

**San Diego City  
Employees' Retirement System**

**June 30, 2005  
Actuarial Valuation for the**

**San Diego County  
Regional Airport Authority**

**Produced by [Cheiron](#)**

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June 13, 2006

Board of Administration  
 San Diego City Employees' Retirement System  
 401 B Street, Suite 400  
 San Diego, CA 92101

Dear Members of the Board:

At your request, we performed the June 30, 2005 actuarial valuation of the San Diego City Employees' Retirement System (SDCERS). The valuation results with respect to the San Diego County Regional Airport Authority (Airport Authority) are contained in this report. Below are the key results of the valuation, the Unfunded Actuarial Liability and Funding Ratio at 6/30/2005, and the contribution rate percentages for Fiscal Year (FY) 2007, as compared to 6/30/2004 and Fiscal Year (FY) 2006, respectively. In addition, we show the Governmental Accounting Standards Board Statement No. 25 annual required contribution (ARC) for FY 07.

<b>Table I-1</b>		
<b>SDCERS - Airport Authority</b>		
<b>Valuation Date</b>	<b>6/30/2005</b>	<b>6/30/2004</b>
Unfunded Actuarial Liability (millions)	\$ 4.1	\$ 7.4
Funding Ratio-using assets smoothed	87.6%	68.8%
<b>Fiscal Year</b>	<b>2007</b>	<b>2006</b>
Airport Contribution Rate during year	14.30%	16.01%
Airport Contribution Rate start of year	13.76%	15.41%
Annual Required Contribution (GASB):		
-if paid at the beginning of the year	\$ 2.6 million	NA
-if paid throughout the year	\$ 2.7 million	NA

These results are based on the same methods and assumptions used in the prior valuation. In addition, the contribution rates and dollar amounts shown above are in full compliance with Governmental Accounting Standards Board (GASB) Statement No. 25 as far as determining the annual required contributions (ARC). The Airport Authority contribution rate reflects a sixteen year amortization of the unfunded actuarial liability for this June 30, 2005 actuarial valuation.

We certify that, to the best of our knowledge, this 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 set out by the Actuarial Standards Board and Actuarial Standards of Practice (ASOPs) Nos. 4, 27 and 35. As such, it reflects the actuary's responsibility under Section 5.8 of ASOP No. 4 "for assessing the implications of the overall results, in terms of short- and long-range benefit security and expected cost progression."

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



Board of Administration

June 13, 2006

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Finally, in our best professional judgment, the assumptions and methodologies as adopted by the SDCERS Board of Administration are reasonably related to the experience and expectations for the Plan. In our opinion, their employment for this June 30, 2005 actuarial valuation will not, in and of itself, expose the Retirement System to unsound financial risk.

Sincerely,  
Cheiron

A handwritten signature in blue ink, appearing to read "Gene Kalwarski".

Gene Kalwarski, FSA, EA, MAAA  
Consulting Actuary

A handwritten signature in blue ink, appearing to read "Kenneth A. Kent".

Kenneth A. Kent, FSA, EA, MAAA  
Consulting Actuary

**SECTION I  
BOARD SUMMARY**

The primary purpose of the actuarial valuation and this report is to measure, describe and identify as of the valuation date:

- The financial condition of the System,
- Past and expected trends in the financial condition of the System,
- The City's contribution rates for Fiscal Year 2007, and
- Information required by the Governmental Accounting Standards Board (GASB).

In this Section we present a summary of the principal valuation results. This includes the basis upon which this year's 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 the System.

**A. Valuation Basis**

This valuation represents Cheiron's first valuation performed for SDCERS. Before completing this valuation, it was necessary to recalculate the prior year's valuation performed by Gabriel Roeder Smith (GRS) and be able to replicate those results within tolerable limits. Our recalculation produced costs and liabilities within 2.2% of GRS' valuation results. This is well within the range of permitted tolerance required by the IRS (5%) for matching a prior actuary's valuation work in the private sector.

