

**San Diego City  
Employees' Retirement System**

**Actuarial Valuation  
as of June 30, 2013  
for the  
City of San Diego**

**Produced by **Cheiron****

**December 2013**

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LETTER OF TRANSMITTAL

December 27, 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, 2013 Actuarial Valuation**

Dear Members of the Board:

At your request, we have performed the June 30, 2013 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.

| <b>Table I-1</b>                                  |                      |                         |                      |                         |  |
|---|----------------------|-------------------------|----------------------|-------------------------|--|
| <b>SDCERS - City of San Diego</b>                 |                      |                         |                      |                         |  |
| <b>Valuation as of:</b>                           | <b>June 30, 2013</b> |                         | <b>June 30, 2012</b> |                         |  |
| Unfunded Actuarial Liability (in millions)        | \$                   | 2,237.7                 | \$                   | 2,279.3                 |  |
| Funding Ratio                                     |                      | 70.4%                   |                      | 68.6%                   |  |
| City Contribution Rate                            |                      | 59.55%                  |                      | 59.48%                  |  |
|   |                      | <b>Fiscal Year 2015</b> |                      | <b>Fiscal Year 2014</b> |  |
| Actuarially Determined Contribution (in millions) |                      |                         |                      |                         |  |
| -if paid at the beginning of the year             | \$                   | 263.6                   | \$                   | 275.4                   |  |
| -if paid throughout the year                      | \$                   | 272.9                   | \$                   | 285.5                   |  |

- Unfunded Actuarial Liability (UAL):** The City's UAL has decreased by \$41.6 million. The primary causes of this decrease were an assumed freeze on across the board (inflationary) pay increases through FY 2018 based on negotiated labor agreements, a reduction in the long-term pay inflation assumption after 2018, and a return on assets greater than expected. The rate of return on the actuarial value of assets was 8.19%, or 0.69% above last year's assumed 7.50% return, leading to a \$25.0 million decrease in the UAL. Partially offsetting these factors were a reduction in the discount rate and a loss on the actuarial liabilities, both of which increased the UAL.
- Funding Ratio:** The ratio of the System's actuarial value of assets to its actuarial liabilities increased by 1.8%, from 68.6% to 70.4%.



- *Contributions (ADC):* The results of this valuation produced a decrease in the City's Actuarially Determined Contribution (ADC) of \$11.8 million. The two largest factors impacting the ADC were the assumed freeze on inflationary pay increases, which decreased the ADC by \$24.6 million, and the net changes in economic assumptions (discount rate less long-term pay inflation), which increased it by \$9.3 million. When measured as a percent of member payroll, the ADC rose by 0.07%. The contribution determined in this valuation satisfies the parameters of the Annual Required Contribution (ARC) in Governmental Accounting Standards Board (GASB) Statement Number 25. However, the revised standard GASB Statement Number 67, effective in FY 2014, does not define an ARC. In this report we use the term ADC instead, to refer to the contribution determined by the actuary in accordance with the SDCERS Board's adopted funding policy.

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, 2013. 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 Number 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, FSA, 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 2015, 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, 2013 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**

In FY 2014 GASB 25, which outlines standards for pension plan financial reporting, will be replaced by GASB 67. Similarly, in FY 2015 GASB 27 (standards for plan sponsor reporting) will be replaced by GASB 68. As described above, one purpose of the June 30, 2013 valuation is to develop contribution rates for FY 2015. However, neither GASB 67 nor GASB 68 retain the concept of an Annual Required Contribution (ARC), which had previously been used as the System's de-facto funding policy. In response, the SDCERS Board at its November 2013 meeting adopted to formalize the funding policy based on the existing practices used to develop the ARC. In this report we have replaced the term ARC with Actuarially Determined Contribution (ADC), to refer to the contribution determined by the actuary each year based on the adopted funding policy. GASB 67 and 68 also use this term to refer to a contribution determined by the actuary in accordance with Actuarial Standards of Practice, but do not define it further.

At the November 2013 meeting, the Board also adopted several assumption changes following our annual review of economic assumptions. Inflationary pay increases are assumed to be 0% through FY 2018 based on the negotiated labor agreements, and the long-term across the board pay inflation assumption (after FY 2018) was lowered from 3.75% to 3.3% per year. The assumed investment return was also lowered from 7.5% to 7.25% per year, net of all expenses. More details on the assumptions and methods can be found in Appendix B.

As a result of Proposition B, effective July 20, 2012 SDCERS was closed to new City employees, except for the Police Plan, which remains open. The non-Police portion of the UAL as of June 30, 2012 is being amortized in level dollar amounts over a closed 15-year period. Subsequent gains and losses will be amortized over new 15-year periods in accordance with the System's funding policy, also in level dollar amounts. The portion of the UAL associated with the open Police Plan will continue to be amortized in layers as a level percentage of pay.

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION I  
BOARD SUMMARY**

Throughout this report there will be references to “Old Plan,” “2009 Plan,” “2011 Plan”, “2012 Plan” and “2012 No COL Plan,” which distinguish each membership category’s various benefit tiers according to their effective dates. In the 2013 valuation, two additional tiers have been added, a Fire-2012 Plan and a Police-2012 No COL Plan. There will also be a new tier under Proposition B for Police Members hired on or after July 1, 2013. Membership data for this tier will be disclosed in next year’s valuation. More details on the plan provisions for all tiers can be found in Appendix C.

SDCERS-CITY OF SAN DIEGO  
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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, 2013 valuation and how they compare to the results from the June 30, 2012 valuation.

1. City Membership

Table I-2 shows that total membership in SDCERS-City of San Diego increased by 0.9% from 2012 to 2013. The increase was attributable to the growth in inactive membership (terminated vested, disabled, retirees, and beneficiaries), as the active membership count actually declined by 2.0%. Total active member payroll decreased by 2.3%, and the average pay per active member decreased by 0.2%. Since the Plan is closed to non-Police new hires, continued decreases in active member counts and total payroll are to be expected.

| <b>Table I-2</b>                                     |                      |                      |                 |  |
|--|----------------------|----------------------|-----------------|--|
| <b>SDCERS - City of San Diego - Membership Total</b> |                      |                      |                 |  |
| <b>Valuation as of:</b>                              | <b>June 30, 2013</b> | <b>June 30, 2012</b> | <b>% Change</b> |  |
| Active Counts  | 7,566                | 7,724                | -2.0%           |  |
| Terminated Vested                                    | 2,971                | 2,892                | 2.7%            |  |
| Disabled   | 1,212                | 1,221                | -0.7%           |  |
| Retirees   | 6,042                | 5,796                | 4.2%            |  |
| Beneficiaries  | 1,200                | 1,188                | 1.0%            |  |
| Total City Members                                   | 18,991               | 18,821               | 0.9%            |  |
| Active Member Payroll                                | \$ 499,463,072       | \$ 511,090,601       | -2.3%           |  |
| Average Pay per Active Member                        | \$ 66,014            | \$ 66,169            | -0.2%           |  |
| Benefits in Pay Status                               | \$ 371,628,344       | \$ 350,163,967       | 6.1%            |  |
| Average Benefit                                      | \$ 43,959            | \$ 42,677            | 3.0%            |  |

**SDCERS-CITY OF SAN DIEGO  
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**SECTION I  
BOARD SUMMARY**

2. City Assets and Liabilities

Table I-3 presents a comparison between the June 30, 2013 and June 30, 2012 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 4.0% and the actuarial value of assets increase of 6.7%, the funding ratio increased from 68.6% as of June 30, 2012 to 70.4% as of June 30, 2013. SDCERS employs a commonly used actuarial smoothing method on the market value that dampens market volatility, so the actuarial value of assets increased less than the market value (12.4%). Had the funding ratio been measured on a market value of assets basis, the ratio would be 71.4% as of June 30, 2013.

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

| <b>Table I-3</b>   |                      |                      |                 |  |
|--|----------------------|----------------------|-----------------|--|
| <b>SDCERS - City of San Diego - Assets &amp; Liabilities</b> |                      |                      |                 |  |
| <b>Entry Age Normal (EAN) Liabilities</b>                    | <b>June 30, 2013</b> | <b>June 30, 2012</b> | <b>% Change</b> |  |
| Actives  | \$ 2,275,193,142     | \$ 2,352,526,805     | -3.3%           |  |
| Terminated Vested  | 304,783,508          | 284,094,147          | 7.3%            |  |
| Disabled   | 459,745,043          | 445,229,719          | 3.3%            |  |
| Retirees   | 4,327,095,904        | 4,003,952,290        | 8.1%            |  |
| Beneficiaries  | 188,709,141          | 175,927,694          | 7.3%            |  |
| Total Actuarial (EAN) Liability                              | \$ 7,555,526,738     | \$ 7,261,730,655     | 4.0%            |  |
| Market Value Assets  | \$ 5,395,158,000     | \$ 4,799,827,000     | 12.4%           |  |
| Actuarial Value Assets                                       | \$ 5,317,778,092     | \$ 4,982,441,649     | 6.7%            |  |
| Unfunded Actuarial Liability                                 | \$ 2,237,748,646     | \$ 2,279,289,006     | -1.8%           |  |
| Funding Ratio-Actuarial Value                                | 70.4%                | 68.6%                | 1.8%            |  |

**SDCERS-CITY OF SAN DIEGO  
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3. Components of UAL Change between June 30, 2012 and June 30, 2013

The unfunded actuarial liability (UAL) for SDCERS-City of San Diego decreased by \$41.6 million, from \$2,279.3 million to \$2,237.7 million. Table I-4 below presents the specific components of the change in the UAL.

The two largest components of the change in UAL were the assumed freeze on inflationary pay increases, which decreased the UAL by \$194.9 million, and the net impact of the reduction in the discount rate and long-term pay inflation assumption, which increased the UAL by \$146.9 million.

For a description of the method changes on line 7 below, see the end of Appendices A and B.

| <b>Table I-4</b>   |                   |
|--|-------------------|
| <b>SDCERS - City of San Diego-Change in UAL</b>                      |                   |
| <b>(In Millions)</b>   |                   |
| <b>1. UAL at June 30, 2012</b>                                       | <b>\$ 2,279.3</b> |
| 2. Expected change in UAL*   | 29.7              |
| 3. Investment experience gain  |                   |
| a. Anticipated loss/(gain)   | 49.1              |
| b. Actual loss/(gain)  | (25.0)            |
| c. Difference (b - a)  | (74.1)            |
| 4. Liability experience loss   | 40.6              |
| 5. Reduction in discount rate and long-term pay inflation assumption | 146.9             |
| 6. Additional 4-year freeze on pay inflation                         | (194.9)           |
| 7. Method changes  | 8.2               |
| 8. Employee contributions paid less than expected                    | 1.0               |
| 9. Other misc (includes purchased service)                           | 1.1               |
| 10. Total change in UAL: sum of 2 through 9                          | (41.6)            |
| <b>11. UAL at June 30, 2013: 1 + 10</b>                              | <b>\$ 2,237.7</b> |

\*Includes projected phase-in of asset gains or losses

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**SECTION I  
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4. City Contributions (ADC)

The City's actuarially determined contribution (ADC) for FY 2015 measured as a percent of membership payroll increased from 59.48% to 59.55%. In dollars, the beginning of year ADC decreased by \$11.8 million, from \$275.4 million to \$263.6 million. The ADC was expected to increase by \$5.9 million to \$281.3 million, assuming continued phase-in of investment experience from prior years, so the ADC of \$263.6 million is \$17.7 million less than expected.

The two largest factors impacting the ADC were the assumed freeze on inflationary pay increases, which decreased the ADC by \$24.6 million, and the net changes in economic assumptions (discount rate and long-term pay inflation), which increased it by \$9.3 million.

Table I-5 below presents the specific components of the change in the ADC. In Section IV we provide more detail on the development of this contribution. For a description of the method changes on line 7 below, see the end of Appendices A and B.

| <b>Table I-5</b>   |                 |
|--|-----------------|
| <b>SDCERS - City of San Diego-Change in ADC</b>                      |                 |
| <b>(In Millions)</b>   |                 |
| <b>1. ADC at June 30, 2012</b>                                       | <b>\$ 275.4</b> |
| 2. Expected change in ADC*   | 5.9             |
| 3. Investment experience gain  |                 |
| a. Anticipated increase/(decrease)                                   | 4.6             |
| b. Actual increase/(decrease)  | (2.4)           |
| c. Difference (b - a)  | (7.0)           |
| 4. Liability experience loss   | 4.0             |
| 5. Reduction in discount rate and long-term pay inflation assumption | 9.3             |
| 6. Additional 4-year freeze on pay inflation                         | (24.6)          |
| 7. Method changes  | 0.4             |
| 8. Employee contributions paid less than expected                    | 0.1             |
| 9. Other misc (includes purchased service)                           | 0.0             |
| 10. Total change in ADC: sum of 2 through 9                          | (11.8)          |
| <b>11. ADC at June 30, 2013: 1 + 10</b>                              | <b>\$ 263.6</b> |

\*Includes projected phase-in of asset gains or losses

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

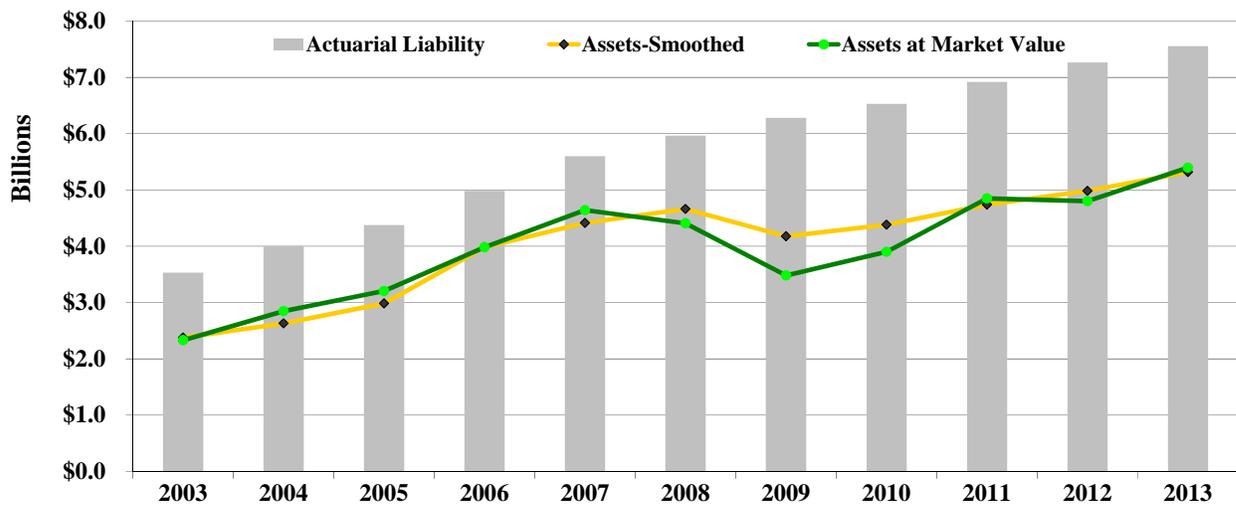
**SECTION I  
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**C. Historical Trends for SDCERS-City of San Diego**

Despite the primary focus given each year on the most recently computed unfunded actuarial liability (UAL), funding ratio, and City contribution (ADC), it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension plan. It is more important to judge a current year's valuation results 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 2003.

