority (Airport) is included.

On the following pages, detailed information is presented on SDCERS-All Employers assets, including:

- A. Disclosure of the June 30, 2012 total SDCERS market value of assets, by asset class;
- B. Market value of assets by Plan Sponsor;
- C. Development of the actuarial value of assets; and
- D. Disclosure of the investment performance for the year.

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SECTION II
ASSETS

A. Disclosure of Market Value of Assets

The market value of assets represents a “snap-shot” value as of June 30, 2012, the last day of the fiscal year, which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with swings in the investment markets. Because these fluctuations would cause volatility in employer contributions, an actuarial value of assets is developed. Table II-1 below discloses the market value by asset class of SDCERS – All Employers’ gross assets on June 30, 2012.

Cash	\$	166,455,000
US Stocks		1,534,892,000
International Stocks		1,204,447,000
Private Equity		155,834,000
Bonds		1,737,793,000
Real Estate		555,969,000
Receivables		171,954,000
Miscellaneous		3,720,000
Accounts Payable		<u>(367,537,000)</u>
Market Value of Assets – June 30, 2012	\$	5,163,527,000

**SECTION II
ASSETS**

B. Market Value of Assets by Plan Sponsor

As of July 1, 2007, the City, Unified Port District, and Airport Authority Plans were separated into independent, qualified, single employer governmental defined benefit plans and trusts. The assets of the three separate plans and trusts are pooled in the SDCERS Group Trust, which was established as of July 1, 2007. SDCERS invests and administers the Group Trust as a common investment fund and accounts separately for the proportional interest of each plan and trust that participates in the Group Trust. Cash flow activity for each Plan is recorded directly to that Plan, with investment activity and other cash flow activity not specific to any one plan being allocated based upon each plan's respective share of the Group Trust's total assets, with time-weighted adjustments for the plan-specific cash flows. Administrative expenses are allocated based on the proportion of participants of a participating trust to the number of total participants of all participating trusts on the first day of the plan year. Table II-2 below discloses the market value and actuarial value of assets by Plan.

Table II-2			
Summary of Market and Actuarial Assets for Each Employer Group			
as of June 30, 2012			
	<u>Market Value</u>	<u>Market Value</u>	<u>Actuarial Value</u>
	Total Net Assets	Total Net Assets	Total Assets
	June 30, 2011	June 30, 2012	June 30, 2012
City of San Diego	\$ 4,848,058,570	\$ 4,799,827,000	\$ 4,982,441,649
Unified Port District	269,379,835	271,703,000	277,821,539
Airport Authority	<u>86,907,895</u>	<u>91,997,000</u>	<u>95,792,613</u>
Total-SDCERS	\$ 5,204,346,300	\$ 5,163,527,000	\$ 5,356,055,801

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**SECTION II
ASSETS**

C. Actuarial Value of Assets

To determine on-going funding requirements, most pension funds utilize an actuarial value of assets. Unlike the market value of assets, the actuarial value of assets represents an asset value based on averaging or smoothing year-to-year market value returns for purposes of reducing the resulting volatility on contributions.

The actuarial value of assets is equal to 100% of the expected actuarial value of assets as of June 30, 2012 (based on the prior year assumption of 7.50% earnings for the year) plus 25% of the difference between the current actual market value of assets and the expected actuarial value of assets. (See Appendix B, Section B-2 for further explanation of the asset valuation method). In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

Table II-3 SDCERS - City of San Diego Development of Actuarial Value of Assets at June 30, 2012 Expected Value of Assets Method	
1. Actuarial Value of Assets at June 30, 2011	\$ 4,739,398,719
2. Amount in (1) with interest at 7.5% to June 30, 2012	5,094,853,623
3. Employer and Member contributions for the Plan Year ended June 30, 2012	290,148,000
4. Disbursements from Trust excluding investment and admin expenses, June 30, 2011 through June 30, 2012	347,438,000
5. Interest on cash flows to June 30, 2012 at 7.5% per year	<u>5,749,575</u>
6. Expected Actuarial Value of Assets at June 30, 2012 = (2) + (3) - (4) + (5)	5,043,313,198
7. Actual Market Value of Assets at June 30, 2012	<u>4,799,827,000</u>
8. Excess of (7) over (6)	(243,486,198)
9. Preliminary Actuarial Value of Assets at June 30, 2012 = (6) + 25% of (8)	\$ 4,982,441,649
10. 80% Minimum Corridor on the Actuarial Value of Assets = 80% of (7)	3,839,861,600
11. 120% Maximum Corridor on the Actuarial Value of Assets = 120% of (7)	5,759,792,400
12. Final Actuarial Value of Assets at June 30, 2012 = (9), but no less than (10) and no more than (11)	\$ 4,982,441,649

SECTION II
ASSETS

D. Investment Performance

The return on the market value of assets, as reported by SDCERS' investment consultant Hewitt Ennis Knupp, was 0.9%. The return in FY 2011 was 24.2%.

On an actuarial (smoothed) value of assets basis, the return for FY 2012 was 6.40%. This return produced for SDCERS-All Employers an overall investment loss of \$65.5 million for the year ending June 30, 2012. (Note: this reported loss is different than the investment loss of \$91.4 million reported on page 5 in this report. The \$91.4 million is the loss only for the SDCERS-City, and is based on the phase-in of investment experience from prior years. See Section III, Part B for more details on this difference.

**SECTION III
LIABILITIES**

In this section, we present detailed information on liabilities for SDCERS-City of San Diego, including:

- Disclosure of liabilities at June 30, 2011 and June 30, 2012, and
- Statement of changes in the unfunded actuarial liabilities during the year.

A. Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- **Present Value of Future Benefits:** Used for measuring all future SDCERS obligations, represents the amount of money needed today to fully pay off all benefits of SDCERS both earned as of the valuation date and those to be earned in the future by current plan participants, under the current Plan provisions.
- **Actuarial Liability-Entry Age Normal (EAN):** Used for determining employer contributions and GASB accounting disclosures. This liability is calculated taking the present value of all future benefits and subtracting the present value of future Member contributions and future employer normal costs as determined under the EAN actuarial funding method. It represents the portion of the present value of future benefits attributed to service prior to the valuation date by the Entry Age Normal method.
- **Present Value of Accrued Benefits:** Disclosed in Section V of this report for accounting statement purposes (ASC Topic 960). This liability represents the present value of future benefits payable to all plan participants if the plan were terminated as of the valuation date, and future accruals and contributions stopped.

Table III-1, on the following page, discloses the first two of these liabilities for the current and prior year valuations. Subtracting the actuarial value of assets from the actuarial liability results in a net surplus or an unfunded actuarial liability (UAL).

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**SECTION III
LIABILITIES**

Table III-1		
SDCERS - City of San Diego - Total		
Item	June 30, 2012	June 30, 2011
Present Value of Future Benefits		
Actives	\$ 3,157,311,041	\$ 3,089,817,140
Terminated Vested	284,094,147	282,131,441
Disabled	445,229,719	444,219,844
Retirees	4,003,952,290	3,731,195,224
Beneficiaries	175,927,694	168,802,807
Total City	\$ 8,066,514,890	\$ 7,716,166,456
Actuarial Liability - EAN		
Total Present Value of Future Benefits	\$ 8,066,514,890	\$ 7,716,166,456
Present Value of Future Normal Costs		
Employer Portion	388,843,184	382,265,704
Employee Portion	415,941,051	416,725,750
Actuarial Liability - EAN	\$ 7,261,730,655	\$ 6,917,175,002
Actuarial Value of Assets	\$ 4,982,441,649	\$ 4,739,398,719
Unfunded EAN Actuarial Liability	\$ 2,279,289,006	\$ 2,177,776,283

Table III-2 shows the actuarial liability as of June 30, 2012 for General and Elected Members of SDCERS-City of San Diego.

Table III-2				
SDCERS - City of San Diego - General & Elected as of June 30, 2012				
Item		General	General	
Present Value of Future Benefits	Total	Old Plan	2009 Plan	Elected
Actives	\$ 1,757,593,565	\$ 1,712,944,370	\$ 42,725,433	\$ 1,923,762
Terminated Vested	217,536,790	216,542,010	286,198	708,582
Disabled	84,850,385	84,850,385	-	-
Retirees	1,991,090,382	1,983,492,804	-	7,597,579
Beneficiaries	76,119,660	75,525,237	-	594,423
Total City General & Elected	\$ 4,127,190,783	\$ 4,073,354,806	\$ 43,011,631	\$ 10,824,346
Actuarial Liability - EAN				
Actives	\$ 1,357,664,112	\$ 1,352,676,590	\$ 4,136,229	\$ 851,292
Terminated Vested	217,536,790	216,542,010	286,198	708,582
Disabled	84,850,385	84,850,385	-	-
Retirees	1,991,090,382	1,983,492,804	-	7,597,579
Beneficiaries	76,119,660	75,525,237	-	594,423
Total City General & Elected	\$ 3,727,261,329	\$ 3,713,087,026	\$ 4,422,427	\$ 9,751,876

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION III
LIABILITIES**

Table III-3 shows the actuarial liability as of June 30, 2012 for Safety Members of SDCERS-City of San Diego.

Table III-3 SDCERS - City of San Diego - Safety as of June 30, 2012						
Item	Total	Police Old Plan	Police 2009 Plan	Police 2012 Plan	Fire	Lifeguard
Present Value of Future Benefits						
Actives	\$ 1,399,717,475	\$ 913,278,454	\$ 28,513,767	\$ 8,301,311	\$ 406,136,175	\$ 43,487,768
Terminated Vested	66,557,358	60,406,072	133,322	1,666	5,526,532	489,765
Disabled	360,379,334	241,345,122	-	-	107,441,502	11,592,710
Retirees	2,012,861,908	1,241,388,601	-	-	731,658,710	39,814,597
Beneficiaries	99,808,034	64,310,305	-	-	34,939,659	558,070
Total City Safety	\$ 3,939,324,109	\$ 2,520,728,554	\$ 28,647,089	\$ 8,302,977	\$ 1,285,702,579	\$ 95,942,910
Actuarial Liability - EAN						
Actives	\$ 994,862,693	\$ 667,788,822	\$ 3,105,945	\$ 13,093	\$ 291,906,002	\$ 32,048,831
Terminated Vested	66,557,357	60,406,072	133,322	1,666	5,526,532	489,765
Disabled	360,379,334	241,345,122	-	-	107,441,502	11,592,710
Retirees	2,012,861,908	1,241,388,601	-	-	731,658,710	39,814,597
Beneficiaries	99,808,034	64,310,305	-	-	34,939,659	558,070
Total City Safety	\$ 3,534,469,326	\$ 2,275,238,922	\$ 3,239,267	\$ 14,759	\$ 1,171,472,405	\$ 84,503,973

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**SECTION III
LIABILITIES**

B. Changes in Unfunded Actuarial Liabilities

The UAL of any retirement plan is expected to change at each subsequent valuation for a variety of reasons. In each valuation, we report on those elements of change in the UAL that have particular significance or could potentially affect the long-term financial outlook of a retirement plan. Below we present key changes in liabilities since the last valuation.

Note that the investment loss of \$62.2 million reported on line 10 is different from the \$91.4 million loss reported on page 5 of the report. The \$62.2 million loss is based on the actuarial assumption of 7.50%. The \$91.4 million on page 5 is based on the prior year's projected actuarial return, assuming a market return of 7.50%.