Our next step in performing the June 30, 2005 valuation was to evaluate the methods and assumptions used and benefits valued in the prior valuation. In making this evaluation we considered the following:

- Our independent assessment of the reasonableness of the actuarial assumptions and methods,
- Whether the methods and assumptions used would produce annual required contributions (ARC) meeting the parameters set forth by GASB Statement No. 25,
- Whether the methods and assumptions are reasonable when compared to other similar large public sector retirement systems,
- The results of experience studies performed by GRS in 2001 and 2005, and actuarial audits performed by Mercer in 2004 and Milliman in 1999,
- Recommendations on related issues made by other SDCERS advisors including Navigant, Sunlin Consulting, and outside legal counsel.

Our analyses of these factors lead us to conclude and recommend to the Board that this June 30, 2005 actuarial valuation be performed on the same basis as the June 30, 2004 valuation. Our reasons for this recommendation are as follows:

- In our best professional judgment, the current assumptions and methodologies, individually and in combination, are reasonably related to the experience of and the

**SECTION I  
BOARD SUMMARY**

expectations for the System. This same conclusion was reached by two other major actuarial firms who reviewed SDCERS in prior audits of the System.

- The methods and assumptions used in the current valuation are also in full compliance with the requirements of GASB Statement Number 25 for determining the Annual Required Contribution (ARC).
- The methodology (level percent of pay funding) and assumptions used to pay off the Unfunded Actuarial Liability (UAL) are consistent with those used by the majority of other large public sector retirement systems nationwide, including Los Angeles City Employees' Retirement System, CALPERS, and CalSTRS.

Notwithstanding all the above, we do recommend that before the June 30, 2006 valuation is completed that the Board authorize the actuary to immediately commence a study of the following items for possible change in the future valuations:

- 1) The asset smoothing method
- 2) The method to apportion assets among contributing SDCERS employers
- 3) The current treatment of calculating disability benefits in connection with the Corbett Settlement
- 4) Continued use of the "waterfall" concept and the manner in which the Surplus Undistributed Earnings Reserve and other book reserves are maintained
- 5) Valuation of benefits that exceed the limits prescribed by Internal Revenue Code Section 415
- 6) Fully reflecting in the valuation for on-going contribution purposes, "contingent liabilities" such as the 13<sup>th</sup> check
- 7) The actuarial funding method: Projected Unit Credit vs. Entry Age Normal
- 8) The amortization basis used to amortize unfunded actuarial liabilities.

Finally, the computed Airport Authority contribution rate and dollar amounts shown in this valuation are computed using a fixed 30 year amortization period effective July 1, 1991 and has 16 years remaining as of June 30, 2005.

**SDCERS-AIRPORT AUTHORITY  
JUNE 30, 2005 ACTUARIAL VALUATION**

**SECTION I  
BOARD SUMMARY**

**B. Current Financial Condition of SDCERS-Airport Authority**

On the following pages we summarize the key results of the June 30, 2005 valuation and show how they compare to the results from the June 30, 2004 valuation.

1. Airport Authority Membership:

<b>Table I-2 SDCERS - Airport Authority - Membership Total</b>			
Item	June 30, 2005	June 30, 2004	% Change
Active Counts	284	265	7.2%
Terminated Vesteds	26	12	116.7%
Disabled	-	-	0.0%
Retirees	7	3	133.3%
Beneficiaries	-	-	0.0%
Total Airport Authority Members	317	280	13.2%
Active Member Payroll	\$ 17,608,879	\$ 15,605,857	12.8%
Average Pay per Active Member	62,003	58,890	5.3%
Annual Benefits Paid	\$ 271,965	N/A	N/A

Total membership in SDCERS-Airport Authority increased from 2004 to 2005 by 13.2%. Active membership increased by 7.2%. In addition, while total payroll increased by 12.8% (the assumption used for valuation purposes is 4.25%), the average pay per active member increased by 5.3%.

