

**San Diego City
Employees' Retirement System**

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

**San Diego County
Regional Airport Authority**

Produced by [Cheiron](#)

January 2012

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LETTER OF TRANSMITTAL

January 6, 2012

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

Re: San Diego County Regional Airport Authority June 30, 2011 Actuarial Valuation

Dear Members of the Board:

At your request, we performed the June 30, 2011 actuarial valuation of the San Diego City Employees' Retirement System (SDCERS). The valuation results with respect to the San Diego County Regional Airport Authority are contained in this valuation report. The table below presents the key results of the valuation for the Airport Authority.

Table I-1		
SDCERS - Airport Authority		
Valuation Date	6/30/2011	6/30/2010
Unfunded Actuarial Liability (in millions)	\$ (2.3)	\$ 3.0
Funding Ratio	102.7%	96.0%
Airport Contribution Rate	10.91%	14.54%
Fiscal Year	2013	2012
Annual Required Contribution (GASB):		
-if paid at the beginning of the year	\$ 2.6 million	\$ 3.8 million
-if paid throughout the year	\$ 2.7 million	\$ 3.9 million

- Unfunded Actuarial Liability (UAL):** The Airport Authority's UAL has decreased by \$5.3 million. The primary causes of this decrease were investment gains, liability gains, and the changes in actuarial assumptions adopted by the Board at its September 30, 2011 meeting. These changes 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.
- Funding Ratio:** This is the ratio of the system's actuarial value of assets to actuarial liabilities, which increased by 6.7%. This is the first reported surplus since June 30, 2008, prior to the 2008/2009 market downturn.



- *Contributions (GASB ARC):* Airport Authority contributions were determined under full compliance with the Governmental Accounting Standards Board (GASB) Statement Number 25, defining the annual required contribution (ARC) for the Airport Authority for fiscal year July 1, 2012 through June 30, 2013 (FY 2013). The results of this valuation produced a decrease in the Airport Authority's ARC of \$1.2 million. When measured as a percent of membership payroll, the ARC decreased by 3.63%.

More details on Plan experience for the past year, including the assumption changes and their impact on these June 30, 2011 valuation results can be found in the valuation report.

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.

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.

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.

Finally, it is important to note that this valuation was prepared using census data and financial information as of the valuation date, June 30, 2011. Therefore, changes in membership and investment experience following that date are not reflected in this report. The next valuation will reflect all membership and investment experience changes through June 30, 2012.

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-Airport Authority Defined Benefit Plan,
- Past and expected trends in the financial condition of SDCERS-Airport Authority,
- The Airport Authority'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-Airport Authority. In addition, we present a review of the key historical trends followed by the projected financial outlook for SDCERS-Airport Authority.

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 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 were decreased,
- The mortality rates for retired disabled lives were increased,
- Rates of retirement were decreased 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,
- The reciprocity assumption was reduced from 20% to 10%, 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 APA's UAL of \$1.75 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

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BOARD SUMMARY**

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 decreased the previously estimated UAL reduction from \$1.75 million to \$1.33 million. More details on this estimate can be found on page 5.

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BOARD SUMMARY**

B. Current Financial Condition of SDCERS-Airport Authority

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

1. Airport Authority Membership

Table I-2 shows that total membership in SDCERS-Airport Authority increased by 2.7% from 2010 to 2011. The increase was attributable to the growth in inactive membership (terminated vested, disabled, retirees and beneficiaries), as the active membership declined by 0.9%. Active member payroll decreased by 1.7%, well below the prior year's assumed payroll inflation of 4.00%.

Table I-2			
SDCERS - Airport Authority - Membership Total			
Item	June 30, 2011	June 30, 2010	% Change
Active Counts	344	347	-0.9%
Terminated Vested	75	72	4.2%
Disabled	1	1	0.0%
Retirees	33	23	43.5%
Beneficiaries	4	2	100.0%
Total Airport Authority Members	457	445	2.7%
Active Member Payroll	\$ 25,148,490	\$ 25,595,623	-1.7%
Average Pay per Active Member	\$ 73,106	\$ 73,763	-0.9%

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BOARD SUMMARY**

2. Airport Authority Assets and Liabilities

Table I-3 presents a comparison between the June 30, 2011 and June 30, 2010 SDCERS-Airport Authority assets, liabilities, unfunded actuarial liability, and funding ratios.

Table I-3 indicates that because the total actuarial liability increased by 9.9% but the actuarial value of assets increased by 17.6%, the funding ratio increased from 96.0% as of June 30, 2010 to 102.7% 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 (34.1%). Had the finding ratio been measured on a market value of assets basis, the ratio would be at 103.4% as of June 30, 2011.

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

Table I-3			
SDCERS - Airport Authority - Assets & Liabilities			
Entry Age Normal (EAN) Liabilities	June 30, 2011	June 30, 2010	% Change
Actives	\$ 63,899,462	\$ 61,081,174	4.6%
Terminated Vested	4,010,179	3,534,206	13.5%
Disabled	226,161	215,217	5.1%
Retirees	15,054,748	11,093,491	35.7%
Beneficiaries	851,875	523,385	<u>62.8%</u>
Total Actuarial (EAN) Liability	\$ 84,042,425	\$ 76,447,473	9.9%
Market Value Assets	\$ 86,911,148	\$ 64,795,807	34.1%
Actuarial Value Assets	\$ 86,309,270	\$ 73,400,892	17.6%
Unfunded Actuarial Liability	\$ (2,266,845)	\$ 3,046,581	-174.4%
Funding Ratio-Actuarial Value	102.7%	96.0%	6.7%

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

The unfunded actuarial liability (UAL) for SDCERS-Airport Authority decreased by \$5.3 million, from \$3.0 million to negative \$2.3 million. The table below presents the specific components of this change in the UAL.

The key findings in Table I-4 are that investment experience decreased the UAL by \$2.1 million, assumption changes decreased the UAL by \$0.6 million, and liability experience decreased the UAL by \$2.7 million. The \$0.55 million increase attributable to the updated PSC correction estimate represents the difference between the current year's revised estimate of \$1.33 million and last year's estimate plus one year of interest (\$1.75 million x 1.0775 or \$1.88 million). The revised estimate of \$1.33 million consists of two components; an estimated increase in assets of approximately \$0.66 million attributable the net difference between expected payments and expected refunds, and an expected decrease in liabilities of \$0.67 million

Table I-4	
SDCERS - Airport Authority-Change in UAL	
(In Millions)	
1. UAL at June 30, 2010	\$ 3.0
2. Expected change in UAL	(0.5)
3. Investment experience gain	(2.1)
4. Liability experience gain	(2.7)
5. Liability gain due to change in assumptions	(0.6)
6. Increase in UAL due to updated PSC correction estimate	0.6
7. Contributions paid less than expected	0.0
8. Purchased service credits paid for during the year *	-
9. Total change in UAL: sum of 2 through 8	(5.3)
10. UAL at June 30, 2011: 1 + 9	\$ (2.3)

* *Attributable to Members who have entered into a purchased service credit contract after June 30, 2010. Only Members hired before October 3, 2006 are still eligible to purchase additional "airtime" service credits.*

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**SECTION I
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4. Airport Authority Contributions

The Airport Authority's contribution for FY 2013 measured as a percent of membership payroll decreased from 14.54% to 10.91%. In dollars, the required beginning of year contribution decreased by \$1.2 million, from \$3.8 million to \$2.6 million. This decrease in the ARC was a reduction of \$1.4 million compared to the expected increase of \$0.2 million, assuming no investment gain or losses during FY 2011. This decrease was largely attributable to liability gains, investment performance that was better than expected, and the changes in actuarial assumptions.

