

**San Diego City
Employees' Retirement System**

**June 30, 2011
Actuarial Valuation for the**

City of San Diego

Produced by [Cheiron](#)

March 2012

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LETTER OF TRANSMITTAL

March 30, 2012

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, 2011 Actuarial Valuation

Dear Members of the Board:

At your request, we have performed the June 30, 2011 actuarial valuation of the San Diego City Employees' Retirement System (SDCERS), incorporating the application of substantially equal based on the current actuarial assumptions. The table below shows the key valuation results for the City using the revised contribution rates, as well as the original results presented to the Board at their January meeting for comparison.

| Table I-1 | | | |
|--|---------------------------------|--------------------------------|------------------|
| SDCERS - City of San Diego | | | |
| Valuation Date | 6/30/2011 (Original) | 6/30/2011 (Revised) | 6/30/2010 |
| Unfunded Actuarial Liability (in millions) | \$ 2,178.0 | \$ 2,177.8 | \$ 2,145.2 |
| Funding Ratio | 68.5% | 68.5% | 67.1% |
| City Contribution Rate | 46.62% | 46.59% | 42.68% |
| Fiscal Year | 2013 | 2013 | 2012 |
| Annual Required Contribution (GASB): | | | |
| -if paid at the beginning of the year | \$ 231.3 million | \$ 231.1 million | \$ 231.2 million |
| -if paid throughout the year | \$ 239.8 million | \$ 239.6 million | \$ 240.0 million |

- Unfunded Actuarial Liability (UAL):** The City's UAL has increased by \$32.6 million. The primary cause of this increase was the change in actuarial assumptions adopted by the Board at its September 30, 2011 meeting. These changes, which increased the UAL by \$188.3 million, include a decrease in the net investment return assumption from 7.75% to 7.50%, a decrease in the inflation rate assumption from 4.00% to 3.75% following a two-year pay freeze assumption, and other changes to the assumptions regarding membership retirement, turnover, disability and mortality. A significant portion of this increase was offset by a gain on liabilities and better than expected investment performance, which together amounted to \$130.0 million.
- Funding Ratio:** This is the ratio of the system's actuarial value of assets to actuarial liabilities, which increased by 1.4%.



- *Contributions (GASB ARC):* City contributions were determined under full compliance with the Governmental Accounting Standards Board (GASB) Statement Number 25, defining the annual required contribution (ARC) for the City for fiscal year July 1, 2012 through June 30, 2013 (FY 2013). The results of this valuation produced a decrease in the City's ARC of \$0.1 million. When measured as a percent of membership payroll, the ARC rose by 3.91%.

More details on Plan experience for the past year, including the assumption changes and their impact on the June 30, 2011 valuation results, 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, 2011. Changes in membership and investment experience following that date are not reflected in this report.

In preparing our report, we relied without audit, on information supplied by SDCERS' staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.

I certify that, to the best of my knowledge, this valuation report is complete and accurate and has 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, including Actuarial Standards of Practice (ASOPs) Nos. 4, 27, 35 and 44. As a Member of the American Academy of Actuaries, I meet the Qualification Standards 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, Cheiron's report was prepared exclusively for the San Diego City Employees' Retirement System for a specific and limited purpose. It is not for use or benefit of any third party for any purpose, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron



Gene Kalwarski, FSA, EA, MAAA
Principal Consulting Actuary

cc: David Holland, ASA
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 2013, 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, 2011 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

The June 30, 2011 valuation results reflect a number of assumption changes that were approved by the SDCERS Board based on an experience study completed by Cheiron in September 2011. These changes include:

- The investment return assumption was lowered from 7.75% to 7.50%,
- The wage inflation assumption was lowered from 4.00% to 3.75% (following a two-year freeze assumption),
- Rates of termination were increased for General Members and changed to be based on service as opposed to the age of a member,
- Disability rates were decreased,
- The mortality rates for active lives for General and Safety Members were decreased,
- The mortality rates for retired healthy lives for Safety Members were decreased,
- The mortality rates for retired disabled lives for General and Safety Members were increased,
- Rates of retirement were increased and changed to be based on age and service as opposed to just the service of a member,
- The percent married assumption was increased to 55% for females, and the assumed age difference between husbands and wives was reduced to three years, and
- For the Cost-of-Living (COL) Annuity, the valuation method was changed from load factors to a direct valuation of existing member accounts and load factors only for prospective contributions.

More details on the assumptions and methods can be found in Appendix B.

In addition to the assumptions changes, this valuation reflects a revised estimate of the impact of the Purchased Service Correction implemented for affected plan members. In the prior valuation (June 30, 2010), Cheiron estimated the impact would be a reduction in the

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City's UAL of \$50 million. This estimate was based on pure actuarial judgment with no specific data or information on the elections made by plan members. For the June 30, 2011 valuation we now have specific data for the majority of the members affected by the PSC correction and our revised financial impact reflects these members' actual elections. For the remaining affected members we continued to make estimates based on actuarial judgment. The revised financial impact has increased the previously estimated UAL reduction from \$50 million to \$65 million. More details on this estimate can be found on page 5.

Member contribution rates were recalculated based on the current actuarial assumptions in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions. More details on the contribution rates change can be found in Appendix C.

Finally, throughout this report there will be references to General-Old Plan, General-2009 Plan, Police-Old Plan, and Police-2009 Plan. “Old Plan” refers to General and Police Members hired before July 1, 2009, and “2009 Plan” refers to such members hired on or after July 1, 2009. Details on their plan provisions can be found in Appendix C.

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**SECTION I
BOARD SUMMARY**

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

The following discussion summarizes the key results of the June 30, 2011 valuation and how they compare to the results from the June 30, 2010 valuation.

1. City Membership

Table I-2 shows that total membership in SDCERS-City of San Diego increased by 0.1% from 2010 to 2011. The increase was attributable to the growth in inactive membership (terminated vested, disabled, retirees, and beneficiaries), as the active membership count actually declined by 4.0%. Active Member payroll decreased by 3.0%, compared to the prior year's assumed payroll inflation of 4.00%.

| Table I-2 | | | |
|--|----------------------|----------------------|-----------------|
| SDCERS - City of San Diego - Membership Total | | | |
| Item | June 30, 2011 | June 30, 2010 | % Change |
| Active Counts | 7,792 | 8,120 | -4.0% |
| Terminated Vested | 2,894 | 2,874 | 0.7% |
| Disabled | 1,236 | 1,241 | -0.4% |
| Retirees | 5,480 | 5,189 | 5.6% |
| Beneficiaries | 1,186 | 1,151 | 3.0% |
| Total City Members | 18,588 | 18,575 | 0.1% |
| Active Member Payroll | \$ 514,264,749 | \$ 530,238,355 | -3.0% |
| Average Pay per Active Member | \$ 65,999 | \$ 65,300 | 1.1% |

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**SECTION I
BOARD SUMMARY**

2. City Assets and Liabilities

Table I-3 presents a comparison between the June 30, 2011 and June 30, 2010 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 6.0% and the actuarial value of assets increase of 8.2%, the funding ratio increased from 67.1% as of June 30, 2010 to 68.5% as of June 30, 2011. SDCERS employs a commonly used actuarial smoothing method on the market value that dampens market volatility, so the actuarial value of assets did not increase as much as the market value (24.3%). Had the funding ratio been measured on a market value of assets basis, the ratio would be at 70.1% as of June 30, 2011.

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

| Table I-3 | | | |
|--|----------------------|----------------------|-----------------|
| SDCERS - City of San Diego - Assets & Liabilities | | | |
| Entry Age Normal (EAN) Liabilities | June 30, 2011 | June 30, 2010 | % Change |
| Actives | \$ 2,290,825,686 | \$ 2,350,543,474 | -2.5% |
| Terminated Vested | 282,131,441 | 264,567,702 | 6.6% |
| Disabled | 444,219,844 | 414,366,545 | 7.2% |
| Retirees | 3,731,195,224 | 3,344,070,643 | 11.6% |
| Beneficiaries | 168,802,807 | 153,675,387 | 9.8% |
| Total Actuarial (EAN) Liability | \$ 6,917,175,002 | \$ 6,527,223,751 | 6.0% |
| Market Value Assets | \$ 4,848,054,164 | \$ 3,900,537,904 | 24.3% |
| Actuarial Value Assets | \$ 4,739,398,719 | \$ 4,382,047,254 | 8.2% |
| Unfunded Actuarial Liability | \$ 2,177,776,283 | \$ 2,145,176,496 | 1.5% |
| Funding Ratio-Actuarial Value | 68.5% | 67.1% | 1.4% |

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3. Components of UAL Change between June 30, 2010 and June 30, 2011

The unfunded actuarial liability (UAL) for SDCERS-City of San Diego increased by \$32.6 million, from \$2,145.2 million to \$2,177.8 million. Table I-4 below presents the specific components of the change in the UAL.

The key findings in Table I-4 are that investment experience decreased the UAL by \$89.3 million while assumption changes increased the UAL by \$188.3 million. The \$10.9 million decrease attributable to the updated PSC correction estimate represents the difference between the current year's revised estimate of \$64.8 million and last year's estimate plus one year of interest (\$50 million x 1.0775 or \$53.9 million). The revised estimate of \$64.8 million consists of two components: an estimated increase in assets of approximately \$0.9 million attributable the net difference between expected payments and expected refunds, and an expected decrease in liabilities of \$63.9 million.

| Table I-4 | |
|---|-------------------|
| SDCERS - City of San Diego-Change in UAL | |
| (In Millions) | |
| 1. UAL at June 30, 2010 | \$ 2,145.2 |
| 2. Expected change in UAL | (14.6) |
| 3. Investment experience gain | (89.3) |
| 4. Liability experience gain | (40.7) |
| 5. Liability loss due to change in assumptions | 188.3 |
| 6. Decrease in UAL due to updated PSC correction estimate | (10.9) |
| 7. Contributions paid in excess of expected | (0.2) |
| 8. Purchased service credits paid for during the year * | 0.2 |
| 9. Revised substantially equal contribution rates | (0.2) |
| 10. Total change in UAL: sum of 2 through 9 | 32.6 |
| 11. UAL at June 30, 2011: 1 + 10 | \$ 2,177.8 |

* *Attributable to Members who have entered into a purchased service credit contract after June 30, 2010. Only Members hired before July 1, 2005 are still eligible to purchase additional "airtime" service credits.*

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4. City Contributions

The City's contribution for FY 2013 measured as a percent of membership payroll increased from 42.68% to 46.59%. In dollars, the required beginning of year contribution decreased by \$0.1 million, from \$231.2 million to \$231.1 million. This decrease in the ARC compares to a \$9.2 million expected increase, assuming no investment gains or losses during FY 2011. The difference was largely attributable to liabilities and payroll growing less than expected and investment performance that was better than expected. The changes in actuarial assumptions increased the ARC by \$3.4 million.

After performing the June 30, 2010 valuation Cheiron produced another projection of the FY 2013 City ARC, also based on SDCERS earning 7.75% on its investments. This resulted in a projected FY 2013 City ARC of \$256.6 million, an increase of \$25.4 million. The difference between the \$9.2 million expected increase stated earlier and the \$25.4 million is that the \$25.4 million reflected the continued phase-in of prior investment losses.

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

| Table I-5 | |
|---|-----------------|
| SDCERS - City of San Diego-Change in ARC | |
| (In Millions) | |
| 1. ARC at June 30, 2010 | \$ 231.2 |
| 2. Expected change in ARC | 9.2 |
| 3. Investment experience gain | (8.1) |
| 4. Liability experience gain | (8.1) |
| 5. Liability loss due to change in assumptions | 3.4 |
| 6. Decrease in ARC due to updated PSC correction estimate | (1.0) |
| 7. Contributions paid in excess of expected | (0.0) |
| 8. Revised substantially equal contribution rates | (0.2) |
| 9. Other misc changes* | 4.6 |
| 10. Total change in ARC: sum of 2 through 9 | (0.1) |
| 11. ARC at June 30, 2011: 1 + 10 | \$ 231.1 |

* A double amortization payment credit for the anticipated impact of the purchased service correction was made for the June 30, 2010 valuation (FY 2012 ARC) only.