2. Airport Authority Assets and Liabilities:

<b>Table I-3 SDCERS - Airport Authority - Assets &amp; Liabilities</b>			
Item	June 30, 2005	June 30, 2004	% Change
Actives	\$ 28,731,396	\$ 22,539,642	27.5%
Terminated Vesteds	1,158,282	243,555	375.6%
Disabled	-	-	0.0%
Retirees	2,713,220	795,263	241.2%
Beneficiaries	-	-	0.0%
Total Actuarial Liability	32,602,898	23,578,460	38.3%
Market Value Assets	\$ 30,682,414	\$ 17,559,735	74.7%
Actuarial Value Assets	28,551,475	16,224,550	76.0%
Unfunded Actuarial Liability	\$ 4,051,423	\$ 7,353,910	-44.9%
Funding Ratio-Actuarial Value	87.6%	68.8%	27.3%

**SECTION I  
BOARD SUMMARY**

Between June 30, 2004 and June 30, 2005, SDCERS-Airport Authority unfunded actuarial liabilities decreased by 44.9%, from \$7.35 million to \$4.05 million, or \$3.30 million. This decrease was significantly more, by \$3.26 million, than what was expected as of the prior valuation. With respect to investments, the System realized a gain of \$1.38 million due to recognized earnings in excess of the assumed 8%. Offsetting this on the liability side was (1) a liability experience loss of \$2.59, million and (2) an excess of \$4.46 million between total contributions made in FY 2005 versus those determined actuarially in the 2004 valuation. More details on the components of these liabilities are shown in Section III of this report.

Finally, the previous table shows the SDCERS-Airport Authority funding ratio. This is the ratio of assets smoothed (actuarial value of assets) over total actuarial liabilities. This ratio has improved from 68.8% to 87.6%.

3. Airport Authority Contributions:

<b>Table I-4 SDCERS - Airport Authority - Contributions</b>			
<b>Item</b>	<b>June 30, 2005</b>	<b>June 30, 2004</b>	<b>% Change</b>
Gross Normal Cost %	21.92%	22.56%	-2.8%
Member Cost %	<u>9.46%</u>	<u>10.31%</u>	-8.2%
Employer Normal Cost %	12.46%	12.25%	1.7%
Employer Unfunded Liability Cost %	<u>1.84%</u>	<u>3.76%</u>	-51.1%
Total Employer Cost %	14.30%	16.01%	-10.7%
Employer Cost % Beginning of Year	13.76%	15.41%	-10.7%

The Airport Authority's fiscal year 2007 contribution rate is 14.30%, which is lower than the 16.01% required contribution for the prior year.

In dollars, the contribution rates shown here translate to a FY 2007 Airport Authority contribution of \$2.6 million, if paid in full as of July 1, 2006. If that amount is paid evenly throughout FY 2007, we would expect a payment of about \$2.7 million, or \$224 thousand per month, totaling \$2.7 million over the 12-month period. In Section IV of this report we provide considerably more detail on the development of this contribution rate.