After performing the June 30, 2010 valuation Cheiron produced another projection of the FY 2013 APA ARC, also based on SDCERS earning 7.75% on its investments. This resulted in a projected FY 2013 APA ARC of \$4.1 million, an increase of \$0.3 million. The difference between the \$0.2 million expected increase stated earlier and the \$0.3 million is that the \$0.3 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 rate.

Table I-5		
SDCERS - Airport Authority-Change in ARC		
(In Millions)		
1.	ARC at June 30, 2010	\$ 3.8
2.	Expected change in ARC	0.2
3.	Investment experience gain	(0.2)
4.	Liability experience gain	(0.5)
5.	Liability gain due to change in assumptions	(0.6)
6.	Increase in ARC due to updated PSC correction estimate	0.1
7.	Contributions paid in excess of expected	-
8.	Other misc changes	(0.1)
9.	Total change in ARC: sum of 2 through 8	(1.2)
10.	ARC at June 30, 2011: 1 + 9	\$ 2.6

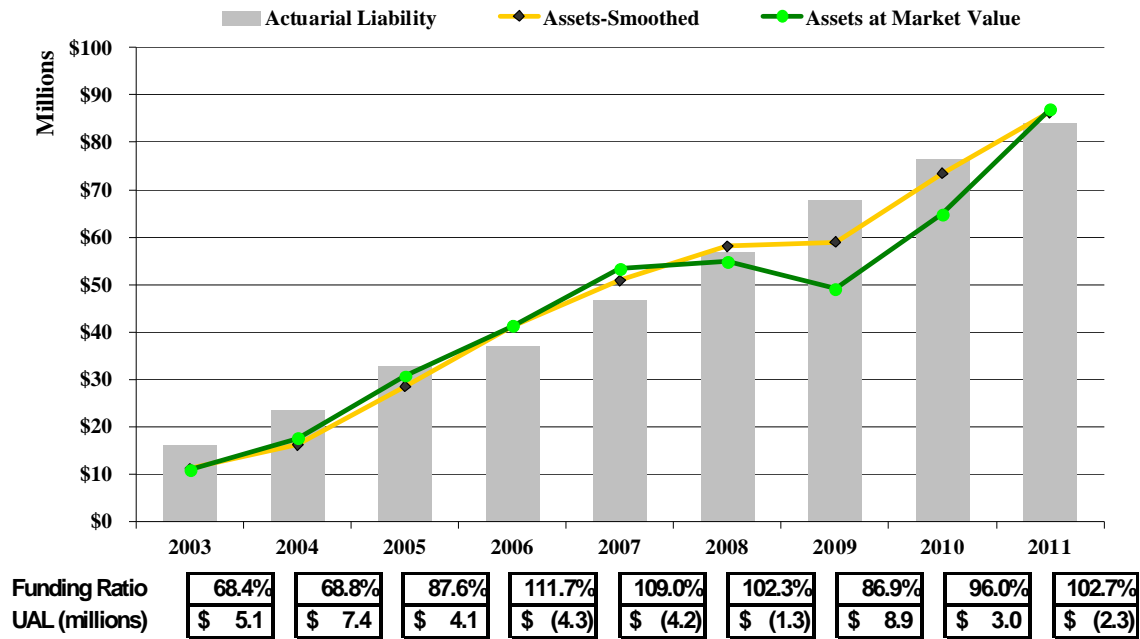
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C. Historical Trends SDCERS-Airport Authority

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 Airport Authority’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 for both the market value and smoothed assets compared to actuarial liabilities, and SDCERS-Airport Authority funding ratios since 2003.

SDCERS-Airport Authority Assets and Liabilities 2003-2011



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

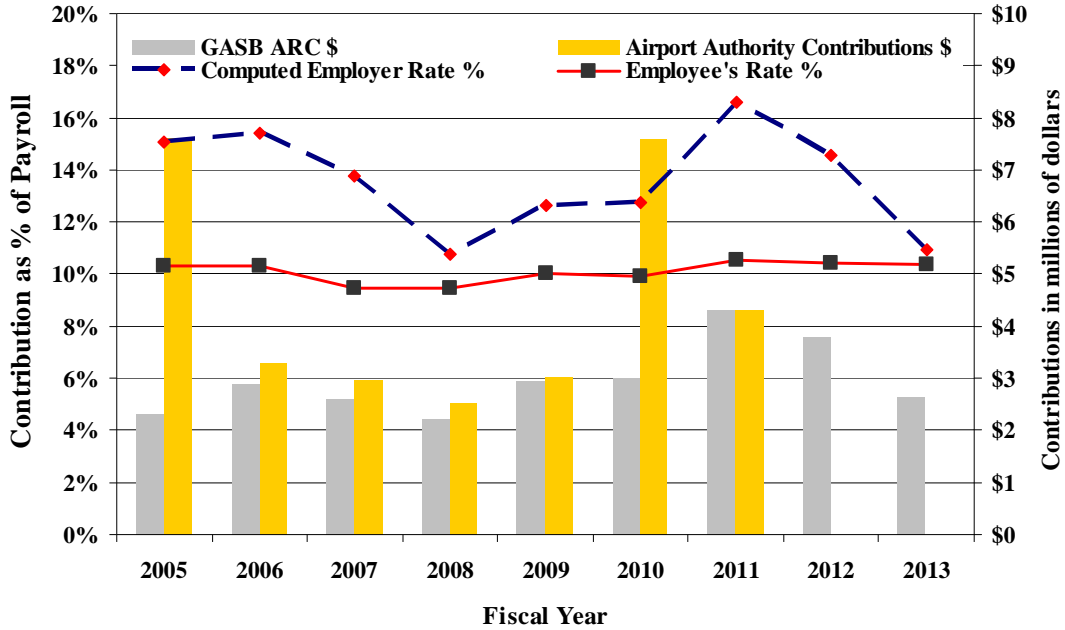
The chart indicates that in 2003 and 2004, the funding ratio was slightly more than 68% of the actuarial value of assets. In 2005 through 2006, the funding ratio significantly increased due to excess contributions and strong investment performance. In 2009 the funding ratio declined significantly due to investment losses, but over the past two years it has increased so that there is now a surplus again. The improvement in funding status was a combination of contributions in excess of expected, assumption changes, investment performance, and gains in liabilities.