Table III-4	
Development of 2012 Experience Gain/(Loss) SDCERS - City of San Diego	
(In Millions)	
1. Unfunded Actuarial Liability at June 30, 2011	\$ 2,177.8
2. Beginning of year unfunded actuarial liability payment	(168.1)
3. Interest accrued ((1+2) x 7.5%)	<u>150.7</u>
4. Expected Unfunded Actuarial Liability at June 30, 2012 (1+2+3)	2,160.4
5. Actual Unfunded Liability at June 30, 2012	2,279.3
6. Difference: (4 - 5)	(118.9)
7. Portion of difference (6) due to actuarial assumption or method changes	(7.9)
8. Portion of difference (6) due to plan changes	-
9. Portion of difference (6) due to employee contributions less than expected	(8.4)
10. Portion of difference (6) due to net experience Gain/(Loss)	(102.6)
a) portion of (10) due to investment experience	\$ (62.2)
b) portion of (10) due to liability experience	\$ (40.4)
Elements of Liability Gain/(Loss)	
1. G/(L) due to demographic and payroll experience	(40.2)
2. G/(L) due to purchased service credit	(0.2)
3. Other Gain/(Loss)	<u>(0.0)</u>
4. Total Estimated Liability Gain/(Loss): sum 1 through 3	\$ (40.4)

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION III
LIABILITIES**

Table III-5 shows the history of past experience gains and losses.

Valuation Date	Gain/(Loss)	Beginning-of-Year Actuarial Liabilities	Gain/(Loss) % of Liability
6/30/1992	\$ 57,952,320	\$ 1,006,299,729	5.8%
6/30/1993	(42,605,778)	1,057,238,917	(4.0)
6/30/1994	(6,744,850)	1,220,830,059	(0.6)
6/30/1995	(11,370,990)	1,338,279,541	(0.8)
6/30/1996	59,592,960	1,476,710,662	4.0
6/30/1997	38,473,993	1,682,604,532	2.3
6/30/1998	31,086,010	1,822,432,018	1.7
6/30/1999 *	29,750,299	1,979,668,038	1.5
6/30/2000	286,639,160	2,181,547,453	13.1
6/30/2001	(193,168,984)	2,528,773,900	(7.6)
6/30/2002	(364,815,155)	2,809,537,745	(13.0)
6/30/2003	(303,699,305)	3,168,921,175	(9.6)
6/30/2004	(58,123,874)	3,532,625,521	(1.6)
6/30/2005	36,775,882	3,997,328,084	0.9
6/30/2006	205,249,486	4,377,092,948	4.7
6/30/2007	35,189,811	4,982,699,455	0.7
6/30/2008	(49,930,537)	5,597,652,861	(0.9)
6/30/2009	(818,906,079)	5,963,549,545	(13.7)
6/30/2010	(71,030,037)	6,281,636,108	(1.1)
6/30/2011	130,020,025	6,527,223,751	2.0
6/30/2012	(102,581,872)	6,917,175,002	(1.5)

* Beginning with the June 30, 1999 valuation, experience is City only. The prior years include all employers.

**SECTION IV
CONTRIBUTIONS**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to achieve and maintain an appropriate funded status of a plan. Typically, the actuarial process will use an actuarial funding method that attempts to create a pattern of contributions that is both stable and predictable.

The actuarial funding methodology employed is the Entry Age Normal (EAN) actuarial funding method. Under EAN, there are two components to the total contribution: the normal cost and an amortization payment on the unfunded actuarial liability. The normal cost for an individual employee is the ratio of their present value of future benefits to present value of future salaries at entry age, multiplied by their current salary. The gross normal cost rate for each sub-group is determined by dividing the sum of the present value of future normal costs for all employees by the sum of the present value of future salaries. The gross normal cost rate is then reduced by the average employee contribution rate to determine the employer normal cost rate. Finally, the employer normal cost rate for each sub-group is multiplied by that group's projected FY 2014 payroll to determine the normal cost component of the FY 2014 ARC.

The EAN actuarial liability is the plan's total present value of future benefits minus the total present value of future normal costs. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability. The UAL for FY 2014 is to be amortized over several different periods. Table IV-2 shows the outstanding balance, the FY 2014 payment and the remaining amortization period for each of these components. If necessary, there is an additional UAL cost component to ensure that there is no negative amortization in any year.

Prior to the June 30, 2012 valuation, the entire UAL was amortized as a level percent of pay. For this valuation, in accordance with GASB standards, the non-Police portion of the UAL was amortized in level dollar amounts due to the closure of that portion of the plan to new hires. The portion of the UAL associated with the open Police plan was still amortized as a level percentage of pay.

Table IV-1 on the following page shows how the City's contribution rate for SDCERS for FY 2014 is developed. The methodology and assumptions used are in full compliance with the parameters set in GASB Statement Number 25 for purposes of determining the annual required contribution (ARC).

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION IV
CONTRIBUTIONS**

**Table IV-1
SDCERS - City of San Diego
Development of the City's Contribution as of June 30, 2012, For (FY 2014)
(dollars in millions)**

	WEIGHTED TOTAL CITY	Non-Safety				Safety					
		Weighted Total	General Old Plan	General 2009 Plan	Elected	Weighted Total	Police Old Plan	Police 2009 Plan	Police 2012 Plan	Fire	Lifeguard
1. Total Normal Cost Rate as of June 30, 2012	22.80%	18.64%	19.02%	15.54%	32.48%	29.26%	29.40%	27.46%	26.43%	29.49%	30.70%
2. Member Contribution Rate as of June 30, 2012	11.79%	9.93%	10.21%	7.82%	9.06%	14.67%	14.70%	13.09%	12.96%	15.05%	15.27%
3. Employer Normal Cost Rate as of June 30, 2012 (1-2)	11.01%	8.71%	8.81%	7.72%	23.42%	14.59%	14.70%	14.37%	13.47%	14.44%	15.43%
4. Actuarial Liability	\$ 7,261.7	\$ 3,727.3	\$ 3,713.1	\$ 4.4	\$ 9.8	\$ 3,534.5	\$ 2,275.2	\$ 3.2	\$ 0.0	\$ 1,171.5	\$ 84.5
5. Actuarial Assets	\$ 4,982.4	\$ 2,557.4	\$ 2,547.6	\$ 3.0	\$ 6.7	\$ 2,425.1	\$ 1,561.1	\$ 2.2	\$ 0.0	\$ 803.8	\$ 58.0
6. Total Unfunded Actuarial Liability (UAL) (4-5)*	\$ 2,279.3	\$ 1,169.9	\$ 1,165.5	\$ 1.4	\$ 3.1	\$ 1,109.4	\$ 714.1	\$ 1.0	\$ 0.0	\$ 367.7	\$ 26.5
7. Preliminary FY14 UAL amortization*	\$ 224.4	\$ 122.2	\$ 121.8	\$ 0.1	\$ 0.3	\$ 102.1	\$ 60.9	\$ 0.1	\$ 0.0	\$ 38.4	\$ 2.8
8. <u>Negative Amortization Test for FY14</u>											
a. Total UAL on 6/30/12 less FY13 UAL payment	\$ 2,223.3	\$ 1,141.1	\$ 1,136.8	\$ 1.4	\$ 3.0	\$ 1,082.1	\$ 696.6	\$ 1.0	\$ 0.0	\$ 358.7	\$ 25.9
b. interest on 8a. To 6/30/13	\$ 166.7	\$ 85.6	\$ 85.3	\$ 0.1	\$ 0.2	\$ 81.2	\$ 52.2	\$ 0.1	\$ 0.0	\$ 26.9	\$ 1.9
c. preliminary FY14 UAL amortization (line 7)	\$ 224.4	\$ 122.2	\$ 121.8	\$ 0.1	\$ 0.3	\$ 102.1	\$ 60.9	\$ 0.1	\$ 0.0	\$ 38.4	\$ 2.8
d. Negative interest (8b - 8c, not less than zero)	-	-	-	-	-	-	-	-	-	-	-
9. Total FY14 UAL payment on 7/01/13 (8c + 8d)	\$ 224.4	\$ 122.2	\$ 121.8	\$ 0.1	\$ 0.3	\$ 102.1	\$ 60.9	\$ 0.1	\$ 0.0	\$ 38.4	\$ 2.8
10. Total FY14 UAL payment throughout year	\$ 232.6	\$ 126.7	\$ 126.2	\$ 0.2	\$ 0.3	\$ 105.9	\$ 63.1	\$ 0.1	\$ 0.0	\$ 39.8	\$ 2.9
11. Total Expected Payroll for FY14	\$ 480.0	\$ 291.2	\$ 265.7	\$ 25.0	\$ 0.5	\$ 188.8	\$ 111.4	\$ 8.0	\$ 14.0	\$ 50.2	\$ 5.2
12. FY14 Normal Cost paid throughout the year (3x11)	\$ 52.9	\$ 25.4	\$ 23.4	\$ 1.9	\$ 0.1	\$ 27.5	\$ 16.4	\$ 1.1	\$ 1.9	\$ 7.2	\$ 0.8
13. FY14 Normal Cost paid at start of year	\$ 51.0	\$ 24.5	\$ 22.6	\$ 1.9	\$ 0.1	\$ 26.5	\$ 15.8	\$ 1.1	\$ 1.8	\$ 7.0	\$ 0.8
14. Determination of FY14 GASB ARC %											
a. Employer Normal Cost Rate (12 divided by 11)	11.02%	8.74%	8.81%	7.72%	23.42%	14.55%	14.70%	14.37%	13.47%	14.44%	15.43%
b. UAL Rate (line 10 divided by line 11)	48.46%	43.53%	47.51%	0.60%	72.89%	56.08%	56.62%	1.13%	0.00%	79.38%	54.86%
c. Total employer ARC % (14a + 14b)	59.48%	52.27%	56.32%	8.32%	96.31%	70.63%	71.32%	15.50%	13.47%	93.82%	70.29%
15. Determination of FY14 GASB ARC dollars											
a. FY14 ARC if paid throughout year	\$ 285.5	\$ 152.2	\$ 149.7	\$ 2.1	\$ 0.4	\$ 133.4	\$ 79.5	\$ 1.2	\$ 1.9	\$ 47.1	\$ 3.7
b. FY14 ARC if paid at beginning of year	\$ 275.4	\$ 146.8	\$ 144.3	\$ 2.0	\$ 0.4	\$ 128.6	\$ 76.7	\$ 1.2	\$ 1.8	\$ 45.4	\$ 3.6

* See Table IV-2 for components of these amounts.

Note: Numbers may not add due to rounding.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION IV
CONTRIBUTIONS**

Table IV-2 shows information on each layer of the June 30, 2012 UAL.