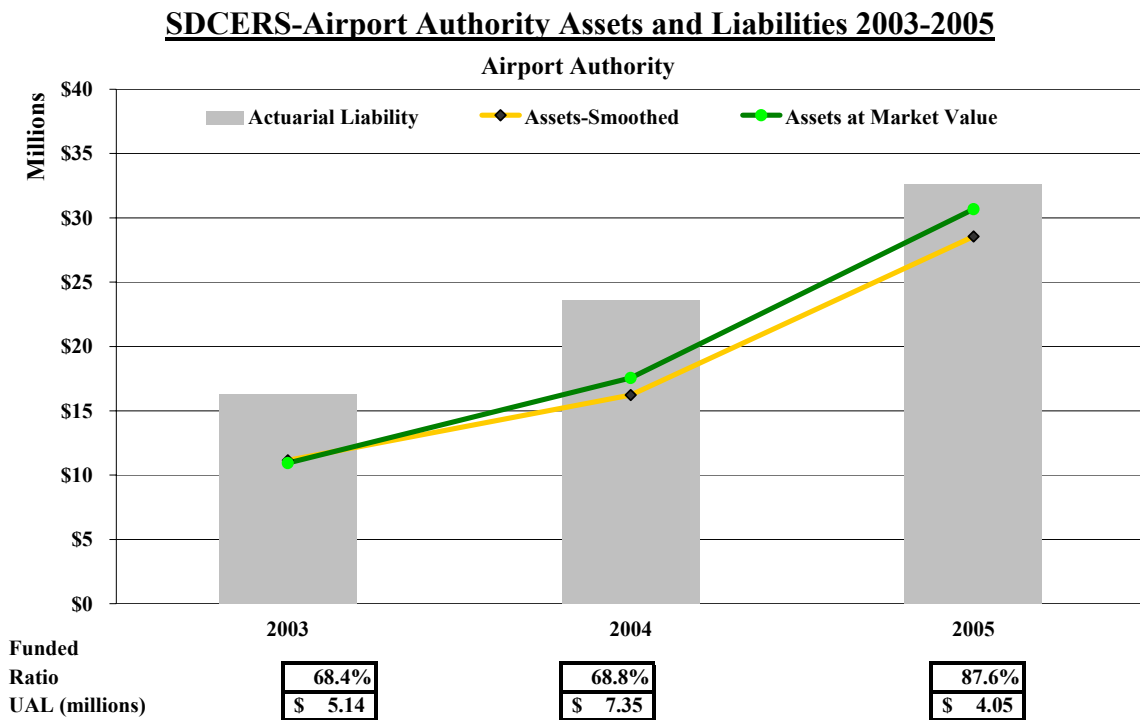


SECTION I  
 BOARD SUMMARY

C. Historical Trends SDCERS- Airport Authority

Despite the fact that most of the attention given to the valuation results has always been with respect to the most recently computed unfunded actuarial liability, funding ratio, and the Airport Authority’s contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year’s