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

SDCERS-Airport Authority and Member Contribution Rates FY 2005-2013



The key information in this chart is that the Airport Authority’s contribution rate decreased for fiscal years 2012 and 2013 after increasing significantly for fiscal year 2011. The chart also indicates that the Members’ contribution rate has remained relatively stable throughout the fiscal years shown in contrast to the volatility in the employer rates.

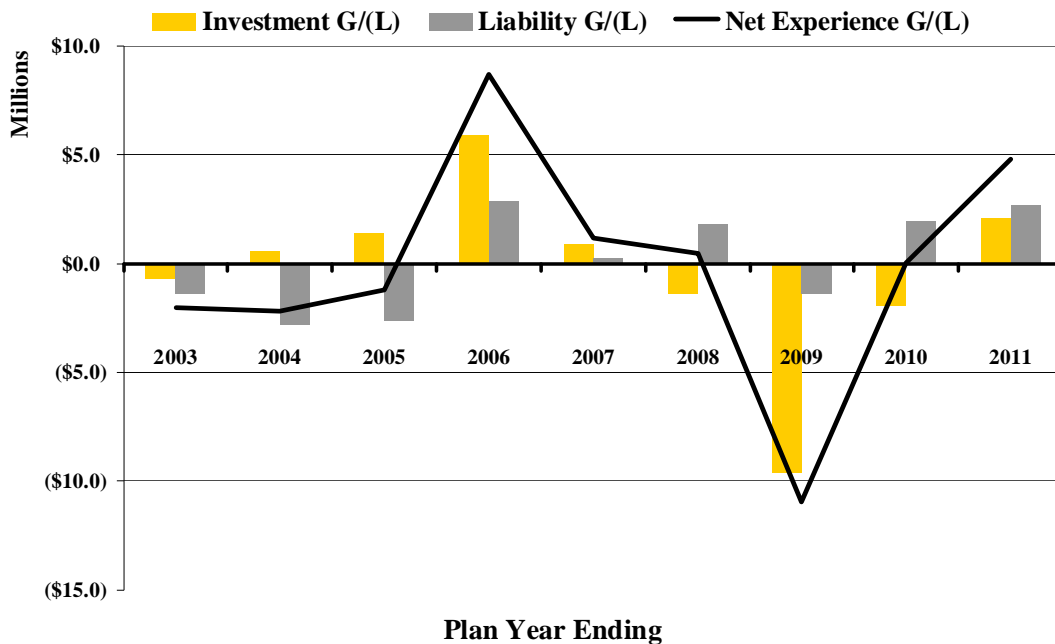
This chart also compares the actual contributions made by the Airport Authority since 2005 to the annual required contribution (ARC) based on the Board’s adopted funding practice of Normal Cost plus amortization of various UALs, including the requirement beginning in fiscal year 2009 that there be no negative amortization. The chart indicates that the Airport Authority has been consistently paying at or above the ARC since FY 2005, with a significant excess contribution amount in FY 2010.

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

SDCERS-Airport Authority Historical Gain/(Loss) 2003-2011



The key insights from this chart are:

- The significant investment gains of 2004-2007 were more than offset by investment losses in 2008-2010. In 2011, there was an investment gain.
- The investment loss in 2009 was by far the most significant loss during the last nine years.
- There was a pattern of liability loss from 2003 to 2005. With the change in actuarial assumptions in 2008 to better reflect the Airport Authority's demographic experience, experience for the Plan over the last three years has been close to expected, with liability gains in 2010 and 2011 that were mostly attributable to lower than expected salaries.

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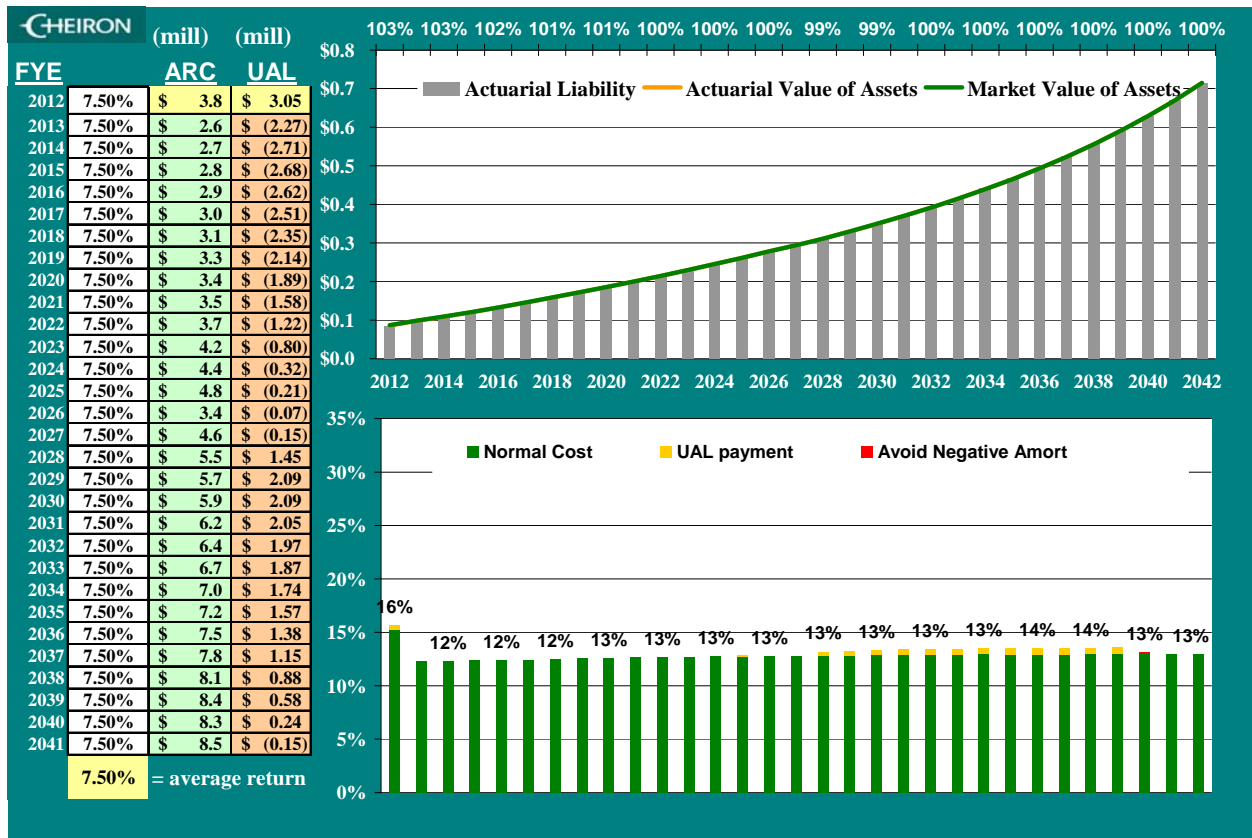
**SECTION I
BOARD SUMMARY**

D. Projected Financial Trends

Our analysis of SDCERS-Airport Authority 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-Airport Authority in terms of benefit security (assets over liabilities) and the APA's expected cost progression is set forth below. In addition, given the concern regarding unfunded liabilities, we also show the APA's expected future pay down of unfunded liabilities.