**SDCERS-City of San Diego Assets and Liabilities 2003-2013**



|                  |         |         |         |         |         |         |         |         |         |         |         |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Funding Ratio    | 67.2%   | 65.8%   | 68.2%   | 79.9%   | 78.8%   | 78.1%   | 66.5%   | 67.1%   | 68.5%   | 68.6%   | 70.4%   |
| UAL (billions) * | \$ 1.16 | \$ 1.37 | \$ 1.39 | \$ 1.00 | \$ 1.18 | \$ 1.30 | \$ 2.11 | \$ 2.15 | \$ 2.18 | \$ 2.28 | \$ 2.24 |

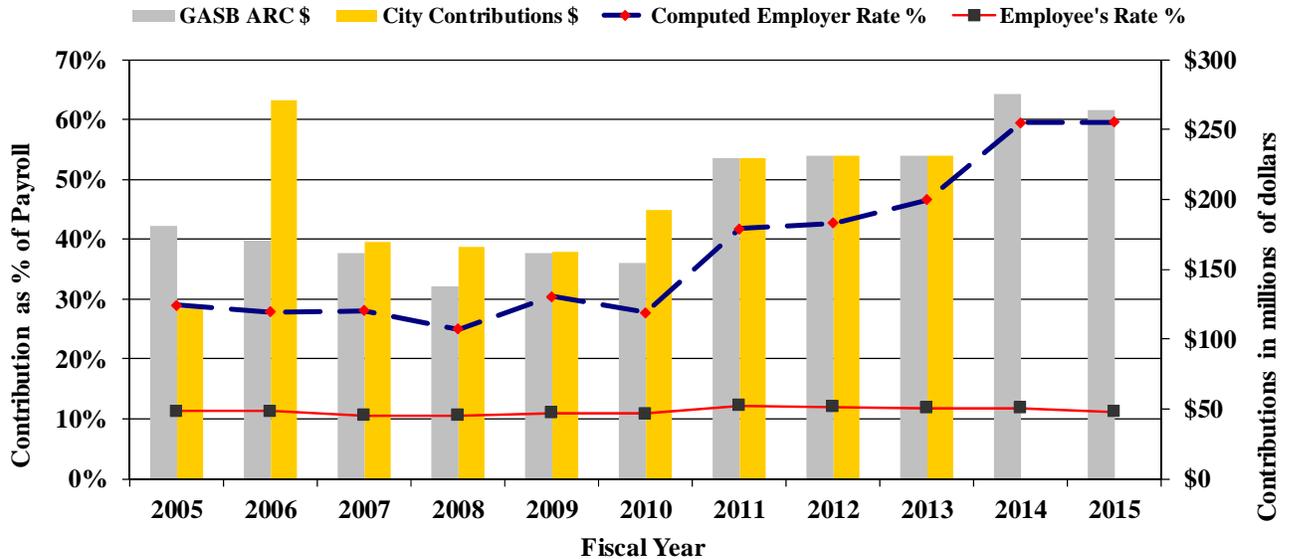
\*The UAL for 2007 and after is calculated using the Entry Age Normal method; 2006 and prior years are calculated using the Projected Unit Credit method.

From a low of 65.8% in 2004, the funding ratio improved significantly over the next few years, 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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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 contributions (previously the GASB ARC, but in the future will be referred to as the ADC).

**SDCERS-City of San Diego City and Member Contribution Rates FY 2005-2015**



The computed employer contribution rate was in the range of 30% for the first six fiscal years shown, but increased to over 40% of payroll in FY 2011 due to the significant asset loss resulting from the market decline of 2008/2009. In FY 2014 the employer rate increased significantly again due to the change from a level percent of pay to a level dollar amortization of the non-Police portion of the UAL. In the future 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.

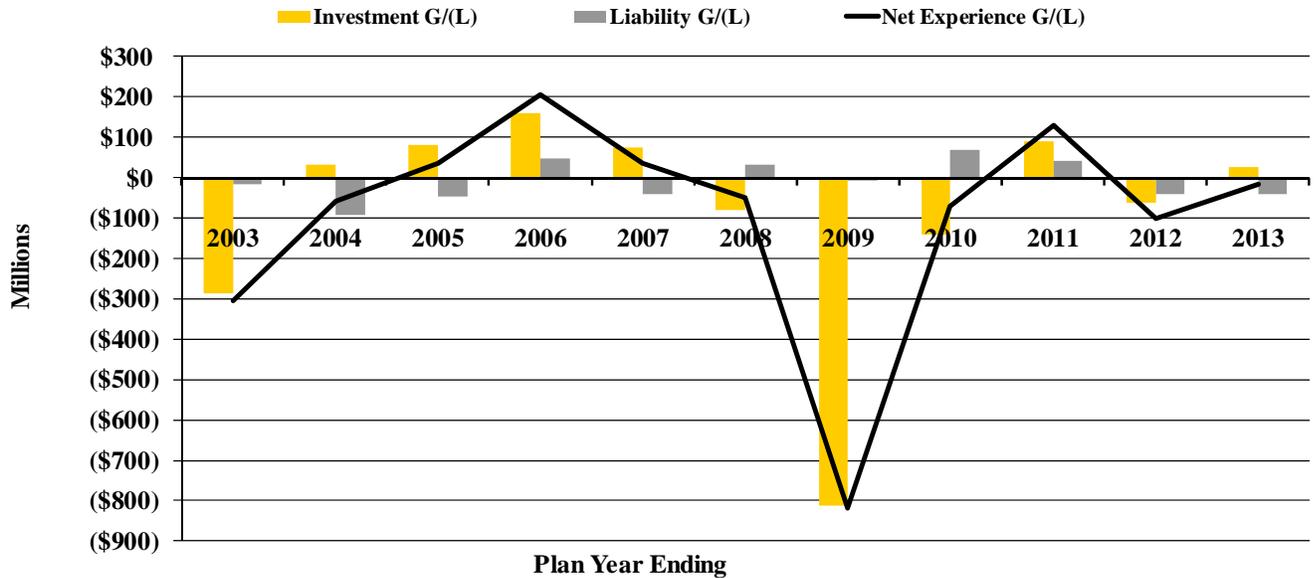
Since the ARC is not defined in the new standards for public pension plan reporting, GASB 67 and 68, the term ADC will be used in future years to refer to the annual actuarially determined contribution and will be the basis for comparison to actual City contributions.

SDCERS-CITY OF SAN DIEGO  
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BOARD SUMMARY**

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) 2003-2013**



The key insights from this chart are:

- The System experienced a significant investment loss (gold bars) in 2003, which was 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 2003 to 2007 (except for 2006), there was a pattern of liability losses. The liability experience has been more varied (small gains and small losses) since 2007.

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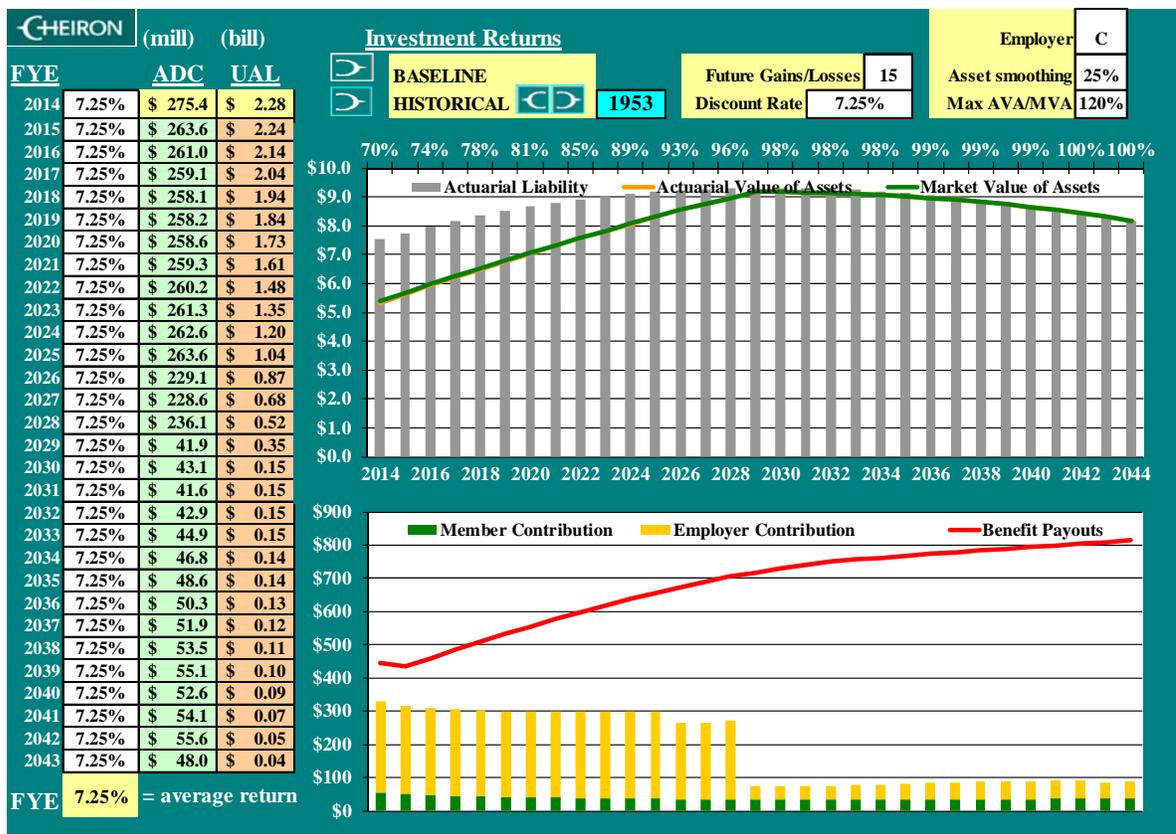
**SECTION I  
BOARD SUMMARY**

**D. Projected Financial Trends**

Our analysis of SDCERS-City of San Diego projected financial trends is a very important part of this valuation. Our assessment of the implications of the June 30, 2013 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 the chart that follows, we project the SDCERS-City of San Diego assets and liabilities and the City's contributions assuming 7.25% 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 contributions in dollars (employer contributions in yellow bars and member contributions in green bars). The left side of the exhibit shows the returns assumed each year followed by the annual ADC and UAL in dollar amounts.

**SDCERS-City of San Diego Projections FY 2014-2043 (earnings as assumed)**



Based on assuming 7.25% 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 plan's

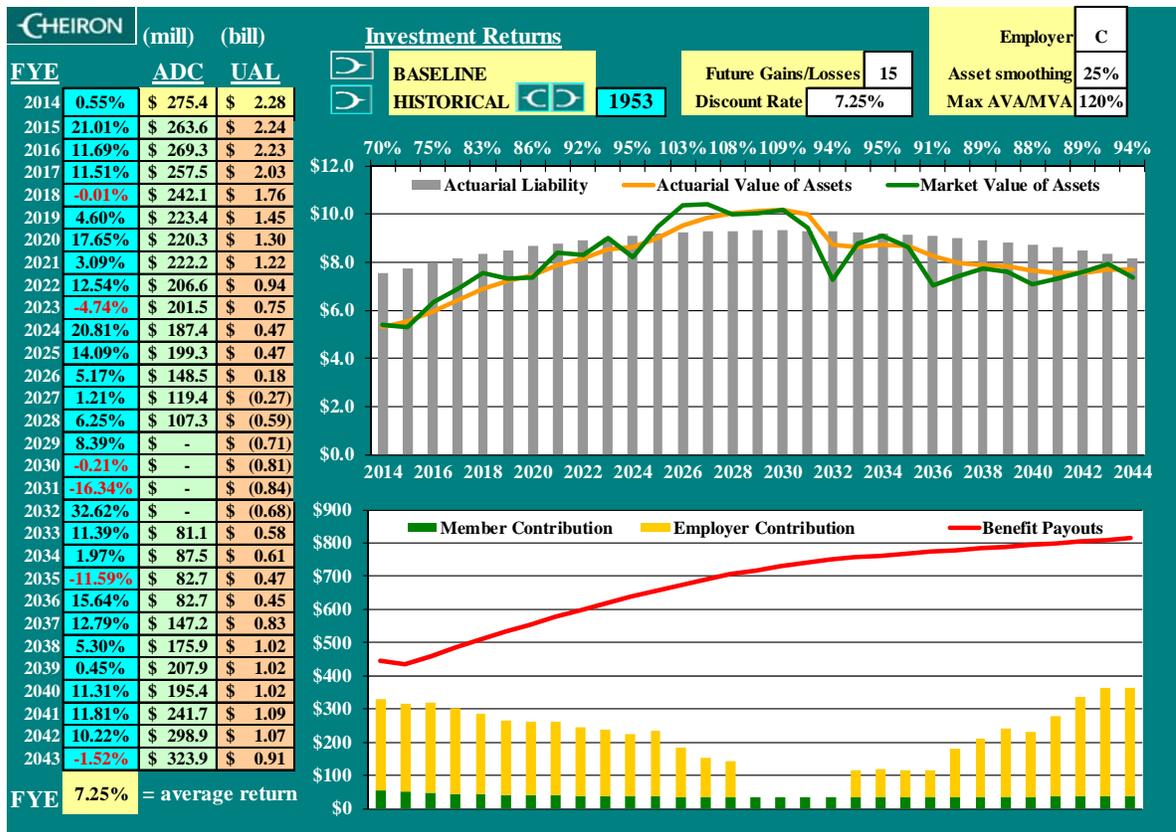
SDCERS-CITY OF SAN DIEGO  
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assets and liabilities peak around the middle of the projection period, after which they begin to decline due to the closure of the non-Police portion of the plan to new hires. The City's ADC (formerly the ARC) is projected to remain in the range of approximately \$230-260 million until 2029, when it drops sharply to \$41.9 million as the Plan approaches full funding.