valuation result relative to historical trends, as well as trends expected into the future.

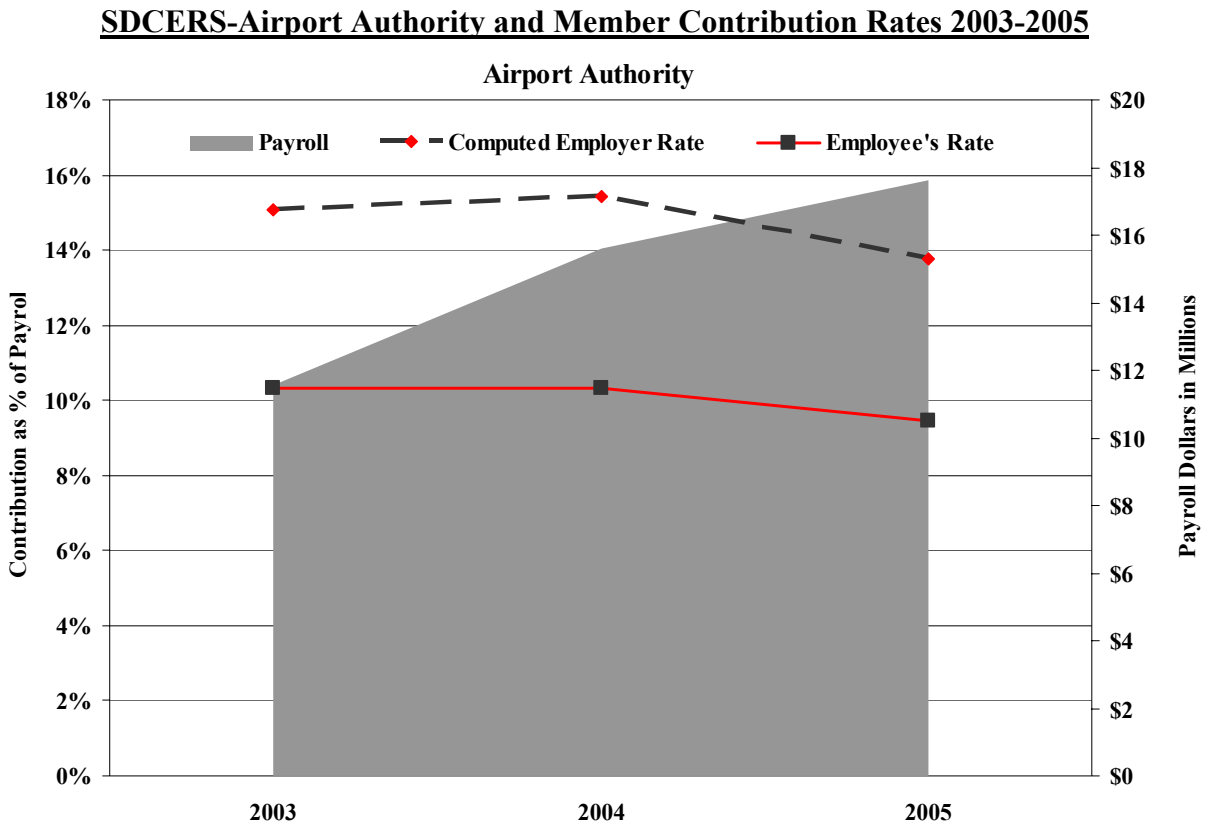
In the chart below, we present the historical trends for assets (both market and smoothed) versus actuarial liabilities, and also show the progress of the System’s funding ratios since 2003.