In the chart that follows, we project the SDCERS-Airport Authority assets and liabilities and the APA'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 APA 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-Airport Authority Projections FY 2012-2041 (earnings as assumed)



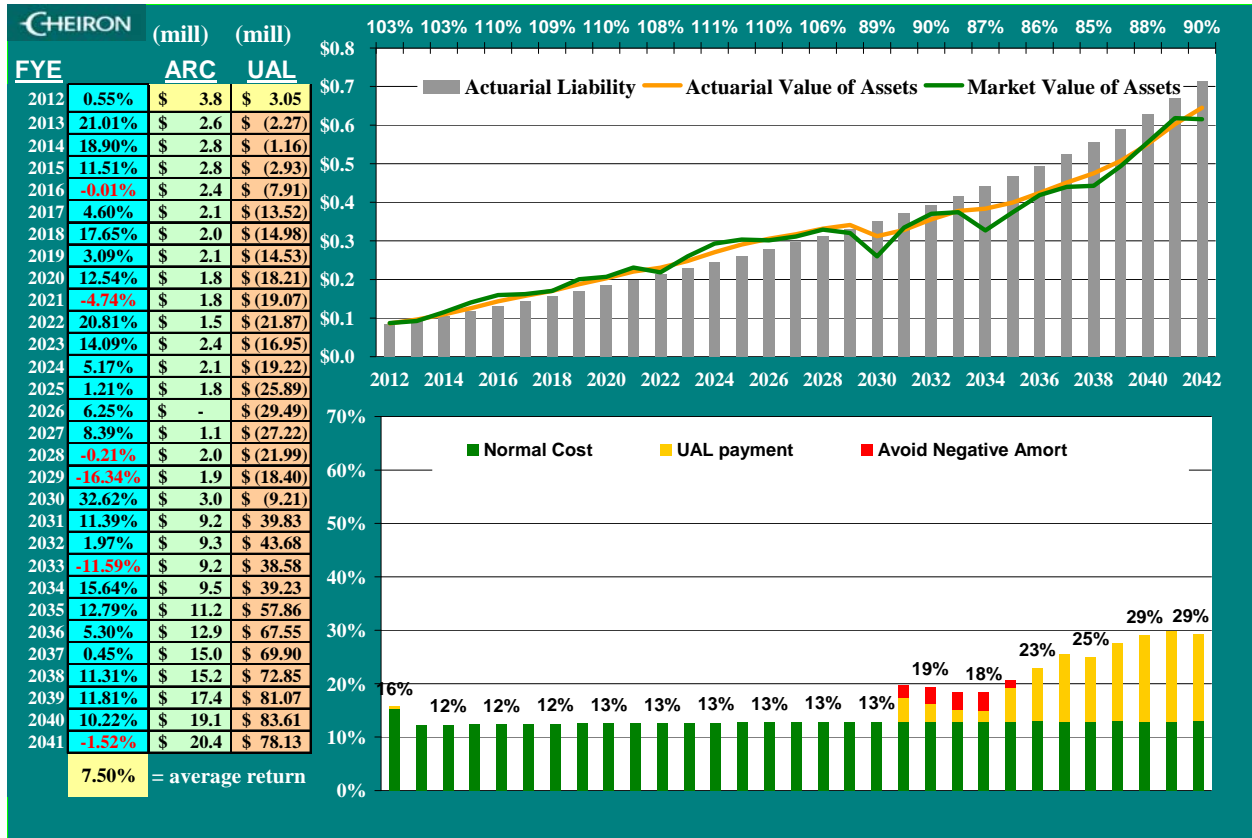
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Based on assuming 7.5% earnings each and every year, the APA's funded status (percentages at the top of the upper graph) is ultimately projected to reach 100%. The APA's ARC generally increases throughout the projection period, reaching \$8.7 million by 2041.

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-Airport Authority 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 APA contribution rate and ARC 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 of the report: 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		<u>(190,437,838)</u>
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 ever greater than 120% of the market value of assets.

Table II-3 SDCERS - Airport Authority Development of Actuarial Value of Assets at June 30, 2011 Expected Value of Assets Method		
1. Actuarial Value of Assets at June 30, 2010	\$	73,400,892
2. Amount in (1) with interest at 7.75% to June 30, 2011		79,089,461
3. Employer and Member contributions for the Plan Year ended June 30, 2011		8,176,077
4. Disbursements from Trust excluding investment and admin expenses, June 30, 2010 through June 30, 2011		1,585,216
5. Interest on cash flows to June 30, 2011 at 7.75% per year		428,322
6. Expected Actuarial Value of Assets at June 30, 2011 = (2) + (3) - (4) + (5)		86,108,644
7. Actual Market Value of Assets at June 30, 2011		86,911,148
8. Excess of (7) over (6)		802,504
9. Preliminary Actuarial Value of Assets at June 30, 2011 = (6) + 25% of (8)	\$	86,309,270
10. 80% Minimum Corridor on the Actuarial Value of Assets = 80% of (7)		69,528,918
11. 120% Maximum Corridor on the Actuarial Value of Assets = 120% of (7)		104,293,378
12. Final Actuarial Value of Assets at June 30, 2011 = (9), but no less than (10) and no more than (11)	\$	86,309,270

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 loss is different than the investment gain of \$2.1 million reported on page 5 in this report. The latter is the gain only for the SDCERS-Airport Authority.)

**SECTION III
LIABILITIES**

In this section, we present detailed information on System liabilities for SDCERS-Airport Authority 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).

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**SECTION III
LIABILITIES**

Table III-1		
SDCERS - Airport Authority - Total		
Item	June 30, 2011	June 30, 2010
Present Value of Future Benefits		
Actives	\$ 104,309,491	\$ 109,237,289
Terminated Vested	4,010,179	3,534,206
Disabled	226,161	215,217
Retirees	15,054,748	11,093,491
Beneficiaries	851,875	523,385
Total Airport Authority	\$ 124,452,455	\$ 124,603,588
Actuarial Liability - EAN		
Total Present Value of Future Benefits	\$ 124,452,455	\$ 124,603,588
Present Value of Future Normal Costs		
Employer Portion	21,806,916	27,415,366
Employee Portion	18,603,114	20,740,749
Actuarial Liability - EAN	\$ 84,042,425	\$ 76,447,473
Actuarial Value of Assets	\$ 86,309,270	\$ 73,400,892
Unfunded EAN Actuarial Liability	\$ (2,266,845)	\$ 3,046,581

Table III-2 shows actuarial liability as of June 30, 2011 for General and Executive Members of SDCERS-Airport Authority.