Table IV-2 SDCERS - City of San Diego Schedule of Amortization Bases as of July 1, 2012 Used in Development of the City's Contribution for FY 2014							
Type of Base	Date Established	Initial Amount*	Initial Amortization Years	July 1, 2012 Outstanding Balance**	Outstanding Balance for FY 2014 (BOY)***	Remaining Amortization Years	Amortization Payment for FY 2014 (BOY)
1. June 30, 2007 UAL	7/1/2007	\$ 1,184,242,049	20	\$ 368,436,353	\$ 364,190,290	15	\$ 30,766,738
2. Assumption Change	7/1/2008	83,787,434	30	29,821,708	30,244,663	26	1,750,406
3. Experience Loss	7/1/2008	13,564,981	15	4,311,281	4,168,625	11	449,746
4. Experience Loss	7/1/2009	810,661,179	15	264,015,308	257,037,693	12	25,844,620
5. Experience Loss	7/1/2010	25,942,732	15	8,607,470	8,428,990	13	795,295
6. Experience Gain****	7/1/2010	(50,000,000)	14	(15,157,254)	(14,756,666)	12	(1,483,753)
7. Experience Gain	7/1/2011	(141,139,563)	15	(47,468,129)	(46,717,381)	14	(4,160,479)
8. Assumption Change	7/1/2011	188,313,322	30	63,333,632	64,459,571	29	3,497,661
9. Experience Loss	7/1/2012	36,799,824	15	36,799,824	39,559,811	15	3,342,007
10. Method Change	7/1/2012	2,465,954	30	2,465,954	2,650,900	30	141,107
11. Non-Police UAL	7/1/2012	1,564,122,860	15	<u>1,564,122,860</u>	<u>1,550,667,393</u>	15	<u>163,414,719</u>
TOTAL				\$ 2,279,289,006	\$ 2,259,933,888		\$ 224,358,069

* The initial amount for each base is as of the date established.

** The non-Police UAL base is the entire non-Police UAL as of June 30, 2012. The outstanding balance for the other bases is the portion attributable to the Police plan.

*** July 1, 2012 outstanding balance adjusted to the FY2014 beginning of year (BOY), July 1, 2013.

**** Reduction in UAL from anticipated impact of PSC correction as of the June 30, 2010 valuation. The difference between the original and updated estimates is included in the 7/1/2011 experience gain.

SECTION V
ACCOUNTING STATEMENT INFORMATION

Accounting Standards Codification (ASC) Topic 960 of the Financial Accounting Standards Board (FASB) requires the disclosure of certain information regarding funding status. Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems and governmental employers in notes to financial statements and supplementary information.

The ASC Topic 960 disclosure provides a “snap shot” view of how system assets at market value compare to liabilities if contributions stopped and accrued benefit claims had to be satisfied.

The GASB No. 25 disclosure compares the actuarial liability computed for funding purposes to the actuarial value of assets to determine a funded ratio (i.e., the EAN liability).

Both the present value of accrued benefits (ASC Topic 960) and the actuarial liability (GASB No. 25) are determined assuming that participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.50% per annum.

ASC Topic 960 specifies that a comparison of the present value of accrued (accumulated) benefits to the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2011 and June 30, 2012 are presented in Table V-1 and Table V-2.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-1 SDCERS - City of San Diego - Total			
Item	June 30, 2012	June 30, 2011	% Change
ASC Topic 960 Basis			
1. Present Value of Benefits Accrued and Vested to Date			
a. Members Currently Receiving Payments	\$ 4,625,109,703	\$ 4,344,217,875	6.5%
b. Vested Terminated and Inactive Members	284,094,147	282,131,441	0.7%
c. Active Members	<u>1,811,221,370</u>	<u>1,802,887,616</u>	<u>0.5%</u>
d. Total PVAB	\$ 6,720,425,220	\$ 6,429,236,932	4.5%
2. Assets at Market Value	\$ 4,799,827,000	\$ 4,848,058,570	-1.0%
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	\$ 1,920,598,220	\$ 1,581,178,362	
4. Ratio of Assets to Value of Benefits (2)/(1)(d)	71.42%	75.41%	-4.0%
GASB No. 25 Basis			
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 4,625,109,703	\$ 4,344,217,875	6.5%
b. Vested Terminated and Inactive Members	284,094,147	282,131,441	0.7%
c. Active Members	<u>2,352,526,805</u>	<u>2,290,825,686</u>	<u>2.7%</u>
d. Total Actuarial Liability	\$ 7,261,730,655	\$ 6,917,175,002	5.0%
2. Actuarial Value of Assets	\$ 4,982,441,649	\$ 4,739,398,719	5.1%
3. Unfunded Actuarial Liability	\$ 2,279,289,006	\$ 2,177,776,283	4.7%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	68.61%	68.52%	0.1%

Table V-2 SDCERS - City of San Diego - Total	
Item	Accumulated Benefit Obligation (ASC Topic 960)
Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2011	\$ 6,429,236,932
Increase (Decrease) During Year Attributable to:	
Passage of Time	469,163,845
Benefits Paid	(347,438,000)
Assumption Changes	-
Plan Changes	-
Benefits Accrued, Other Gains/Losses	<u>169,462,443</u>
Net Increase (Decrease)	\$ 291,188,288
Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2012	\$ 6,720,425,220

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Tables V-3 through V-5 are exhibits required for the City’s Comprehensive Annual Financial Report (CAFR). The Government Finance Officers Association (GFOA) recommends showing at least 6 years of experience in each of these exhibits in the CAFR. Table V-3 shows the Notes to Required Supplementary Information. Table V-4 presents an analysis of financial experience for the valuation year, and Table V-5 presents the Solvency Test which shows the portion of actuarial liability covered by assets.

Table V-3	
SDCERS - City of San Diego	
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION	
The information presented in the required supplementary schedules to the Financial Section of the City's CAFR was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.	
Valuation date	June 30, 2012
Actuarial funding method	Entry Age Normal
Amortization method	Closed; Level % (Police), Level \$ (non-Police)
Equivalent single amortization period	15.1117 years ¹
Asset valuation method	Expected Value Method
Actuarial assumptions:	
Investment rate of return	7.50%
Projected salary increases due to inflation ²	0% for the next year, 3.75% thereafter
Cost-of-living adjustments	2.00%
The actuarial assumptions used have been recommended by the actuary and adopted by SDCERS' Board of Administration based on the most recent review of SDCERS' experience, completed in 2011.	
The rate of employer contributions to SDCERS is composed of the normal cost and an amortization of the unfunded actuarial liability. The normal cost is a level percent of payroll cost which, along with the Member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or Member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability.	

¹ 15 years for the outstanding balance of the 2007 UAL, 15 years for experience gains and losses, 30 years for changes in methods and assumptions, five years for benefit changes, and 15 years for the non-Police UAL as of June 30, 2012.

² Additional merit salary increases of 0.50% to 8.00% based on a participant’s years of service, and membership group are also assumed. These increases are not used in the amortization of City’s UAL.

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-4
SDCERS - City of San Diego
ANALYSIS OF FINANCIAL EXPERIENCE
Gain and Loss in Actuarial Liability During Years Ended June 30
Resulting from Differences Between Assumed Experience
and Actual Experience

Type of Activity	<i>Gain (or Loss) for Year ending June 30, 2012</i>
Investment Income	\$ (62,151,335)
Combined Liability Experience	<u>(40,430,537)</u>
Gain (or Loss) During Year from Financial Experience	\$ (102,581,872)
Non-Recurring Gain (or Loss) Items (e.g., Contributions, Assumption Changes)	<u>(16,289,062)</u>
Composite Gain (or Loss) During Year	\$ (118,870,935)

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

**Table V-5
SDCERS - City of San Diego
GASB SOLVENCY TEST
Actuarial Liabilities For
(\$ in thousands)**

Valuation Date June 30,	(A)	(B)	(C)	Reported Assets ¹	Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)
2012	\$ 662,488	\$ 4,625,110	\$ 1,974,133	\$ 4,982,442	100%	93.40%	0.00%
2011 ⁶	627,447	4,344,218	1,945,510	4,739,399	100	94.65	0.00
2010	584,296	3,912,113	2,030,816	4,382,047	100	97.08	0.00
2009	535,797	3,673,185	2,072,655	4,175,229	100	99.08	0.00
2008 ⁵	522,966	3,286,668	2,153,916	4,662,346	100	100	39.50
2007 ⁴	482,526	3,101,594	2,013,532	4,413,311	100	100	41.19
2006 ³	456,562	2,822,203	1,703,935	3,981,932	100	100	41.27
2005	457,550	2,183,263	1,736,279	2,983,080	100	100	19.71
2004	414,986 ²	1,946,660	1,635,681	2,628,680	100	100	16.33
2003	375,000 ²	1,741,490	1,416,126	2,375,431	100	100	18.28

¹ Actuarial Value of Assets.

² Estimated.

³ Reflects contingent liabilities (Corbett pre-July 1, 2000 and 13th check), DROP reserves, supplemental COLA reserves, and IRC section 415 limits.

⁴ The actuarial liability on June 30, 2007 and after is based on the entry age actuarial funding method. All prior years are based on the projected unit credit actuarial funding method.

⁵ Reflects revised actuarial and economic assumptions.

⁶ Reflects revised actuarial and economic assumptions.

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

APPENDIX A
MEMBERSHIP INFORMATION

Table A-1			
SDCERS - City of San Diego			
Active Member Data			
	June 30, 2012	June 30, 2011	% Change
<u>Total</u>			
Count	7,724	7,792	-0.9%
Average Current Age	44.3	44.1	0.3%
Average Service	13.2	13.5	-2.3%
Average Pensionable Earnings	\$ 66,169	\$ 65,999	0.3%
Annual Pensionable Earnings	\$ 511,090,601	\$ 514,264,749	-0.6%
Average Valuation Compensation ¹	\$ 66,169	\$ 65,998	0.3%
Annual Valuation Compensation ¹	\$ 511,085,600	\$ 514,259,747	-0.6%
Service Without Permissive Service Purchased	12.3	12.2	0.6%
Members with Paid Purchased Service	1,733	2,035	-14.8%
Members with Any Purchased Service	1,819	2,149	-15.4%
Amount of Paid Purchased Service	6,199	8,587	-27.8%
Amount of Total Purchased Service	6,835	9,879	-30.8%
<u>General</u>			
Count	5,471	5,498	-0.5%
Average Current Age	46.1	46.0	0.2%
Average Service	13.4	13.7	-2.2%
Average Pensionable Earnings	\$ 58,596	\$ 58,411	0.3%
Annual Pensionable Earnings	\$ 320,577,659	\$ 321,143,664	-0.2%
Average Valuation Compensation ¹	\$ 58,595	\$ 58,410	0.3%
Annual Valuation Compensation ¹	\$ 320,572,658	\$ 321,138,662	-0.2%
Service Without Permissive Service Purchased	12.4	12.2	1.6%
Members with Paid Purchased Service	1,365	1,624	-15.9%
Members with Any Purchased Service	1,394	1,672	-16.6%
Amount of Paid Purchased Service	5,279	7,573	-30.3%
Amount of Total Purchased Service	5,550	8,261	-32.8%
<u>Safety</u>			
Count	2,253	2,294	-1.8%
Average Current Age	39.7	39.7	0.0%
Average Service	12.6	12.8	-1.6%
Average Pensionable Earnings	\$ 84,560	\$ 84,185	0.4%
Annual Pensionable Earnings	\$ 190,512,942	\$ 193,121,085	-1.4%
Average Valuation Compensation ¹	\$ 84,560	\$ 84,185	0.4%
Annual Valuation Compensation ¹	\$ 190,512,942	\$ 193,121,085	-1.4%
Service Without Permissive Service Purchased	12.1	12.1	0.0%
Members with Paid Purchased Service	368	411	-10.5%
Members with Any Purchased Service	425	477	-10.9%
Amount of Paid Purchased Service	920	1,014	-9.3%
Amount of Total Purchased Service	1,285	1,618	-20.6%

¹ The definition of valuation compensation differs from the definition of pensionable earnings due to IRS 401(a).