The chart above indicates that in 2003 and 2004, the funding rate was slightly more than 68% of actuarial value of assets. In 2005, the funding ratio significantly increased due to excess contributions made in the previous year.

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 BOARD SUMMARY**

In the next chart below, we present the historical trends for the SDCERS- Airport Authority contribution rates and membership payroll since 2003. Please note that the chart below does not show the actual contribution rate made by the Airport Authority, but rather, the rate calculated in each of the prior valuations. Starting with the June 30, 2006 valuation, we will begin to compare on a historical basis the actual contributions made by the Airport Authority based upon what was expected in the preceding valuation. In this way, we can monitor over time the degree to which the Airport Authority is meeting the actuarially required contributions, as determined by the SDCERS actuary.

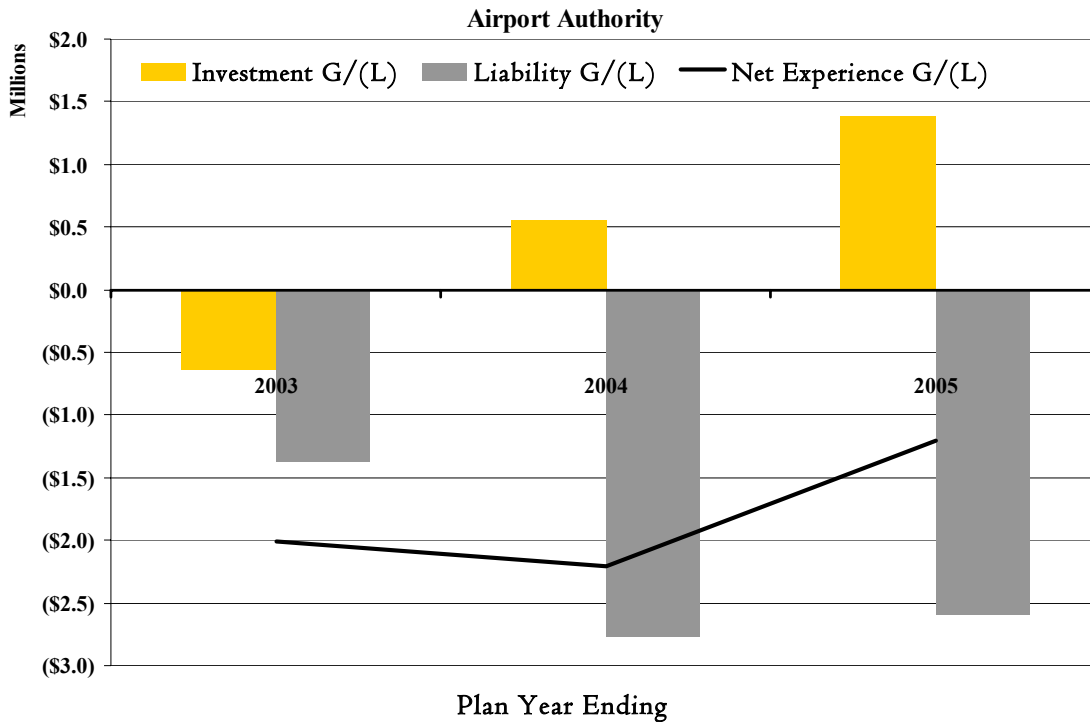


The employer contribution rate has remained stable from 2003 through 2005. This chart also shows the escalation of the Airport Authority’s total payroll from 2003 through 2005. Finally, the chart indicates that the members’ rate has remained relatively stable throughout the period 2003 through 2005.

The last historical chart for SDCERS-Airport Authority presents the pattern of annual gains and losses, broken into the investment and liability components. What are not included in the chart are gains or losses attributable to contributions varying from those actuarially determined. Starting with the 2006 valuation, such historical differences will be shown.

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BOARD SUMMARY

**SDCERS-Airport Authority Historical Gain/(Loss) 2003-2005**



The key insights from this chart are:

- The last two years of investment gains (gold bars) in 2004 and 2005 were significantly offset by liability losses (grey bars) in those years as well as in 2003.
- On the liability side there have been consistent losses all three years. Losses generally occur if members retire earlier than expected, receive pay increases higher than expected, or live longer. Losses also result when participants have purchased service credits.

The pattern of steady liability losses is an important concern. In future valuations, we expect to closely monitor this trend and as suggested earlier, make recommendations to address this pattern of consistent liability experience losses.

**SECTION I  
BOARD SUMMARY**

**D. Projected Financial Trends SDCERS- Airport Authority**

Our analysis of SDCERS’ projected financial trends is perhaps the most important part of this valuation. In this Section we present our assessment of the implications of the June 30, 2005 valuation results on the future outlook of the System in terms of benefit security (assets over liabilities) and the Airport Authority’s expected cost progression. In addition, given the concern regarding unfunded liabilities, we also show their expected future write down.

Our projections are shown on two different investment return bases, with level returns (as assumed) and volatile returns which average the assumed. We show volatile investment returns which average 8% over the projection period to demonstrate the impact investment risk has on the Plan’s financial trends.

In the three set of charts that follow, we project SDCERS-Airport Authority plan assets and liabilities, the write down of UAL, and the Airport Authority’s contributions as a percent of payroll. All charts are shown on two different bases:

- 1) Assuming 8% returns each and every year, and the continuation of the write down of the UAL over 16 years as of June 30, 2005, and
- 2) Assuming returns that vary each year but over the projection period equals on average the assumed 8% return, and the continuation of the 16-year UAL write down.