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 additional stress testing projection, based on assuming varying returns in the future which on average equal the assumed 7.25% 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 7.25% investment assumption of SDCERS.

**SDCERS-City of San Diego Projections FY 2014-2043 (earnings which vary by year)**



With varying annual earnings that average over the period to 7.25%, one can see the volatility in the funding ratios in the top chart, and the fact that the ADC declines

**SECTION I**  
**BOARD SUMMARY**

significantly and then increases 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.

This last chart demonstrates the risks faced by SDCERS measured in terms of funding ratios and contributions. 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 ADC 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 smooths 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, 2013 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.

**SECTION II  
ASSETS**

**A. Disclosure of Market Value of Assets**

The market value of assets represents a “snap-shot” value as of June 30, 2013, 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, 2013.

|   |           |                      |
|---|-----------|----------------------|
| Cash  | \$        | 237,090,000          |
| US Stocks                                     |           | 1,839,561,000        |
| International Stocks                          |           | 1,353,839,000        |
| Private Equity                                |           | 258,176,000          |
| Bonds   |           | 1,718,919,000        |
| Real Estate                                   |           | 609,782,000          |
| Receivables                                   |           | 214,194,000          |
| Miscellaneous                                 |           | 5,030,000            |
| Accounts Payable                              |           | <u>(423,278,000)</u> |
| <b>Market Value of Assets – June 30, 2013</b> | <b>\$</b> | <b>5,813,313,000</b> |

**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.

| <b>Table II-2</b>   |  |  |   |
|---|--|--|---|
| <b>Summary of Market and Actuarial Assets for Each Employer Group<br/>as of June 30, 2013</b> |  |  |   |
|   | <u>Market Value</u><br>Total Net Assets<br>June 30, 2012 | <u>Market Value</u><br>Total Net Assets<br>June 30, 2013 | <u>Actuarial Value</u><br>Total Assets<br>June 30, 2013 |
| City of San Diego   | \$ 4,799,827,000   | \$ 5,395,158,000   | \$ 5,317,778,092  |
| Unified Port District   | 271,703,000  | 309,699,000  | 302,321,696   |
| Airport Authority   | <u>91,997,000</u>  | <u>108,456,000</u>                                       | <u>107,616,363</u>                                      |
| <b>Total-SDCERS</b>   | <b>\$ 5,163,527,000</b>                                  | <b>\$ 5,813,313,000</b>                                  | <b>\$ 5,727,716,151</b>                                 |

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**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, 2013 (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.

| <b>Table II-3<br/>SDCERS - City of San Diego<br/>Development of Actuarial Value of Assets at June 30, 2013<br/>Expected Value of Assets Method</b> |                      |
|--|----------------------|
| 1. Actuarial Value of Assets at June 30, 2012  | \$ 4,982,441,649     |
| 2. Amount in (1) with interest at 7.5% to June 30, 2013  | 5,356,124,773        |
| 3. Employer and Member contributions for the Plan Year ended June 30, 2013   | 296,635,000          |
| 4. Disbursements from Trust excluding investment and admin expenses, June 30, 2012 through June 30, 2013   | 366,036,000          |
| 5. Interest on cash flows to June 30, 2013 at 7.5% per year  | <u>5,261,017</u>     |
| 6. Expected Actuarial Value of Assets at June 30, 2013<br>= (2) + (3) – (4) + (5)  | 5,291,984,790        |
| 7. Actual Market Value of Assets at June 30, 2013  | <u>5,395,158,000</u> |
| 8. Excess of (7) over (6)  | 103,173,210          |
| 9. Preliminary Actuarial Value of Assets at June 30, 2013<br>= (6) + 25% of (8)  | \$ 5,317,778,092     |
| 10. 80% Minimum Corridor on the Actuarial Value of Assets<br>= 80% of (7)  | 4,316,126,400        |
| 11. 120% Maximum Corridor on the Actuarial Value of Assets<br>= 120% of (7)  | 6,474,189,600        |
| 12. Final Actuarial Value of Assets at June 30, 2013<br>= (9), but no less than (10) and no more than (11)   | \$ 5,317,778,092     |

**SECTION II**  
**ASSETS**

**D. Investment Performance**

The return on the market value of assets, as reported by SDCERS' investment consultant Hewitt Ennis Knupp, was 13.6%. The return in FY 2012 was 0.9%.

On an actuarial (smoothed) value of assets basis, the return for FY 2013 was 8.19%. This return produced for SDCERS-All Employers an overall investment gain of \$27.8 million for the year ending June 30, 2013. (Note: this reported gain is different than the investment gain of \$25.0 million reported on page 5 in this report. \$25.0 million is the gain only for SDCERS-City).

### 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, 2012 and June 30, 2013, 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  
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**SECTION III  
LIABILITIES**

| <b>Table III-1</b>                        |               |                      |               |                      |
|---|---------------|----------------------|---------------|----------------------|
| <b>SDCERS - City of San Diego - Total</b> |               |                      |               |                      |
| Valuation as of:                          | June 30, 2013 |                      | June 30, 2012 |                      |
| <b>Present Value of Future Benefits</b>   |               |                      |               |                      |
| Actives                                   | \$            | 2,949,691,756        | \$            | 3,157,311,041        |
| Terminated Vested                         |               | 304,783,508          |               | 284,094,147          |
| Disabled                                  |               | 459,745,043          |               | 445,229,719          |
| Retirees                                  |               | 4,327,095,904        |               | 4,003,952,290        |
| Beneficiaries                             |               | 188,709,141          |               | 175,927,694          |
| <b>Total City</b>                         | <b>\$</b>     | <b>8,230,025,352</b> | <b>\$</b>     | <b>8,066,514,890</b> |
| <b>Actuarial Liability - EAN</b>          |               |                      |               |                      |
| Total Present Value of Future Benefits    | \$            | 8,230,025,352        | \$            | 8,066,514,890        |
| Present Value of Future Normal Costs      |               |                      |               |                      |
| Employer Portion                          |               | 324,133,102          |               | 388,843,184          |
| Employee Portion                          |               | 350,365,512          |               | 415,941,051          |
| <b>Actuarial Liability - EAN</b>          | <b>\$</b>     | <b>7,555,526,738</b> | <b>\$</b>     | <b>7,261,730,655</b> |
| Actuarial Value of Assets                 | \$            | 5,317,778,092        | \$            | 4,982,441,649        |
| <b>Unfunded EAN Actuarial Liability</b>   | <b>\$</b>     | <b>2,237,748,646</b> | <b>\$</b>     | <b>2,279,289,006</b> |

Table III-2 shows the actuarial liability as of June 30, 2013 for General and Elected Members of SDCERS-City of San Diego.

| <b>Table III-2</b>  |                         |                         |                      |                      |
|---|-------------------------|-------------------------|----------------------|----------------------|
| <b>SDCERS - City of San Diego - General &amp; Elected as of June 30, 2013</b> |                         |                         |                      |                      |
|   | Total                   | General-Old             | General-2009         | Elected              |
| <b>Present Value of Future Benefits</b>                                       |                         |                         |                      |                      |
| Actives   | \$ 1,640,648,908        | \$ 1,591,397,427        | \$ 47,638,131        | \$ 1,613,350         |
| Terminated Vested   | 229,247,098             | 227,829,851             | 813,249              | 603,998              |
| Disabled  | 90,060,001              | 90,060,001              | -                    | -                    |
| Retirees  | 2,159,479,398           | 2,151,381,556           | -                    | 8,097,842            |
| Beneficiaries   | 81,282,225              | 80,675,644              | -                    | 606,581              |
| <b>Total City General &amp; Elected</b>                                       | <b>\$ 4,200,717,630</b> | <b>\$ 4,141,344,479</b> | <b>\$ 48,451,380</b> | <b>\$ 10,921,771</b> |
| <b>Actuarial Liability - EAN</b>  |                         |                         |                      |                      |
| Actives   | \$ 1,314,261,243        | \$ 1,305,463,335        | \$ 7,934,130         | \$ 863,778           |
| Terminated Vested   | 229,247,098             | 227,829,851             | 813,249              | 603,998              |
| Disabled  | 90,060,001              | 90,060,001              | -                    | -                    |
| Retirees  | 2,159,479,398           | 2,151,381,556           | -                    | 8,097,842            |
| Beneficiaries   | 81,282,225              | 80,675,644              | -                    | 606,581              |
| <b>Total City General &amp; Elected</b>                                       | <b>\$ 3,874,329,966</b> | <b>\$ 3,855,410,387</b> | <b>\$ 8,747,379</b>  | <b>\$ 10,172,200</b> |

SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013

**SECTION III  
LIABILITIES**

Table III-3 shows the actuarial liability as of June 30, 2013 for Police Members of SDCERS-City of San Diego.

| <b>Table III-3</b>   |                         |                         |                      |                     |                           |
|--|-------------------------|-------------------------|----------------------|---------------------|---------------------------|
| <b>SDCERS - City of San Diego - Police as of June 30, 2013</b> |                         |                         |                      |                     |                           |
|  | <b>Total</b>            | <b>Police-Old</b>       | <b>Police-2009</b>   | <b>Police-2012</b>  | <b>Police-2012 No COL</b> |
| <b>Present Value of Future Benefits</b>                        |                         |                         |                      |                     |                           |
| Actives  | \$ 895,607,171          | \$ 843,786,003          | \$ 27,935,689        | \$ 7,050,508        | \$ 16,834,971             |
| Terminated Vested  | 64,202,471              | 63,938,694              | 250,054              | 4,527               | 9,196                     |
| Disabled   | 250,593,369             | 250,593,369             | -                    | -                   | -                         |
| Retirees   | 1,348,411,645           | 1,348,411,645           | -                    | -                   | -                         |
| Beneficiaries  | 70,486,944              | 70,486,944              | -                    | -                   | -                         |
| <b>Total City Safety</b>                                       | <b>\$ 2,629,301,600</b> | <b>\$ 2,577,216,655</b> | <b>\$ 28,185,743</b> | <b>\$ 7,055,035</b> | <b>\$ 16,844,167</b>      |
| <b>Actuarial Liability - EAN</b>                               |                         |                         |                      |                     |                           |
| Actives  | \$ 649,841,568          | \$ 643,768,552          | \$ 5,500,108         | \$ 518,626          | \$ 54,282                 |
| Terminated Vested  | 64,202,470              | 63,938,694              | 250,054              | 4,527               | 9,196                     |
| Disabled   | 250,593,369             | 250,593,369             | -                    | -                   | -                         |
| Retirees   | 1,348,411,645           | 1,348,411,645           | -                    | -                   | -                         |
| Beneficiaries  | 70,486,944              | 70,486,944              | -                    | -                   | -                         |
| <b>Total City Safety</b>                                       | <b>\$ 2,383,535,995</b> | <b>\$ 2,377,199,203</b> | <b>\$ 5,750,162</b>  | <b>\$ 523,153</b>   | <b>\$ 63,478</b>          |

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION III  
LIABILITIES**

Table III-4 shows the actuarial liability as of June 30, 2013 for Fire and Lifeguard Members of SDCERS-City of San Diego.

| <b>Table III-4</b>   |                         |                         |                   |                      |
|--|-------------------------|-------------------------|-------------------|----------------------|
| <b>SDCERS - City of San Diego - Fire and Lifeguard as of June 30, 2013</b> |                         |                         |                   |                      |
|  | <b>Total</b>            | <b>Fire-Old</b>         | <b>Fire-2012</b>  | <b>Lifeguard</b>     |
| <b>Present Value of Future Benefits</b>                                    |                         |                         |                   |                      |
| Actives  | \$ 413,435,678          | \$ 373,908,662          | \$ 422,938        | \$ 39,104,079        |
| Terminated Vested  | 11,333,941              | 9,837,992               | 906               | 1,495,043            |
| Disabled   | 119,091,673             | 107,574,909             | -                 | 11,516,764           |
| Retirees   | 819,204,860             | 773,222,271             | -                 | 45,982,589           |
| Beneficiaries  | 36,939,972              | 36,170,510              | -                 | 769,462              |
| <b>Total City Safety</b>   | <b>\$ 1,400,006,124</b> | <b>\$ 1,300,714,344</b> | <b>\$ 423,843</b> | <b>\$ 98,867,937</b> |
| <b>Actuarial Liability - EAN</b>   |                         |                         |                   |                      |
| Actives  | \$ 311,090,333          | \$ 281,049,472          | \$ 64,604         | \$ 29,976,257        |
| Terminated Vested  | 11,333,941              | 9,837,992               | 906               | 1,495,043            |
| Disabled   | 119,091,673             | 107,574,909             | -                 | 11,516,764           |
| Retirees   | 819,204,860             | 773,222,271             | -                 | 45,982,589           |
| Beneficiaries  | 36,939,972              | 36,170,510              | -                 | 769,462              |
| <b>Total City Safety</b>   | <b>\$ 1,297,660,778</b> | <b>\$ 1,207,855,153</b> | <b>\$ 65,509</b>  | <b>\$ 89,740,115</b> |

SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013

**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.

| <b>Table III-5</b>  |    |               |
|---|----|---------------|
| <b>Development of 2013 Experience Gain/(Loss) SDCERS - City of San Diego</b>  |    |               |
| <b>(In Millions)</b>  |    |               |
| 1. Unfunded Actuarial Liability at June 30, 2012                              | \$ | 2,279.3       |
| 2. Beginning of year unfunded actuarial liability payment                     |    | (177.0)       |
| 3. Interest accrued ((1+2) x 7.5%)  |    | <u>157.7</u>  |
| 4. Expected Unfunded Actuarial Liability at June 30, 2013 (1+2+3)             |    | 2,259.9       |
| 5. Actual Unfunded Liability at June 30, 2013                                 |    | 2,237.7       |
| 6. Difference: (4 - 5)  |    | 22.2          |
| 7. Portion of difference (6) due to actuarial assumption or method changes    |    | 39.9          |
| 8. Portion of difference (6) due to plan changes                              |    | -             |
| 9. Portion of difference (6) due to employee contributions less than expected |    | (1.0)         |
| 10. Portion of difference (6) due to net experience Gain/(Loss)               |    | (16.8)        |
| a) portion of (10) due to investment experience                               | \$ | 25.0          |
| b) portion of (10) due to liability experience                                | \$ | (40.6)        |
| c) portion of (10) due to service purchases                                   | \$ | (1.1)         |
| <b>Elements of Liability Gain/(Loss)</b>                                      |    |               |
| 1. G/(L) due to demographic and payroll experience                            |    | (40.6)        |
| 2. Other Gain/(Loss)  |    | <u>-</u>      |
| 3. Total Estimated Liability Gain/(Loss): sum 1 and 2                         | \$ | <b>(40.6)</b> |

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION III  
LIABILITIES**

Table III-6 shows the history of past experience gains and losses.

| <b>Table III-6</b>  |                    |                              |                       |
|---|--------------------|------------------------------|-----------------------|
| <b>Experience Gain/(Loss) - Historical SDCERS - City of San Diego *</b> |                    |                              |                       |
| <b>Valuation</b>  |                    | <b>Beginning-of-Year</b>     | <b>Gain/(Loss)</b>    |
| <b>Date</b>   | <b>Gain/(Loss)</b> | <b>Actuarial Liabilities</b> | <b>% of Liability</b> |
| 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)                 |
| 6/30/2013   | (16,759,103)       | 7,261,730,655                | (0.2)                 |

\* 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 valuation salary. The gross normal cost rate for each sub-group is determined by dividing the sum of the individual normal costs by the total valuation salary for that sub-group. 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 2015 payroll to determine the normal cost component of the FY 2015 ADC.

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 2015 is to be amortized over several different periods. Table IV-2 shows the outstanding balance, the FY 2015 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.

Beginning with the June 30, 2012 valuation, the non-Police portion of the UAL has been 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 continues to be 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 2015 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). However, starting in FY 2014 (SDCERS) and FY 2015 (City), the new GASB Statements Numbers 67 and 68 apply, neither of which contain the concept of an ARC nor provide guidance for plan funding. In response, the SDCERS Board adopted a formal funding policy based on the existing practices used to develop the ARC. In the future, the contribution based on this policy will be referred to as the Actuarially Determined Contribution (ADC).

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION IV  
CONTRIBUTIONS**

**Table IV-1  
SDCERS - City of San Diego  
Development of the City's Contribution as of June 30, 2013, For (FY 2015)  
(dollars in millions)**

|  | WEIGHTED<br>TOTAL<br>CITY | Non-Safety        |                     |                      |         | Safety            |               |                |                |                          |             |              |           |
|--|---------------------------|-------------------|---------------------|----------------------|---------|-------------------|---------------|----------------|----------------|--------------------------|-------------|--------------|-----------|
|  |                           | Weighted<br>Total | General<br>Old Plan | General<br>2009 Plan | Elected | Weighted<br>Total | Police<br>Old | Police<br>2009 | Police<br>2012 | Police<br>2012<br>No COL | Fire<br>Old | Fire<br>2012 | Lifeguard |
| 1. Total Normal Cost Rate as of June 30, 2013          | <b>21.42%</b>             | 17.63%            | 17.84%              | 15.54%               | 35.76%  | 27.62%            | 27.73%        | 26.86%         | 25.77%         | 25.67%                   | 27.82%      | 30.60%       | 27.71%    |
| 2. Member Contribution Rate as of June 30, 2013        | <b>11.15%</b>             | 9.19%             | 9.39%               | 7.46%                | 9.07%   | 14.37%            | 14.46%        | 13.46%         | 13.44%         | 11.20%                   | 14.74%      | 15.14%       | 14.47%    |
| 3. Employer Normal Cost Rate as of June 30, 2013 (1-2) | <b>10.27%</b>             | 8.44%             | 8.45%               | 8.08%                | 26.69%  | 13.25%            | 13.27%        | 13.40%         | 12.33%         | 14.47%                   | 13.08%      | 15.46%       | 13.24%    |
| 4. Actuarial Liability                                 | \$ 7,555.5                | \$ 3,874.3        | \$ 3,855.4          | \$ 8.7               | \$ 10.2 | \$ 3,681.2        | \$ 2,377.2    | \$ 5.8         | \$ 0.5         | \$ 0.1                   | \$ 1,207.9  | \$ 0.1       | \$ 89.7   |
| 5. Actuarial Assets                                    | \$ 5,317.8                | \$ 2,740.0        | \$ 2,726.7          | \$ 6.4               | \$ 7.0  | \$ 2,577.8        | \$ 1,664.8    | \$ 4.2         | \$ 0.4         | \$ 0.0                   | \$ 845.1    | \$ 0.0       | \$ 63.2   |
| 6. Total Unfunded Actuarial Liability (UAL) (4-5)*     | \$ 2,237.7                | \$ 1,134.3        | \$ 1,128.7          | \$ 2.4               | \$ 3.2  | \$ 1,103.4        | \$ 712.4      | \$ 1.6         | \$ 0.1         | \$ 0.0                   | \$ 362.7    | \$ 0.0       | \$ 26.6   |
| 7. Preliminary FY15 UAL amortization*                  | \$ 217.8                  | \$ 115.5          | \$ 115.0            | \$ 0.2               | \$ 0.3  | \$ 102.3          | \$ 62.5       | \$ 0.1         | \$ 0.0         | \$ 0.0                   | \$ 36.9     | \$ 0.0       | \$ 2.7    |
| 8. <u>Negative Amortization Test for FY15</u>          |                           |                   |                     |                      |         |                   |               |                |                |                          |             |              |           |
| a. Total UAL on 6/30/13 less FY14 UAL payment          | \$ 2,013.4                | \$ 1,020.6        | \$ 1,015.6          | \$ 2.1               | \$ 2.9  | \$ 992.8          | \$ 641.0      | \$ 1.4         | \$ 0.1         | \$ 0.0                   | \$ 326.3    | \$ 0.0       | \$ 23.9   |
| b. interest on 8a. To 6/30/14                          | \$ 146.0                  | \$ 74.0           | \$ 73.6             | \$ 0.2               | \$ 0.2  | \$ 72.0           | \$ 46.5       | \$ 0.1         | \$ 0.0         | \$ 0.0                   | \$ 23.7     | \$ 0.0       | \$ 1.7    |
| c. preliminary FY15 UAL amortization (line 7)          | \$ 217.8                  | \$ 115.5          | \$ 115.0            | \$ 0.2               | \$ 0.3  | \$ 102.3          | \$ 62.5       | \$ 0.1         | \$ 0.0         | \$ 0.0                   | \$ 36.9     | \$ 0.0       | \$ 2.7    |
| d. Negative interest (8b - 8c, not less than zero)     | -                         | -                 | -                   | -                    | -       | -                 | -             | -              | -              | -                        | -           | -            | -         |
| 9. Total FY15 UAL payment on 7/01/14 (8c + 8d)         | \$ 217.8                  | \$ 115.5          | \$ 115.0            | \$ 0.2               | \$ 0.3  | \$ 102.3          | \$ 62.5       | \$ 0.1         | \$ 0.0         | \$ 0.0                   | \$ 36.9     | \$ 0.0       | \$ 2.7    |
| 10. Total FY15 UAL payment throughout year             | \$ 225.6                  | \$ 119.6          | \$ 119.1            | \$ 0.3               | \$ 0.3  | \$ 105.9          | \$ 64.7       | \$ 0.1         | \$ 0.0         | \$ 0.0                   | \$ 38.3     | \$ 0.0       | \$ 2.8    |
| 11. Total Expected Payroll for FY15**                  | \$ 458.3                  | \$ 275.4          | \$ 246.3            | \$ 28.7              | \$ 0.4  | \$ 183.0          | \$ 102.8      | \$ 7.9         | \$ 2.3         | \$ 18.5                  | \$ 46.5     | \$ 0.1       | \$ 4.9    |
| 12. FY15 Normal Cost paid throughout the year          | \$ 47.4                   | \$ 23.2           | \$ 20.8             | \$ 2.3               | \$ 0.1  | \$ 24.1           | \$ 13.6       | \$ 1.1         | \$ 0.3         | \$ 2.4                   | \$ 6.1      | \$ 0.0       | \$ 0.6    |
| 13. FY15 Normal Cost paid at start of year             | \$ 45.7                   | \$ 22.4           | \$ 20.1             | \$ 2.2               | \$ 0.1  | \$ 23.3           | \$ 13.2       | \$ 1.0         | \$ 0.3         | \$ 2.3                   | \$ 5.9      | \$ 0.0       | \$ 0.6    |
| 14. Determination of FY15 ADC %                        |                           |                   |                     |                      |         |                   |               |                |                |                          |             |              |           |
| a. Employer Normal Cost Rate (12 divided by 11)        | <b>10.34%</b>             | 8.44%             | 8.45%               | 8.08%                | 26.69%  | 13.19%            | 13.27%        | 13.40%         | 12.33%         | 13.09%                   | 13.08%      | 15.46%       | 13.24%    |
| b. UAL Rate (line 10 divided by line 11)               | <b>49.21%</b>             | 43.45%            | 48.34%              | 0.88%                | 84.01%  | 57.89%            | 62.91%        | 1.79%          | 0.58%          | 0.01%                    | 82.26%      | 1.79%        | 57.80%    |
| c. Total employer ADC % (14a + 14b)                    | <b>59.55%</b>             | 51.88%            | 56.79%              | 8.96%                | 110.69% | 71.08%            | 76.18%        | 15.19%         | 12.91%         | 13.10%                   | 95.34%      | 17.26%       | 71.03%    |
| 15. Determination of FY15 ADC dollars                  |                           |                   |                     |                      |         |                   |               |                |                |                          |             |              |           |
| a. FY15 ADC if paid throughout year                    | \$ 272.9                  | \$ 142.9          | \$ 139.9            | \$ 2.6               | \$ 0.4  | \$ 130.1          | \$ 78.3       | \$ 1.2         | \$ 0.3         | \$ 2.4                   | \$ 44.3     | \$ 0.0       | \$ 3.4    |
| b. FY15 ADC if paid at beginning of year               | \$ 263.6                  | \$ 138.0          | \$ 135.1            | \$ 2.5               | \$ 0.4  | \$ 125.6          | \$ 75.6       | \$ 1.2         | \$ 0.3         | \$ 2.3                   | \$ 42.8     | \$ 0.0       | \$ 3.3    |

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

\*\* Police 2012 No COL amount includes expected FY15 payroll for Police Prop B plan.

Note: Numbers may not add due to rounding.

SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013

**SECTION IV  
CONTRIBUTIONS**

Table IV-2 shows information on each layer of the June 30, 2013 UAL.

| <b>Table IV-2</b>   |                     |                   |                                  |  |  |                                    |  |
|---|---------------------|-------------------|----------------------------------|--|--|------------------------------------|--|
| <b>SDCERS - City of San Diego</b>                                 |                     |                   |                                  |  |  |                                    |  |
| <b>Schedule of Amortization Bases as of July 1, 2013</b>          |                     |                   |                                  |  |  |                                    |  |
| <b>Used in Development of the City's Contribution for FY 2015</b> |                     |                   |                                  |  |  |                                    |  |
| Type of Base  | Date<br>Established | Initial<br>Amount | Initial<br>Amortization<br>Years | July 1, 2013<br>Outstanding<br>Balance | Outstanding<br>Balance for FY<br>2015 (BOY)* | Remaining<br>Amortization<br>Years | Amortization<br>Payment for FY<br>2015 (BOY)** |
| 1. June 30, 2007 UAL  | 7/1/2007            | \$ 1,184,242,049  | 20                               | \$ 364,190,290                         | \$ 357,596,760                               | 14                                 | \$ 32,228,383                                  |
| 2. Assumption Change  | 7/1/2008            | 83,787,434        | 30                               | 30,244,663                             | 30,560,090                                   | 25                                 | 1,849,240                                      |
| 3. Experience Loss  | 7/1/2008            | 13,564,981        | 15                               | 4,168,625                              | 3,988,497                                    | 10                                 | 469,490  |
| 4. Experience Loss  | 7/1/2009            | 810,661,179       | 15                               | 257,037,693                            | 247,954,570                                  | 11                                 | 27,002,934                                     |
| 5. Experience Loss  | 7/1/2010            | 25,942,732        | 15                               | 8,428,990                              | 8,187,137                                    | 12                                 | 831,661  |
| 6. Experience Gain***   | 7/1/2010            | (50,000,000)      | 14                               | (14,756,666)                           | (14,235,199)                                 | 11                                 | (1,550,252)                                    |
| 7. Experience Gain  | 7/1/2011            | (141,139,563)     | 15                               | (46,717,381)                           | (45,642,278)                                 | 13                                 | (4,354,452)                                    |
| 8. Assumption Change  | 7/1/2011            | 188,313,322       | 30                               | 64,459,571                             | 65,381,648                                   | 28                                 | 3,702,849                                      |
| 9. Experience Loss  | 7/1/2012            | 36,799,824        | 15                               | 39,559,811                             | 38,843,595                                   | 14                                 | 3,500,776                                      |
| 10. Method Change   | 7/1/2012            | 2,465,954         | 30                               | 2,650,900                              | 2,691,753                                    | 29                                 | 149,485  |
| 11. Non-Police UAL****  | 7/1/2012            | 1,564,122,860     | 15                               | 1,550,667,393                          | 1,487,828,492                                | 14                                 | 161,011,781                                    |
| 12. Experience Loss   | 7/1/2013            | 25,877,674        | 15                               | 25,877,674                             | 27,753,805                                   | 15                                 | 2,721,844                                      |
| 13. Salary Freeze   | 7/1/2013            | (194,945,486)     | 15                               | (194,945,486)                          | (209,079,034)                                | 15                                 | (20,695,251)                                   |
| 14. Assumption Change   | 7/1/2013            | 146,882,570       | 30                               | 146,882,570                            | 157,531,556                                  | 30                                 | 10,938,428                                     |
| <b>TOTAL</b>  |                     |                   |                                  | <b>\$ 2,237,748,646</b>                | <b>\$ 2,159,361,394</b>                      |                                    | <b>\$ 217,806,918</b>                          |

\* July 1, 2013 outstanding balance adjusted to the FY2015 beginning of year (BOY), July 1, 2014.