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-2 SDCERS - City of San Diego Non-Active Participant Data						
	Count			Average Age		
	June 30, 2012	June 30, 2011	% Change	June 30, 2012	June 30, 2011	% Change
<u>Total</u>						
Retired	5,796	5,480	5.8%	65.4	65.3	0.1%
Disabled	1,221	1,236	-1.2%	64.5	63.9	1.0%
Beneficiaries	<u>1,188</u>	<u>1,186</u>	<u>0.2%</u>	<u>74.2</u>	<u>74.3</u>	<u>-0.1%</u>
Payee Total	8,205	7,902	3.8%	66.5	66.4	0.2%
DROP Participants	914	980	-6.7%	56.6	56.8	-0.3%
Deferred Vested ¹	2,892	2,894	-0.1%	45.8	45.4	0.9%
Vested < 10 yrs svc	2,081	2,027	2.7%			
<u>General</u>						
Retired	3,832	3,618	5.9%	67.1	67.1	0.0%
Disabled	413	421	-1.9%	63.1	62.6	0.8%
Beneficiaries	<u>714</u>	<u>716</u>	<u>-0.3%</u>	<u>76.6</u>	<u>76.7</u>	<u>-0.1%</u>
Payee Total	4,959	4,755	4.3%	68.2	68.1	0.1%
DROP Participants	487	554	-12.1%	59.1	59.1	0.0%
Deferred Vested ¹	2,351	2,365	-0.6%	47.0	46.6	0.9%
Vested < 10 yrs svc	1,695	1,653	2.5%			
<u>Safety</u>						
Retired	1,964	1,862	5.5%	62.0	61.9	0.2%
Disabled	808	815	-0.9%	65.3	64.6	1.1%
Beneficiaries	<u>474</u>	<u>470</u>	<u>0.9%</u>	<u>70.5</u>	<u>70.6</u>	<u>-0.1%</u>
Payee Total	3,246	3,147	3.1%	64.1	63.9	0.3%
DROP Participants	427	426	0.2%	53.8	53.7	0.2%
Deferred Vested ¹	541	529	2.3%	40.8	40.3	1.2%
Vested < 10 yrs svc	386	374	3.2%			

¹ Includes all Participants having a contribution balance still on account with SDCERS.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-3 SDCERS - City of San Diego Non-Active Participant Data						
	Total Annual Benefit			Average Annual Benefit		
	June 30, 2012	June 30, 2011	% Change	June 30, 2012	June 30, 2011	% Change
Total						
Retired	\$ 293,127,220	\$ 271,206,018	8.1%	\$ 50,574	\$ 49,490	2.2%
Disabled	38,696,914	38,033,989	1.7%	31,693	30,772	3.0%
Beneficiaries	<u>18,339,834</u>	<u>17,508,892</u>	<u>4.7%</u>	<u>15,438</u>	<u>14,763</u>	<u>4.6%</u>
Payee Total	\$ 350,163,968	\$ 326,748,899	7.2%	\$ 42,677	\$ 41,350	3.2%
DROP Participants	\$ 53,714,589	\$ 56,805,352	-5.4%	\$ 58,769	\$ 57,965	1.4%
Deferred Vested ¹	\$ 123,281,448	\$ 120,243,558	2.5%	\$ 42,628	\$ 41,549	2.6%
General						
Retired	\$ 156,456,700	\$ 144,438,440	8.3%	\$ 40,829	\$ 39,922	2.3%
Disabled	7,463,152	7,372,870	1.2%	18,071	17,513	3.2%
Beneficiaries	<u>8,558,576</u>	<u>8,085,017</u>	<u>5.9%</u>	<u>11,987</u>	<u>11,292</u>	<u>6.2%</u>
Payee Total	\$ 172,478,427	\$ 159,896,327	7.9%	\$ 34,781	\$ 33,627	3.4%
DROP Participants	\$ 20,275,584	\$ 24,052,791	-15.7%	\$ 41,634	\$ 43,417	-4.1%
Deferred Vested ¹	\$ 99,911,109	\$ 98,179,679	1.8%	\$ 42,497	\$ 41,514	2.4%
Safety						
Retired	\$ 136,670,520	\$ 126,767,578	7.8%	\$ 69,588	\$ 68,081	2.2%
Disabled	31,233,762	30,661,119	1.9%	38,656	37,621	2.8%
Beneficiaries	<u>9,781,258</u>	<u>9,423,876</u>	<u>3.8%</u>	<u>20,636</u>	<u>20,051</u>	<u>2.9%</u>
Payee Total	\$ 177,685,541	\$ 166,852,573	6.5%	\$ 54,740	\$ 53,020	3.2%
DROP Participants	\$ 33,439,005	\$ 32,752,561	2.1%	\$ 78,311	\$ 76,884	1.9%
Deferred Vested ¹	\$ 23,370,339	\$ 22,063,879	5.9%	\$ 43,198	\$ 41,709	3.6%

¹ Includes all Participants having a contribution balance still on account with SDCERS. Annual benefit for deferred vested Participants is the total contribution balance on account as of June 30, 2012.

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-4
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
Total City**

Age	Years of Service											Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	48	48	-	-	-	-	-	-	-	-	-	96
25 to 29	105	354	125	2	-	-	-	-	-	-	-	586
30 to 34	74	310	322	124	1	-	-	-	-	-	-	831
35 to 39	54	168	284	369	78	6	-	-	-	-	-	959
40 to 44	34	140	184	458	314	135	20	-	-	-	-	1,285
45 to 49	26	116	132	324	357	481	279	12	2	-	-	1,729
50 to 54	22	75	98	255	250	287	306	110	19	2	-	1,424
55 to 59	8	51	75	146	128	62	49	16	1	-	-	536
60 to 64	4	24	51	71	61	11	5	1	-	-	-	228
65 to 69	1	10	14	4	1	3	-	1	1	-	-	35
70 and up	1	6	4	2	1	-	-	-	1	-	-	15
Total Count	377	1,302	1,289	1,755	1,191	985	659	140	24	2	-	7,724

**Table A-5
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
Total City**

Age	Average Salary Years of Service											Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 45,951	\$ 51,418	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,685
25 to 29	48,503	64,089	62,118	63,534	-	-	-	-	-	-	-	60,874
30 to 34	50,759	63,158	69,666	67,647	43,514	-	-	-	-	-	-	65,222
35 to 39	51,864	63,977	69,222	71,091	71,603	81,570	-	-	-	-	-	68,316
40 to 44	53,515	61,112	61,913	68,683	76,635	72,450	61,872	-	-	-	-	68,720
45 to 49	51,609	58,958	59,003	61,529	71,988	78,306	83,280	63,186	91,603	-	-	71,398
50 to 54	62,979	60,281	51,685	58,253	63,840	65,649	66,983	64,780	59,715	84,167	-	62,888
55 to 59	56,974	65,980	56,851	56,893	58,473	64,500	68,293	72,982	66,789	-	-	60,551
60 to 64	53,061	74,502	64,464	56,853	61,015	62,259	88,205	69,722	-	-	-	62,465
65 to 69	33,987	52,788	73,476	58,655	25,106	69,937	-	90,730	68,536	-	-	63,410
70 and up	114,998	68,926	39,876	26,910	17,316	-	-	-	49,462	-	-	53,910
Avg. Salary	\$ 50,979	\$ 62,591	\$ 64,268	\$ 64,744	\$ 69,354	\$ 72,762	\$ 73,986	\$ 65,802	\$ 62,607	\$ 84,167	-	\$ 66,169

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-6
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
General**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	24	32	-	-	-	-	-	-	-	-	-	56
25 to 29	69	151	66	1	-	-	-	-	-	-	-	287
30 to 34	49	188	141	68	1	-	-	-	-	-	-	447
35 to 39	46	124	157	217	46	4	-	-	-	-	-	594
40 to 44	31	116	137	309	166	87	19	-	-	-	-	865
45 to 49	25	107	110	262	232	246	129	11	2	-	-	1,124
50 to 54	22	70	94	233	217	243	292	110	19	2	-	1,302
55 to 59	8	50	74	141	125	60	44	16	1	-	-	519
60 to 64	4	24	51	71	61	11	5	1	-	-	-	228
65 to 69	1	10	13	4	1	3	-	1	1	-	-	34
70 and up	1	6	4	2	1	-	-	-	1	-	-	15
Total Count	280	878	847	1,308	850	654	489	139	24	2	-	5,471

**Table A-7
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
General**

Age	Average Salary Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 38,078	\$ 42,105	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,379
25 to 29	45,940	49,695	45,652	38,834	-	-	-	-	-	-	-	47,825
30 to 34	50,318	55,853	53,641	53,790	43,514	-	-	-	-	-	-	54,207
35 to 39	51,880	60,242	59,015	60,299	60,412	79,793	-	-	-	-	-	59,436
40 to 44	53,162	58,276	54,790	60,103	62,776	58,850	60,182	-	-	-	-	59,156
45 to 49	51,742	57,561	54,705	55,761	62,558	63,525	66,418	61,178	91,603	-	-	60,182
50 to 54	62,979	58,636	50,059	55,676	60,148	59,797	65,191	64,780	59,715	84,167	-	60,073
55 to 59	56,974	64,494	56,470	55,786	58,012	64,158	65,596	72,982	66,789	-	-	59,628
60 to 64	53,061	74,502	64,464	56,853	61,015	62,259	88,205	69,722	-	-	-	62,465
65 to 69	33,987	52,788	64,401	58,655	25,106	69,937	-	90,730	68,536	-	-	59,644
70 and up	114,998	68,926	39,876	26,910	17,316	-	-	-	49,462	-	-	53,910
Avg. Salary	\$ 50,285	\$ 56,719	\$ 54,940	\$ 57,436	\$ 60,970	\$ 61,684	\$ 65,592	\$ 65,662	\$ 62,607	\$ 84,167	\$ -	\$ 58,596

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-8
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
Safety

Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	24	16	-	-	-	-	-	-	-	-	40
25 to 29	36	203	59	1	-	-	-	-	-	-	299
30 to 34	25	122	181	56	-	-	-	-	-	-	384
35 to 39	8	44	127	152	32	2	-	-	-	-	365
40 to 44	3	24	47	149	148	48	1	-	-	-	420
45 to 49	1	9	22	62	125	235	150	1	-	-	605
50 to 54	-	5	4	22	33	44	14	-	-	-	122
55 to 59	-	1	1	5	3	2	5	-	-	-	17
60 to 64	-	-	-	-	-	-	-	-	-	-	-
65 to 69	-	-	1	-	-	-	-	-	-	-	1
70 and up	-	-	-	-	-	-	-	-	-	-	-
Total Count	97	424	442	447	341	331	170	1	-	-	2,253