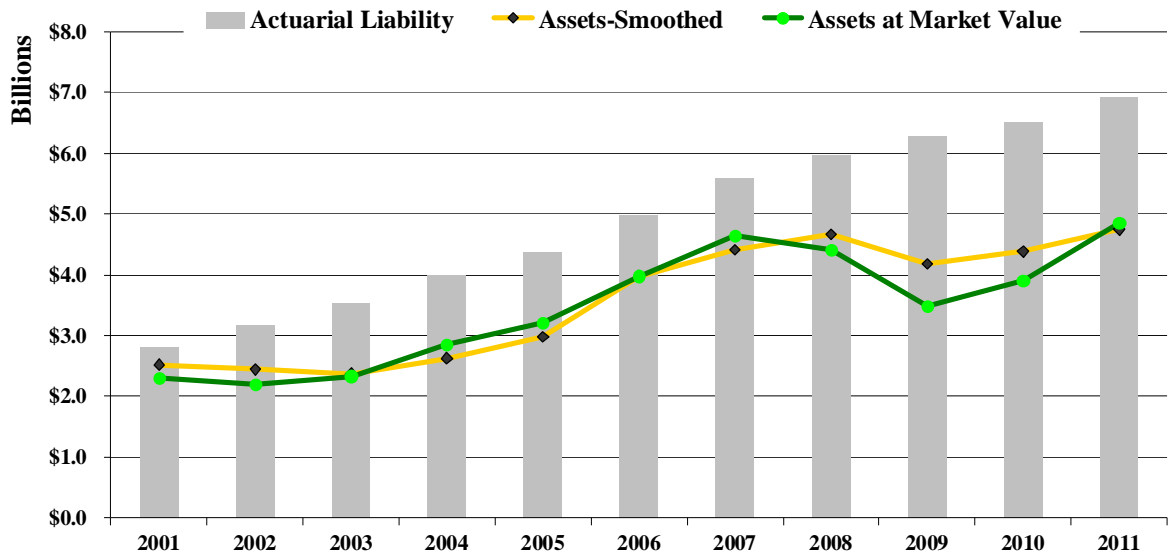
SECTION I
 BOARD SUMMARY

C. Historical Trends for SDCERS-City of San Diego

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

In the chart below, we present the historical trends of the market value and smoothed assets compared to actuarial liabilities and SDCERS-City of San Diego funding ratios since 2001.

SDCERS-City of San Diego Assets and Liabilities 2001-2011



| | | | | | | | | | | | |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Funding Ratio | 89.9% | 77.3% | 67.2% | 65.8% | 68.2% | 79.9% | 78.8% | 78.1% | 66.5% | 67.1% | 68.5% |
| UAL (billions) | \$ 0.28 | \$ 0.72 | \$ 1.16 | \$ 1.37 | \$ 1.39 | \$ 1.00 | \$ 1.18 | \$ 1.30 | \$ 2.11 | \$ 2.15 | \$ 2.18 |

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

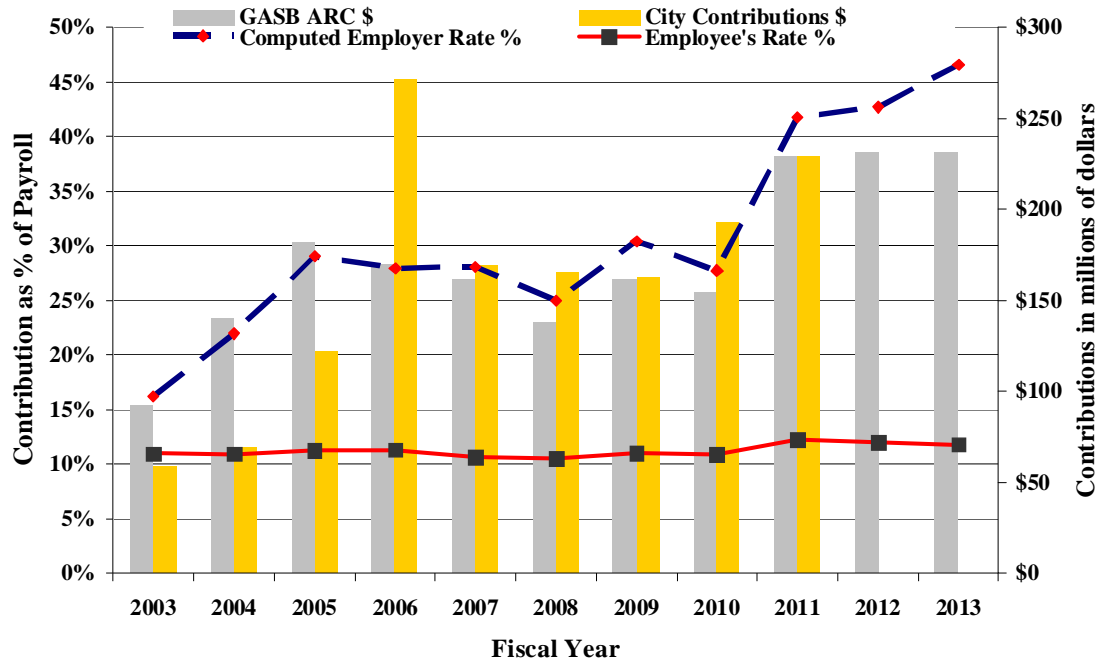
The chart indicates that from 2001 to 2004, the funding ratio declined significantly with the low of 65.8% in 2004. From 2004 to 2008, the ratio improved significantly, primarily due to strong investment performance. In 2009, the funding ratio declined significantly due to investment losses but has increased slightly for both of the past two years.

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BOARD SUMMARY**

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

SDCERS-City of San Diego City and Member Contribution Rates FY 2003-2013



The computed employer contribution rate grew from just above 15% in FY 2003 to nearly 30% in FY 2005, and then remained in that range for the next five fiscal years. For FY 2011, the computed employer rate increased to over 40% of payroll, and it increased again for FY 2012 and FY 2013. The chart indicates that the Members' contribution rate has remained relatively stable throughout the fiscal years shown in contrast to the volatility in the employer rates.

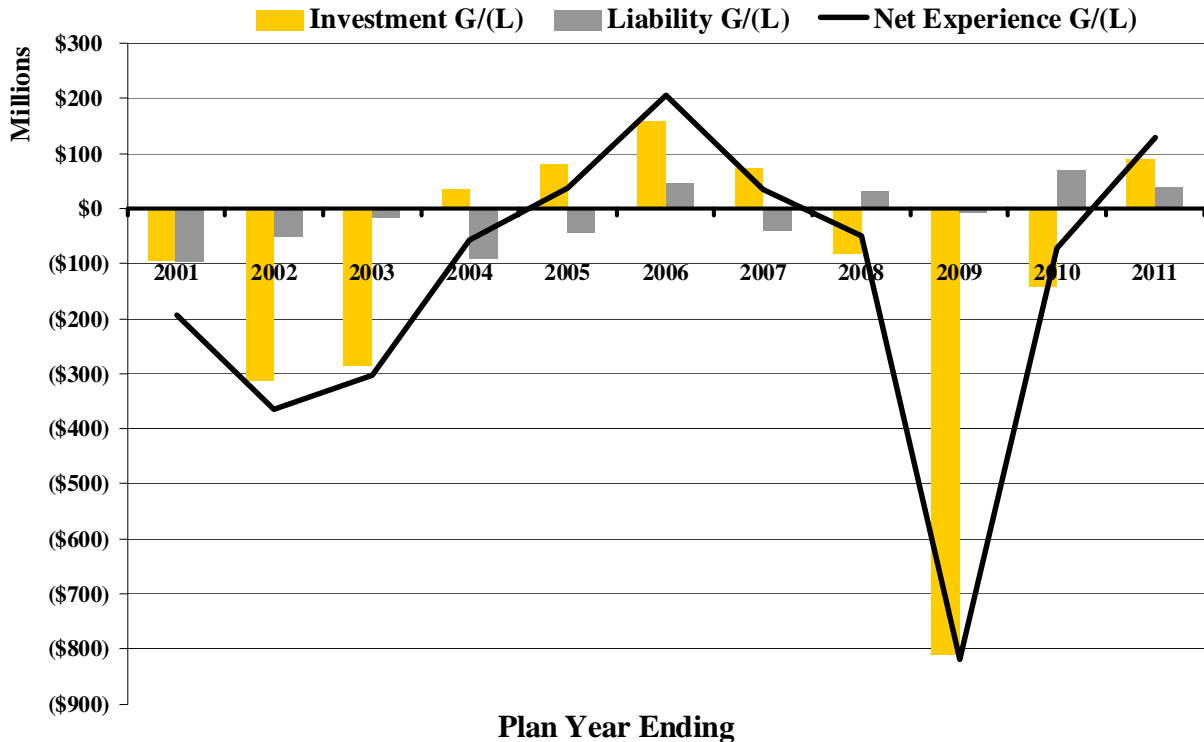
This chart also compares the actual contributions made by the City to the annual required contribution (ARC) based on the Board's adopted funding practice of Normal Cost plus amortization of the various UAL components, including the requirement beginning in fiscal year 2009 that there be no negative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

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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) 2001-2011



The key insights from this chart are:

- The fund experienced investment losses (gold bars) from 2001 to 2003, which were partially offset by investment gains from 2004 to 2007. 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 2001 to 2007 (except for 2006), there was a pattern of liability losses. With the change in actuarial assumptions in 2008 to better reflect the City's experience, demographic experience has been close to expected over the last three years, with liability gains in 2010 and 2011 that were mostly attributable to lower than expected salaries.

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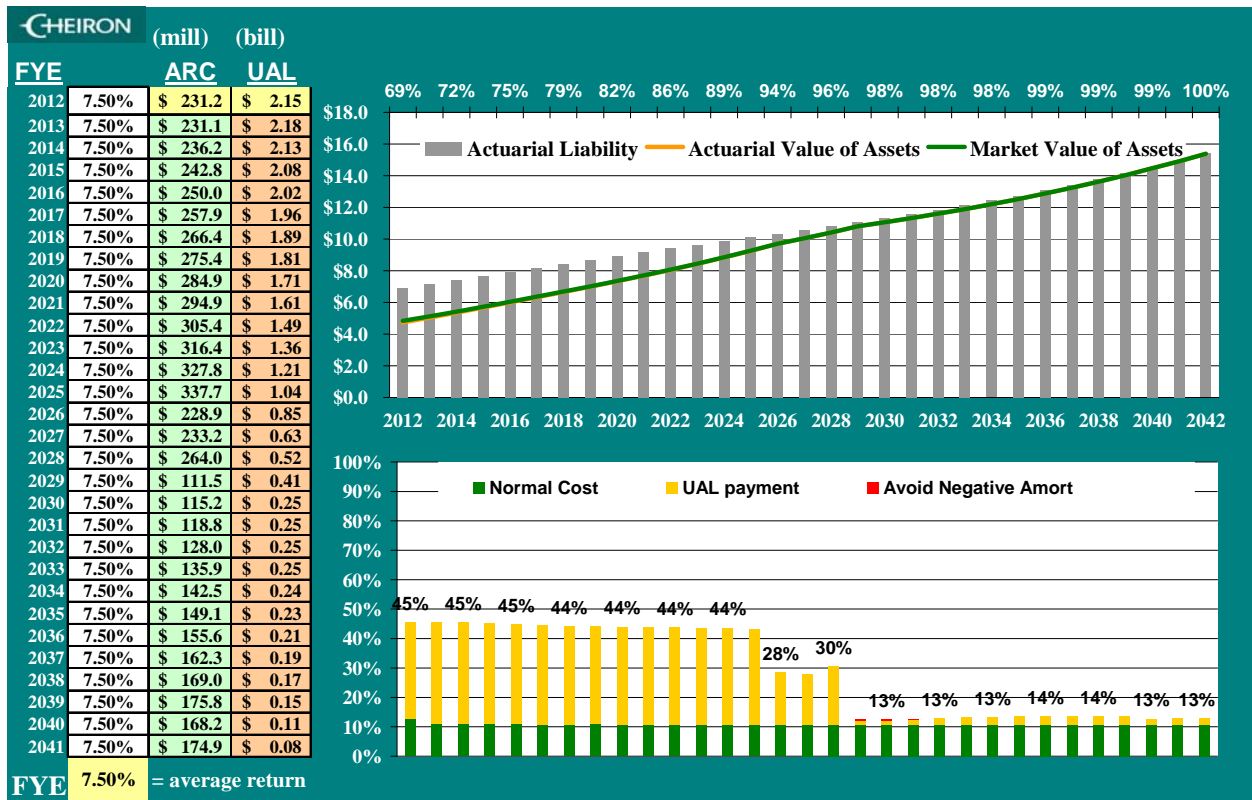
SECTION I
BOARD SUMMARY

D. Projected Financial Trends

Our analysis of SDCERS-City of San Diego projected financial trends is an important part of this valuation. Our assessment of the implications of the June 30, 2011 valuation results on the future outlook of SDCERS-City of San Diego in terms of benefit security (assets over liabilities) and the City’s expected cost progression is set forth below. In addition, given the concern regarding unfunded liabilities, we also show the City’s expected future pay down of unfunded liabilities.