\*\* For bases established 7/1/2013 and after, payment reflects level percent of pay amortization for Police portion and level dollar amortization for non-Police portion.

\*\*\* Reduction in UAL from anticipated impact of PSC correction as of the June 30, 2010 valuation.

\*\*\*\* Entire non-Police UAL as of June 30, 2012. Other pre-2013 bases reflect amounts attributable to Police.

**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 Number 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 Number 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 Number 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 7.25% 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 Number 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2012 and June 30, 2013 are presented in Table V-1 and Table V-2.

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

| <b>Table V-1</b>   |                      |                      |              |
|--|----------------------|----------------------|--------------|
| <b>SDCERS - City of San Diego - Total</b>                                  |                      |                      |              |
| Valuation as of:   | June 30, 2013        | June 30, 2012        | % Change     |
| <b>ASC Topic 960 Basis</b>   |                      |                      |              |
| 1. Present Value of Benefits Accrued and Vested to Date                    |                      |                      |              |
| a. Members Currently Receiving Payments                                    | \$ 4,975,550,088     | \$ 4,625,109,703     | 7.6%         |
| b. Vested Terminated and Inactive Members                                  | 304,783,508          | 284,094,147          | 7.3%         |
| c. Active Members  | <u>1,895,038,471</u> | <u>1,811,221,370</u> | <u>4.6%</u>  |
| d. Total PVAB  | \$ 7,175,372,068     | \$ 6,720,425,220     | 6.8%         |
| 2. Assets at Market Value  | \$ 5,395,158,000     | \$ 4,799,827,000     | 12.4%        |
| 3. Unfunded Present Value of Accrued Benefits,<br>But Not Less Than Zero   | \$ 1,780,214,068     | \$ 1,920,598,220     |              |
| 4. Ratio of Assets to Value of Benefits (2)/(1)(d)                         | 75.19%               | 71.42%               | 3.8%         |
| <b>GASB No. 25 Basis</b>   |                      |                      |              |
| 1. Actuarial Liabilities   |                      |                      |              |
| a. Members Currently Receiving Payments                                    | \$ 4,975,550,088     | \$ 4,625,109,703     | 7.6%         |
| b. Vested Terminated and Inactive Members                                  | 304,783,508          | 284,094,147          | 7.3%         |
| c. Active Members  | <u>2,275,193,142</u> | <u>2,352,526,805</u> | <u>-3.3%</u> |
| d. Total Actuarial Liability   | \$ 7,555,526,738     | \$ 7,261,730,655     | 4.0%         |
| 2. Actuarial Value of Assets   | \$ 5,317,778,092     | \$ 4,982,441,649     | 6.7%         |
| 3. Unfunded Actuarial Liability  | \$ 2,237,748,646     | \$ 2,279,289,006     | -1.8%        |
| 4. Ratio of Actuarial Value of Assets<br>to Actuarial Liability (2)/(1)(d) | 70.38%               | 68.61%               | 1.8%         |

| <b>Table V-2</b>  |                         |
|---|-------------------------|
| <b>SDCERS - City of San Diego - Total</b>   |                         |
| <b>Accumulated Benefit Obligation (ASC Topic 960)</b>                             |                         |
| <b>Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2012</b> | <b>\$ 6,720,425,220</b> |
| Increase (Decrease) During Year Attributable to:                                  |                         |
| Passage of Time   | 490,305,541             |
| Benefits Paid   | (366,036,000)           |
| Assumption Changes  | 173,025,774             |
| Plan Changes  | -                       |
| Benefits Accrued, Other Gains/Losses  | <u>157,651,533</u>      |
| Net Increase (Decrease)   | \$ 454,946,848          |
| <b>Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2013</b> | <b>\$ 7,175,372,068</b> |

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**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.

| <b>Table V-3</b>   |   |
|--|---|
| <b>SDCERS - City of San Diego</b>  |   |
| <b>NOTES TO REQUIRED SUPPLEMENTARY INFORMATION</b>   |   |
| 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, 2013                                   |
| Actuarial funding method   | Entry Age Normal                                |
| Amortization method  | Closed; Level % (Police), Level \$ (non-Police) |
| Equivalent single amortization period  | 15.233 years <sup>1</sup>                       |
| Asset valuation method   | Expected Value Method                           |
| Actuarial assumptions:   |   |
| Investment rate of return  | 7.25%   |
| Projected salary increases due to inflation <sup>2</sup>   | 0% for FY15-18, 3.3% 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 reviews of SDCERS' experience, completed in 2011 and 2013.   |   |
| 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. |   |

<sup>1</sup> 14 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.

<sup>2</sup> 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, 2013

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

| <b>Table V-4</b><br><b>SDCERS - City of San Diego</b><br><b>ANALYSIS OF FINANCIAL EXPERIENCE</b><br><b>Gain and Loss in Actuarial Liability During Years Ended June 30</b><br><b>Resulting from Differences Between Assumed Experience</b><br><b>and Actual Experience</b> |   |
|--|---|
| <b>Type of Activity</b>  | <i>Gain (or Loss) for<br/>Year ending<br/>June 30, 2013</i> |
| Investment Income  | \$ 24,968,204   |
| Combined Liability Experience  | <u>(40,640,350)</u>   |
| Gain (or Loss) During Year from Financial Experience   | \$ (15,672,146)   |
| Non-Recurring Gain (or Loss) Items (e.g., Contributions, Assumption Changes)   | <u>37,857,388</u>   |
| Composite Gain (or Loss) During Year   | \$ 22,185,242   |

**SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013**

**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

| <b>Table V-5<br/>SDCERS - City of San Diego<br/>SOLVENCY TEST<br/>Actuarial Liabilities For<br/>(\$ in thousands)</b> |                                   |                                  |  |                                 |   |        |       |  |
|---|-----------------------------------|----------------------------------|--|---------------------------------|---|--------|-------|--|
| Valuation<br>Date<br>June 30,   | (A)                               | (B)                              | (C)  | Reported<br>Assets <sup>1</sup> | Portion of Actuarial<br>Liabilities Covered<br>by Reported Assets |        |       |  |
|   | Active<br>Member<br>Contributions | Retirees<br>And<br>Beneficiaries | Remaining<br>Active<br>Members'<br>Liabilities |                                 | (A)   | (B)    | (C)   |  |
| 2013 <sup>7</sup>   | \$ 709,796                        | \$ 4,975,550                     | \$ 1,870,181                                   | \$ 5,317,778                    | 100%  | 92.61% | 0.00% |  |
| 2012  | 662,488                           | 4,625,110                        | 1,974,133                                      | 4,982,442                       | 100   | 93.40  | 0.00  |  |
| 2011 <sup>6</sup>   | 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 <sup>5</sup>   | 522,966                           | 3,286,668                        | 2,153,916                                      | 4,662,346                       | 100   | 100    | 39.50 |  |
| 2007 <sup>4</sup>   | 482,526                           | 3,101,594                        | 2,013,532                                      | 4,413,311                       | 100   | 100    | 41.19 |  |
| 2006 <sup>3</sup>   | 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 <sup>2</sup>              | 1,946,660                        | 1,635,681                                      | 2,628,680                       | 100   | 100    | 16.33 |  |
| 2003  | 375,000 <sup>2</sup>              | 1,741,490                        | 1,416,126                                      | 2,375,431                       | 100   | 100    | 18.28 |  |

<sup>1</sup> Actuarial Value of Assets.

<sup>2</sup> Estimated.

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

<sup>4</sup> 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.

<sup>5</sup> Reflects revised actuarial and economic assumptions.

<sup>6</sup> Reflects revised actuarial and economic assumptions.

<sup>7</sup> Reflects revised actuarial and economic assumptions.

SDCERS-CITY OF SAN DIEGO  
ACTUARIAL VALUATION AS OF JUNE 30, 2013

**APPENDIX A**  
**MEMBERSHIP INFORMATION**

| <b>Table A-1</b>                             |                      |                      |                 |
|--|----------------------|----------------------|-----------------|
| <b>SDCERS - City of San Diego</b>            |                      |                      |                 |
| <b>Active Member Data</b>                    |                      |                      |                 |
|  | <b>June 30, 2013</b> | <b>June 30, 2012</b> | <b>% Change</b> |
| <b><u>Total</u></b>                          |                      |                      |                 |
| Count  | 7,566                | 7,724                | -2.0%           |
| Average Current Age                          | 44.5                 | 44.3                 | 0.5%            |
| Average Service                              | 13.3                 | 13.2                 | 0.9%            |
| Average Pensionable Earnings                 | \$ 66,014            | \$ 66,169            | -0.2%           |
| Annual Pensionable Earnings                  | \$ 499,463,072       | \$ 511,090,601       | -2.3%           |
| Average Valuation Compensation <sup>1</sup>  | \$ 66,014            | \$ 66,169            | -0.2%           |
| Annual Valuation Compensation <sup>1</sup>   | \$ 499,463,072       | \$ 511,085,600       | -2.3%           |
| Service Without Permissive Service Purchased | 12.5                 | 12.3                 | 1.5%            |
| Members with Paid Purchased Service          | 1,620                | 1,733                | -6.5%           |
| Members with Any Purchased Service           | 1,685                | 1,819                | -7.4%           |
| Amount of Paid Purchased Service             | 5,755                | 6,199                | -7.2%           |
| Amount of Total Purchased Service            | 6,228                | 6,835                | -8.9%           |
| <b><u>General</u></b>                        |                      |                      |                 |
| Count  | 5,338                | 5,471                | -2.4%           |
| Average Current Age                          | 46.4                 | 46.1                 | 0.7%            |
| Average Service                              | 13.6                 | 13.4                 | 1.5%            |
| Average Pensionable Earnings                 | \$ 58,302            | \$ 58,596            | -0.5%           |
| Annual Pensionable Earnings                  | \$ 311,216,674       | \$ 320,577,659       | -2.9%           |
| Average Valuation Compensation <sup>1</sup>  | \$ 58,302            | \$ 58,595            | -0.5%           |
| Annual Valuation Compensation <sup>1</sup>   | \$ 311,216,674       | \$ 320,572,658       | -2.9%           |
| Service Without Permissive Service Purchased | 12.6                 | 12.4                 | 1.6%            |
| Members with Paid Purchased Service          | 1,281                | 1,365                | -6.2%           |
| Members with Any Purchased Service           | 1,299                | 1,394                | -6.8%           |
| Amount of Paid Purchased Service             | 4,907                | 5,279                | -7.0%           |
| Amount of Total Purchased Service            | 5,085                | 5,550                | -8.4%           |
| <b><u>Safety</u></b>                         |                      |                      |                 |
| Count  | 2,228                | 2,253                | -1.1%           |
| Average Current Age                          | 39.8                 | 39.7                 | 0.3%            |
| Average Service                              | 12.6                 | 12.6                 | 0.0%            |
| Average Pensionable Earnings                 | \$ 84,491            | \$ 84,560            | -0.1%           |
| Annual Pensionable Earnings                  | \$ 188,246,398       | \$ 190,512,942       | -1.2%           |
| Average Valuation Compensation <sup>1</sup>  | \$ 84,491            | \$ 84,560            | -0.1%           |
| Annual Valuation Compensation <sup>1</sup>   | \$ 188,246,398       | \$ 190,512,942       | -1.2%           |
| Service Without Permissive Service Purchased | 12.1                 | 12.1                 | 0.0%            |
| Members with Paid Purchased Service          | 339                  | 368                  | -7.9%           |
| Members with Any Purchased Service           | 386                  | 425                  | -9.2%           |
| Amount of Paid Purchased Service             | 848                  | 920                  | -7.8%           |
| Amount of Total Purchased Service            | 1,143                | 1,285                | -11.1%          |