Table III-2			
SDCERS - Airport Authority - General & Executives			
Item	June 30, 2011	June 30, 2011	June 30, 2011
Present Value of Future Benefits	Total	General	Executives
Actives	\$ 104,309,491	\$ 98,761,455	\$ 5,548,036
Terminated Vested	4,010,179	4,010,179	-
Disabled	226,161	226,161	-
Retirees	15,054,748	11,373,960	3,680,789
Beneficiaries	851,875	851,875	-
Total Airport Authority	\$ 124,452,455	\$ 115,223,630	\$ 9,228,825
Actuarial Liability - EAN			
Actives	\$ 63,899,462	\$ 59,660,261	\$ 4,239,200
Terminated Vested	4,010,179	4,010,179	-
Disabled	226,161	226,161	-
Retirees	15,054,748	11,373,960	3,680,789
Beneficiaries	851,875	851,875	-
Total Airport Authority	\$ 84,042,425	\$ 76,122,436	\$ 7,919,989

**SDCERS-AIRPORT AUTHORITY
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-3		
Development of 2011 Experience Gain/(Loss) SDCERS - Airport Authority		
(In Thousands)		
1. Unfunded Actuarial Liability at June 30, 2010		\$ 3,046.6
2. Beginning of year unfunded actuarial liability payment		(704.8)
3. Interest accrued ((1+2) x 7.75%)		181.5
4. Expected Unfunded Actuarial Liability at June 30, 2011 (1+2+3)		2,523.2
5. Actual Unfunded Liability at June 30, 2011		(2,266.8)
6. Difference: (4 - 5)		4,790.1
7. Portion of difference (6) due to actuarial assumption or method changes		574.0
8. Portion of difference (6) due to plan changes		-
9. Portion of difference (6) due to contributions less than expected		(41.6)
10. Portion of difference (6) due to updated PSC correction estimate		(551.2)
11. Portion of difference (6) due to net experience Gain/(Loss)		4,808.8
a) portion of (11) due to investment experience	\$ 2,117.2	
b) portion of (11) due to liability experience	\$ 2,691.6	
Elements of Liability Gain/(Loss)		
1. G/(L) due to demographic and payroll experience		2,695.4
2. G/(L) due to purchased service credit		(3.8)
3. Other Gain/(Loss)		-
4. Total Estimated Liability Gain/(Loss): sum 1 through 3		\$ 2,691.6

**SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-4 shows the history of past experience gains and losses.

Table III-4			
Experience Gain/(Loss) - Historical SDCERS - Airport Authority			
Valuation		Beginning-of-Year	Gain/(Loss)
<u>Date</u>	<u>Gain/(Loss)</u>	<u>Actuarial Liabilities</u>	<u>% of Liability</u>
6/30/2003	\$ (2,013,702)	\$ 11,526,293	(17.5%)
6/30/2004	(2,204,850)	16,278,613	(13.5)
6/30/2005	(1,207,448)	23,578,460	(5.1)
6/30/2006	8,732,864	32,602,898	26.8
6/30/2007	1,176,387	36,905,216	3.2
6/30/2008	492,707	46,636,555	1.1
6/30/2009	(10,976,099)	56,807,663	(19.3)
6/30/2010	27,790	67,870,945	0.0
6/30/2011	4,808,814	76,447,473	6.3

**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 this method, there are two components to the total contribution: the normal cost and an amortization payment on the unfunded actuarial liability (UAL). 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. Table IV-2 shows the outstanding balance, the FY 2013 payment and the remaining amortization period for each of these components. Finally, 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 Airport Authority'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-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS**

Table IV-1			
SDCERS - Airport Authority			
Development of the Airport's Contribution as of June 30, 2011, For (FY 2013)			
(dollars in millions)			
	WEIGHTED		
	TOTAL AIRPORT	General	Executives
1. Total Normal Cost Rate as of June 30, 2011	22.53%	22.33%	26.76%
2. Member Contribution Rate as of June 30, 2011	<u>10.34%</u>	<u>10.32%</u>	<u>10.80%</u>
3. Employer Normal Cost Rate as of June 30, 2011 (1-2)	12.19%	12.01%	15.96%
4. Actuarial Liability	\$ 84.0	\$ 76.1	\$ 7.9
5. Actuarial Assets	<u>\$ 86.3</u>	<u>\$ 78.2</u>	<u>\$ 8.1</u>
6. Total Unfunded Actuarial Liability (UAL) (4-5)*	\$ (2.3)	\$ (2.1)	\$ (0.2)
7. Preliminary FY13 UAL amortization*	\$ (0.3)	\$ (0.3)	\$ (0.0)
8. <u>Negative Amortization Test for FY13</u>			
a. Total UAL on 6/30/11 less FY12 UAL payment	\$ (2.4)	\$ (2.1)	\$ (0.2)
b. interest on 8a. To 6/30/12	\$ (0.2)	\$ (0.2)	\$ (0.0)
c. preliminary FY13 UAL amortization (line 7)	<u>\$ (0.3)</u>	<u>\$ (0.3)</u>	<u>\$ (0.0)</u>
d. Negative interest (8b - 8c, not less than zero)	-	-	-
9. Total FY13 UAL payment on 7/01/12 (8c + 8d)	\$ (0.3)	\$ (0.3)	\$ (0.0)
10. Total FY13 UAL payment throughout year	\$ (0.3)	\$ (0.3)	\$ (0.0)
11. Total Expected Payroll for FY13	\$ 25.2	\$ 23.9	\$ 1.2
12. FY13 Normal Cost paid throughout the year (3x11)	\$ 3.1	\$ 2.9	\$ 0.2
13. FY13 Normal Cost paid at start of year	\$ 3.0	\$ 2.8	\$ 0.2
14. Determination of FY13 GASB ARC %			
a. Employer Normal Cost Rate (12 divided by 11)	12.20%	12.01%	15.96%
b. UAL Rate (line 10 divided by line 11)	<u>-1.29%</u>	<u>-1.23%</u>	<u>-2.53%</u>
c. Total employer ARC % (14a + 14b)	10.91%	10.78%	13.43%
15. Determination of FY13 GASB ARC dollars			
a. FY13 ARC if paid throughout year	\$ 2.7	\$ 2.6	\$ 0.2
b. FY13 ARC if paid at beginning of year	\$ 2.6	\$ 2.5	\$ 0.2

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

**SDCERS-AIRPORT AUTHORITY
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 - Airport Authority Schedule of Amortization Bases as of July 1, 2011 Used in Development of the APA'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	FY 2013 Amortization Amount	
1. June 30, 2007 UAL	7/1/2007	\$ (4,175,587)	14	\$ (2,428,805)	\$ (2,329,382)	10	\$ (271,879)	
2. Assumption Change	7/1/2008	2,808,340	30	3,146,051	3,194,909	27	180,749	
3. Experience Gain	7/1/2008	(1,356,123)	15	(1,414,988)	(1,377,658)	12	(138,521)	
4. Experience Loss	7/1/2009	9,892,984	15	10,516,012	10,298,457	13	971,684	
5. Experience Gain	7/1/2010	(5,002,725)	15	(5,390,436)	(5,305,442)	14	(472,483)	
6. Experience Gain**	7/1/2010	(1,750,000)	15	(1,885,625)	(1,855,893)	14	(165,279)	
7. Experience Gain	7/1/2011	(4,235,009)	15	(4,235,009)	(4,552,635)	15	(384,606)	
8. Assumption Change	7/1/2011	(574,045)	30	(574,045)	(617,098)	30	(32,848)	
TOTAL				\$ (2,266,845)	\$ (2,544,742)		\$ (313,183)	