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

SDCERS-City of San Diego Projections FY 2012-2041 (earnings as assumed)



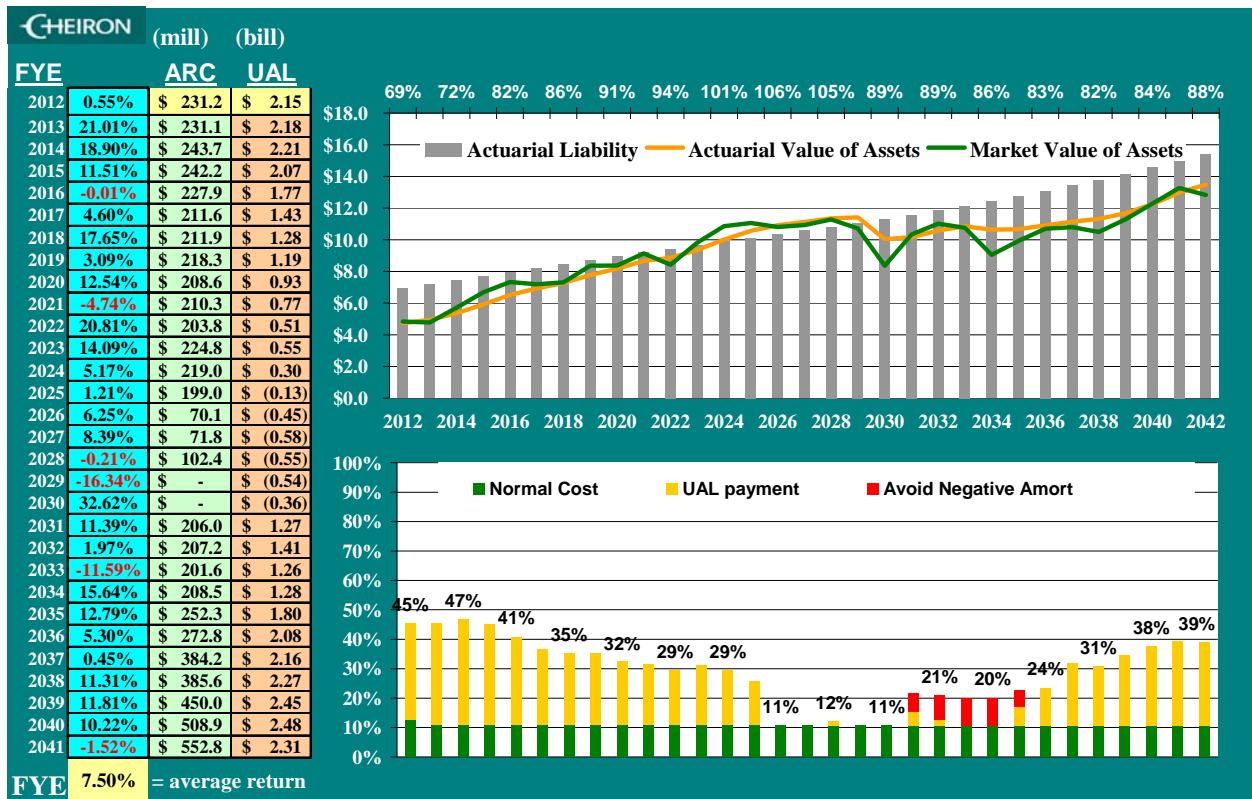
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**SECTION I
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Based on assuming 7.5% earnings each and every year, the City's funded status (percentages at the top of the upper graph) is ultimately projected to reach 100%. The City's ARC is projected to peak at \$337.7 million in 2025, decline precipitously to \$111.5 million four years later and then gradually increase thereafter.

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

SDCERS-City of San Diego Projections FY 2012-2041 (earnings which vary by year)



With varying annual earnings that average over the period to 7.5%, one can see the volatility in the funding ratios in the top chart, and the fact that the City contribution rate and ARC decline significantly and then rapidly increase at the end of the projection period.

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

SECTION II
ASSETS

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

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

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

- A. Disclosure of the June 30, 2011 total SDCERS market value of assets, by asset class;
- B. Market value of assets by Plan Sponsor;
- C. Development of the actuarial value of assets; and
- D. Disclosure of the investment performance for the year.

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SECTION II
ASSETS

A. Disclosure of Market Value of Assets

The market value of assets represents a “snap-shot” value as of June 30, 2011, 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, 2011.

| | | |
|---|-----------|----------------------|
| Cash | \$ | 386,666,335 |
| US Stocks | | 1,673,460,246 |
| International Stocks | | 1,057,038,516 |
| Private Equity | | 87,003,939 |
| Bonds | | 1,538,911,513 |
| Real Estate | | 519,754,075 |
| Receivables | | 85,479,067 |
| Short Term Investments | | 44,156,683 |
| Miscellaneous | | 2,313,153 |
| Accounts Payable | | (190,437,838) |
| Market Value of Assets – June 30, 2011 | \$ | 5,204,345,689 |

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**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. Table II-2 below discloses the market value and actuarial value of assets by Plan.

| Table II-2 | | | |
|---|--|--|---|
| Summary of Market and Actuarial Assets for Each Employer Group as of June 30, 2011 | | | |
| | <u>Market Value</u> Total Net Assets June 30, 2010 | <u>Market Value</u> Total Net Assets June 30, 2011 | <u>Actuarial Value</u> Total Assets June 30, 2011 |
| City of San Diego | \$ 3,900,537,904 | \$ 4,848,054,164 | \$ 4,739,398,719 |
| Unified Port District | 211,908,439 | 269,380,373 | 259,315,200 |
| Airport Authority | <u>64,795,807</u> | <u>86,911,148</u> | <u>86,309,270</u> |
| Total-SDCERS | \$ 4,177,242,150 | \$ 5,204,345,684 | \$ 5,085,023,189 |

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**SECTION II
ASSETS**

C. Actuarial Value of Assets

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

The actuarial value of assets is equal to 100% of the expected actuarial value of assets as of June 30, 2011 (based on the prior year assumption of 7.75% earnings for the year) plus 25% of the difference between the current actual market value of assets and the expected actuarial value of assets. (See Appendix B, section B-2 for further explanation of the asset valuation method). In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

| Table II-3 SDCERS - City of San Diego Development of Actuarial Value of Assets at June 30, 2011 Expected Value of Assets Method | |
|--|------------------|
| 1. Actuarial Value of Assets at June 30, 2010 | \$ 4,382,047,254 |
| 2. Amount in (1) with interest at 7.75% to June 30, 2011 | 4,721,655,916 |
| 3. Employer and Member contributions for the Plan Year ended June 30, 2011 | 329,941,070 |
| 4. Disbursements from Trust excluding investment and admin expenses, June 30, 2010 through June 30, 2011 | 355,606,213 |
| 5. Interest on cash flows to June 30, 2011 at 7.75% per year | 7,189,464 |
| 6. Expected Actuarial Value of Assets at June 30, 2011 = (2) + (3) - (4) + (5) | 4,703,180,237 |
| 7. Actual Market Value of Assets at June 30, 2011 | 4,848,054,164 |
| 8. Excess of (7) over (6) | 144,873,926 |
| 9. Preliminary Actuarial Value of Assets at June 30, 2011 = (6) + 25% of (8) | \$ 4,739,398,719 |
| 10. 80% Minimum Corridor on the Actuarial Value of Assets = 80% of (7) | 3,878,443,331 |
| 11. 120% Maximum Corridor on the Actuarial Value of Assets = 120% of (7) | 5,817,664,996 |
| 12. Final Actuarial Value of Assets at June 30, 2011 = (9), but no less than (10) and no more than (11) | \$ 4,739,398,719 |

SECTION II
ASSETS

D. Investment Performance

The return on the market value of assets, as reported by SDCERS' investment consultant Hewitt Ennis Knupp, was 24.2%. The return in FY 2010 was 13.4%.

On an actuarial (smoothed) value of assets basis, the return for FY 2011 was 8.79%. This return produced for SDCERS-All Employers an overall investment gain of \$94.8 million for the year ending June 30, 2011. (Note: this reported gain is different than the investment gain of \$89.3 million reported on page 5 in this report. The latter is the gain only for the City of San Diego.)

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, 2010 and June 30, 2011, 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
JUNE 30, 2011 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

| Table III-1 | | |
|---|-------------------------|-------------------------|
| SDCERS - City of San Diego - Total | | |
| Item | June 30, 2011 | June 30, 2010 |
| Present Value of Future Benefits | | |
| Actives | \$ 3,089,817,140 | \$ 3,293,424,515 |
| Terminated Vested | 282,131,441 | 264,567,702 |
| Disabled | 444,219,844 | 414,366,545 |
| Retirees | 3,731,195,224 | 3,344,070,643 |
| Beneficiaries | 168,802,807 | 153,675,387 |
| Total City | \$ 7,716,166,456 | \$ 7,470,104,792 |
| Actuarial Liability - EAN | | |
| Total Present Value of Future Benefits | \$ 7,716,166,456 | \$ 7,470,104,792 |
| Present Value of Future Normal Costs | | |
| Employer Portion | 382,265,704 | 463,466,225 |
| Employee Portion | 416,725,750 | 479,414,816 |
| Actuarial Liability - EAN | \$ 6,917,175,002 | \$ 6,527,223,751 |
| Actuarial Value of Assets | \$ 4,739,398,719 | \$ 4,382,047,254 |
| Unfunded EAN Actuarial Liability | \$ 2,177,776,283 | \$ 2,145,176,496 |

Table III-2 shows the actuarial liability as of June 30, 2011 for General and Elected Members of SDCERS-City of San Diego.

| Table III-2 | | | | |
|---|-------------------------|-----------------------------|------------------------------|----------------------|
| SDCERS - City of San Diego - General & Elected as of June 30, 2011 | | | | |
| Item | Total | General Old Plan | General 2009 Plan | Elected |
| Present Value of Future Benefits | | | | |
| Actives | \$ 1,713,443,546 | \$ 1,690,019,022 | \$ 21,712,123 | \$ 1,712,401 |
| Terminated Vested | 218,711,700 | 217,901,286 | 112,923 | 697,491 |
| Disabled | 84,859,821 | 84,859,821 | - | - |
| Retirees | 1,892,611,852 | 1,884,176,522 | - | 8,435,330 |
| Beneficiaries | 72,182,725 | 71,587,561 | - | 595,164 |
| Total City General & Elected | \$ 3,981,809,644 | \$ 3,948,544,212 | \$ 21,825,046 | \$ 11,440,386 |
| Actuarial Liability - EAN | | | | |
| Actives | \$ 1,314,124,551 | \$ 1,312,317,095 | \$ 1,361,067 | \$ 446,389 |
| Terminated Vested | 218,711,700 | 217,901,286 | 112,923 | 697,491 |
| Disabled | 84,859,821 | 84,859,821 | - | - |
| Retirees | 1,892,611,852 | 1,884,176,522 | - | 8,435,330 |
| Beneficiaries | 72,182,725 | 71,587,561 | - | 595,164 |
| Total City General & Elected | \$ 3,582,490,649 | \$ 3,570,842,286 | \$ 1,473,990 | \$ 10,174,373 |

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-3 shows the actuarial liability as of June 30, 2011 for Safety Members of SDCERS-City of San Diego.

| Table III-3 | | | | | |
|--|-------------------------|-------------------------|----------------------|-------------------------|----------------------|
| SDCERS - City of San Diego - Safety as of June 30, 2011 | | | | | |
| Item | | Police | Police | | |
| Present Value of Future Benefits | Total | Old Plan | 2009 Plan | Fire | Lifeguard |
| Actives | \$ 1,376,373,595 | \$ 910,854,161 | \$ 18,323,238 | \$ 403,987,995 | \$ 43,208,201 |
| Terminated Vested | 63,419,741 | 58,612,218 | 38,416 | 3,327,347 | 1,441,760 |
| Disabled | 359,360,023 | 239,911,277 | - | 108,447,485 | 11,001,261 |
| Retirees | 1,838,583,372 | 1,143,406,009 | - | 662,222,031 | 32,955,332 |
| Beneficiaries | 96,620,082 | 61,989,358 | - | 34,066,294 | 564,430 |
| Total City Safety | \$ 3,734,356,813 | \$ 2,414,773,023 | \$ 18,361,654 | \$ 1,212,051,152 | \$ 89,170,984 |
| Actuarial Liability - EAN | | | | | |
| Actives | \$ 976,701,134 | \$ 658,858,019 | \$ 1,266,365 | \$ 284,829,376 | \$ 31,747,374 |
| Terminated Vested | 63,419,741 | 58,612,218 | 38,416 | 3,327,347 | 1,441,760 |
| Disabled | 359,360,023 | 239,911,277 | - | 108,447,485 | 11,001,261 |
| Retirees | 1,838,583,372 | 1,143,406,009 | - | 662,222,031 | 32,955,332 |
| Beneficiaries | 96,620,082 | 61,989,358 | - | 34,066,294 | 564,430 |
| Total City Safety | \$ 3,334,684,353 | \$ 2,162,776,881 | \$ 1,304,781 | \$ 1,092,892,534 | \$ 77,710,158 |

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**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.

| Table III-4 | | |
|--|---|----------------|
| Development of 2011 Experience Gain/(Loss) SDCERS - City of San Diego | | |
| (In Millions) | | |
| 1. | Unfunded Actuarial Liability at June 30, 2010 | \$ 2,145.2 |
| 2. | Beginning of year unfunded actuarial liability payment | (167.8) |
| 3. | Interest accrued ((1+2) x 7.75%) | 153.2 |
| 4. | Expected Unfunded Actuarial Liability at June 30, 2011 (1+2+3) | 2,130.6 |
| 5. | Actual Unfunded Liability at June 30, 2011 | 2,177.8 |
| 6. | Difference: (4 - 5) | (47.2) |
| 7. | Portion of difference (6) due to actuarial assumption or method changes | (188.3) |
| 8. | Portion of difference (6) due to plan changes | - |
| 9. | Portion of difference (6) due to contributions more than expected | 0.2 |
| 10. | Portion of difference (6) due to updated PSC correction estimate | 10.9 |
| 11. | Portion of difference (6) due to net experience Gain/(Loss) | 130.0 |
| | a) portion of (11) due to investment experience | \$ 89.3 |
| | b) portion of (11) due to liability experience | \$ 40.8 |
| Elements of Liability Gain/(Loss) | | |
| 1. | G/(L) due to demographic and payroll experience | 40.7 |
| 2. | G/(L) due to purchased service credit | (0.2) |
| 3. | Other Gain/(Loss) | 0.2 |
| 4. | Total Estimated Liability Gain/(Loss): sum 1 through 3 | \$ 40.8 |

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

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

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

* 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 rate is determined by taking the value, as of entry age into the plan, of each Member's projected future benefits. This value is then divided by the value, also at entry age, of each Member's expected future salary. The normal cost rate is multiplied by current salary to determine each Member's normal cost. Finally, the normal cost is reduced by the Member contribution to produce the employer normal cost. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability. The UAL for FY 2013 is to be amortized over several different periods. Table IV-2 shows the outstanding balance, the FY 2013 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.