<sup>1</sup> 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, 2013

**APPENDIX A  
MEMBERSHIP INFORMATION**

| <b>Table A-2<br/>SDCERS - City of San Diego<br/>Non-Active Participant Data</b> |               |               |              |               |               |             |
|---|---------------|---------------|--------------|---------------|---------------|-------------|
|   | Count         |               |              | Average Age   |               |             |
|   | June 30, 2013 | June 30, 2012 | %Change      | June 30, 2013 | June 30, 2012 | %Change     |
| <b><u>Total</u></b>   |               |               |              |               |               |             |
| Retired   | 6,042         | 5,796         | 4.2%         | 65.6          | 65.4          | 0.3%        |
| Disabled  | 1,212         | 1,221         | -0.7%        | 65.0          | 64.5          | 0.7%        |
| Beneficiaries   | <u>1,200</u>  | <u>1,188</u>  | <u>1.0%</u>  | <u>74.2</u>   | <u>74.2</u>   | <u>0.0%</u> |
| Payee Total   | 8,454         | 8,205         | 3.0%         | 66.7          | 66.5          | 0.2%        |
| DROP Participants   | 984           | 914           | 7.7%         | 56.9          | 56.6          | 0.5%        |
| Deferred Vested <sup>1</sup>  | 2,971         | 2,892         | 2.7%         | 46.2          | 45.8          | 0.9%        |
| Vested < 10 yrs svc   | 2,101         | 2,081         | 1.0%         |               |               |             |
| <b><u>General</u></b>   |               |               |              |               |               |             |
| Retired   | 3,995         | 3,832         | 4.3%         | 67.2          | 67.1          | 0.1%        |
| Disabled  | 411           | 413           | -0.5%        | 63.3          | 63.1          | 0.3%        |
| Beneficiaries   | <u>711</u>    | <u>714</u>    | <u>-0.4%</u> | <u>76.6</u>   | <u>76.6</u>   | <u>0.0%</u> |
| Payee Total   | 5,117         | 4,959         | 3.2%         | 68.2          | 68.2          | 0.0%        |
| DROP Participants   | 546           | 487           | 12.1%        | 59.3          | 59.1          | 0.3%        |
| Deferred Vested <sup>1</sup>  | 2,409         | 2,351         | 2.5%         | 47.4          | 47.0          | 0.9%        |
| Vested < 10 yrs svc   | 1,707         | 1,695         | 0.7%         |               |               |             |
| <b><u>Safety</u></b>  |               |               |              |               |               |             |
| Retired   | 2,047         | 1,964         | 4.2%         | 62.3          | 62.0          | 0.5%        |
| Disabled  | 801           | 808           | -0.9%        | 65.9          | 65.3          | 0.9%        |
| Beneficiaries   | <u>489</u>    | <u>474</u>    | <u>3.2%</u>  | <u>70.7</u>   | <u>70.5</u>   | <u>0.3%</u> |
| Payee Total   | 3,337         | 3,246         | 2.8%         | 64.4          | 64.1          | 0.5%        |
| DROP Participants   | 438           | 427           | 2.6%         | 53.9          | 53.8          | 0.2%        |
| Deferred Vested <sup>1</sup>  | 562           | 541           | 3.9%         | 41.2          | 40.8          | 1.0%        |
| Vested < 10 yrs svc   | 394           | 386           | 2.1%         |               |               |             |

<sup>1</sup> Includes all Participants having a contribution balance still on account with SDCERS.

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| <b>Table A-3<br/>SDCERS - City of San Diego<br/>Non-Active Participant Data</b> |                             |                      |                |                               |                      |                |
|---|-----------------------------|----------------------|----------------|-------------------------------|----------------------|----------------|
|   | <b>Total Annual Benefit</b> |                      |                | <b>Average Annual Benefit</b> |                      |                |
|   | <b>June 30, 2013</b>        | <b>June 30, 2012</b> | <b>%Change</b> | <b>June 30, 2013</b>          | <b>June 30, 2012</b> | <b>%Change</b> |
| <b><u>Total</u></b>   |                             |                      |                |                               |                      |                |
| Retired   | \$ 312,528,881              | \$ 293,127,220       | 6.6%           | \$ 51,726                     | \$ 50,574            | 2.3%           |
| Disabled  | 39,597,716                  | 38,696,914           | 2.3%           | 32,671                        | 31,693               | 3.1%           |
| Beneficiaries   | <u>19,501,747</u>           | <u>18,339,834</u>    | <u>6.3%</u>    | <u>16,251</u>                 | <u>15,438</u>        | <u>5.3%</u>    |
| Payee Total   | \$ 371,628,344              | \$ 350,163,968       | 6.1%           | \$ 43,959                     | \$ 42,677            | 3.0%           |
| DROP Participants   | \$ 57,528,747               | \$ 53,714,589        | 7.1%           | \$ 58,464                     | \$ 58,769            | -0.5%          |
| Deferred Vested <sup>1</sup>  | \$ 134,186,414              | \$ 123,281,448       | 8.8%           | \$ 45,165                     | \$ 42,628            | 6.0%           |
| <b><u>General</u></b>   |                             |                      |                |                               |                      |                |
| Retired   | \$ 167,224,555              | \$ 156,456,700       | 6.9%           | \$ 41,858                     | \$ 40,829            | 2.5%           |
| Disabled  | 7,791,951                   | 7,463,152            | 4.4%           | 18,959                        | 18,071               | 4.9%           |
| Beneficiaries   | <u>9,068,522</u>            | <u>8,558,576</u>     | <u>6.0%</u>    | <u>12,755</u>                 | <u>11,987</u>        | <u>6.4%</u>    |
| Payee Total   | \$ 184,085,028              | \$ 172,478,427       | 6.7%           | \$ 35,975                     | \$ 34,781            | 3.4%           |
| DROP Participants   | \$ 22,948,218               | \$ 20,275,584        | 13.2%          | \$ 42,030                     | \$ 41,634            | 1.0%           |
| Deferred Vested <sup>1</sup>  | \$ 107,311,378              | \$ 99,911,109        | 7.4%           | \$ 44,546                     | \$ 42,497            | 4.8%           |
| <b><u>Safety</u></b>  |                             |                      |                |                               |                      |                |
| Retired   | \$ 145,304,326              | \$ 136,670,520       | 6.3%           | \$ 70,984                     | \$ 69,588            | 2.0%           |
| Disabled  | 31,805,765                  | 31,233,762           | 1.8%           | 39,708                        | 38,656               | 2.7%           |
| Beneficiaries   | <u>10,433,225</u>           | <u>9,781,258</u>     | <u>6.7%</u>    | <u>21,336</u>                 | <u>20,636</u>        | <u>3.4%</u>    |
| Payee Total   | \$ 187,543,315              | \$ 177,685,541       | 5.5%           | \$ 56,201                     | \$ 54,740            | 2.7%           |
| DROP Participants   | \$ 34,580,528               | \$ 33,439,005        | 3.4%           | \$ 78,951                     | \$ 78,311            | 0.8%           |
| Deferred Vested <sup>1</sup>  | \$ 26,875,036               | \$ 23,370,339        | 15.0%          | \$ 47,820                     | \$ 43,198            | 10.7%          |

<sup>1</sup> 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, 2013.

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**Table A-4  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
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           | 69               | 42     | -      | -        | -        | -        | -        | -        | -        | -         | - | 111   |
| 25 to 29           | 92               | 311    | 152    | 2        | -        | -        | -        | -        | -        | -         | - | 557   |
| 30 to 34           | 47               | 266    | 380    | 108      | 3        | -        | -        | -        | -        | -         | - | 804   |
| 35 to 39           | 28               | 178    | 307    | 346      | 75       | 2        | -        | -        | -        | -         | - | 936   |
| 40 to 44           | 32               | 122    | 182    | 436      | 324      | 105      | 9        | -        | -        | -         | - | 1,210 |
| 45 to 49           | 21               | 108    | 139    | 324      | 344      | 435      | 250      | 11       | 1        | -         | - | 1,633 |
| 50 to 54           | 16               | 69     | 103    | 248      | 291      | 284      | 294      | 125      | 15       | 3         | - | 1,448 |
| 55 to 59           | 5                | 55     | 78     | 139      | 150      | 69       | 47       | 15       | 4        | 1         | - | 563   |
| 60 to 64           | 11               | 25     | 58     | 64       | 67       | 12       | 7        | 5        | -        | -         | - | 249   |
| 65 to 69           | 1                | 9      | 14     | 9        | 3        | 1        | 1        | -        | 1        | -         | - | 39    |
| 70 and up          | 1                | 7      | 5      | 1        | 1        | -        | -        | -        | -        | 1         | - | 16    |
| <b>Total Count</b> | 323              | 1,192  | 1,418  | 1,677    | 1,258    | 908      | 608      | 156      | 21       | 5         | - | 7,566 |

**Table A-5  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
Total City**

| Age                | Average Salary<br>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           | \$ 41,093                          | \$ 45,978 | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -   | \$ 42,942 |
| 25 to 29           | 44,345                             | 61,278    | 67,984    | 39,250    | -         | -         | -         | -         | -         | -         | -      | 60,232    |
| 30 to 34           | 43,562                             | 62,562    | 69,604    | 66,972    | 73,740    | -         | -         | -         | -         | -         | -      | 65,414    |
| 35 to 39           | 39,186                             | 63,324    | 70,051    | 72,162    | 72,448    | 64,355    | -         | -         | -         | -         | -      | 68,809    |
| 40 to 44           | 38,948                             | 57,864    | 65,872    | 68,553    | 78,178    | 70,984    | 58,254    | -         | -         | -         | -      | 69,001    |
| 45 to 49           | 43,009                             | 57,217    | 60,577    | 62,579    | 74,391    | 78,525    | 82,307    | 57,750    | 84,531    | -         | -      | 71,539    |
| 50 to 54           | 39,295                             | 60,369    | 54,765    | 57,044    | 63,376    | 66,029    | 69,672    | 66,877    | 60,277    | 72,835    | -      | 63,358    |
| 55 to 59           | 24,814                             | 57,274    | 57,307    | 56,992    | 59,188    | 63,935    | 70,588    | 66,673    | 56,706    | 62,358    | -      | 59,614    |
| 60 to 64           | 60,498                             | 66,905    | 56,420    | 54,346    | 63,637    | 65,325    | 76,038    | 72,101    | -         | -         | -      | 60,357    |
| 65 to 69           | 12,553                             | 52,963    | 75,322    | 70,182    | 42,169    | 54,246    | 66,581    | -         | 71,802    | -         | -      | 63,961    |
| 70 and up          | 25,000                             | 76,843    | 67,177    | 41,267    | 17,316    | -         | -         | -         | -         | -         | 49,462 | 62,927    |
| <b>Avg. Salary</b> | \$ 42,307                          | \$ 60,523 | \$ 65,918 | \$ 64,797 | \$ 70,193 | \$ 72,403 | \$ 74,837 | \$ 66,381 | \$ 61,301 | \$ 66,065 | -      | \$ 66,014 |

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**Table A-6  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
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           | 35               | 28     | -      | -        | -        | -        | -        | -        | -        | -         | -     | 63    |
| 25 to 29           | 42               | 167    | 55     | 2        | -        | -        | -        | -        | -        | -         | -     | 266   |
| 30 to 34           | 26               | 172    | 177    | 60       | 2        | -        | -        | -        | -        | -         | -     | 437   |
| 35 to 39           | 20               | 140    | 156    | 202      | 49       | 2        | -        | -        | -        | -         | -     | 569   |
| 40 to 44           | 26               | 103    | 126    | 293      | 162      | 67       | 8        | -        | -        | -         | -     | 785   |
| 45 to 49           | 19               | 104    | 117    | 257      | 210      | 225      | 126      | 10       | 1        | -         | -     | 1,069 |
| 50 to 54           | 16               | 64     | 97     | 220      | 252      | 243      | 267      | 123      | 15       | 3         | -     | 1,300 |
| 55 to 59           | 5                | 54     | 77     | 135      | 147      | 67       | 41       | 15       | 4        | 1         | -     | 546   |
| 60 to 64           | 11               | 25     | 58     | 64       | 67       | 12       | 7        | 5        | -        | -         | -     | 249   |
| 65 to 69           | 1                | 9      | 13     | 9        | 3        | 1        | 1        | -        | 1        | -         | -     | 38    |
| 70 and up          | 1                | 7      | 5      | 1        | 1        | -        | -        | -        | -        | 1         | -     | 16    |
| <b>Total Count</b> | 202              | 873    | 881    | 1,243    | 893      | 617      | 450      | 153      | 21       | 5         | -     | 5,338 |

**Table A-7  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
General**

| Age                | Average Salary<br>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           | \$ 30,193                          | \$ 39,172 | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -  | \$ 34,184 |
| 25 to 29           | 34,397                             | 50,613    | 46,894    | 39,250    | -         | -         | -         | -         | -         | -         | -     | 47,198    |
| 30 to 34           | 36,216                             | 56,632    | 54,937    | 51,694    | 61,849    | -         | -         | -         | -         | -         | -     | 54,077    |
| 35 to 39           | 32,293                             | 61,018    | 58,243    | 61,851    | 62,921    | 64,355    | -         | -         | -         | -         | -     | 59,719    |
| 40 to 44           | 34,208                             | 55,069    | 58,987    | 59,670    | 63,487    | 58,241    | 53,884    | -         | -         | -         | -     | 58,720    |
| 45 to 49           | 42,037                             | 56,347    | 56,787    | 56,644    | 63,411    | 63,373    | 67,144    | 54,873    | 84,531    | -         | -     | 60,364    |
| 50 to 54           | 39,295                             | 58,342    | 52,972    | 53,198    | 59,661    | 60,839    | 66,193    | 65,829    | 60,277    | 72,835    | -     | 59,935    |
| 55 to 59           | 24,814                             | 55,737    | 56,904    | 56,039    | 58,693    | 63,329    | 67,725    | 66,673    | 56,706    | 62,358    | -     | 58,640    |
| 60 to 64           | 60,498                             | 66,905    | 56,420    | 54,346    | 63,637    | 65,325    | 76,038    | 72,101    | -         | -         | -     | 60,357    |
| 65 to 69           | 12,553                             | 52,963    | 66,388    | 70,182    | 42,169    | 54,246    | 66,581    | -         | 71,802    | -         | -     | 60,606    |
| 70 and up          | 25,000                             | 76,843    | 67,177    | 41,267    | 17,316    | -         | -         | -         | -         | 49,462    | -     | 62,927    |
| <b>Avg. Salary</b> | \$ 35,806                          | \$ 55,894 | \$ 56,137 | \$ 57,228 | \$ 61,453 | \$ 61,839 | \$ 66,534 | \$ 65,401 | \$ 61,301 | \$ 66,065 | \$ -  | \$ 58,302 |