Table A-9
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2012
Safety

Age	Average Salary Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	\$ 53,824	\$ 70,045	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,313
25 to 29	53,417	74,795	80,537	88,234	-	-	-	-	-	-	73,399
30 to 34	51,622	74,414	82,150	84,474	-	-	-	-	-	-	78,044
35 to 39	51,767	74,504	81,841	86,498	87,689	85,125	-	-	-	-	82,767
40 to 44	57,158	74,819	82,678	86,478	92,180	97,100	93,993	-	-	-	88,418
45 to 49	48,298	75,561	80,494	85,906	89,491	93,778	97,781	85,280	-	-	92,235
50 to 54	-	83,305	89,897	85,540	88,119	97,970	104,349	-	-	-	92,930
55 to 59	-	140,275	85,051	88,134	77,663	74,766	92,029	-	-	-	88,745
60 to 64	-	-	-	-	-	-	-	-	-	-	-
65 to 69	-	-	191,454	-	-	-	-	-	-	-	191,454
70 and up	-	-	-	-	-	-	-	-	-	-	-
Avg. Salary	\$ 52,982	\$ 74,749	\$ 82,143	\$ 86,130	\$ 90,252	\$ 94,650	\$ 98,130	\$ 85,280	\$ -	\$ -	\$ 84,560

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-10
SDCERS - City of San Diego
Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date
Total City**

Plan Year	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
pre-1993	3	18	41	78	142	137	188	256	221	146	1,230
1993	7	11	6	9	16	74	71	32	24	1	251
1994	6	9	11	13	13	18	11	18	5	6	110
1995	5	7	13	6	14	20	23	17	3	2	110
1996	4	10	11	10	23	29	26	16	6	1	136
1997	11	7	10	10	70	86	34	17	3	8	256
1998	7	7	8	19	86	73	29	11	5	7	252
1999	8	12	8	35	119	55	34	9	9	4	293
2000	8	12	6	43	116	46	12	12	7	5	267
2001	11	9	14	92	111	57	27	10	9	3	343
2002	7	5	8	73	82	31	15	4	4	5	234
2003	4	3	47	146	187	72	18	10	8	9	504
2004	7	7	61	158	59	58	18	6	10	8	392
2005	7	7	101	212	100	39	7	8	5	6	492
2006	16	10	127	202	64	18	8	7	8	6	466
2007	8	6	95	224	71	15	8	11	18	7	463
2008	11	61	175	80	59	14	11	8	11	5	435
2009	20	130	258	63	85	12	10	13	6	6	603
2010	10	124	178	68	18	14	11	11	13	5	452
2011	10	121	224	66	26	8	2	4	6	3	470
2012	5	106	228	55	27	8	5	6	5	1	446
Total	175	682	1,630	1,662	1,488	884	568	486	386	244	8,205

Surviving spouses benefit effective date no longer based on participant's original date of retirement.

Average Age at Retirement/Disability 55.6
Average Current Age 66.5
Average Annual Pension \$ 42,677

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-11
SDCERS - City of San Diego
Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date
General**

Plan Year	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
pre-1993	-	8	7	16	31	26	76	151	173	111	599
1993	4	3	1	1	5	10	33	29	20	1	107
1994	1	3	3	5	5	9	10	17	4	4	61
1995	1	3	7	2	-	11	21	16	2	1	64
1996	3	1	3	5	6	20	22	13	4	1	78
1997	4	4	3	7	5	33	28	16	3	7	110
1998	4	4	4	8	20	56	29	11	4	6	146
1999	2	4	3	5	47	44	33	8	6	3	155
2000	5	7	3	9	55	43	11	10	5	1	149
2001	4	3	11	12	74	55	27	6	8	3	203
2002	3	2	4	8	54	29	15	4	4	5	128
2003	3	1	7	80	160	69	16	8	7	6	357
2004	2	4	14	110	52	51	15	4	7	5	264
2005	3	4	5	162	89	35	6	6	4	5	319
2006	11	5	17	178	60	17	6	6	3	4	307
2007	5	2	12	199	61	11	6	7	12	6	321
2008	5	3	127	75	56	10	8	7	6	3	300
2009	7	11	192	54	78	9	7	9	5	6	378
2010	3	13	153	63	17	8	7	10	9	2	285
2011	2	19	200	59	21	5	1	3	6	1	317
2012	1	8	205	52	24	8	3	4	5	1	311
Total	73	112	981	1,110	920	559	380	345	297	182	4,959

Surviving spouses benefit effective date no longer based on participant's original date of retirement.

Average Age at Retirement/Disability 58.4
Average Current Age 68.2
Average Annual Pension \$ 34,781

SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-12
SDCERS - City of San Diego
Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date
Safety**

Plan Year	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
pre-1993	3	10	34	62	111	111	112	105	48	35	631
1993	3	8	5	8	11	64	38	3	4	-	144
1994	5	6	8	8	8	9	1	1	1	2	49
1995	4	4	6	4	14	9	2	1	1	1	46
1996	1	9	8	5	17	9	4	3	2	-	58
1997	7	3	7	3	65	53	6	1	-	1	146
1998	3	3	4	11	66	17	-	-	1	1	106
1999	6	8	5	30	72	11	1	1	3	1	138
2000	3	5	3	34	61	3	1	2	2	4	118
2001	7	6	3	80	37	2	-	4	1	-	140
2002	4	3	4	65	28	2	-	-	-	-	106
2003	1	2	40	66	27	3	2	2	1	3	147
2004	5	3	47	48	7	7	3	2	3	3	128
2005	4	3	96	50	11	4	1	2	1	1	173
2006	5	5	110	24	4	1	2	1	5	2	159
2007	3	4	83	25	10	4	2	4	6	1	142
2008	6	58	48	5	3	4	3	1	5	2	135
2009	13	119	66	9	7	3	3	4	1	-	225
2010	7	111	25	5	1	6	4	1	4	3	167
2011	8	102	24	7	5	3	1	1	-	2	153
2012	4	98	23	3	3	-	2	2	-	-	135
Total	102	570	649	552	568	325	188	141	89	62	3,246

Surviving spouses benefit effective date no longer based on participant's original date of retirement.

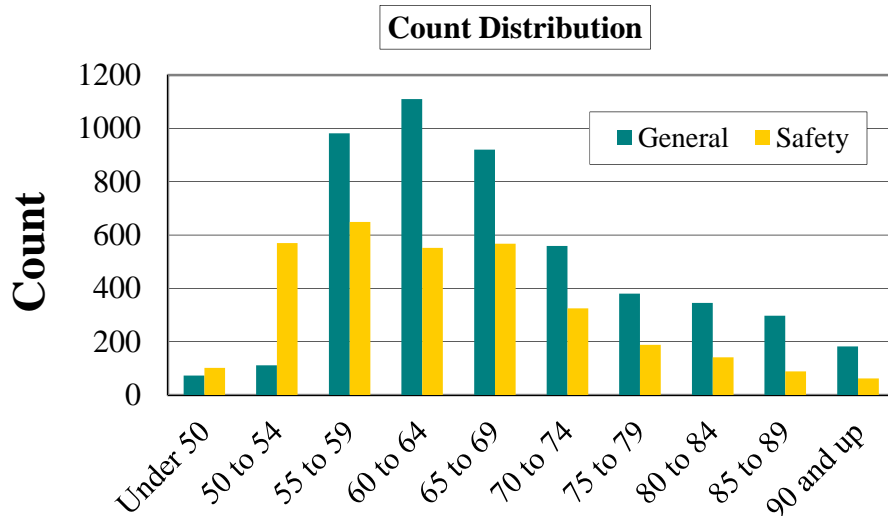
Average Age at Retirement/Disability 51.3
Average Current Age 64.1
Average Annual Pension \$ 54,740

APPENDIX A
 MEMBERSHIP INFORMATION

Table A-13
SDCERS - City of San Diego
Distribution of Retirees, Disabilitants,
Beneficiaries and Survivors
as of June 30, 2012

Age	Count		Total
	General	Safety	
Under 50	73	102	175
50 to 54	112	570	682
55 to 59	981	649	1,630
60 to 64	1,110	552	1,662
65 to 69	920	568	1,488
70 to 74	559	325	884
75 to 79	380	188	568
80 to 84	345	141	486
85 to 89	297	89	386
90 and up	182	62	244
Total	4,959	3,246	8,205

Chart A-1



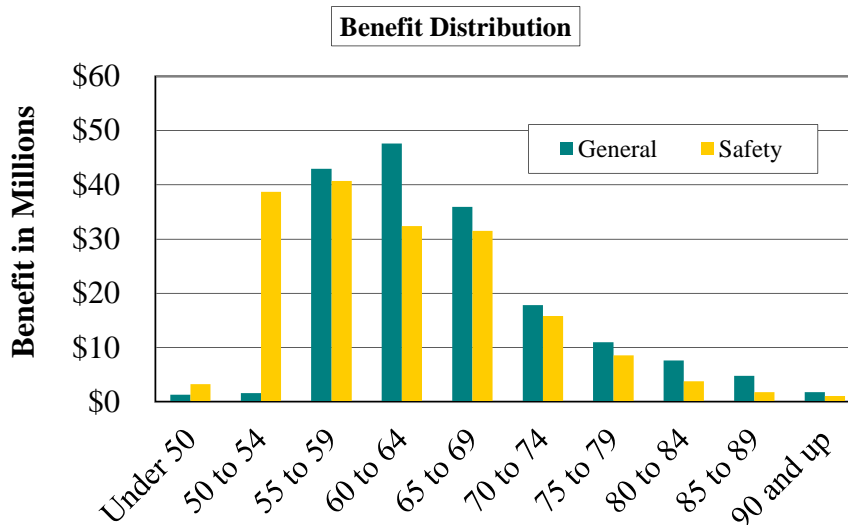
SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-14
SDCERS - City of San Diego
Distribution of Retirees, Disabilitants,
Beneficiaries and Survivors
as of June 30, 2012**

Age	Annual Benefit		
	General	Safety	Total
Under 50	\$ 1,331,286	\$ 3,252,722	\$ 4,584,008
50 to 54	1,594,811	38,716,304	40,311,115
55 to 59	42,927,754	40,709,416	83,637,171
60 to 64	47,624,341	32,409,044	80,033,385
65 to 69	35,942,749	31,501,453	67,444,202
70 to 74	17,834,158	15,834,432	33,668,591
75 to 79	10,985,704	8,552,658	19,538,362
80 to 84	7,631,631	3,793,009	11,424,639
85 to 89	4,801,614	1,805,468	6,607,082
90 and up	1,804,380	1,111,034	2,915,414
Total	\$ 172,478,427	\$ 177,685,541	\$ 350,163,968

Chart A-2



APPENDIX A
MEMBERSHIP INFORMATION

Data Assumptions and Practices

In preparing our data, we relied without audit on information supplied by the SDCERS staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. Our methodology for obtaining the data used for the valuation is based upon the following assumptions and practices:

- Service for Actives and Inactives was calculated using Benefit Service. An adjusted date of hire is retroactively calculated from the valuation date. Purchased Service that has been paid for is included in the Benefit Service field. Purchased Service that has been applied for, but not paid as of the valuation date will be assumed to be paid in full, and this service will be reflected in the projected benefit.
- Valuation Salary will be the maximum of “Current Annual Pensionable Salary” and annualized “Average Compensation.”
- For accounts having duplicate records in the Actives and Inactives by Social Security Number, the information from the latest payroll date is regarded as most up to date. The other record is treated as out of date and invalid.
- For duplicate records (based on SSN and Benefit Type) in the payee file, records having the same plan and same benefit type but different benefit amounts, we have added those benefit amounts together.
- Records on the provided “Member” file are considered to be Active if they have no “Date of Death,” no “Date of Separation,” do not have a retiree record and they received pay in the last pay period (Last Pay Period = 26) of the current FY.
- Records on the “Member” file are considered to be Inactive if they do not have a “Date of Death,” do not have a retiree record and either have a “Date of Separation” or have a “Last Pay Period” earlier than the last pay period of the current FY.
- Records on the “Payee” file are considered in pay status if their benefit is not suspended.
- Pension Benefit for retirees for each plan was calculated by summing “Monthly Pension,” “Monthly Annuity,” “COLA Annuity,” “Surviving Spouse Annuity,” and “COLA Pension” and subtracting “Non-COLA Adjustments.” The “Non-COLA Adjustments” field is mainly for Qualified Domestic Relations Order purposes. The “Supplement Amount” field is added as an annual benefit (i.e., 13th check) and the “Corbett Supplemental Payment” is annualized for new retirees in the City only. It is assumed the payment is annual for retirees already in pay status prior to this valuation.
- Members retiring since the prior valuation date and not having a “Supplement Amount” (13th check) will have their projected “Supplement Amount” (13th check) calculated assuming \$30 multiplied by the “Total Service Credit.”