Table IV-1 on the following page shows how the City's contribution rate for SDCERS for FY 2013 is developed. The methodology and assumptions used are in full compliance with the parameters set in GASB Statement Number 25 for purposes of determining the annual required contribution (ARC).

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS**

**Table IV-1
SDCERS - City of San Diego
Development of the City's Contribution as of June 30, 2011, For (FY 2013)
(dollars in millions)**

| | WEIGHTED TOTAL CITY | Non-Safety | | | Safety | | | | | |
|--|------------------------|-------------------|---------------------|----------------------|---------|-------------------|--------------------|---------------------|------------|-----------|
| | | Weighted Total | General Old Plan | General 2009 Plan | Elected | Weighted Total | Police Old Plan | Police 2009 Plan | Fire | Lifeguard |
| 1. Total Normal Cost Rate as of June 30, 2011 | 23.03% | 19.14% | 19.28% | 15.65% | 36.63% | 29.41% | 29.28% | 27.52% | 29.64% | 32.09% |
| 2. Member Contribution Rate as of June 30, 2011 | 12.07% | 9.87% | 10.03% | 7.59% | 9.06% | 15.45% | 15.38% | 13.77% | 15.82% | 15.77% |
| 3. Employer Normal Cost Rate as of June 30, 2011 (1-2) | 10.96% | 9.27% | 9.25% | 8.06% | 27.57% | 13.96% | 13.90% | 13.75% | 13.82% | 16.32% |
| 4. Actuarial Liability | \$ 6,917.2 | \$ 3,582.5 | \$ 3,570.8 | \$ 1.5 | \$ 10.2 | \$ 3,334.7 | \$ 2,162.8 | \$ 1.3 | \$ 1,092.9 | \$ 77.7 |
| 5. Actuarial Assets | \$ 4,739.4 | \$ 2,454.6 | \$ 2,446.6 | \$ 1.0 | \$ 7.0 | \$ 2,284.8 | \$ 1,481.9 | \$ 0.9 | \$ 748.8 | \$ 53.2 |
| 6. Total Unfunded Actuarial Liability (UAL) (4-5)* | \$ 2,177.8 | \$ 1,127.9 | \$ 1,124.2 | \$ 0.5 | \$ 3.2 | \$ 1,049.9 | \$ 680.9 | \$ 0.4 | \$ 344.1 | \$ 24.5 |
| 7. Preliminary FY13 UAL amortization* | \$ 177.0 | \$ 91.7 | \$ 91.4 | \$ 0.0 | \$ 0.3 | \$ 85.3 | \$ 55.3 | \$ 0.0 | \$ 28.0 | \$ 2.0 |
| 8. <u>Negative Amortization Test for FY13</u> | | | | | | | | | | |
| a. Total UAL on 6/30/11 less FY12 UAL payment | \$ 2,009.7 | \$ 1,040.8 | \$ 1,037.5 | \$ 0.4 | \$ 3.0 | \$ 968.8 | \$ 628.4 | \$ 0.4 | \$ 317.5 | \$ 22.6 |
| b. interest on 8a. To 6/30/12 | \$ 150.7 | \$ 78.1 | \$ 77.8 | \$ 0.0 | \$ 0.2 | \$ 72.7 | \$ 47.1 | \$ 0.0 | \$ 23.8 | \$ 1.7 |
| c. preliminary FY13 UAL amortization (line 7) | \$ 177.0 | \$ 91.7 | \$ 91.4 | \$ 0.0 | \$ 0.3 | \$ 85.3 | \$ 55.3 | \$ 0.0 | \$ 28.0 | \$ 2.0 |
| d. Negative interest (8b - 8c, not less than zero) | - | - | - | - | - | - | - | - | - | - |
| 9. Total FY13 UAL payment on 7/01/12 (8c + 8d) | \$ 177.0 | \$ 91.7 | \$ 91.4 | \$ 0.0 | \$ 0.3 | \$ 85.3 | \$ 55.3 | \$ 0.0 | \$ 28.0 | \$ 2.0 |
| 10. Total FY13 UAL payment throughout year | \$ 183.5 | \$ 95.1 | \$ 94.8 | \$ 0.0 | \$ 0.3 | \$ 88.5 | \$ 57.4 | \$ 0.0 | \$ 29.0 | \$ 2.1 |
| 11. Total Expected Payroll for FY13 | \$ 514.3 | \$ 321.1 | \$ 272.9 | \$ 47.7 | \$ 0.6 | \$ 193.1 | \$ 115.1 | \$ 15.9 | \$ 56.5 | \$ 5.6 |
| 12. FY13 Normal Cost paid throughout the year (3x11) | \$ 56.0 | \$ 29.2 | \$ 25.2 | \$ 3.8 | \$ 0.2 | \$ 26.9 | \$ 16.0 | \$ 2.2 | \$ 7.8 | \$ 0.9 |
| 13. FY13 Normal Cost paid at start of year | \$ 54.1 | \$ 28.2 | \$ 24.3 | \$ 3.7 | \$ 0.2 | \$ 26.0 | \$ 15.4 | \$ 2.1 | \$ 7.5 | \$ 0.9 |
| 14. Determination of FY13 GASB ARC % | | | | | | | | | | |
| a. Employer Normal Cost Rate (12 divided by 11) | 10.90% | 9.11% | 9.25% | 8.06% | 27.57% | 13.94% | 13.90% | 13.75% | 13.82% | 16.32% |
| b. UAL Rate (line 10 divided by line 11) | 35.69% | 29.60% | 34.72% | 0.08% | 47.44% | 45.82% | 49.88% | 0.22% | 51.30% | 36.51% |
| c. Total employer ARC % (14a + 14b) | 46.59% | 38.71% | 43.97% | 8.14% | 75.01% | 59.75% | 63.78% | 13.97% | 65.12% | 52.83% |
| 15. Determination of FY13 GASB ARC dollars | | | | | | | | | | |
| a. FY13 ARC if paid throughout year | \$ 239.6 | \$ 124.3 | \$ 120.0 | \$ 3.9 | \$ 0.4 | \$ 115.4 | \$ 73.4 | \$ 2.2 | \$ 36.8 | \$ 3.0 |
| b. FY13 ARC if paid at beginning of year | \$ 231.1 | \$ 119.9 | \$ 115.7 | \$ 3.7 | \$ 0.4 | \$ 111.3 | \$ 70.8 | \$ 2.1 | \$ 35.5 | \$ 2.9 |

* See Table IV-2 for components of these amounts.
Note: Numbers may not add due to rounding.

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS**

Table IV-2 shows information on each layer of the June 30, 2011 UAL.

| Table IV-2 SDCERS - City of San Diego Schedule of Amortization Bases as of July 1, 2011 Used in Development of the City's Contribution for FY 2013 | | | | | | | |
|---|---------------------|------------------|----------------------------------|--|--|------------------------------------|--|
| Type of Base | Date Established | Initial Amount | Initial Amortization Years | July 1, 2011 Outstanding Balance | Outstanding Balance for FY 2013 (BOY)* | Remaining Amortization Years | Amortization Payment for FY 2013 (BOY) |
| 1. June 30, 2007 UAL | 7/1/2007 | \$ 1,184,242,049 | 20 | \$ 1,186,793,332 | \$ 1,177,653,678 | 16 | \$ 94,786,932 |
| 2. Assumption Change | 7/1/2008 | 83,787,434 | 30 | 93,863,105 | 95,320,791 | 27 | 5,392,694 |
| 3. Experience Loss | 7/1/2008 | 13,564,981 | 15 | 14,153,793 | 13,780,388 | 12 | 1,385,590 |
| 4. Experience Loss | 7/1/2009 | 810,661,179 | 15 | 861,714,000 | 843,886,864 | 13 | 79,622,749 |
| 5. Experience Loss | 7/1/2010 | 25,942,732 | 15 | 27,953,293 | 27,512,538 | 14 | 2,450,166 |
| 6. Experience Gain** | 7/1/2010 | (50,000,000) | 14 | (53,875,000) | (48,447,978) | 13 | (4,571,183) |
| 7. Experience Gain | 7/1/2011 | (141,139,563) | 15 | (141,139,563) | (151,725,030) | 15 | (12,817,707) |
| 8. Assumption Change | 7/1/2011 | 188,313,322 | 30 | <u>188,313,322</u> | <u>202,436,822</u> | 30 | <u>10,775,682</u> |
| TOTAL | | | | \$ 2,177,776,283 | \$ 2,160,418,072 | | \$ 177,024,924 |

* Adjusted from 7/1/2011 to 7/1/2012 by subtracting the July 1, 2011 amortization payment and adding interest.

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

SECTION V
ACCOUNTING STATEMENT INFORMATION

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

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

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

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

ASC Topic 960 specifies that a comparison of the present value of accrued (accumulated) benefits to the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2010 and June 30, 2011 are presented in Table V-1 and Table V-2. Please note that in both tables there has been a change in the valuation method of measuring the liabilities for active members' vested and accrued benefits. The change resulted in an increase in these respective liabilities for both the prior and current year. While this number is not used by SDCERS for any funding or accounting purposes, and is simply an informational number, we felt that it was important to provide full disclosure. The reason for the change is that we discovered that the prior valuation method contained a redundant pro-ratio of the accrued benefit based on service to date over service at retirement.

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

| Table V-1 SDCERS - City of San Diego - Total | | | |
|--|----------------------|----------------------|-----------------|
| Item | June 30, 2011 | June 30, 2010 | % Change |
| ASC Topic 960 Basis | | | |
| 1. Present Value of Benefits Accrued and Vested to Date | | | |
| a. Members Currently Receiving Payments | \$ 4,344,217,875 | \$ 3,912,112,575 | 11.0% |
| b. Vested Terminated and Inactive Members | 282,131,441 | 264,567,702 | 6.6% |
| c. Active Members | <u>1,802,887,616</u> | <u>1,716,714,478</u> | <u>5.0%</u> |
| d. Total PVAB | \$ 6,429,236,932 | \$ 5,893,394,755 | 9.1% |
| 2. Assets at Market Value | 4,848,054,164 | 3,900,537,904 | 24.3% |
| 3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero | \$ 1,581,182,768 | \$ 1,992,856,850 | |
| 4. Ratio of Assets to Value of Benefits (2)/(1)(d) | 75.41% | 66.18% | 9.2% |
| GASB No. 25 Basis | | | |
| 1. Actuarial Liabilities | | | |
| a. Members Currently Receiving Payments | \$ 4,344,217,875 | \$ 3,912,112,575 | 11.0% |
| b. Vested Terminated and Inactive Members | 282,131,441 | 264,567,702 | 6.6% |
| c. Active Members | <u>2,290,825,686</u> | <u>2,350,543,474</u> | <u>-2.5%</u> |
| d. Total Actuarial Liability | \$ 6,917,175,002 | \$ 6,527,223,751 | 6.0% |
| 2. Actuarial Value of Assets | \$ 4,739,398,719 | \$ 4,382,047,254 | 8.2% |
| 3. Unfunded Actuarial Liability | \$ 2,177,776,283 | \$ 2,145,176,496 | 1.5% |
| 4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d) | 68.52% | 67.13% | 1.4% |

| Table V-2 SDCERS - City of San Diego - Total | |
|---|---|
| Item | Accumulated Benefit Obligation (ASC Topic 960) |
| Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2010 | \$ 5,893,394,755 |
| Increase (Decrease) During Year Attributable to: | |
| Passage of Time | 442,958,353 |
| Benefits Paid | (355,606,213) |
| Assumption Changes | 335,418,516 |
| Plan Changes | - |
| Benefits Accrued, Other Gains/Losses | 113,071,522 |
| Net Increase (Decrease) | \$ 535,842,177 |
| Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2011 | \$ 6,429,236,932 |

**SDCERS-CITY OF SAN DIEGO
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**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. Table V-3 shows the Notes to Required Supplementary Information. Table V-4 presents an analysis of financial experience for the valuation year, and Table V-5 presents the Solvency Test which shows the portion of actuarial liability covered by assets.