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**Table A-8  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
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           | 34               | 14     | -      | -        | -        | -        | -        | -        | -        | -         | 48    |
| 25 to 29           | 50               | 144    | 97     | -        | -        | -        | -        | -        | -        | -         | 291   |
| 30 to 34           | 21               | 94     | 203    | 48       | 1        | -        | -        | -        | -        | -         | 367   |
| 35 to 39           | 8                | 38     | 151    | 144      | 26       | -        | -        | -        | -        | -         | 367   |
| 40 to 44           | 6                | 19     | 56     | 143      | 162      | 38       | 1        | -        | -        | -         | 425   |
| 45 to 49           | 2                | 4      | 22     | 67       | 134      | 210      | 124      | 1        | -        | -         | 564   |
| 50 to 54           | -                | 5      | 6      | 28       | 39       | 41       | 27       | 2        | -        | -         | 148   |
| 55 to 59           | -                | 1      | 1      | 4        | 3        | 2        | 6        | -        | -        | -         | 17    |
| 60 to 64           | -                | -      | -      | -        | -        | -        | -        | -        | -        | -         | -     |
| 65 to 69           | -                | -      | 1      | -        | -        | -        | -        | -        | -        | -         | 1     |
| 70 and up          | -                | -      | -      | -        | -        | -        | -        | -        | -        | -         | -     |
| <b>Total Count</b> | 121              | 319    | 537    | 434      | 365      | 291      | 158      | 3        | -        | -         | 2,228 |

**Table A-9  
SDCERS - City of San Diego  
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2013  
Safety**

| Age                | Average Salary<br>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           | \$ 52,314                          | \$ 59,590 | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -       | \$ -     | \$ -      | \$ 54,436 |
| 25 to 29           | 52,702                             | 73,646    | 79,943    | -         | -         | -         | -         | -          | -        | -         | 72,146    |
| 30 to 34           | 52,658                             | 73,413    | 82,392    | 86,069    | 97,523    | -         | -         | -          | -        | -         | 78,913    |
| 35 to 39           | 56,421                             | 71,820    | 82,250    | 86,626    | 90,404    | -         | -         | -          | -        | -         | 82,902    |
| 40 to 44           | 59,488                             | 73,016    | 81,364    | 86,752    | 92,870    | 93,450    | 93,213    | -          | -        | -         | 87,989    |
| 45 to 49           | 52,239                             | 79,830    | 80,732    | 85,346    | 91,599    | 94,758    | 97,715    | 86,528     | -        | -         | 92,721    |
| 50 to 54           | -                                  | 86,313    | 83,763    | 87,268    | 87,380    | 96,791    | 104,076   | 131,275    | -        | -         | 93,423    |
| 55 to 59           | -                                  | 140,275   | 88,338    | 89,138    | 83,444    | 84,229    | 90,154    | -          | -        | -         | 90,875    |
| 60 to 64           | -                                  | -         | -         | -         | -         | -         | -         | -          | -        | -         | -         |
| 65 to 69           | -                                  | -         | 191,454   | -         | -         | -         | -         | -          | -        | -         | 191,454   |
| 70 and up          | -                                  | -         | -         | -         | -         | -         | -         | -          | -        | -         | -         |
| <b>Avg. Salary</b> | \$ 53,160                          | \$ 73,191 | \$ 81,964 | \$ 86,473 | \$ 91,576 | \$ 94,801 | \$ 98,486 | \$ 116,359 | \$ -     | \$ -      | \$ 84,491 |







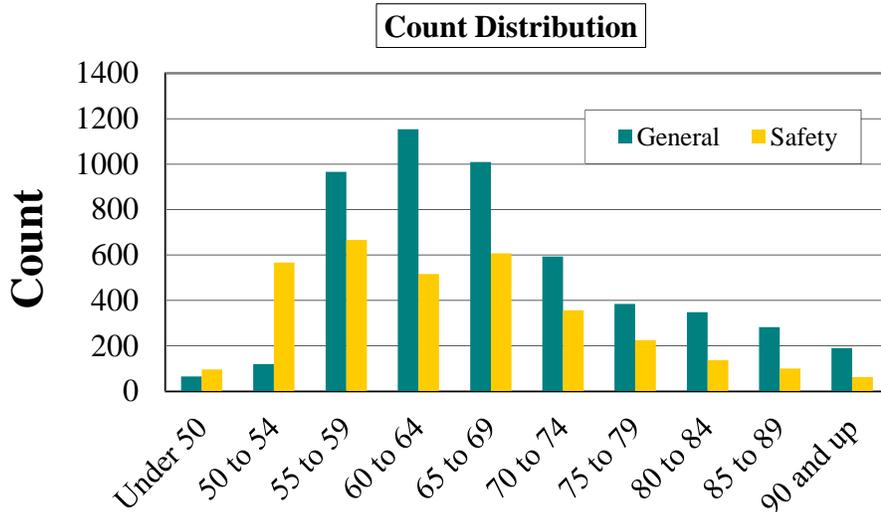
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**Table A-13  
SDCERS - City of San Diego  
Distribution of Retirees, Disabilitants,  
Beneficiaries and Survivors  
as of June 30, 2013**

| Age          | Count        |              | Total        |
|--------------|--------------|--------------|--------------|
|              | General      | Safety       |              |
| Under 50     | 66           | 96           | 162          |
| 50 to 54     | 121          | 567          | 688          |
| 55 to 59     | 966          | 666          | 1,632        |
| 60 to 64     | 1,153        | 517          | 1,670        |
| 65 to 69     | 1,009        | 607          | 1,616        |
| 70 to 74     | 594          | 357          | 951          |
| 75 to 79     | 385          | 226          | 611          |
| 80 to 84     | 349          | 137          | 486          |
| 85 to 89     | 283          | 101          | 384          |
| 90 and up    | 191          | 63           | 254          |
| <b>Total</b> | <b>5,117</b> | <b>3,337</b> | <b>8,454</b> |

**Chart A-1**



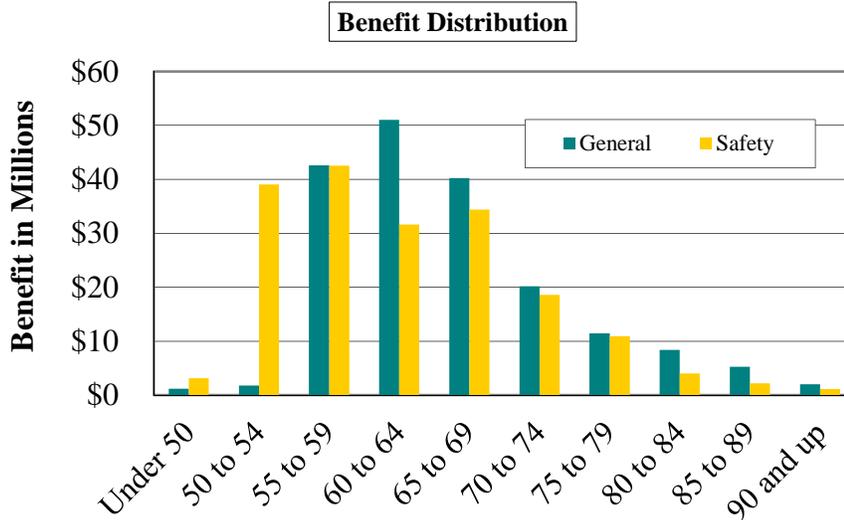
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**Table A-14  
SDCERS - City of San Diego  
Distribution of Retirees, Disabilitants,  
Beneficiaries and Survivors  
as of June 30, 2013**

| Age          | Annual Benefit        |                      | Total                 |
|--------------|-----------------------|----------------------|-----------------------|
|              | General               | Safety               |                       |
| Under 50     | \$ 1,200,522          | \$ 3,150,235         | \$ 4,350,757          |
| 50 to 54     | 1,783,676             | 39,036,788           | 40,820,464            |
| 55 to 59     | 42,594,976            | 42,513,934           | 85,108,910            |
| 60 to 64     | 50,998,499            | 31,612,644           | 82,611,142            |
| 65 to 69     | 40,214,594            | 34,372,707           | 74,587,301            |
| 70 to 74     | 20,206,628            | 18,595,860           | 38,802,489            |
| 75 to 79     | 11,438,149            | 10,918,775           | 22,356,924            |
| 80 to 84     | 8,377,901             | 4,007,238            | 12,385,139            |
| 85 to 89     | 5,247,064             | 2,185,680            | 7,432,744             |
| 90 and up    | 2,023,019             | 1,149,455            | 3,172,473             |
| <b>Total</b> | <b>\$ 184,085,028</b> | <b>\$187,543,315</b> | <b>\$ 371,628,344</b> |

**Chart A-2**



**APPENDIX A**  
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**Data Assumptions and Practices**

In preparing our data, we relied 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., 13<sup>th</sup> 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” (13<sup>th</sup> check) will have their projected “Supplement Amount” (13<sup>th</sup> check) calculated assuming \$30 multiplied by the “Total Service Credit.”

**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.

**Changes Since Last Valuation**

- Members with service in one SDCERS plan who are now active in another SDCERS plan have "frozen service" in the original plan. In prior valuations, Member records associated with frozen service were treated as active, but effective with this valuation they are treated as inactive. This affects the allocation of their total benefit liability between past (actuarial liability) and future (present value of future normal costs) but does not impact the value of the total benefit liability itself.

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions**

**1. Investment Return Assumption**

SDCERS' assets are assumed to earn 7.25% net of both administrative and investment expenses.

**2. Inflation Rate**

An inflation assumption of 3.3% compounded annually is used for projecting the total annual payroll growth for amortization of the non-Police UAL.

**3. Interest Credited to Member Contributions**

7.25%, compounded annually.

**4. Salary Increase Rate**

Inflation component      3.3% (following assumed freezes in FYs 2015-2018. Freezes had also been assumed for FYs 2013 and 2014)

The additional merit component:

| <b>Table B-1</b>                              |                |               |
|---|----------------|---------------|
| <b>Years of Service at<br/>Valuation Date</b> | <b>General</b> | <b>Safety</b> |
| 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 (3.3% 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:

| <b>General</b> | <b>Elected</b> | <b>Police</b> | <b>Fire</b> | <b>Lifeguard</b> |
|----------------|----------------|---------------|-------------|------------------|
| 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.

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**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**8. Rates of Termination**

| <b>Table B-2</b>                  |                |               |
|-----------------------------------|----------------|---------------|
| <b>SDCERS - City of San Diego</b> |                |               |
| <b>Rates of Termination</b>       |                |               |
| <b>Service</b>                    | <b>General</b> | <b>Safety</b> |
| 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 3.8% pay increases per year.

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**9. Rates of Disability**

| <b>Age</b> | <b>General</b> | <b>Safety</b> |
|------------|----------------|---------------|
| 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.

| <b>Age</b> | <b>General and Safety</b> |               |
|------------|---------------------------|---------------|
|            | <b>Male</b>               | <b>Female</b> |
| 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.

| <b>Table B-5</b>   |                |               |               |               |
|--|----------------|---------------|---------------|---------------|
| <b>SDCERS - City of San Diego</b>                                    |                |               |               |               |
| <b>Rates of Mortality for Retired Healthy Lives at Selected Ages</b> |                |               |               |               |
| <b>Age</b>   | <b>General</b> |               | <b>Safety</b> |               |
|  | <b>Male</b>    | <b>Female</b> | <b>Male</b>   | <b>Female</b> |
| 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):

| <b>Table B-6</b>  |                |               |               |               |
|---|----------------|---------------|---------------|---------------|
| <b>SDCERS - City of San Diego</b>                             |                |               |               |               |
| <b>Rates of Mortality for Disabled Lives at Selected Ages</b> |                |               |               |               |
| <b>Age</b>  | <b>General</b> |               | <b>Safety</b> |               |
|   | <b>Male</b>    | <b>Female</b> | <b>Male</b>   | <b>Female</b> |
| 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.

| Service | General         |                   | Safety          |                   |
|---------|-----------------|-------------------|-----------------|-------------------|
|         | 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             |

| Age | General 2009 | Safety 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 Plan, a Police-2012 Plan, a Police-2012 No COL Plan or a Fire-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.

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

| <b>Table B-9</b>                            |                          |
|---|--------------------------|
| <b>SDCERS - City of San Diego</b>           |                          |
| <b>Rates of Retirement at Selected Ages</b> |                          |
| <b>Age</b>                                  | <b>Elected Officials</b> |
| 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 1.2%. Thereafter, it was assumed the account balance would be converted to an annuity at an interest rate of 3.3% 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 1.2%. 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 following revisions to the economic assumptions were adopted by the SDCERS Board at its November 8, 2013 meeting:

- The assumed investment return was lowered from 7.5% to 7.25%,
- A freeze on inflationary pay increases is assumed for FYs 2015-2018, and
- The inflation assumption used for amortization of the UAL and inflationary pay increases (after the freeze) was lowered from 3.75% to 3.3%.

The DROP interest crediting and annuity rates used to value the liability for account balances were reduced from 1.9% to 1.2% and from 4.4% to 3.3%, respectively, to reflect the Board's adoption of these rates at its December 2012 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 3.3% 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. The non-Police portion of the UAL as of June 30, 2012 is amortized over 15 years. Funding surplus, if any, is amortized over 30 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*<sup>1</sup> 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 SDCERS Board adopted a policy of 30-year amortization of funding surplus, if any, at its November 8, 2013 meeting.