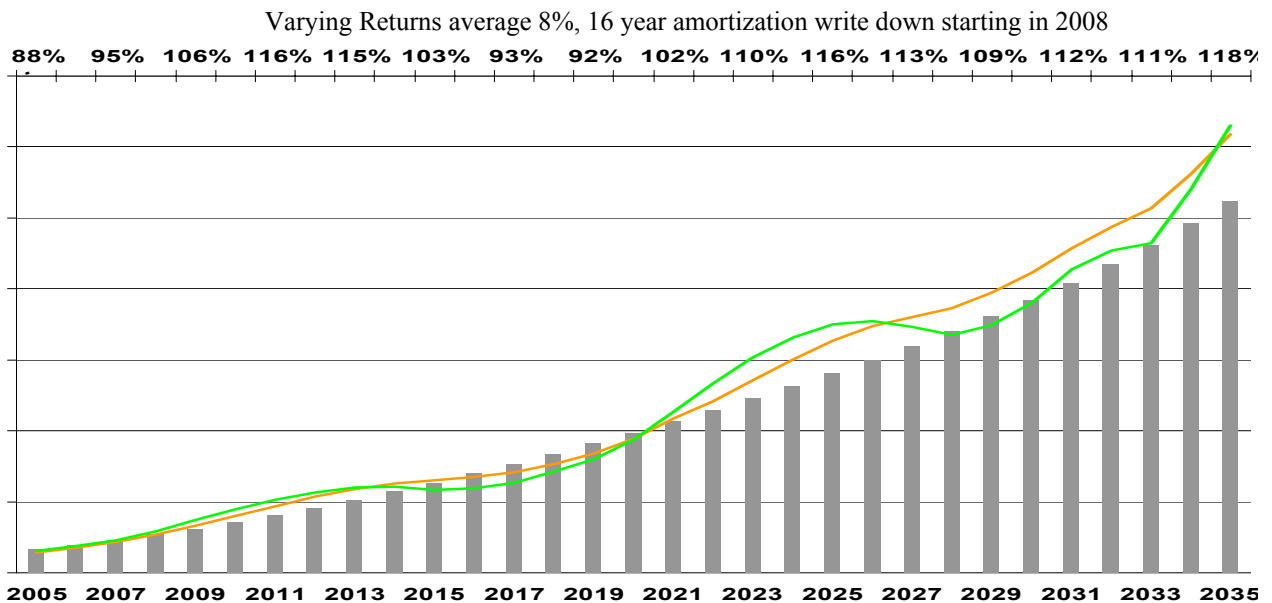
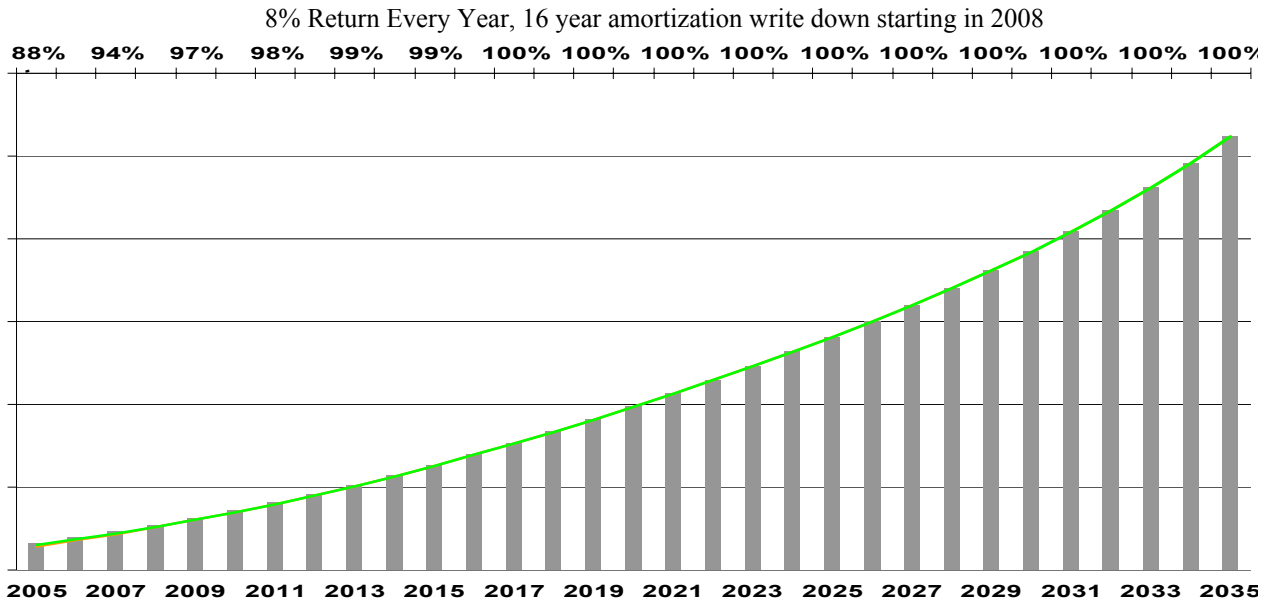
The following table shows the assumed rate of return for each projected valuation year under the varying return exhibits. These rates average 8% over the 30-year period.