**Table V-3
SDCERS - City of San Diego
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**

The information presented in the required supplementary schedules to the Financial Section of the City's CAFR was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

| | |
|--|---|
| Valuation date | June 30, 2011 |
| Actuarial funding method | Entry Age Normal |
| Amortization method | Level percent closed |
| Equivalent single amortization period | 15.789 years ¹ |
| Asset valuation method | Expected Value Method |
| Actuarial assumptions: | |
| Investment rate of return | 7.50% |
| Projected salary increases due to inflation ² | 0% for the next two years, 3.75% thereafter |
| Cost-of-living adjustments | 2.00% |

The actuarial assumptions used have been recommended by the actuary and adopted by SDCERS' Board of Administration based on the most recent review of SDCERS' experience, completed in 2011.

The rate of employer contributions to SDCERS is composed of the normal cost and an amortization of the unfunded actuarial liability. The normal cost is a level percent of payroll cost which, along with the Member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or Member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability.

¹ 16 years for the outstanding balance of the 2007 UAL, 15 years for experience gains and losses, 30 years for changes in methods and assumptions, 5 years for benefit changes.

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

SDCERS-CITY OF SAN DIEGO
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SECTION V
ACCOUNTING STATEMENT INFORMATION

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

| Type of Activity | <i>Gain (or Loss) for Year ending June 30, 2011</i> |
|--|---|
| Investment Income | \$ 89,255,659 |
| Combined Liability Experience | <u>40,764,366</u> |
| Gain (or Loss) During Year from Financial Experience | \$ 130,020,025 |
| Non-Recurring Gain (or Loss) Items (e.g., Contributions, Assumption Changes) | <u>(177,193,785)</u> |
| Composite Gain (or Loss) During Year | \$ (47,173,759) |

**SDCERS-CITY OF SAN DIEGO
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**SECTION V
ACCOUNTING STATEMENT INFORMATION**

| Table V-5 SDCERS - City of San Diego GASB SOLVENCY TEST Actuarial Liabilities For (\$ in thousands) | | | | | | | | |
|--|-----------------------------------|----------------------------------|----------------------------|--------------|---------------------------------|---|-------|-----|
| Valuation Date June 30, | (A) | (B) | (C) Remaining Active | | Reported Assets ¹ | Portion of Actuarial Liabilities Covered by Reported Assets | | |
| | Active Member Contributions | Retirees And Beneficiaries | Members' Liabilities | Liabilities | | (A) | (B) | (C) |
| 2011 ⁶ | \$ 627,447 | \$ 4,344,218 | \$ 1,945,510 | \$ 4,739,399 | 100% | 94.65% | 0.00% | |
| 2010 | 584,296 | 3,912,113 | 2,030,816 | 4,382,047 | 100 | 97.08 | 0.00 | |
| 2009 | 535,797 | 3,673,185 | 2,072,655 | 4,175,229 | 100 | 99.08 | 0.00 | |
| 2008 ⁵ | 522,966 | 3,286,668 | 2,153,916 | 4,662,346 | 100 | 100 | 39.50 | |
| 2007 ⁴ | 482,526 | 3,101,594 | 2,013,532 | 4,413,311 | 100 | 100 | 41.19 | |
| 2006 ² | 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 ³ | 1,946,660 | 1,635,681 | 2,628,680 | 100 | 100 | 16.33 | |
| 2003 | 375,000 ³ | 1,741,490 | 1,416,126 | 2,375,431 | 100 | 100 | 18.28 | |
| 2002 | 353,686 | 1,440,392 | 1,374,742 | 2,448,208 | 100 | 100 | 47.58 | |

¹ Actuarial Value of Assets

² Reflects contingent liabilities (Corbett pre-July 1, 2000 and 13th check), DROP reserves, supplemental COLA reserves, and IRC section 415 limits.

³ Estimated

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

⁵ Reflects revised actuarial and economic assumptions.

⁶ Reflects revised actuarial and economic assumptions.

**SDCERS-CITY OF SAN DIEGO
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**APPENDIX A
MEMBERSHIP INFORMATION**

| Table A-1 | | | |
|--|----------------------|----------------------|-----------------|
| SDCERS - City of San Diego | | | |
| Active Member Data | | | |
| | June 30, 2011 | June 30, 2010 | % Change |
| <u>Total</u> | | | |
| Count | 7,792 | 8,120 | -4.0% |
| Average Current Age | 44.1 | 43.7 | 1.0% |
| Average Service | 13.5 | 13.1 | 2.5% |
| Average Pensionable Earnings | \$ 65,999 | \$ 65,300 | 1.1% |
| Annual Pensionable Earnings | \$ 514,264,749 | \$ 530,238,355 | -3.0% |
| Average Valuation Compensation ¹ | \$ 65,998 | \$ 65,300 | 1.1% |
| Annual Valuation Compensation ¹ | \$ 514,259,747 | \$ 530,233,354 | -3.0% |
| Service Without Permissive Service Purchased | 12.2 | 11.8 | 3.1% |
| Members with Paid Purchased Service | 2,035 | 2,191 | -7.1% |
| Members with Any Purchased Service | 2,149 | 2,315 | -7.2% |
| Amount of Paid Purchased Service | 8,587 | 9,293 | -7.6% |
| Amount of Total Purchased Service | 9,879 | 10,674 | -7.5% |
| <u>General</u> | | | |
| Count | 5,498 | 5,694 | -3.4% |
| Average Current Age | 46.0 | 45.6 | 0.9% |
| Average Service | 13.7 | 13.4 | 2.2% |
| Average Pensionable Earnings | \$ 58,411 | \$ 57,665 | 1.3% |
| Annual Pensionable Earnings | \$ 321,143,664 | \$ 328,346,826 | -2.2% |
| Average Valuation Compensation ¹ | \$ 58,410 | \$ 57,665 | 1.3% |
| Annual Valuation Compensation ¹ | \$ 321,138,662 | \$ 328,341,825 | -2.2% |
| Service Without Permissive Service Purchased | 12.2 | 11.9 | 2.5% |
| Members with Paid Purchased Service | 1,624 | 1,743 | -6.8% |
| Members with Any Purchased Service | 1,672 | 1,795 | -6.9% |
| Amount of Paid Purchased Service | 7,573 | 8,217 | -7.8% |
| Amount of Total Purchased Service | 8,261 | 8,939 | -7.6% |
| <u>Safety</u> | | | |
| Count | 2,294 | 2,426 | -5.4% |
| Average Current Age | 39.7 | 39.3 | 1.0% |
| Average Service | 12.8 | 12.4 | 3.2% |
| Average Pensionable Earnings | \$ 84,185 | \$ 83,220 | 1.2% |
| Annual Pensionable Earnings | \$ 193,121,085 | \$ 201,891,529 | -4.3% |
| Average Valuation Compensation ¹ | \$ 84,185 | \$ 83,220 | 1.2% |
| Annual Valuation Compensation ¹ | \$ 193,121,085 | \$ 201,891,529 | -4.3% |
| Service Without Permissive Service Purchased | 12.1 | 11.7 | 3.4% |
| Members with Paid Purchased Service | 411 | 448 | -8.3% |
| Members with Any Purchased Service | 477 | 520 | -8.3% |
| Amount of Paid Purchased Service | 1,014 | 1,076 | -5.8% |
| Amount of Total Purchased Service | 1,618 | 1,735 | -6.7% |

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

**SDCERS-CITY OF SAN DIEGO
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**APPENDIX A
MEMBERSHIP INFORMATION**

| Table A-2 SDCERS - City of San Diego Non-Active Participant Data | | | | | | |
|---|----------------------|----------------------|-----------------|----------------------|----------------------|-----------------|
| | Count | | | Average Age | | |
| | June 30, 2011 | June 30, 2010 | % Change | June 30, 2011 | June 30, 2010 | % Change |
| <u>Total</u> | | | | | | |
| Retired | 5,480 | 5,189 | 5.6% | 65.3 | 65.3 | 0.0% |
| Disabled | 1,236 | 1,241 | -0.4% | 63.9 | 63.4 | 0.8% |
| Beneficiaries | <u>1,186</u> | <u>1,151</u> | 3.0% | <u>72.9</u> | <u>74.5</u> | -2.1% |
| Payee Total | 7,902 | 7,581 | 4.2% | 66.2 | 66.4 | -0.2% |
| DROP Participants | 980 | 900 | 8.9% | 56.8 | 57.0 | -0.4% |
| Deferred Vested ¹ | 2,894 | 2,874 | 0.7% | 45.4 | 44.9 | 1.3% |
| Vested < 10 yrs svc | 2,027 | 1,980 | 2.4% | | | |
| <u>General</u> | | | | | | |
| Retired | 3,618 | 3,431 | 5.5% | 67.1 | 67.1 | 0.0% |
| Disabled | 421 | 424 | -0.7% | 62.6 | 62.2 | 0.6% |
| Beneficiaries | <u>716</u> | <u>700</u> | 2.3% | <u>76.5</u> | <u>76.8</u> | -0.4% |
| Payee Total | 4,755 | 4,555 | 4.4% | 68.1 | 68.2 | -0.1% |
| DROP Participants | 554 | 536 | 3.4% | 59.1 | 59.3 | -0.3% |
| Deferred Vested ¹ | 2,365 | 2,341 | 1.0% | 46.6 | 46.1 | 1.1% |
| Vested < 10 yrs svc | 1,653 | 1,612 | 2.5% | | | |
| <u>Safety</u> | | | | | | |
| Retired | 1,862 | 1,758 | 5.9% | 61.9 | 61.8 | 0.2% |
| Disabled | 815 | 817 | -0.2% | 64.6 | 63.9 | 1.1% |
| Beneficiaries | <u>470</u> | <u>451</u> | 4.2% | <u>67.4</u> | <u>70.9</u> | -4.9% |
| Payee Total | 3,147 | 3,026 | 4.0% | 63.4 | 63.7 | -0.5% |
| DROP Participants | 426 | 364 | 17.0% | 53.7 | 53.6 | 0.2% |
| Deferred Vested ¹ | 529 | 533 | -0.8% | 40.3 | 39.6 | 1.8% |
| Vested < 10 yrs svc | 374 | 368 | 1.6% | | | |

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

**SDCERS-CITY OF SAN DIEGO
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

| | Total Annual Benefit | | | Average Annual Benefit | | |
|------------------------------|-----------------------------|----------------------|-----------------|-------------------------------|----------------------|-----------------|
| | June 30, 2011 | June 30, 2010 | % Change | June 30, 2011 | June 30, 2010 | % Change |
| <u>Total</u> | | | | | | |
| Retired | \$ 271,206,018 | \$ 249,905,055 | 8.5% | \$ 49,490 | \$ 48,161 | 2.8% |
| Disabled | 38,033,989 | 37,142,983 | 2.4% | 30,772 | 29,930 | 2.8% |
| Beneficiaries | <u>17,508,892</u> | <u>16,409,579</u> | 6.7% | <u>14,763</u> | <u>14,257</u> | 3.6% |
| Payee Total | \$ 326,748,899 | \$ 303,457,617 | 7.7% | \$ 41,350 | \$ 40,029 | 3.3% |
| | | | | | | |
| DROP Participants | \$ 56,805,352 | \$ 50,857,229 | 11.7% | \$ 57,965 | \$ 56,508 | 2.6% |
| Deferred Vested ¹ | \$ 120,243,558 | \$ 112,729,129 | 6.7% | \$ 41,549 | \$ 39,224 | 5.9% |
| <u>General</u> | | | | | | |
| Retired | \$ 144,438,440 | \$ 133,118,965 | 8.5% | \$ 39,922 | \$ 38,799 | 2.9% |
| Disabled | 7,372,870 | 7,158,209 | 3.0% | 17,513 | 16,883 | 3.7% |
| Beneficiaries | <u>8,085,017</u> | <u>7,714,413</u> | 4.8% | <u>11,292</u> | <u>11,021</u> | 2.5% |
| Payee Total | \$ 159,896,327 | \$ 147,991,586 | 8.0% | \$ 33,627 | \$ 32,490 | 3.5% |
| | | | | | | |
| DROP Participants | \$ 24,052,791 | \$ 22,947,550 | 4.8% | \$ 43,417 | \$ 42,813 | 1.4% |
| Deferred Vested ¹ | \$ 98,179,679 | \$ 92,174,962 | 6.5% | \$ 41,514 | \$ 39,374 | 5.4% |
| <u>Safety</u> | | | | | | |
| Retired | \$ 126,767,578 | \$ 116,786,091 | 8.5% | \$ 68,081 | \$ 66,431 | 2.5% |
| Disabled | 30,661,119 | 29,984,775 | 2.3% | 37,621 | 36,701 | 2.5% |
| Beneficiaries | <u>9,423,876</u> | <u>8,695,166</u> | 8.4% | <u>20,051</u> | <u>19,280</u> | 4.0% |
| Payee Total | \$ 166,852,573 | \$ 155,466,031 | 7.3% | \$ 53,020 | \$ 51,377 | 3.2% |
| | | | | | | |
| DROP Participants | \$ 32,752,561 | \$ 27,909,679 | 17.4% | \$ 76,884 | \$ 76,675 | 0.3% |
| Deferred Vested ¹ | \$ 22,063,879 | \$ 20,554,167 | 7.3% | \$ 41,709 | \$ 38,563 | 8.2% |

¹ Includes all Participants having a contribution balance still on account with SDCERS. Annual benefit for deferred vested Participants is the total contribution balance on account as of June 30, 2011.