**SDCERS-CITY OF SAN DIEGO
ACTUARIAL VALUATION AS OF JUNE 30, 2012**

**APPENDIX A
MEMBERSHIP INFORMATION**

- Members may retire and receive benefits from multiple Plans (e.g., a City police officer could have also worked for the Airport Authority); we will value each Member's blended benefit individually. This will result in the counts being slightly higher than actual counts due to people having more than one benefit payable from multiple plans.
- We assume any retiree found in last year's "Payee" file and not in this year's file has died without a beneficiary and should be removed from the valuation data.
- We assume all deceased retirees with payments continuing to a beneficiary have already been accounted for in the "Payee" file.
- We exclude any payee receiving \$0.00 from a blended benefit plan.
- We assume that any active Member found in the inactive data last year has returned to work and should be valued as active.
- The Final 415 Regulations were used to calculate the present value of Member benefits over the Internal Revenue Service Code 415 Benefit Limits.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

A. Actuarial Assumptions

1. Investment Return Assumption

SDCERS' assets are assumed to earn 7.50% net of both administrative and investment expenses.

2. Inflation Rate

An inflation assumption of 3.75% compounded annually is used for projecting the total annual payroll growth for amortization of the UAL.

3. Interest Credited to Member Contributions

7.50%, compounded annually.

4. Salary Increase Rate

Inflation component 3.75% (following an assumed freeze in FY 2014. A freeze had also been assumed for FY 2013),

The additional merit component:

Years of Service at Valuation Date	General	Safety
0	5.00%	8.00%
1	4.00%	7.00%
2	3.00%	6.00%
3	2.00%	3.50%
4	1.00%	2.00%
5+	0.50%	0.50%

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

5. Cost-of-Living Increase in Benefits

Assumed to be 2% per annum, compounded annually.

There is a closed group of Special Safety Officers for whom we assume an annual adjustment equal to inflation (3.75% per year).

6. COL Annuity Benefit

For active Members, the COL annuity benefit is valued by adding to the liabilities one-sixth of accumulated member contribution accounts and using load factors for future member contributions. The load varies by Plan as follows:

General	Elected	Police	Fire	Lifeguard
2.19%	2.5%	3.51%	3.69%	3.58%

For terminated vested participants, one-sixth of the accumulated member contribution accounts are recognized as a liability for the COL annuity.

7. Member Refunds

All or part of the employee contribution rate is subject to potential “offset” by the employer. That “offset” and the related accumulated interest are not to be refunded to employees at termination. However, such offsets are not directly reflected in either the employee contributions or related refund calculations.

APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS

8. Rates of Termination

Service	General	Safety
0	11.00%	8.80%
1	10.00	7.72
2	9.00	6.62
3	8.00	5.53
4	7.00	4.41
5	6.00	3.31
6	5.00	3.16
7	5.00	3.09
8	4.00	3.01
9	3.50	2.94
10	3.50	2.89
11	3.50	2.77
12	3.25	2.70
13	3.25	2.63
14	3.25	2.58
15	3.25	2.52
16	3.25	2.46
17	3.25	2.41
18	3.25	2.38
19	3.25	2.37
20	3.25	2.35
21	3.25	2.34
22+	3.25	2.33

20% of terminating employees, with 10+ years of service at termination, are assumed to subsequently work for a reciprocal employer and receive 4.25% pay increases per year.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

9. Rates of Disability

Age	General	Safety
20	0.02%	0.25%
25	0.03	0.25
30	0.04	0.25
35	0.06	0.35
40	0.08	0.45
45	0.12	0.55
50	0.20	0.65
55	0.35	0.75
60	0.45	--

60% of the General disabilities and 80% of the Safety disabilities are assumed to be industrial disability retirements. Non-industrial disability retirement is subject to a 10-year service requirement.

10. Rates of Mortality for Active Lives

To reflect improvements in mortality since the date of the tables, the mortality tables have been modified to reflect actual experience through June 30, 2010 and include a projection to 2013.

All active members follow the RP2000 Combined Healthy table (male and female) projected to 2013.

Age	General and Safety	
	Male	Female
20	0.03%	0.02%
25	0.03	0.02
30	0.04	0.02
35	0.07	0.04
40	0.10	0.06
45	0.13	0.09
50	0.17	0.13
55	0.28	0.25
60	0.55	0.47
65	1.06	0.91
70	1.83	1.57

50% of active member deaths are assumed to be industrial deaths for Safety members and all active member deaths are assumed to be non-industrial deaths for other members.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

11. Rates of Mortality for Retired Healthy Lives

To reflect improvements in mortality since the date of the tables, the mortality tables have been modified to reflect actual experience through June 30, 2010. No modifications have been made to project future mortality improvements. In the next experience study we will examine the mortality experience and consider the projection of future improvement.

All retired healthy members use the RP2000 Combined Healthy table (male and female). Safety female members use the RP2000 Combined Healthy female table, set forward one year.

Table B-5				
SDCERS - City of San Diego				
Rates of Mortality for Retired Healthy Lives at Selected Ages				
Age	General		Safety	
	Male	Female	Male	Female
40	0.11%	0.07%	0.11%	0.08%
45	0.15	0.11	0.15	0.12
50	0.21	0.17	0.21	0.19
55	0.36	0.27	0.36	0.31
60	0.67	0.51	0.67	0.58
65	1.27	0.97	1.27	1.10
70	2.22	1.67	2.22	1.86
75	3.78	2.81	3.78	3.10
80	6.44	4.59	6.44	5.08
85	11.08	7.74	11.08	8.64
90	18.34	13.17	18.34	14.46

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

12. Rates of Mortality for Retired Disabled Lives

To reflect improvements in mortality since the date of the tables, the mortality tables have been modified to reflect actual experience through June 30, 2010. No modifications have been made to project future mortality improvements. In the next experience study we will examine the mortality experience and consider the projection of future improvement.

The mortality tables used for disabled retirees are variations of the CALPERS Disability Tables (male and female):

Table B-6				
SDCERS - City of San Diego				
Rates of Mortality for Disabled Lives at Selected Ages				
Age	General		Safety	
	Male	Female	Male	Female
40	1.45%	0.67%	0.19%	0.20%
45	1.65	0.99	0.25	0.26
50	1.63	1.25	0.44	0.36
55	1.86	1.58	0.56	0.55
60	2.19	1.63	0.78	0.80
65	2.99	1.97	1.39	1.18
70	3.76	3.02	2.24	1.72
75	5.42	3.92	3.59	2.67
80	7.90	5.56	6.93	4.53
85	12.48	9.58	11.80	8.02

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

13. Rates of Retirement

Rates of Retirement for City General and City Safety are shown in the two tables below.

Table B-7				
SDCERS - City of San Diego				
Rates of Retirement by Age and Service				
	General		Safety	
Service	Prior to age 62	Age 62 or greater	Prior to age 55	Age 55 or greater
10	--	60.0%	--	40.0%
11	--	45.0	--	40.0
12	--	45.0	--	40.0
13	--	45.0	--	40.0
14	--	45.0	--	40.0
15	--	40.0	--	31.5
16	--	40.0	--	31.5
17	--	40.0	--	31.5
18	--	40.0	--	31.5
19	--	40.0	--	31.5
20	50.0	55.0	35.0	50.0
21	35.0	35.0	20.0	25.0
22	37.5	35.0	25.0	30.0
23	40.0	35.0	30.0	35.0
24	42.5	35.0	35.0	40.0
25	45.0	45.0	40.0	45.0
26	47.5	45.0	45.0	50.0
27	50.0	45.0	50.0	55.0
28	52.5	45.0	55.0	60.0
29	55.0	45.0	60.0	65.0
30	57.5	50.0	100.0	100.0
31	60.0	50.0	100.0	100.0
32	60.0	55.0	100.0	100.0
33	60.0	55.0	100.0	100.0
34	60.0	55.0	100.0	100.0
35+	100.0	100.0	100.0	100.0

Table B-8		
SDCERS - City of San Diego		
Rates of Retirement by Age		
	General	Safety
Age	2009	2009
50	--	10.0%
51	--	10.0
52	--	10.0
53	--	10.0
54	--	20.0
55	3.0%	40.0
56	3.0	40.0
57	3.0	40.0
58	5.0	50.0
59	5.0	80.0
60	10.0	85.0
61	15.0	90.0
62	20.0	100.0
63	30.0	100.0
64	40.0	100.0
65	50.0	100.0
66	50.0	100.0
67	50.0	100.0
68	50.0	100.0
69	50.0	100.0
70	100.0	100.0

In addition, if a Police-2009 or a Police-2012 Plan Member has both attained age 55 and completed at least 30 years of service, 100% retirement is assumed.

For vested deferred participants, we assume that retirement will occur provided they have at least 10 years of service on the later of attained age or:

General Members: Earlier of age 62 or age 55 and 20+ years of service.

Safety Members: Earlier of age 55 or age 50 and 20+ years of service.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

Rates of Retirement for Elected Officials are based on age and are shown in the table below.

Age	Elected Officials
50	--
51	--
52	--
53	15%
54	1
55	5
56	3
57	4
58	5
59	6
60	60
61	25
62	37
63	23
64	34
65	68
66	69
67	74
68	80
69	90
70	100

For vested deferred Elected Officials, we assume that retirement will occur provided they have at least four years of service on the later of attained age or the earlier of age 55 or age 53 and at least eight years of service.

If the inactive participant is not vested, the liability is the participant's contributions with interest.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

14. Family Composition Assumptions

80% of men and 55% of women were assumed married at retirement. A female spouse is assumed to be three years younger than her male spouse.

15. Member Contributions for Spousal Continuance

All active Members contribute towards a 50% survivor continuance. However, Members who are unmarried at retirement may either be refunded that specific part of their contributions, or they may leave such contributions on account and receive an incremental benefit that is the actuarial equivalent of such contributions.

16. Deferred Member Benefit

The benefit was estimated based on information provided by SDCERS staff. The data used to value the estimated deferred benefit were date of birth, date of hire, date of termination, and last pay. Based on the data provided, service credit, highest average salary, and deferred retirement age were estimated. The estimates were used to compute the retirement benefit, upon which the liabilities are based. For those participants without sufficient data or service, accumulated participant contribution balances, with interest, were used as the actuarial accrued liability.