* 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 its funding status. Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) 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-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-1 SDCERS - Airport Authority - 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	\$ 16,132,784	\$ 11,832,093	36.3%
b. Vested Terminated and Inactive Members	4,010,179	3,534,206	13.5%
c. Active Members	<u>46,462,441</u>	<u>42,766,666</u>	<u>8.6%</u>
d. Total PVAB	\$ 66,605,403	\$ 58,132,965	14.6%
2. Assets at Market Value	86,911,148	64,795,807	34.1%
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	\$ -	\$ -	
4. Ratio of Assets to Value of Benefits (2)/(1)(d)	130.49%	111.46%	19.0%
GASB No. 25 Basis			
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 16,132,784	\$ 11,832,093	36.3%
b. Vested Terminated and Inactive Members	4,010,179	3,534,206	13.5%
c. Active Members	<u>63,899,462</u>	<u>61,081,174</u>	<u>4.6%</u>
d. Total Actuarial Liability	\$ 84,042,425	\$ 76,447,473	9.9%
2. Actuarial Value of Assets	\$ 86,309,270	\$ 73,400,892	17.6%
3. Unfunded Actuarial Liability	\$ (2,266,845)	\$ 3,046,581	-174.4%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	102.70%	96.01%	6.7%

Table V-2 SDCERS - Airport Authority - Total	
Item	Accumulated Benefit Obligation (ASC Topic 960)
Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2010	\$ 58,132,965
Increase (Decrease) During Year Attributable to:	
Passage of Time	4,443,878
Benefits Paid	(1,585,216)
Assumption Changes	1,924,156
Plan Changes	-
Benefits Accrued, Other Gains/Losses	<u>3,689,620</u>
Net Increase (Decrease)	\$ 8,472,438
Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2011	\$ 66,605,403

**SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Tables V-3 through V-5 are exhibits required for the Airport Authority'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 - Airport Authority	
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION	
The information presented in the required supplementary schedules to the Financial Section of the Airport's CAFR was determined as part of the actuarial valuation at the date indicated. Additional information as of latest actuarial valuation follows.	
Valuation date	June 30, 2011
Actuarial funding method	Entry Age Normal
Amortization method	Level percent closed
Equivalent single amortization period	8.196 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 10 years for the outstanding balance of the 2007 UAL, 15 years for experience gains and losses, 30 years for changes in methods and assumptions, 20 years for benefit changes.

² Additional merit salary increases of 0.50% to 5.00% 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-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-4 SDCERS - Airport Authority 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	\$ 2,117,232
Combined Liability Experience	<u>2,691,583</u>
Gain (or Loss) During Year from Financial Experience	\$ 4,808,814
Non-Recurring Gain (or Loss) Items (e.g., Contributions, Assumption Changes)	<u>(18,725)</u>
Composite Gain (or Loss) During Year	\$ 4,790,090

Table V-5 SDCERS - Airport Authority GASB SOLVENCY TEST Actuarial Liabilities For (\$ in thousands)								
Valuation Date June 30,	(A)		(B)		(C)		Portion of Actuarial Liabilities Covered by Reported Assets	
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities	Reported Assets ¹	(A)	(B)	(C)	
2011 ⁶	\$ 11,132	\$ 16,133	\$ 56,778	\$ 86,309	100%	100.00%	103.99%	
2010	10,611	11,832	54,004	73,401	100	100	94.36	
2009	9,120	9,924	48,827	58,981	100	100	81.79	
2008 ⁵	7,335	6,341	43,131	58,096	100	100	102.99	
2007 ⁴	6,681	4,288	35,668	50,812	100	100	111.71	
2006 ³	5,402	2,783	28,720	41,222	100	100	115.03	
2005	4,255	2,713	25,635	28,551	100	100	84.19	
2004	2,935 ⁴	795	19,848	16,225	100	100	62.95	
2003	2,200 ⁴	300	13,779	11,142	100	100	62.72	
12/31/2002 ²	1,509	0	10,018	11,028	100	100	95.02	

¹ Actuarial Value of Assets

² Interim (mid-year) actuarial valuations performed due to split of San Diego County Regional Airport Authority from Unified Port District.

³ Reflects contingent liabilities (13th check), DROP reserves, and IRC Section 415 limits.

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

⁵ Reflects revised actuarial and economic assumptions.

⁶ Reflects revised actuarial and economic assumptions.

**SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-1 SDCERS - Airport Authority Active Member Data			
	June 30, 2011	June 30, 2010	% Change
Count	344	347	-0.9%
Average Current Age	47.1	46.8	0.6%
Average Service	9.0	8.5	5.9%
Average Pensionable Earnings	\$ 73,106	\$ 73,763	-0.9%
Annual Pensionable Earnings	\$ 25,148,489	\$ 25,595,623	-1.7%
Average Valuation Compensation ¹	\$ 73,067	\$ 73,724	-0.9%
Annual Valuation Compensation ¹	\$ 25,135,166	\$ 25,582,300	-1.7%
Service Without Permissive Service Purchased	8.3	7.7	7.8%
Members with Paid Purchased Service	38	41	-7.3%
Members with Any Purchased Service	50	53	-5.7%
Amount of Paid Purchased Service	154	165	-6.8%
Amount of Total Purchased Service	246	264	-6.6%

¹ Valuation compensation differs from pensionable earnings due to IRS 401(a).

Table A-2 SDCERS - Airport Authority Non-Active Participant Data						
	Count			Average Age		
	June 30, 2011	June 30, 2010	% Change	June 30, 2011	June 30, 2010	% Change
Retired	33	23	43.5%	65.2	65.0	0.3%
Disabled	1	1	0.0%	48.5	47.5	2.1%
Beneficiaries	<u>4</u>	<u>2</u>	100.0%	<u>61.0</u>	<u>57.5</u>	6.1%
Payee Total	38	26	46.2%	64.3	63.8	0.8%
DROP Participants	10	6	66.7%	64.3	65.2	-1.4%
Deferred Vested ¹	75	72	4.2%	45.9	46.7	-1.7%
Vested < 5 yrs svc	47	47	0.0%			

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

Table A-3 SDCERS - Airport Authority Non-Active Participant Data						
	Total Annual Benefit			Average Annual Benefit		
	June 30, 2011	June 30, 2010	% Change	June 30, 2011	June 30, 2010	% Change
Retired	\$ 1,178,216	\$ 875,275	34.6%	\$ 35,704	\$ 38,055	-6.2%
Disabled	14,630	14,349	2.0%	14,630	14,349	2.0%
Beneficiaries	<u>66,783</u>	<u>39,726</u>	68.1%	<u>16,696</u>	<u>19,863</u>	-15.9%
Payee Total	\$ 1,259,628	\$ 929,350	35.5%	\$ 33,148	\$ 35,744	-7.3%
DROP Participants	\$ 430,606	\$ 298,634	44.2%	\$ 43,061	\$ 49,772	-13.5%
Deferred Vested ¹	\$ 1,250,452	\$ 1,104,304	13.2%	\$ 16,673	\$ 15,338	8.7%

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 valuation date.

**SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-4
SDCERS - Airport Authority
Distribution of Active Members (Excludes DROP Participants) as of June 30, 2011
Total Airport Authority**

Age	Years of Service										Total Count	Average Salary	
	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	-	2	-	-	-	-	-	-	-	-	-	2	\$ 43,136
25 to 29	7	6	1	-	-	-	-	-	-	-	-	14	45,908
30 to 34	2	12	12	1	-	-	-	-	-	-	-	27	59,761
35 to 39	1	12	20	2	-	-	-	-	-	-	-	35	73,441
40 to 44	2	17	23	14	3	1	-	-	-	-	-	60	75,295
45 to 49	2	16	15	12	6	7	2	-	-	-	-	60	73,797
50 to 54	2	11	19	14	7	12	1	-	-	-	-	66	69,275
55 to 59	2	14	16	6	12	1	2	2	-	-	-	55	78,347
60 to 64	-	10	9	3	1	-	-	-	-	-	-	23	92,400
65 to 69	-	-	1	-	-	-	-	-	-	-	-	1	203,054
70 and up	-	-	-	-	-	1	-	-	-	-	-	1	80,583
Tot Count	18	100	116	52	29	22	5	2	-	-	-	344	
Avg. Salary	\$ 59,353	\$ 65,191	\$ 75,047	\$ 76,988	\$ 90,748	\$ 71,170	\$ 91,230	\$ 99,310	\$ -	\$ -	\$ -		\$ 73,106

SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-5
SDCERS - Airport Authority
Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulated by Attained Age/Benefit Effective Date
Total Airport Authority**

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	
2002	-	-	-	-	-	1	-	-	-	-	1
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	1	1	-	-	-	2
2005	1	-	-	-	3	-	-	-	-	-	4
2006	-	-	1	-	-	-	-	-	-	-	1
2007	-	-	-	-	3	2	-	-	-	-	5
2008	-	-	1	3	1	-	-	-	-	-	5
2009	-	-	1	3	-	-	-	-	-	-	4
2010	-	-	1	4	1	-	-	-	-	-	6
2011	-	-	2	6	2	-	-	-	-	-	10
Total	1	-	6	16	10	4	1	-	-	-	38

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

Average Age at Retirement/Disability	61.2
Average Current Age	64.3
Average Annual Pension	\$ 33,148

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 Relation 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 Members already in pay status prior to this valuation.

APPENDIX A
MEMBERSHIP INFORMATION

- 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.”
- 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.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

A. Actuarial Assumptions

1. Investment Return Rate

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:

Table B-1	
Years of Service at Valuation Date	General
0	5.00%
1	4.00%
2	3.00%
3	2.00%
4	1.00%
5+	0.50%

5. Cost-of-Living Increase in Benefits

Assumed to be 2.0% per annum, compounded.

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 a load factor of 2.0% for future member contributions.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

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.

8. Rates of Termination

Table B-2	
SDCERS - Airport Authority	
Rates of Termination	
Service	General
0	11.00%
1	10.00
2	9.00
3	8.00
4	7.00
5	5.50
6	4.50
7	4.50
8	4.00
9	4.00
10	3.00
11	3.00
12	3.00
13	3.00
14	3.00
15	3.00
16	3.00
17	3.00
18	3.00
19	3.00
20	3.00
21	3.00
22+	3.00

10% of terminating employees, with 5+ 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
20	0.02%
25	0.03
30	0.04
35	0.06
40	0.08
45	0.12
50	0.20
55	0.35
60	0.45

60% of the disabilities are assumed to be industrial disability retirements. Non-industrial disability retirement is subject to a 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	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	1.03	0.91
70	1.83	1.57

All active Member deaths are assumed to not be duty-related.

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 participants use the RP2000 Combined Healthy table (male and female).

Age	Male	Female
40	0.11%	0.07%
45	0.15	0.11
50	0.21	0.17
55	0.36	0.27
60	0.67	0.51
65	1.27	0.97
70	2.22	1.67
75	3.78	2.81
80	6.44	4.59
85	11.08	7.74
90	18.34	13.17

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 are variations of the CALPERS Disability Tables (male and female):

Age	Male	Female
40	1.45%	0.67%
45	1.65	0.99
50	1.63	1.25
55	1.86	1.58
60	2.19	1.63
65	2.99	1.97
70	3.76	3.02
75	5.42	3.92
80	7.90	5.56
85	12.48	9.58

APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS

13. The Rates of Retirement

Service	Prior to age 62	Age 62 or greater
5-9	--	9.0%
10	--	33.3
11	--	33.3
12	--	33.3
13	--	33.3
14	--	33.3
15	--	33.3
16	--	33.3
17	--	33.3
18	--	33.3
19	--	33.3
20	30.0	40.5
21	15.0	33.3
22	17.5	35.1
23	20.0	36.9
24	22.5	38.7
25	25.0	40.5
26	27.5	42.3
27	30.0	44.1
28	32.5	45.9
29	35.0	47.7
30	37.5	49.5
31	40.0	51.3
32	40.0	53.1
33	40.0	54.9
34	40.0	56.7
35+	100.0	100.0

For vested deferred members, we assume that retirement will occur provided they have at least 5 years of service (excluding the five year permissible purchased service) on the later of attained age or the earlier of age 62 or age 55 and 20+ years of service.

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

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

14. Family Composite 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 Actuarial Accrued 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 2½ 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 70½, 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 furnished, using the actuarial funding methods described in the following section.

Actual experience of SDCERS will not coincide exactly with assumed experiences, 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

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

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 assumption),
- Rates of termination were increased 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 were decreased,
- The mortality rates for retired disabled lives were increased,
- Rates of retirement were decreased 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,
- The reciprocity assumption was reduced from 20% to 10%, 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 \$1.75 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.

In addition, 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.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal funding method was used for active employees, whereby the normal cost 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 14 years. Subsequent gains and losses are amortized over 15 years, changes in assumptions over 30 years, and changes in benefits over 20 years (or period over which benefit changes are paid, if shorter). 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 Airport Authority'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 use 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

The Airport Authority was spun off from the Unified Port District effective January 1, 2003. Existing liabilities and assets were transferred to the new plan based on an interim valuation dated December 31, 2002. The Airport Authority Plan is created pursuant to San Diego City Charter section 149, which became effective on April 24, 2002, and San Diego Municipal Code Chapter 2, Article 4, section 24.0912 and Division 18. This Plan is effective on January 1, 2003, and nothing in this Plan should be constructed to affect any rights or benefits Airport Authority employees have earned in this Retirement System as of that date.