**SDCERS-CITY OF SAN DIEGO
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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-4
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
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 | 21 | 72 | - | - | - | - | - | - | - | - | - | 93 |
| 25 to 29 | 44 | 469 | 94 | 4 | - | - | - | - | - | - | - | 611 |
| 30 to 34 | 35 | 339 | 328 | 106 | 3 | - | - | - | - | - | - | 811 |
| 35 to 39 | 16 | 191 | 315 | 349 | 88 | 4 | - | - | - | - | - | 963 |
| 40 to 44 | 18 | 148 | 221 | 427 | 313 | 178 | 10 | - | - | - | - | 1,315 |
| 45 to 49 | 11 | 109 | 160 | 329 | 354 | 528 | 288 | 25 | 2 | - | - | 1,806 |
| 50 to 54 | 14 | 81 | 115 | 232 | 234 | 290 | 313 | 107 | 27 | 1 | - | 1,414 |
| 55 to 59 | 9 | 44 | 91 | 138 | 141 | 52 | 36 | 16 | 2 | - | - | 529 |
| 60 to 64 | 2 | 38 | 43 | 49 | 48 | 14 | 7 | 2 | 2 | 1 | - | 206 |
| 65 to 69 | 1 | 7 | 15 | 4 | 1 | 1 | 1 | - | - | 1 | - | 31 |
| 70 and up | - | 6 | 4 | 1 | 1 | - | - | - | 1 | - | - | 13 |
| Total Count | 171 | 1,504 | 1,386 | 1,639 | 1,183 | 1,067 | 655 | 150 | 34 | 3 | - | 7,792 |

**Table A-5
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
Total City**

| Age | Average Salary Years of Service | | | | | | | | | | Total | |
|--------------------|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-----------|
| | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 and up | | |
| Under 25 | \$ 39,441 | \$ 54,679 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 51,238 |
| 25 to 29 | 49,282 | 60,758 | 62,126 | 74,187 | - | - | - | - | - | - | - | 60,230 |
| 30 to 34 | 55,821 | 61,392 | 68,990 | 68,927 | 52,603 | - | - | - | - | - | - | 65,177 |
| 35 to 39 | 64,413 | 62,465 | 66,180 | 73,106 | 68,765 | 60,434 | - | - | - | - | - | 68,136 |
| 40 to 44 | 66,256 | 57,444 | 61,314 | 69,625 | 74,954 | 74,109 | 68,083 | - | - | - | - | 68,675 |
| 45 to 49 | 56,771 | 54,966 | 55,540 | 64,398 | 69,526 | 78,078 | 80,095 | 72,782 | 49,670 | - | - | 70,605 |
| 50 to 54 | 60,709 | 61,791 | 51,742 | 59,249 | 60,887 | 64,956 | 69,909 | 62,062 | 63,637 | 63,918 | - | 62,900 |
| 55 to 59 | 79,187 | 58,809 | 58,658 | 56,164 | 62,087 | 65,468 | 68,088 | 66,157 | 49,275 | - | - | 60,786 |
| 60 to 64 | 72,504 | 65,599 | 63,399 | 57,676 | 60,307 | 63,950 | 80,002 | 35,942 | 91,187 | 50,232 | - | 62,352 |
| 65 to 69 | 93,517 | 47,718 | 66,911 | 33,452 | 85,280 | 54,246 | 66,581 | - | - | 38,834 | - | 58,386 |
| 70 and up | - | 68,225 | 34,325 | 41,267 | 17,316 | - | - | - | 49,462 | - | - | 50,361 |
| Avg. Salary | \$ 56,136 | \$ 60,171 | \$ 62,704 | \$ 66,218 | \$ 67,862 | \$ 72,961 | \$ 74,363 | \$ 63,937 | \$ 63,174 | \$ 50,995 | \$ - | \$ 65,999 |

**SDCERS-CITY OF SAN DIEGO
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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-6
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
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 | 21 | 30 | - | - | - | - | - | - | - | - | 51 |
| 25 to 29 | 33 | 200 | 49 | 2 | - | - | - | - | - | - | 284 |
| 30 to 34 | 35 | 198 | 160 | 57 | 3 | - | - | - | - | - | 453 |
| 35 to 39 | 16 | 136 | 194 | 183 | 67 | 4 | - | - | - | - | 600 |
| 40 to 44 | 17 | 123 | 160 | 277 | 177 | 110 | 9 | - | - | - | 873 |
| 45 to 49 | 10 | 103 | 134 | 256 | 249 | 258 | 160 | 21 | 2 | - | 1,193 |
| 50 to 54 | 14 | 76 | 106 | 200 | 211 | 247 | 293 | 106 | 27 | 1 | 1,281 |
| 55 to 59 | 8 | 44 | 90 | 137 | 136 | 50 | 32 | 16 | 2 | - | 515 |
| 60 to 64 | 2 | 38 | 43 | 49 | 48 | 14 | 7 | 2 | 2 | 1 | 206 |
| 65 to 69 | 1 | 7 | 14 | 4 | - | 1 | 1 | - | - | 1 | 29 |
| 70 and up | - | 6 | 4 | 1 | 1 | - | - | - | 1 | - | 13 |
| Total Count | 157 | 961 | 954 | 1,166 | 892 | 684 | 502 | 145 | 34 | 3 | 5,498 |

**Table A-7
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
General**

| Age | Average Salary Years of Service | | | | | | | | | | Total |
|--------------------|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 and up | |
| Under 25 | \$ 39,441 | \$ 40,395 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 40,002 |
| 25 to 29 | 47,340 | 48,920 | 45,225 | 69,472 | - | - | - | - | - | - | 48,243 |
| 30 to 34 | 55,821 | 53,801 | 54,683 | 54,337 | 52,603 | - | - | - | - | - | 54,328 |
| 35 to 39 | 64,413 | 59,027 | 56,772 | 61,084 | 61,177 | 60,434 | - | - | - | - | 59,318 |
| 40 to 44 | 66,882 | 54,971 | 53,565 | 60,233 | 62,394 | 60,768 | 65,291 | - | - | - | 58,957 |
| 45 to 49 | 56,628 | 54,089 | 50,527 | 57,566 | 61,408 | 61,495 | 66,143 | 70,528 | 49,670 | - | 59,484 |
| 50 to 54 | 60,709 | 60,310 | 48,620 | 55,092 | 57,943 | 59,939 | 67,722 | 61,969 | 63,637 | 63,918 | 59,977 |
| 55 to 59 | 71,551 | 58,809 | 58,363 | 55,916 | 61,679 | 63,966 | 65,244 | 66,157 | 49,275 | - | 60,009 |
| 60 to 64 | 72,504 | 65,599 | 63,399 | 57,676 | 60,307 | 63,950 | 80,002 | 35,942 | 91,187 | 50,232 | 62,352 |
| 65 to 69 | 93,517 | 47,718 | 58,015 | 33,452 | - | 54,246 | 66,581 | - | - | 38,834 | 52,870 |
| 70 and up | - | 68,225 | 34,325 | 41,267 | 17,316 | - | - | - | 49,462 | - | 50,361 |
| Avg. Salary | \$ 55,662 | \$ 54,543 | \$ 53,881 | \$ 57,904 | \$ 60,670 | \$ 61,030 | \$ 67,186 | \$ 63,312 | \$ 63,174 | \$ 50,995 | \$ 58,411 |

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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-8
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
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 | - | 42 | - | - | - | - | - | - | - | - | 42 |
| 25 to 29 | 11 | 269 | 45 | 2 | - | - | - | - | - | - | 327 |
| 30 to 34 | - | 141 | 168 | 49 | - | - | - | - | - | - | 358 |
| 35 to 39 | - | 55 | 121 | 166 | 21 | - | - | - | - | - | 363 |
| 40 to 44 | 1 | 25 | 61 | 150 | 136 | 68 | 1 | - | - | - | 442 |
| 45 to 49 | 1 | 6 | 26 | 73 | 105 | 270 | 128 | 4 | - | - | 613 |
| 50 to 54 | - | 5 | 9 | 32 | 23 | 43 | 20 | 1 | - | - | 133 |
| 55 to 59 | 1 | - | 1 | 1 | 5 | 2 | 4 | - | - | - | 14 |
| 60 to 64 | - | - | - | - | - | - | - | - | - | - | - |
| 65 to 69 | - | - | 1 | - | 1 | - | - | - | - | - | 2 |
| 70 and up | - | - | - | - | - | - | - | - | - | - | - |
| Total Count | 14 | 543 | 432 | 473 | 291 | 383 | 153 | 5 | - | - | 2,294 |

**Table A-9
SDCERS - City of San Diego
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
Safety**

| Age | Average Salary Years of Service | | | | | | | | | | Total |
|--------------------|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|
| | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 and up | |
| Under 25 | \$ - | \$ 64,881 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 64,881 |
| 25 to 29 | 55,109 | 69,560 | 80,529 | 78,901 | - | - | - | - | - | - | 70,640 |
| 30 to 34 | - | 72,050 | 82,615 | 85,899 | - | - | - | - | - | - | 78,904 |
| 35 to 39 | - | 70,966 | 81,265 | 86,360 | 92,977 | - | - | - | - | - | 82,712 |
| 40 to 44 | 55,609 | 69,615 | 81,637 | 86,969 | 91,301 | 95,690 | 93,213 | - | - | - | 87,870 |
| 45 to 49 | 58,198 | 70,008 | 81,374 | 88,359 | 88,778 | 93,924 | 97,535 | 84,614 | - | - | 92,249 |
| 50 to 54 | - | 84,300 | 88,513 | 85,231 | 87,900 | 93,776 | 101,943 | 71,938 | - | - | 91,055 |
| 55 to 59 | 140,275 | - | 85,280 | 90,230 | 73,163 | 103,012 | 90,839 | - | - | - | 89,356 |
| 60 to 64 | - | - | - | - | - | - | - | - | - | - | - |
| 65 to 69 | - | - | 191,454 | - | 85,280 | - | - | - | - | - | 138,367 |
| 70 and up | - | - | - | - | - | - | - | - | - | - | - |
| Avg. Salary | \$ 61,449 | \$ 70,130 | \$ 82,188 | \$ 86,714 | \$ 89,910 | \$ 94,269 | \$ 97,908 | \$ 82,079 | \$ - | \$ - | \$ 84,185 |