17. DROP Account Balances

For DROP participants still working, the liability for the account balances in the asset information received from SDCERS staff was adjusted to assume average commencement in 2 ½ years and an interest crediting rate of 1.9%. Thereafter, it was assumed the account balance would be converted to an annuity at an interest rate of 4.4% over an average period of 10 years. The 10-year period was selected to average among the available DROP payment elections, including a lump sum, life expectancy, and 20 years. The liability for pre-2006 DROP account balances still left on account was valued assuming they would be paid out until age 70 ½, with an interest crediting rate of 1.9%. The liability for the remaining account balances was adjusted based on the DROP annuity rate in effect at the Member's benefit effective date.

These adjustments are applied to the DROP account balance values provided in the financial statements. The account balance liability is allocated to each individual sub-group (e.g., General) based on the total amount of the DROP account balances for that sub-group in the valuation data.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

18. Other

The contribution requirements and benefit values of a plan are calculated by applying actuarial assumptions to the benefit provisions and Member information, using the actuarial funding methods described in the following section.

Actual experience of SDCERS will not coincide exactly with assumed experience, regardless of the choice of the assumptions, the skill of the actuary or the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed contribution rate. From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends, but not random year-to-year fluctuations.

19. Changes Since Last Valuation

The DROP interest crediting and annuity rates used to value the liability for account balances were reduced from 2.3% to 1.9% and from 4.8% to 4.4%, respectively, to reflect the Board's adoption of these rates at its December 2011 meeting.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal funding method was used for active employees, whereby the normal cost rate is computed as the average level annual percent of pay required to fund the retirement benefits for all Members between their dates of hire and assumed dates of retirement. The EAN actuarial liability is the difference between the plan's total present value of future benefits and the present value of future normal costs, calculated for each sub-group (e.g., General). The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets, and is allocated to each sub-group based on its liability.

The unfunded actuarial liability is amortized by annual payments. For the non-Police portion of the plan, the UAL payments are determined as level dollar amounts. For the Police portion of the plan, the payments are determined as a level percentage of pay, assuming payroll increases of 3.75% per year. The UAL is amortized over various closed periods. The UAL as of June 30, 2007 is amortized over 20 years. Subsequent gains and losses are amortized over 15 years, changes in assumptions over 30 years, and changes in benefits over five years. However, the non-Police portion of the UAL as of June 30, 2012 is amortized over 15 years. Finally, if necessary, there is an additional UAL cost component to ensure that there is no negative amortization in any year.

2. Asset Valuation Method

For the purposes of determining the City of San Diego's annual required contribution to SDCERS, we use a smoothed actuarial value of assets. The asset smoothing method dampens the volatility in asset values that could occur because of the fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process. Assets are assumed to be used exclusively for the provision of retirement benefits and expenses.

The actuarial value of assets is equal to 100% of the *expected actuarial value of assets*¹ plus 25% of the difference between the current market value of assets and the expected actuarial value of assets. In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

3. Changes Since Last Valuation

The present value of future normal costs under the Entry Age Normal funding method is now calculated individually for each member, instead of in aggregate for all members. This method change does not impact the value of total benefit liabilities.

¹ The expected actuarial value of assets is equal to the prior year's actuarial value of assets increased with actual contributions made, decreased with actual disbursements made, all items (prior assets, contributions and disbursements) further adjusted with expected investment returns for the year.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

1. Membership Requirement

Membership is mandatory from the first day of employment with the City, for all full, three-quarter, and half-time classified employees hired between July 1, 1991 and July 19, 2012 and for any unclassified employees hired between August 11, 1993 and July 19, 2012. (§24.0104)*

Membership is mandatory from the first day of employment for Police Recruits hired between July 1, 1991 and June 30, 2013 and for all sworn police officers hired on or after July 1, 1991. (City Charter §140)

As a result of Proposition B, effective July 20, 2012 new employees (other than Police) will not participate in SDCERS.

2. Monthly Salary Base for Benefits

General and Safety Members (not including General-2009 Plan, Police-2009 Plan or Police-2012 Plan Members):

Highest consecutive 12-month average in any qualified employment with a California governmental jurisdiction (§ 24.0103), subject to a 10% increase for those who joined the system before July 1, 2002, if the General or Safety Member elects such increase in lieu of an increased benefit formula. (§24.0402 and §24.0403)

General-2009 Plan Members:

Average of highest three years in any qualified employment with a California governmental jurisdiction (§ 24.0103).

Police-2009 Plan Members:

Highest consecutive 12-month average in any qualified employment with a California governmental jurisdiction (§ 24.0103).

Police-2012 Plan Members:

Average of highest three years in any qualified employment with a California governmental jurisdiction (§ 24.0103).

3. Service Retirement

Eligibility

General Members:

Age 62 with 10 years of service, or age 55 with 20 years of service (§ 141 of City Charter).

* All “§” references are to the City of San Diego Municipal Code.

**APPENDIX C
SUMMARY OF PLAN PROVISIONS**

Safety Members (includes Fire, Lifeguard, and Police):

Age 55 with 10 years of service, or age 50 with 20 years of service (§ 141 of City Charter).

Elected Officers:

Age 55 with 4 years of service. Eligible to retire at any age with 8 years of service, however, benefit is reduced by 2% per year for each year under age 55. (§ 24.1705).

Benefit

General Members:

For General-Old Plan Members, choice of formula in place on June 30, 2000 (Option 1), or formula effective as of July 1, 2000 (Option 2), or formula in effect as of July 1, 2002 (Option 3), with a benefit cap of 90% of Final Average Compensation unless an exception to the 90% cap applies (§ 24.0402).

For General-2009 Plan Members, formula shown in Table C-1 (§ 24.0402.1).

There is an additional amount equal to the annuitized Member COL Annuity contributions at retirement date.

General Member Service Retirement Accrual Factors

Table C-1				
SDCERS - City of San Diego				
General Member Service Retirement Accrual Factors				
Retirement Age	Hired Before July 1, 2009			Hired on or After July 1, 2009
	Option 1	Option 2	Option 3	
55	2.00%	2.25%	2.50%	1.00%
56	2.00%	2.25%	2.50%	1.25%
57	2.00%	2.25%	2.50%	1.65%
58	2.00%	2.25%	2.50%	1.758%
59	2.08%	2.25%	2.50%	1.874%
60	2.16%	2.30%	2.55%	2.00%
61	2.24%	2.35%	2.60%	2.12%
62	2.31%	2.40%	2.65%	2.24%
63	2.39%	2.45%	2.70%	2.36%
64	2.47%	2.50%	2.75%	2.46%
65 and up	2.55%	2.55%	2.80%	2.60%

Elected Officers:

(Formerly designated as legislative) 3.5% (§ 24.1706). A 2% annual reduction factor applies to benefits for Members retiring prior to age 55 (§ 24.1705).

Safety Members:

For all Fire Members, all Lifeguard Members, and Police-Old Plan Members, choice of formula in place on June 30, 2000 (Option 1), or formula effective as of July 1, 2000 (Option

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2), with a benefit cap of 90% of Final Average Compensation unless an exception to the 90% cap applies (§ 24.0403).

For Police-2009 and Police-2012 Plan Members, formula shown in Table C-2 (§ 24.0403).

There is an additional amount equal to the annuitized Member COL Annuity contributions at retirement date.

Safety Member Service Retirement Accrual Factors

Table C-2				
SDCERS - City of San Diego				
Safety Member Service Retirement Accrual Factors				
All Fire and Lifeguard, Only Police Hired Before July 1, 2009				Police Hired on or After July 1, 2009
Retirement Age	Police & Fire Option 1	Lifeguard Option 1	Safety Option 2	
50	2.50%	2.20%	3.00%	2.50%
51	2.60%	2.32%	3.00%	2.60%
52	2.70%	2.44%	3.00%	2.70%
53	2.80%	2.57%	3.00%	2.80%
54	2.90%	2.72%	3.00%	2.90%
55 and up	2.99%	2.77%	3.00%	3.00%

For vested Members who terminate City employment, different retirement accrual factors may apply depending on which options were available at the time of termination.

For Members of the General-2009 who terminate City employment, the accrual factors are those shown in Tables C-1. For Members of the Police-2009 and Police-2012 Plans who terminate City employment, the accrual factors are those shown in Table C-2. For other General and Safety Members, the accrual factors are as shown below:

GENERAL:

Table C-3	
SDCERS – City of San Diego	
For Vested Members who terminated--	--the accrual factors are--
Prior to January 1, 1997	See Pre-1997 Factors on next page
January 1, 1997 - June 30, 2000	Option 1 without 10% increase in Final Average Compensation
July 1, 2000 - June 30, 2002	Option 1 with 10% increase in Final Average Compensation; or Option 2
July 1, 2002 – Present	Option 3

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SAFETY:

Table C-4 SDCERS – City of San Diego	
For Vested Members who terminated--	--the accrual factors are--
Prior to January 1, 1997	See Pre-1997 Factors on next page
January 1, 1997 - June 30, 2000	Option 1 without 10% increase in Final Average Compensation
July 1, 2000 – Present	Option 1 with 10% increase in Final Average Compensation; or Option 2

Table C-5 SDCERS - City of San Diego Pre-1997 Member Service Retirement Accrual Factors				
Age	General	Police	Safety Fire	Lifeguard
50	--	2.50%	2.20%	2.00%
51	--	2.54%	2.32%	2.10%
52	--	2.58%	2.44%	2.22%
53	--	2.62%	2.57%	2.34%
54	--	2.66%	2.72%	2.47%
55	1.48%	2.70%	2.77%	2.62%
56	1.55%	2.77%	2.77%	2.62%
57	1.63%	2.77%	2.77%	2.62%
58	1.72%	2.77%	2.77%	2.62%
59	1.81%	2.77%	2.77%	2.62%
60	1.92%	2.77%	2.77%	2.62%
61	1.99%	2.77%	2.77%	2.62%
62	2.09%	2.77%	2.77%	2.62%
63	2.20%	2.77%	2.77%	2.62%
64	2.31%	2.77%	2.77%	2.62%
65 and up	2.43%	2.77%	2.77%	2.62%

Maximum Benefit

General-Old Plan Members: 90% of Final Average compensation if Option 3 is chosen, unless an exception to the 90% cap applies.

General-2009 Plan Members: 80% of Final Average compensation.

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Safety Members (not including Police-2009 and Police-2012 Plan Members): 90% of Final Average Compensation (subject to 10% increase).

Police-2009 and Police-2012 Plan Members: 90% of Final Average compensation.

Elected Officers: None.

Unmodified Form of Payment

Monthly payments continued for the life of the Member, with 50% continuance to the eligible spouse upon Member's death. If there is no eligible spouse, the Member may receive either a lump sum payment equal to the accumulated surviving spouse contributions or an actuarially equivalent annuity (§ 24.0601).

Note: City employees withdrew from Social Security January 1, 1982. We assume that all future benefits for active Members will be determined on a non-integrated basis.

Note: Effective July 1, 1991, service credit earned under the 1981 Pension System will be considered equivalent to SDCERS service for the purpose of benefit calculations (i.e., the above formulas will apply to 1981 Pension System service) (§ 24.1102, 24.0210, 24.0310).