1. Membership Requirement

Salaried Employees – immediate eligibility upon employment (compulsory) (§ 0101).*

2. Monthly Salary Base for Benefits

Highest contiguous 26 bi-weekly pay periods (§ 0102), subject to a 10% increase if the Member elects such increase in lieu of an increased benefit formula.

3. Service Requirement

Eligibility

Age 62 with 5 years of service, or age 55 with 20 years of service (Excludes 5 year permissible purchased service.) (§ 0300).

Benefit

Member choice of: (1) formula in place on December 31, 2001 with 10% increase in Final Average Compensation, (2) “Andrecht” formula effective as of January 1, 2002, or (3) “2.5% at 55” multiplier with a benefit cap of 90% of Final Average Compensation effective April 1, 2004 for Non-Executive General Members. Executive Members receive “3% at 55” multiplier without an increase in Final Average Compensation.

For all employees, there is an additional benefit equal to the annuitized Member COL Annuity contributions at retirement date. In all cases, there is an integration feature which provides for 2/3 of the formula multiplier on the first \$400 of Final Average Compensation.

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

**APPENDIX C
SUMMARY OF PLAN PROVISIONS**

Member Service Retirement Accrual Factors

Table C-1				
SDCERS - Airport Authority				
Member Service Retirement Accrual Factors				
Age	Pre 12/31/2001	Andrecht	Post 4/1/2004	Executive
55	2.00%	2.25%	2.50%	3.00%
56	2.00%	2.25%	2.60%	3.00%
57	2.00%	2.25%	2.70%	3.00%
58	2.00%	2.25%	2.80%	3.00%
59	2.08%	2.25%	2.90%	3.00%
60	2.16%	2.30%	3.00%	3.00%
61	2.24%	2.35%	3.00%	3.00%
62	2.31%	2.40%	3.00%	3.00%
63	2.39%	2.45%	3.00%	3.00%
64	2.47%	2.50%	3.00%	3.00%
65+	2.55%	2.55%	3.00%	3.00%

Table C-2	
SDCERS – Airport Authority	
For Vested Members who terminated--	--the accrual factors are--
December 31, 2002 – Present	Pre 12/31/2001 factors above with 10% increase in Final Average Compensation, Andrecht, Post 4/1/2004 or Executive (if applicable)

Maximum Benefit

Effective April 1, 2004, there is a 90% benefit cap, as a percentage of pay, for non-Executive Members who choose post-4/1/2004 factors. This cap does not apply to the annuitized COL Annuity benefit.

Unmodified Form of Payment

Monthly payments continued for the life of the Member, with 50% continuance to the eligible spouse, domestic partner, or dependent child under 21 years of age upon Member's death. If there is no eligible spouse, the Member may receive either a lump sum payment equal to the accumulated surviving spouse contributions or an actuarially equivalent annuity (§ 24.0601).

Note: Airport Authority employees participate in Social Security.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

4. Non-Industrial Disability

Eligibility

Ten years of service (§ 0502).

Benefit

Greater of 1.5% per year of service, one-third of final compensation, or the earned service retirement benefit (§ 0503).

5. Industrial Disability

Eligibility

No age or service requirement (§ 0500).

Benefit

Greater of one-third of final compensation , or the earned service retirement benefit (§ 0501).

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.

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

50% of earned benefit payable to eligible surviving spouse, domestic partner, or dependent child under 21 years of age.

8. Industrial Death

50% of the final average compensation preceding death, payable to eligible surviving spouse, domestic partner or dependent child under 21 years of age.

9. Death After Retirement

Maximum Benefit

50% of Member's unmodified allowance continued to eligible surviving spouse, domestic partner, or dependent child under 21 years of age. \$2,000 payable in lump sum to the beneficiary or the estate of the retiree.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

10. Withdrawal Benefits

Less than five years of service

Refund of accumulated employee contributions with interest, or may keep deposits in the System and earn additional interest to establish reciprocity or maintain service credit in case the member re-hires to SDCERS.

Five or more years of service

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

11. Post-retirement Cost-of-Living Benefit

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

12. COL Annuity

Actuarial equivalent of accumulated contributions in cost-of-living annuity account at time of retirement.

**SDCERS-AIRPORT AUTHORITY
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX C
SUMMARY OF PLAN PROVISIONS**

13. Member Contributions

Vary by age at time of entrance into the system (§ 0200). While a significant portion of these contributions may be “offset,” such offsets are not directly reflected in either the employee contributions or related refund calculations.

Table C-3		
SDCERS - Airport Authority		
Employee Contribution Rates¹		
Integrated Members²		
Entry Age	First \$400/Mo.	Over \$400/Mo.
20	5.52%	8.28%
21	5.59	8.38
22	5.66	8.49
23	5.73	8.60
24	5.80	8.70
25	5.89	8.83
26	5.97	8.95
27	6.04	9.06
28	6.12	9.18
29	6.20	9.30
30	6.28	9.42
31	6.37	9.55
32	6.45	9.67
33	6.53	9.79
34	6.61	9.91
35	6.70	10.05
36	6.79	10.18
37	6.88	10.32
38	6.97	10.45
39	7.05	10.58
40	7.15	10.72
41	7.24	10.86
42	7.33	10.99
43	7.42	11.13
44	7.52	11.28
45	7.61	11.42
46	7.71	11.56
47	7.81	11.71
48	7.91	11.86
49	8.01	12.01
50	8.10	12.15
51	8.21	12.32
52	8.31	12.47
53	8.42	12.63
54	8.53	12.79
55	8.63	12.95
56	8.74	13.11
57	8.87	13.31

¹ Rate = Normal Cost + Cost of Living Rate

² Non-Integrated Members will follow the “Over \$400/month” rate

APPENDIX C
SUMMARY OF PLAN PROVISIONS

Interest: 7.75%
Salary: 4.00%
Mortality: 83 Group Annuity Mortality (GAM) male
(Males set back 2 years, Females set back 8 years)

Rates include cost of providing spouse's continuance and cost of funding final one-year average in lieu of final three-year average. Changes to the salary scale and mortality table effective with the June 30, 1994 valuation were applied to the then existing Member rates.

14. Internal Revenue Code Compliance

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

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, but only those hired before October 3, 2006 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 Airport Authority 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 Airport Authority and credited bi-weekly.
- 3.05% of base compensation, payable by the Member and credited bi-weekly.
- Interest on the above amounts, as determined by the Board.

When a Member leaves DROP and Airport Authority 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

APPENDIX C
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., an Airport Authority employee could have also worked for the Unified Port District).

17. Changes Since Last Valuation

None.

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 actuarial value of future normal costs. This is also referred to by some actuaries as “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 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.

8. Amortization

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

**APPENDIX D
GLOSSARY OF TERMS**

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-Airport Authority'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).