SDCERS-CITY OF SAN DIEGO
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APPENDIX A
MEMBERSHIP INFORMATION

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

| Plan Year | Age | | | | | | | | | | Total |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|
| | Under 50 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 to 74 | 75 to 79 | 80 to 84 | 85 to 89 | 90 and up | |
| pre-1992 | 2 | 15 | 36 | 101 | 109 | 137 | 159 | 195 | 181 | 123 | 1,058 |
| 1992 | 2 | 3 | 4 | 11 | 8 | 11 | 17 | 37 | 26 | 4 | 123 |
| 1993 | 4 | 10 | 9 | 10 | 19 | 72 | 38 | 34 | 10 | 5 | 211 |
| 1994 | 7 | 6 | 10 | 10 | 9 | 17 | 18 | 26 | 10 | 5 | 118 |
| 1995 | 9 | 6 | 9 | 5 | 18 | 29 | 30 | 38 | 15 | 2 | 161 |
| 1996 | 5 | 12 | 13 | 8 | 22 | 20 | 19 | 15 | 6 | 5 | 125 |
| 1997 | 9 | 8 | 11 | 15 | 74 | 52 | 26 | 14 | 3 | 2 | 214 |
| 1998 | 7 | 6 | 6 | 26 | 70 | 32 | 24 | 12 | 6 | 3 | 192 |
| 1999 | 12 | 12 | 10 | 54 | 71 | 35 | 31 | 12 | 5 | 8 | 250 |
| 2000 | 10 | 10 | 5 | 66 | 69 | 52 | 24 | 14 | 11 | 8 | 269 |
| 2001 | 10 | 9 | 8 | 101 | 79 | 49 | 23 | 11 | 7 | 3 | 300 |
| 2002 | 9 | 13 | 21 | 74 | 72 | 45 | 12 | 11 | 2 | 2 | 261 |
| 2003 | 6 | 7 | 62 | 75 | 104 | 54 | 27 | 7 | 11 | 5 | 358 |
| 2004 | 9 | 4 | 61 | 79 | 39 | 30 | 17 | 6 | 9 | 5 | 259 |
| 2005 | 8 | 6 | 113 | 201 | 108 | 65 | 15 | 8 | 11 | 4 | 539 |
| 2006 | 7 | 13 | 128 | 146 | 67 | 32 | 11 | 8 | 9 | 6 | 427 |
| 2007 | 6 | 64 | 47 | 198 | 84 | 29 | 9 | 9 | 10 | 6 | 462 |
| 2008 | 18 | 75 | 56 | 192 | 55 | 17 | 10 | 8 | 9 | 3 | 443 |
| 2009 | 16 | 150 | 199 | 71 | 59 | 16 | 10 | 13 | 12 | 6 | 552 |
| 2010 | 13 | 116 | 176 | 64 | 53 | 13 | 11 | 7 | 11 | 5 | 469 |
| 2011 | 20 | 140 | 593 | 204 | 63 | 18 | 21 | 25 | 17 | 10 | 1,111 |
| Total | 189 | 685 | 1,577 | 1,711 | 1,252 | 825 | 552 | 510 | 381 | 220 | 7,902 |

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

Average Age at Retirement/Disability 55.6
Average Current Age 66.2
Average Annual Pension \$ 41,350

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APPENDIX A
 MEMBERSHIP INFORMATION

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

| Plan Year | Age | | | | | | | | | | | Total |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|-------|
| | Under 50 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 to 74 | 75 to 79 | 80 to 84 | 85 to 89 | 90 and up | | |
| pre-1992 | - | 4 | 2 | 18 | 20 | 28 | 41 | 93 | 136 | 88 | 430 | |
| 1992 | - | 1 | 2 | 3 | 3 | 2 | 14 | 36 | 26 | 4 | 91 | |
| 1993 | - | 2 | 3 | 1 | 1 | - | 14 | 32 | 7 | 4 | 64 | |
| 1994 | 1 | - | 1 | 2 | 2 | 9 | 16 | 25 | 9 | 3 | 68 | |
| 1995 | 4 | 3 | 2 | 1 | 5 | 18 | 29 | 36 | 15 | 1 | 114 | |
| 1996 | 1 | 4 | 5 | 4 | 4 | 13 | 14 | 12 | 4 | 3 | 64 | |
| 1997 | 2 | 3 | 6 | 2 | 1 | 15 | 20 | 14 | 3 | 1 | 67 | |
| 1998 | 3 | 2 | 4 | 4 | 7 | 22 | 24 | 12 | 4 | 3 | 85 | |
| 1999 | 5 | 4 | 4 | 6 | 15 | 25 | 30 | 11 | 3 | 6 | 109 | |
| 2000 | 5 | 6 | 3 | 7 | 32 | 50 | 23 | 12 | 7 | 5 | 150 | |
| 2001 | 3 | 3 | 5 | 5 | 58 | 47 | 22 | 8 | 6 | 3 | 160 | |
| 2002 | 5 | 9 | 1 | 12 | 58 | 43 | 12 | 11 | 2 | 2 | 155 | |
| 2003 | 5 | 4 | 10 | 11 | 86 | 53 | 25 | 5 | 8 | 3 | 210 | |
| 2004 | 3 | 2 | 5 | 38 | 32 | 24 | 14 | 5 | 6 | 2 | 131 | |
| 2005 | 4 | 2 | 7 | 158 | 98 | 63 | 14 | 5 | 9 | 4 | 364 | |
| 2006 | 2 | 6 | 12 | 128 | 64 | 30 | 9 | 6 | 6 | 4 | 267 | |
| 2007 | 3 | 4 | 5 | 185 | 78 | 25 | 7 | 4 | 4 | 5 | 320 | |
| 2008 | 12 | 7 | 15 | 187 | 54 | 13 | 7 | 6 | 5 | 1 | 307 | |
| 2009 | 6 | 7 | 150 | 67 | 52 | 12 | 8 | 9 | 10 | 6 | 327 | |
| 2010 | 6 | 3 | 153 | 60 | 49 | 9 | 7 | 6 | 6 | 3 | 302 | |
| 2011 | 14 | 42 | 572 | 198 | 59 | 15 | 20 | 24 | 17 | 9 | 970 | |
| Total | 84 | 118 | 967 | 1,097 | 778 | 516 | 370 | 372 | 293 | 160 | 4,755 | |

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

Average Age at Retirement/Disability 58.4
 Average Current Age 68.1
 Average Annual Pension \$ 33,627

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**APPENDIX A
MEMBERSHIP INFORMATION**

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

| Plan Year | Age | | | | | | | | | | Total |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|--------------|
| | Under 50 | 50 to 54 | 55 to 59 | 60 to 64 | 65 to 69 | 70 to 74 | 75 to 79 | 80 to 84 | 85 to 89 | 90 and up | |
| pre-1992 | 2 | 11 | 34 | 83 | 89 | 109 | 118 | 102 | 45 | 35 | 628 |
| 1992 | 2 | 2 | 2 | 8 | 5 | 9 | 3 | 1 | - | - | 32 |
| 1993 | 4 | 8 | 6 | 9 | 18 | 72 | 24 | 2 | 3 | 1 | 147 |
| 1994 | 6 | 6 | 9 | 8 | 7 | 8 | 2 | 1 | 1 | 2 | 50 |
| 1995 | 5 | 3 | 7 | 4 | 13 | 11 | 1 | 2 | - | 1 | 47 |
| 1996 | 4 | 8 | 8 | 4 | 18 | 7 | 5 | 3 | 2 | 2 | 61 |
| 1997 | 7 | 5 | 5 | 13 | 73 | 37 | 6 | - | - | 1 | 147 |
| 1998 | 4 | 4 | 2 | 22 | 63 | 10 | - | - | 2 | - | 107 |
| 1999 | 7 | 8 | 6 | 48 | 56 | 10 | 1 | 1 | 2 | 2 | 141 |
| 2000 | 5 | 4 | 2 | 59 | 37 | 2 | 1 | 2 | 4 | 3 | 119 |
| 2001 | 7 | 6 | 3 | 96 | 21 | 2 | 1 | 3 | 1 | - | 140 |
| 2002 | 4 | 4 | 20 | 62 | 14 | 2 | - | - | - | - | 106 |
| 2003 | 1 | 3 | 52 | 64 | 18 | 1 | 2 | 2 | 3 | 2 | 148 |
| 2004 | 6 | 2 | 56 | 41 | 7 | 6 | 3 | 1 | 3 | 3 | 128 |
| 2005 | 4 | 4 | 106 | 43 | 10 | 2 | 1 | 3 | 2 | - | 175 |
| 2006 | 5 | 7 | 116 | 18 | 3 | 2 | 2 | 2 | 3 | 2 | 160 |
| 2007 | 3 | 60 | 42 | 13 | 6 | 4 | 2 | 5 | 6 | 1 | 142 |
| 2008 | 6 | 68 | 41 | 5 | 1 | 4 | 3 | 2 | 4 | 2 | 136 |
| 2009 | 10 | 143 | 49 | 4 | 7 | 4 | 2 | 4 | 2 | - | 225 |
| 2010 | 7 | 113 | 23 | 4 | 4 | 4 | 4 | 1 | 5 | 2 | 167 |
| 2011 | 6 | 98 | 21 | 6 | 4 | 3 | 1 | 1 | - | 1 | 141 |
| Total | 105 | 567 | 610 | 614 | 474 | 309 | 182 | 138 | 88 | 60 | 3,147 |

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

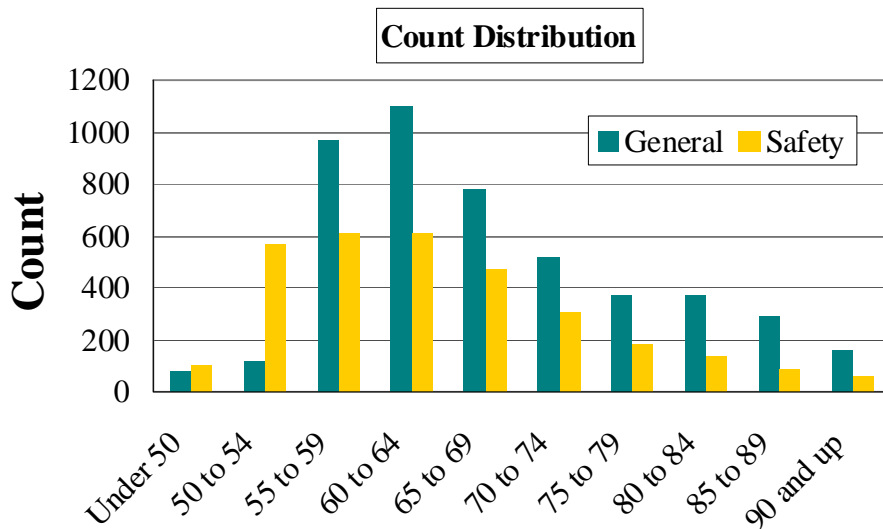
Average Age at Retirement/Disability 51.4
Average Current Age 63.4
Average Annual Pension \$ 53,020

APPENDIX A
 MEMBERSHIP INFORMATION

Table A-13
SDCERS - City of San Diego
Distribution of Retirees, Disabilitants,
Beneficiaries and Survivors
as of June 30, 2011

| Age | Count | | Total |
|-----------|---------|--------|-------|
| | General | Safety | |
| Under 50 | 84 | 105 | 189 |
| 50 to 54 | 118 | 567 | 685 |
| 55 to 59 | 967 | 610 | 1,577 |
| 60 to 64 | 1,097 | 614 | 1,711 |
| 65 to 69 | 778 | 474 | 1,252 |
| 70 to 74 | 516 | 309 | 825 |
| 75 to 79 | 370 | 182 | 552 |
| 80 to 84 | 372 | 138 | 510 |
| 85 to 89 | 293 | 88 | 381 |
| 90 and up | 160 | 60 | 220 |
| Total | 4,755 | 3,147 | 7,902 |

Chart A-1



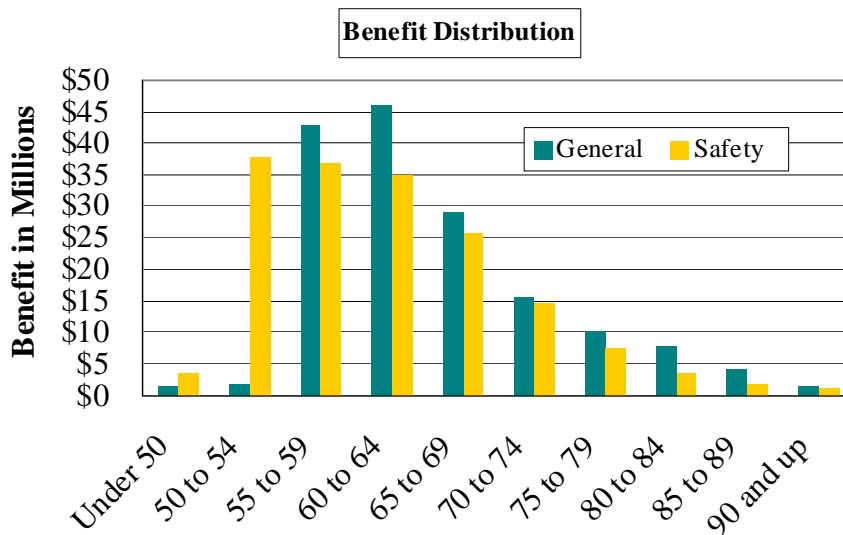
SDCERS-CITY OF SAN DIEGO
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APPENDIX A
 MEMBERSHIP INFORMATION

Table A-14
SDCERS - City of San Diego
Distribution of Retirees, Disabilitants,
Beneficiaries and Survivors
as of June 30, 2011

| Age | Annual Benefit | | |
|-----------|----------------|----------------|----------------|
| | General | Safety | Total |
| Under 50 | \$ 1,473,435 | \$ 3,390,970 | \$ 4,864,405 |
| 50 to 54 | 1,821,214 | 37,775,337 | 39,596,551 |
| 55 to 59 | 42,675,690 | 36,804,123 | 79,479,813 |
| 60 to 64 | 46,116,698 | 34,999,008 | 81,115,706 |
| 65 to 69 | 28,945,862 | 25,649,766 | 54,595,628 |
| 70 to 74 | 15,377,697 | 14,537,516 | 29,915,213 |
| 75 to 79 | 10,035,588 | 7,462,878 | 17,498,466 |
| 80 to 84 | 7,788,324 | 3,423,227 | 11,211,550 |
| 85 to 89 | 4,210,830 | 1,671,747 | 5,882,577 |
| 90 and up | 1,450,989 | 1,138,002 | 2,588,991 |
| Total | \$ 159,896,327 | \$ 166,852,573 | \$ 326,748,899 |

Chart A-2



APPENDIX A
MEMBERSHIP INFORMATION

Data Assumptions and Practices

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

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

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APPENDIX A
MEMBERSHIP INFORMATION

- Members may retire and receive benefits from multiple Plan IDs (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 VCP filing procedure was used to calculate the present value of Member benefits over the Internal Revenue Service Code Section 415 Benefit Limits.
- Member contribution rates in the raw data were replaced by the revised rates based on the application of substantially equal using the actuarial assumptions in this valuation.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

A. Actuarial Assumptions

1. Investment Return Assumption

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

2. Inflation Rate

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

3. Interest Credited to Member Contributions

7.50%, compounded annually.