4. Non-Industrial Disability

Eligibility

Ten years of service (Charter §141).

Benefit

General Members:

Greater of 1.5% per year of service, one-third of final compensation, or the earned service retirement benefit (§24.0502, §24.0505).

Safety Members:

Greater of 1.8% per year of service, one-third of final compensation, or the earned service retirement benefit (§24.0502, §24.0504).

Elected Officers:

Earned service retirement benefit (§24.1707).

5. Industrial Disability

Eligibility

No age or service requirement (§24.0501).

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Benefit

General Members:

Greater of one-half of final compensation, or the earned service retirement benefit if eligible. (§24.0502, §24.0505).

Safety Members:

Greater of one-half of final compensation, or the earned service retirement benefit if eligible. (§24.0502, §24.0503).

Elected Officers:

Earned service retirement benefit (§24.1707).

6. Non-Industrial Death Before Eligible to Retire

Refund of employee contributions with interest, plus one month's salary for each completed year of service, to a maximum of six months salary (§24.0702).

7. Non-Industrial Death After Eligible to Retire for Service

50% of earned benefit payable to surviving eligible spouse, domestic partner, or dependent child under 18 years of age. (§24.0704)

8. Industrial Death

50% of the final average compensation (subject to 10% increase) preceding death, payable to eligible spouse, domestic partner, or dependent child under 18 years of age. (§24.0705)

9. Death After Retirement

Continuance to surviving beneficiary depending on benefit selection made at retirement (§24.0601).

\$2,000 payable in lump sum to the beneficiary or the estate of the retiree. (§24.0710)

10. Withdrawal Benefits (§24.0206, §24.0306)

Pre-12/8/76 Hires

If contributions left on deposit, entitled to earned benefits, commencing anytime after eligible to retire.

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Post-12/7/76 Hires

Less than ten years of service:

Refund of accumulated employee contributions with interest, or may keep deposits in the System and earn additional interest and use service with a reciprocal system to establish eligibility for earned benefits upon concurrent retirement from reciprocal system (§24.0206, 24.0306, 24.1005).

Ten or more years of service:

If contributions left on deposit, entitled to earned benefits commencing anytime after eligible to retire (§24.0206, 24.0306)

11. Post-retirement Cost-of-Living Benefit

General and Safety Members:

Based on changes in Consumer Price Index, to a maximum of 2% per year (§24.1505).

12. COL Annuity

Actuarial equivalent of accumulated contributions in cost-of-living annuity account at time of retirement (§24.0103).

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13. Member Contributions

Member contributions vary by age at time of entrance into SDCERS (§24.0201, §24.0301), and were recalculated in 2011 based on the current actuarial assumptions in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions. Table C-6 contains the contribution rates by plan. In the rightmost column, Lifeguard-2011 refers to Lifeguard Members hired on or after July 1, 2011, Police-2012 refers to Police Members hired on or after January 1, 2012, and Fire-2012 refers to Fire Members hired on or after January 1, 2012.

Entry Age	<u>General</u>		<u>Police</u>		<u>Fire</u>	<u>Lifeguard</u>	<u>Safety</u>
	Hired Before 7/1/2009	Hired On or After 7/1/2009	Hired Before 7/1/2009	Hired On or After 7/1/2009 and Before 1/1/2012	Hired before 1/1/2012	Hired before 7/1/2011	Lifeguard-2011 Police-2012 Fire-2012
20	7.97%	4.00%	13.49%	10.98%	13.49%	13.40%	10.59%
21	8.08	4.21	13.62	11.44	13.62	13.53	11.03
22	8.26	4.42	13.86	11.92	13.86	13.76	11.48
23	8.47	4.65	14.17	12.41	14.17	14.01	11.95
24	8.70	4.88	14.48	12.90	14.48	14.27	12.42
25	8.93	5.11	14.79	13.42	14.79	14.53	12.91
26	9.15	5.35	15.08	13.73	15.08	14.76	13.21
27	9.37	5.59	15.35	13.88	15.35	14.97	13.35
28	9.58	5.84	15.61	14.08	15.61	15.15	13.54
29	9.79	6.10	15.84	14.31	15.84	15.28	13.75
30	9.99	6.35	16.18	14.56	16.18	15.62	13.99
31	10.17	6.62	16.23	14.82	16.23	15.53	14.23
32	10.35	6.88	16.35	15.09	16.35	15.46	14.49
33	10.50	7.13	16.51	15.36	16.51	15.41	14.75
34	10.64	7.40	16.63	15.63	16.63	15.39	15.00
35	10.89	7.66	16.82	15.82	16.82	15.53	15.18
36	10.79	7.89	17.07	16.16	17.07	15.77	15.50
37	10.71	8.08	17.35	16.49	17.35	16.02	15.81
38	10.65	8.26	17.63	16.81	17.63	16.28	16.11
39	10.65	8.44	17.91	17.12	17.91	16.54	16.40
40	10.68	8.62	18.17	17.41	18.17	16.79	16.67
41	10.71	8.80	18.58	17.68	18.58	17.17	16.92
42	10.76	8.98	18.92	17.92	18.92	17.48	17.15
43	10.98	9.19	19.20	18.13	19.20	17.73	17.34
44	11.19	9.40	19.40	18.29	19.40	17.93	17.48
45	11.39	9.61	19.53	18.39	19.53	18.04	17.56
46	11.58	9.81	19.06	18.05	19.06	17.60	17.24
47	11.76	10.00	18.71	17.89	18.71	17.28	17.08
48	11.95	10.18	18.34	17.77	18.34	16.94	16.97
49	12.11	10.34	17.94	17.65	17.94	16.57	16.85
50	12.23	10.49					
51	12.31	10.62					
52	12.41	10.72					
53	12.21	10.75					
54	11.97	10.73					
55	11.64	10.56					
56	11.30	10.25					
57	10.98	9.96					

The employee contribution rates are the sum of four components, three of which are specified in the Municipal Code: a cost-of-living rate (§24.1506(a)), a surviving spouse rate (§24.0601), and a COL Annuity rate (§24.1506(b)). The fourth component is the “substantially equal” rate, which is 50% of the cost of accrued service retirement allowances, payable either immediately or deferred until a later age, when a member leaves employment via termination, disability, or service retirement. Since the cost-of-living rate funds the

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Member's portion of the post-retirement cost-of-living benefit, the surviving spouse rate funds the Member's portion of surviving spouse allowances, and the COL Annuity rate funds the COL Annuity, these benefits are not included in the calculation of the "substantially equal" rate.

All benefits not included in the components described above are paid for entirely by the City.

The assumptions used to develop the rates were the same as those used in this valuation, except that mortality tables for General Members were blended 50/50 between male and female rates, mortality tables for Safety Members were blended 90/10 between male and female rates, and mortality table for beneficiaries of Safety Members were blended 10/90 between male and female..

Elected Officers (General) contribute 9.05% of total salary, regardless of entry age (§24.1704).

14. Internal Revenue Code Limitation

Benefits provided by SDCERS' Trust Fund are subject to the limitations set forth in Section 415 of the Internal Revenue Code in accordance with the "grandfather" election in Section 415(b)(10) of the Code (§24.1004).

As of the June 30, 2006 valuation, active participants' benefit payments were limited by Section 415 of the Internal Revenue Code. As of the June 30, 2007 valuation, all benefit payments were limited by Section 415 of the Internal Revenue Code.

15. Deferred Retirement Option Plan

Effective April 1, 1997, a deferred retirement option plan (DROP) was created and offered to Members as an alternative method of benefit accrual. Members eligible for service retirement are eligible to participate in DROP (except for Safety Members who elect to accrue benefits under Section 24.0403(g)), but only those hired before July 1, 2005 may enter the program (§24.1402.1).

A participant in DROP may leave DROP at any time before the end of his or her designated DROP participation period by voluntarily leaving City employment (§24.1403). The maximum DROP participation period is 60 months (§24.1402).

A DROP participation account is a nominal account established with the Retirement System, which is credited with the following amounts (§24.1404):

- The Member's monthly service retirement allowance, credited monthly, calculated at the date of DROP entry and increased each year by a cost-of-living adjustment.
- The Member's supplemental 13th check benefit, if applicable, credited annually.
- 3.05% of base compensation, payable by the City and credited bi-weekly.

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- 3.05% of base compensation, payable by the Member and credited bi-weekly.
- For a Firefighter's Local 145 bargaining unit Member, an amount representing their unused annual leave accrued after July 1, 2002, including annual leave accrued after July 1, 2002, while in DROP, which was not converted to creditable service before the date of DROP entry.
- Interest on the above amounts, as determined by the Board.

When a Member leaves DROP and City employment, they begin to collect their monthly service retirement allowance, their supplemental 13th check benefit (if applicable), and the amounts credited to their DROP participation account, payable as a single lump sum distribution, as a 240-month annuity with equal payments, or any other form approved by the Board and subject to applicable provisions of the Internal Revenue Code (§24.1407).

DROP is not intended to jeopardize the tax-qualified status of the retirement system under the rules and regulations of the Internal Revenue Service. Benefits provided under this division are subject to the limitations of Section 415 of the Internal Revenue Code relating to the amount of benefits that can be paid.

16. Blended Benefit with Participating Agencies

Members may retire and receive benefits from multiple Plans (e.g., a City police officer could have also worked for the Airport Authority).

17. Changes since Last Valuation

A new plan for Police Members was implemented effective January 1, 2012. The only change to the existing plan is to average final compensation over three years instead of one year.

As a result of Proposition B, effective July 20, 2012 new employees (other than Police) will not participate in SDCERS.

Note: The summary of major plan provisions is designed to outline principal plan benefits. If the SDCERS staff should find the plan summary not in accordance with the actual provisions, the actuary should immediately be alerted so the proper provisions are valued.

**APPENDIX D
GLOSSARY OF TERMS**

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of all future system benefits and the present value of total future normal costs. This is also referred to by some actuaries as the “accrued liability” or “actuarial accrued liability.”

2. Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement rate or rates of investment income and salary increases. Actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

3. Accrued Service

Service credited under the System which was rendered before the date of the actuarial valuation.

4. Actuarial Equivalent

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

5. Actuarial Funding Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of a retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

6. Actuarial Gain/(Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

7. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

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8. Amortization

Paying off an interest-discounted amount with periodic payments of interest and principal—as opposed to paying off with a lump sum payment.

9. Annual Required Contribution (ARC) under GASB 25

The Governmental Accounting Standards Board (GASB) Statement No. 25 defines the Plan Sponsor's "Annual Required Contribution" (ARC) as the employer's periodic required contributions to a defined benefit plan, calculated in accordance with the parameters outlined in Statement No. 25. The SDCERS-City of San Diego's computed contribution rate for FY 2014 meets the parameters of GASB 25.

10. Normal Cost

The actuarial present value of retirement system benefits allocated to the current year by the actuarial funding method.

11. Set Back/Set Forward

Set back is a period of years that a standard published table (i.e., mortality) is referenced backwards in age. For instance, if the set back period is 2 years and the participant's age is currently 40, then the table value for age 38 is used from the standard published table. It is the opposite for set forward. A system would use set backs or set forwards to compensate for mortality experience in their work force.

12. Unfunded Actuarial Liability (UAL)

The difference between actuarial liability and the actuarial value of assets.

Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added and each time an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability, and the trend in its amount (after due allowance for devaluation of the dollar).