The gross normal cost rate is now determined by dividing the sum of the individual normal costs by the total valuation salary, instead of by dividing the total present value of future normal costs by the total present value of future salaries. This change was made to

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**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

be consistent with the disclosure requirements of GASB Statements Number 67 and Number 68.

- <sup>1</sup> 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 initially hired between July 1, 1991 and July 19, 2012 and for any unclassified employees initially 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 initially hired on or after July 1, 1991. (City Charter §140)

As a result of Proposition B, new employees (other than sworn Police) initially hired on or after July 20, 2012 will not participate in SDCERS.

**2. Monthly Salary Base for Benefits**

*General and Safety Old 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).

*Fire-2012 Plan, Police-2012 Plan, and Police-2012 No COL 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).

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

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**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**

The basic formula used to calculate monthly retirement allowances for all membership categories is: Retirement Factor X Final Average Compensation X Years of Service Credit.

*General Members:*

For General-Old Plan Members, choice of factors in place on June 30, 2000 (Option 1), or factors effective as of July 1, 2000 (Option 2), or factors 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, factors 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**

| <b>Table C-1</b>   |                                  |                 |                 |   |
|--|----------------------------------|-----------------|-----------------|---|
| <b>SDCERS - City of San Diego</b>                        |                                  |                 |                 |   |
| <b>General Member Service Retirement Accrual Factors</b> |                                  |                 |                 |   |
| <b>Retirement<br/>Age</b>                                | <b>Hired Before July 1, 2009</b> |                 |                 | <b>Hired on or<br/>After July 1,<br/>2009</b> |
|  | <b>Option 1</b>                  | <b>Option 2</b> | <b>Option 3</b> |   |
| 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:*

The retirement factor for Elected Officers is 3.5% (§ 24.1706). A 2% annual reduction factor applies to benefits for Members retiring prior to age 55 (§ 24.1705).

**APPENDIX C  
SUMMARY OF PLAN PROVISIONS**

*Safety Members:*

For all Safety-Old Plan Members, choice of factors in place on June 30, 2000 (Option 1), or factors effective as of July 1, 2000 (Option 2), with a benefit cap of 90% of Final Average Compensation unless an exception to the 90% cap applies (§ 24.0403).

For Police-2009 Plan, Fire-2012 Plan, Police-2012 Plan and Police-2012 No COL 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, with the exception of Police-2012 No COL Plan members.

**Safety Member Service Retirement Accrual Factors**

| <b>Table C-2</b>  |   |                               |                            |   |
|---|---|-------------------------------|----------------------------|---|
| <b>SDCERS - City of San Diego</b>                       |   |                               |                            |   |
| <b>Safety Member Service Retirement Accrual Factors</b> |   |                               |                            |   |
|   | <b>Police Hired Before July 1, 2009<br/>Lifeguard Hired Before July 1, 2011<br/>Fire Hired Before January 1, 2012</b> |                               |                            | <b>Police-2009<br/>Fire-2012<br/>Police-2012<br/>Police-2012 No COL</b> |
| <b>Retirement<br/>Age</b>                               | <b>Police &amp; Fire<br/>Option 1</b>   | <b>Lifeguard<br/>Option 1</b> | <b>Safety<br/>Option 2</b> |   |
| 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 Plan who terminate City employment, the accrual factors are those shown in Tables C-1. For Members of the Police-2009 Plan, Fire-2012 Plan, Police-2012 Plan and Police-2012 No COL Plan who terminate City employment, the accrual factors are those shown in Table C-2. For General-Old Plan and Safety-Old Plan Members, the accrual factors are as shown in Tables C-3 and C-4:

SDCERS-CITY OF SAN DIEGO  
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**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**GENERAL:**

| <b>Table C-3</b>                           |   |
|--|---|
| <b>SDCERS - City of San Diego</b>          |   |
| <b>For Vested Members who terminated--</b> | <b>--the accrual factors are--</b>                                    |
| Prior to January 1, 1997                   | See Table C-5   |
| 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  |

**SAFETY:**

| <b>Table C-4</b>                           |   |
|--|---|
| <b>SDCERS - City of San Diego</b>          |   |
| <b>For Vested Members who terminated--</b> | <b>--the accrual factors are--</b>                                    |
| Prior to January 1, 1997                   | See Table C-5   |
| 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 |

| <b>Table C-5</b>  |                |               |                        |                  |
|---|----------------|---------------|------------------------|------------------|
| <b>SDCERS - City of San Diego</b>                         |                |               |                        |                  |
| <b>Pre-1997 Member Service Retirement Accrual Factors</b> |                |               |                        |                  |
| <b>Age</b>  | <b>General</b> | <b>Police</b> | <b>Safety<br/>Fire</b> | <b>Lifeguard</b> |
| 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%            |

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**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.

*Safety-Old Plan Members:* 90% of Final Average Compensation (subject to 10% increase).

*Police-2009 Plan, Fire-2012 Plan, Police-2012 Plan and Police-2012 No COL 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 effective 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).

APPENDIX C  
SUMMARY OF PLAN PROVISIONS

**5. Industrial Disability**

**Eligibility**

No age or service requirement (§24.0501).

**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 Active 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 Active 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 Active 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)

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**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.

**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 Adjustment 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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**APPENDIX C  
SUMMARY OF PLAN PROVISIONS**

**13. Member Contributions**

Member contributions vary by age at time of entrance into SDCERS (§24.0201, §24.0301), and were recalculated following the experience study in 2011 based on the then current actuarial assumptions, in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions. Member contributions were adjusted in 2013 based on the most recent changes to the actuarial assumptions as listed in Appendix B of this report. Table C-6 below contains the contribution rates by plan.

| Entry Age | GENERAL               |                            | FIRE                  |                            | LIFEGUARD             |                       | POLICE   |  |  |                            |
|-----------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|-----------------------|--|--|--|----------------------------|
|           | Hired Before 7/1/2009 | Hired On or After 7/1/2009 | Hired Before 1/1/2012 | Hired On or After 1/1/2012 | Hired Before 7/1/2011 | Hired Before 7/1/2009 | Hired On or After 7/1/2009 and Before 1/1/2012 | Hired On or After 1/1/2012 and Before 8/2/2012 | Hired On or After 8/2/2012 and Before 7/1/2013 | Hired On or After 7/1/2013 |
| 20        | 7.45%                 | 3.87%                      | 12.75%                | 10.49%                     | 12.66%                | 12.75%                | 10.60%   | 10.38%   | 8.71%  | 7.85%                      |
| 21        | 7.56                  | 4.07                       | 12.87                 | 10.92                      | 12.79                 | 12.87                 | 11.05  | 10.81  | 9.08   | 8.25                       |
| 22        | 7.73                  | 4.27                       | 13.10                 | 11.37                      | 13.01                 | 13.10                 | 11.51  | 11.25  | 9.45   | 8.67                       |
| 23        | 7.92                  | 4.49                       | 13.39                 | 11.83                      | 13.24                 | 13.39                 | 11.98  | 11.71  | 9.84   | 9.11                       |
| 24        | 8.14                  | 4.72                       | 13.69                 | 12.30                      | 13.49                 | 13.69                 | 12.46  | 12.18  | 10.22  | 9.57                       |
| 25        | 8.35                  | 4.94                       | 13.98                 | 12.78                      | 13.73                 | 13.98                 | 12.96  | 12.66  | 10.63  | 10.04                      |
| 26        | 8.56                  | 5.17                       | 14.25                 | 13.08                      | 13.95                 | 14.25                 | 13.26  | 12.95  | 10.87  | 10.27                      |
| 27        | 8.76                  | 5.40                       | 14.51                 | 13.22                      | 14.15                 | 14.51                 | 13.40  | 13.09  | 10.98  | 10.57                      |
| 28        | 8.96                  | 5.64                       | 14.75                 | 13.41                      | 14.32                 | 14.75                 | 13.60  | 13.27  | 11.14  | 10.91                      |
| 29        | 9.16                  | 5.89                       | 14.97                 | 13.62                      | 14.44                 | 14.97                 | 13.82  | 13.48  | 11.32  | 11.24                      |
| 30        | 9.34                  | 6.14                       | 15.29                 | 13.85                      | 14.76                 | 15.29                 | 14.06  | 13.71  | 11.52  | 11.55                      |
| 31        | 9.51                  | 6.40                       | 15.34                 | 14.09                      | 14.68                 | 15.34                 | 14.31  | 13.95  | 11.71  | 11.82                      |
| 32        | 9.68                  | 6.65                       | 15.45                 | 14.35                      | 14.61                 | 15.45                 | 14.57  | 14.20  | 11.92  | 12.08                      |
| 33        | 9.82                  | 6.89                       | 15.60                 | 14.61                      | 14.56                 | 15.60                 | 14.83  | 14.46  | 12.14  | 12.32                      |
| 34        | 9.95                  | 7.15                       | 15.72                 | 14.85                      | 14.55                 | 15.72                 | 15.09  | 14.70  | 12.35  | 12.55                      |
| 35        | 10.18                 | 7.40                       | 15.90                 | 15.03                      | 14.68                 | 15.90                 | 15.28  | 14.88  | 12.49  | 12.71                      |
| 36        | 10.09                 | 7.62                       | 16.13                 | 15.35                      | 14.90                 | 16.13                 | 15.60  | 15.19  | 12.76  | 12.98                      |
| 37        | 10.02                 | 7.81                       | 16.40                 | 15.65                      | 15.14                 | 16.40                 | 15.92  | 15.50  | 13.02  | 13.26                      |
| 38        | 9.96                  | 7.98                       | 16.66                 | 15.95                      | 15.39                 | 16.66                 | 16.23  | 15.79  | 13.26  | 13.52                      |
| 39        | 9.96                  | 8.16                       | 16.93                 | 16.24                      | 15.63                 | 16.93                 | 16.53  | 16.08  | 13.50  | 13.78                      |
| 40        | 9.99                  | 8.33                       | 17.17                 | 16.51                      | 15.87                 | 17.17                 | 16.81  | 16.34  | 13.72  | 14.02                      |
| 41        | 10.02                 | 8.50                       | 17.56                 | 16.75                      | 16.23                 | 17.56                 | 17.07  | 16.59  | 13.93  | 14.24                      |
| 42        | 10.06                 | 8.68                       | 17.88                 | 16.98                      | 16.52                 | 17.88                 | 17.30  | 16.81  | 14.11  | 14.44                      |
| 43        | 10.27                 | 8.88                       | 18.15                 | 17.17                      | 16.76                 | 18.15                 | 17.51  | 17.00  | 14.27  | 14.62                      |
| 44        | 10.47                 | 9.08                       | 18.33                 | 17.31                      | 16.95                 | 18.33                 | 17.66  | 17.14  | 14.39  | 14.76                      |
| 45        | 10.65                 | 9.29                       | 18.46                 | 17.39                      | 17.05                 | 18.46                 | 17.76  | 17.21  | 14.46  | 14.84                      |
| 46        | 10.83                 | 9.48                       | 18.01                 | 17.07                      | 16.63                 | 18.01                 | 17.43  | 16.90  | 14.19  | 14.57                      |
| 47        | 11.00                 | 9.66                       | 17.68                 | 16.91                      | 16.33                 | 17.68                 | 17.27  | 16.74  | 14.06  | 14.43                      |
| 48        | 11.18                 | 9.84                       | 17.33                 | 16.80                      | 16.01                 | 17.33                 | 17.16  | 16.64  | 13.97  | 14.34                      |
| 49        | 11.33                 | 9.99                       | 16.96                 | 16.68                      | 15.66                 | 16.96                 | 17.04  | 16.52  | 13.87  | 14.24                      |
| 50        | 11.44                 | 10.14                      |                       |                            |                       |                       |  |  |  |                            |
| 51        | 11.51                 | 10.26                      |                       |                            |                       |                       |  |  |  |                            |
| 52        | 11.61                 | 10.36                      |                       |                            |                       |                       |  |  |  |                            |
| 53        | 11.42                 | 10.39                      |                       |                            |                       |                       |  |  |  |                            |
| 54        | 11.20                 | 10.37                      |                       |                            |                       |                       |  |  |  |                            |
| 55        | 10.89                 | 10.20                      |                       |                            |                       |                       |  |  |  |                            |
| 56        | 10.57                 | 9.90                       |                       |                            |                       |                       |  |  |  |                            |
| 57        | 10.27                 | 9.62                       |                       |                            |                       |                       |  |  |  |                            |

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

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, other than Police hired on or after August 2, 2012, a COL Annuity rate (§24.1506(b)). The fourth component is the “substantially equal” rate, which is 50% of the normal 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 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. Those benefits paid for entirely by the City include the refund of member contributions for non-vested terminations, the portion of the disability allowance in excess of the earned service retirement (if any), the 13<sup>th</sup> check benefit, the pre-retirement death benefit for non-vested members, the pre-retirement industrial death benefit, and the post-retirement \$2,000 lump sum benefit.

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 rates.

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).

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

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 13<sup>th</sup> check benefit, if applicable, credited annually.
- 3.05% of base compensation, payable by the City and credited bi-weekly.
- 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 13<sup>th</sup> 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 on August 2, 2012. The only change to the predecessor Police plan was to remove the COL Annuity benefit.

**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 Cost 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.

**APPENDIX D  
GLOSSARY OF TERMS**

**8. Actuarially Determined Contribution (ADC)**

Contribution determined each year based on the SDCERS Board's adopted funding policy. The term also exists in GASB 67 and 68 as a contribution determined by the actuary in accordance with Actuarial Standards of Practice, but no further guidance is provided.

**9. Amortization**

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

**10. Annual Required Contribution (ARC) under GASB 25**

The Governmental Accounting Standards Board (GASB) Statement Number 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 Number 25. Starting in FY 2014, GASB Statement Number 67, which does not contain the concept of an ARC, will replace Statement Number 25 for public pension plan accounting and financial reporting.

**11. Normal Cost**

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

**12. 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 two 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.

**13. 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).