4. Salary Increase Rate

Inflation component: 3.75% (following a two-year freeze assumption for FY 2013 and 2014)

The additional merit component:

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

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

5. Cost-of-Living Increase in Benefits

Assumed to be 2% per annum, compounded annually.

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

6. COL Annuity Benefit

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

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

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

7. Member Refunds

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

APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS

8. Rates of Termination

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

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

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

9. Rates of Disability

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

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

10. Rates of Mortality for Active Lives

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

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

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

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

**APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS**

11. Rates of Mortality for Retired Healthy Lives

To reflect improvements in mortality since the date of the tables, the mortality tables have been modified to reflect actual experience through June 30, 2010. No modifications have been made to project future mortality improvements.

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

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

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

12. Rates of Mortality for Retired Disabled Lives

To reflect improvements in mortality since the date of the tables, the mortality tables have been modified to reflect actual experience through June 30, 2010. No modifications have been made to project future mortality improvements.

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

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

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APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

13. Rates of Retirement

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

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

| Table B-8 | | |
|-----------------------------------|----------------|---------------|
| SDCERS - City of San Diego | | |
| Rates of Retirement by Age | | |
| | General | Safety |
| Age | 2009 | 2009 |
| 50 | -- | 10% |
| 51 | -- | 10 |
| 52 | -- | 10 |
| 53 | -- | 10 |
| 54 | -- | 20 |
| 55 | 3% | 40 |
| 56 | 3 | 40 |
| 57 | 3 | 40 |
| 58 | 5 | 50 |
| 59 | 5 | 80 |
| 60 | 10 | 85 |
| 61 | 15 | 90 |
| 62 | 20 | 100 |
| 63 | 30 | 100 |
| 64 | 40 | 100 |
| 65 | 50 | 100 |
| 66 | 50 | 100 |
| 67 | 50 | 100 |
| 68 | 50 | 100 |
| 69 | 50 | 100 |
| 70 | 100 | 100 |

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

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

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

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

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

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

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

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

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

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

14. Family Composition Assumptions

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

15. Member Contributions for Spousal Continuance

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

16. Deferred Member Benefit

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

17. DROP Account Balances

For DROP participants still working, the liability for the account balances in the asset information received from SDCERS staff was adjusted to assume average commencement in 2 ½ years and an interest crediting rate of 2.3%. Thereafter, it was assumed the account balance would be converted to an annuity at an interest rate of 4.8% 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. Pre-2006 DROP account balances still left on account were valued assuming they would be paid out until age 70 ½, with an interest crediting rate of 2.3%. The remaining account balances were valued without adjustment.

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

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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 June 30, 2011 valuation results reflect a number of assumption changes that were approved by the SDCERS Board based on an experience study completed by Cheiron in September 2011. These changes include:

- The investment return assumption was lowered from 7.75% to 7.50%,
- The wage inflation assumption was lowered from 4.00% to 3.75% (following a two-year freeze),
- Rates of termination were increased for General Members and changed to be based on service as opposed to the age of a member,
- Disability rates were decreased,
- The mortality rates for active lives for General and Safety Members were decreased,
- The mortality rates for retired healthy lives for Safety Members were decreased,
- The mortality rates for retired disabled lives for General and Safety Members were increased,
- Rates of retirement were increased and changed to be based on age and service as opposed to just the service of a member,
- The percent married assumption was increased to 55% for females, and the assumed age difference between husbands and wives was reduced to three years, and
- For the Cost-of-Living (COL) Annuity, the valuation method was changed from load factors to a direct valuation of existing member accounts and load factors only for prospective contributions.

For the June 30, 2010 valuation \$50 million was added to the actuarial value of assets to reflect the anticipated impact of the PSC correction on the unfunded actuarial liability. For the June 30, 2011 valuation, this was replaced by updated estimates of the impact on both the assets and liabilities.

The DROP interest crediting and annuity rates used to value the liability for account balances were reduced from 2.9% to 2.3% and from 5% to 4.8%, respectively, to reflect the Board's adoption of these rates at its December 2010 meeting.

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ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each Member's date of hire and assumed retirement. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost. The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets.

The unfunded actuarial liability is amortized by annual payments. The payments are determined so that they will be a level percentage of pay, assuming payroll increases 3.75% per year. The UAL is amortized over different closed periods depending on the source of the loss. The entire 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 5 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 each year is equal to 100% of the *expected actuarial value of assets*¹ plus 25% of the difference between the current market value of assets and the expected actuarial value of assets. In no event will the actuarial value of assets ever be less than 80% of the market value of assets nor greater than 120% of the market value of assets.

3. Changes Since Last Valuation

None.

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

APPENDIX C
SUMMARY OF PLAN PROVISIONS

1. Membership Requirement

Salaried Employees – immediate eligibility upon employment (compulsory) (§ 24.0104).*

2. Monthly Salary Base for Benefits

General and Safety Members (not including General-2009 Plan or Police-2009 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 hired before July 1, 2002, if the General or Safety Member elects such increase in lieu of an increased benefit formula.

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).

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).

Safety Members:

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. Reduced retirement with 8 years of service regardless of age (§ 24.1705).

Benefit

General Members:

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

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

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

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

General Member Service Retirement Accrual Factors

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

Elected Officers:

(Formerly designated as legislative) 3.5% (§ 24.1706). A 2% annual reduction factor applies to benefits for Members retiring prior to age 55 (§ 24.1705). There is an additional amount equal to the annuitized Member COL Annuity contributions at retirement date.

Safety Members:

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

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Safety Member Service Retirement Accrual Factors

| Table C-2 SDCERS - City of San Diego Safety Member Service Retirement Accrual Factors | | | | |
|--|---------------------------------------|-------------------------------|----------------------------|--|
| All Fire and Lifeguard, Only Police Hired Before July 1, 2009 | | | | |
| Retirement Age | Police & Fire Option 1 | Lifeguard Option 1 | Safety Option 2 | Police Hired on or After July 1, 2009 |
| 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 and Police-2009 Plans who terminate City employment, the accrual factors are those shown in Tables C-1 and C-2, respectively. For other General and Safety Members, the accrual factors are as shown below:

GENERAL:

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

SAFETY:

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

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

Maximum Benefit

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

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

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

Police-2009 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).

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

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

4. Non-Industrial Disability

Eligibility

Ten years of service (Charter §141).

Benefit

General Members:

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

Safety Members:

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

* Per Board decision, the 10% increase on final average compensation has been removed.

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 (§24.0502, §24.0505).

Safety Members:

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

* Per Board decision, the 10% increase on final average compensation has been removed.

Elected Officers:

Earned service retirement benefit (§24.1707).

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SUMMARY OF PLAN PROVISIONS

6. Non-Industrial Death Before Eligible to Retire

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

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

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

8. Industrial Death

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

9. Death After Retirement

50% of Member's unmodified allowance continued to eligible spouse (§24.0601).
\$2,000 payable in lump sum to the beneficiary or the estate of the retiree. (§24.0710)

10. Withdrawal Benefits (§24.0206, §24.0306)

Pre-12/8/76 Hires

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

Post-12/7/76 Hires

Less than ten years of service:

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

Ten or more years of service:

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

11. Post-retirement Cost-of-Living Benefit

General and Safety Members:

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

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12. COL Annuity

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

13. Member Contributions

Member contributions vary by age at time of entrance into SDCERS (§24.0201, §24.0301), and have been recalculated based on the current actuarial assumptions in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions. Table C-6 contains the contribution rates for plans in existence as of the valuation date.

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

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Table C-7 contains the contribution rates for plans that become effective after the valuation date; specifically Police and Fire Plans for members hired on or after January 1, 2012, and a Lifeguard Plan for members hired on or after July 1, 2011.

| Entry Age | <u>Police</u> | <u>Fire</u> | <u>Lifeguard</u> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Hired On or After 1/1/2012 | Hired On or After 1/1/2012 | Hired On or After 7/1/2011 |
| 20 | 10.59% | 10.59% | 10.59% |
| 21 | 11.03 | 11.03 | 11.03 |
| 22 | 11.48 | 11.48 | 11.48 |
| 23 | 11.95 | 11.95 | 11.95 |
| 24 | 12.42 | 12.42 | 12.42 |
| 25 | 12.91 | 12.91 | 12.91 |
| 26 | 13.21 | 13.21 | 13.21 |
| 27 | 13.35 | 13.35 | 13.35 |
| 28 | 13.54 | 13.54 | 13.54 |
| 29 | 13.75 | 13.75 | 13.75 |
| 30 | 13.99 | 13.99 | 13.99 |
| 31 | 14.23 | 14.23 | 14.23 |
| 32 | 14.49 | 14.49 | 14.49 |
| 33 | 14.75 | 14.75 | 14.75 |
| 34 | 15.00 | 15.00 | 15.00 |
| 35 | 15.18 | 15.18 | 15.18 |
| 36 | 15.50 | 15.50 | 15.50 |
| 37 | 15.81 | 15.81 | 15.81 |
| 38 | 16.11 | 16.11 | 16.11 |
| 39 | 16.40 | 16.40 | 16.40 |
| 40 | 16.67 | 16.67 | 16.67 |
| 41 | 16.92 | 16.92 | 16.92 |
| 42 | 17.15 | 17.15 | 17.15 |
| 43 | 17.34 | 17.34 | 17.34 |
| 44 | 17.48 | 17.48 | 17.48 |
| 45 | 17.56 | 17.56 | 17.56 |
| 46 | 17.24 | 17.24 | 17.24 |
| 47 | 17.08 | 17.08 | 17.08 |
| 48 | 16.97 | 16.97 | 16.97 |
| 49 | 16.85 | 16.85 | 16.85 |

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

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The assumptions used to develop the rates were the same as those used in this valuation, except that all mortality tables were blended 50/50 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).

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

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

- The Member's monthly service retirement allowance, credited monthly, calculated at the date of DROP entry and increased each year by a cost-of-living adjustment.
- The Member's supplemental 13th check benefit, if applicable, credited annually.
- 3.05% of base compensation, payable by the City and credited bi-weekly.
- 3.05% of base compensation, payable by the Member and credited bi-weekly.
- For a Firefighter's Local 145 bargaining unit Member, an amount representing their unused annual leave accrued after July 1, 2002, including annual leave accrued after July 1, 2002, while in DROP, which was not converted to creditable service before the date of DROP entry.
- Interest on the above amounts, as determined by the Board.

When a Member leaves DROP and City employment, they begin to collect their monthly service retirement allowance, their supplemental 13th check benefit (if applicable), and the amounts credited to their DROP participation account, payable as a single lump sum

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SUMMARY OF PLAN PROVISIONS

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 Plan IDs (e.g., a City police officer could have also worked for the Airport Authority).

17. Changes since Last Valuation

Member contribution rates were recalculated based on the current actuarial assumptions in accordance with the requirement in San Diego City Charter Section 143 for “substantially equal” employer and employee contributions.

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

**APPENDIX D
GLOSSARY OF TERMS**

1. Actuarial Liability

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

2. Actuarial Assumptions

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

3. Accrued Service

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

4. Actuarial Equivalent

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

5. Actuarial Funding Method

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

6. Actuarial Gain/(Loss)

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

7. Actuarial Present Value

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

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GLOSSARY OF TERMS**

8. Amortization

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

9. Annual Required Contribution (ARC) under GASB 25

The Governmental Accounting Standards Board (GASB) Statement No. 25 defines the Plan Sponsor's "Annual Required Contribution" (ARC) as the employer's periodic required contributions to a defined benefit plan, calculated in accordance with the parameters outlined in Statement No. 25. The SDCERS-City of San Diego's computed contribution rate for FY 2013 meets the parameters of GASB 25.

10. Normal Cost

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

11. Set Back/Set Forward

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

12. Unfunded Actuarial Liability (UAL)

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

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

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