<b>Fiscal Year</b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>2007</u></b>	<b><u>2008</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>
<b>Return</b>	<b>8%</b>	<b>12%</b>	<b>16%</b>	<b>20%</b>	<b>16%</b>	<b>12%</b>	<b>8%</b>	<b>4%</b>	<b>0%</b>	<b>-4%</b>
<b>Fiscal Year</b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>	<b><u>2021</u></b>	<b><u>2022</u></b>	<b><u>2023</u></b>	<b><u>2024</u></b>
<b>Return</b>	<b>0%</b>	<b>4%</b>	<b>8%</b>	<b>8%</b>	<b>12%</b>	<b>16%</b>	<b>20%</b>	<b>16%</b>	<b>12%</b>	<b>8%</b>
<b>Fiscal Year</b>	<b><u>2025</u></b>	<b><u>2026</u></b>	<b><u>2027</u></b>	<b><u>2028</u></b>	<b><u>2029</u></b>	<b><u>2030</u></b>	<b><u>2031</u></b>	<b><u>2032</u></b>	<b><u>2033</u></b>	<b><u>2034</u></b>
<b>Return</b>	<b>4%</b>	<b>0%</b>	<b>-4%</b>	<b>0%</b>	<b>4%</b>	<b>8%</b>	<b>4%</b>	<b>0%</b>	<b>12%</b>	<b>16%</b>

SECTION I  
 BOARD SUMMARY

Projection Set 1  
 Assets and Liabilities – Airport Authority

The charts below show asset measures (green and gold lines) compared to liabilities (grey bars). At the top of each chart is the progression of the System’s funding ratios. The most revealing insight from these two charts is how varying investment returns can dramatically impact the Plan’s unfunded liabilities and funding ratio.



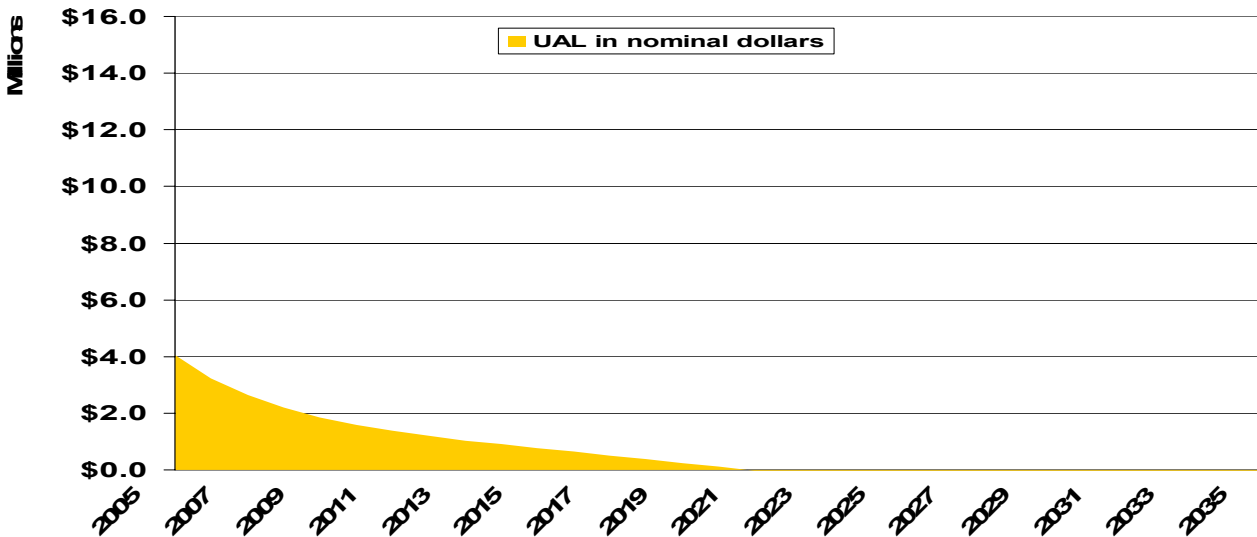
SECTION I  
BOARD SUMMARY

Projection Set 2

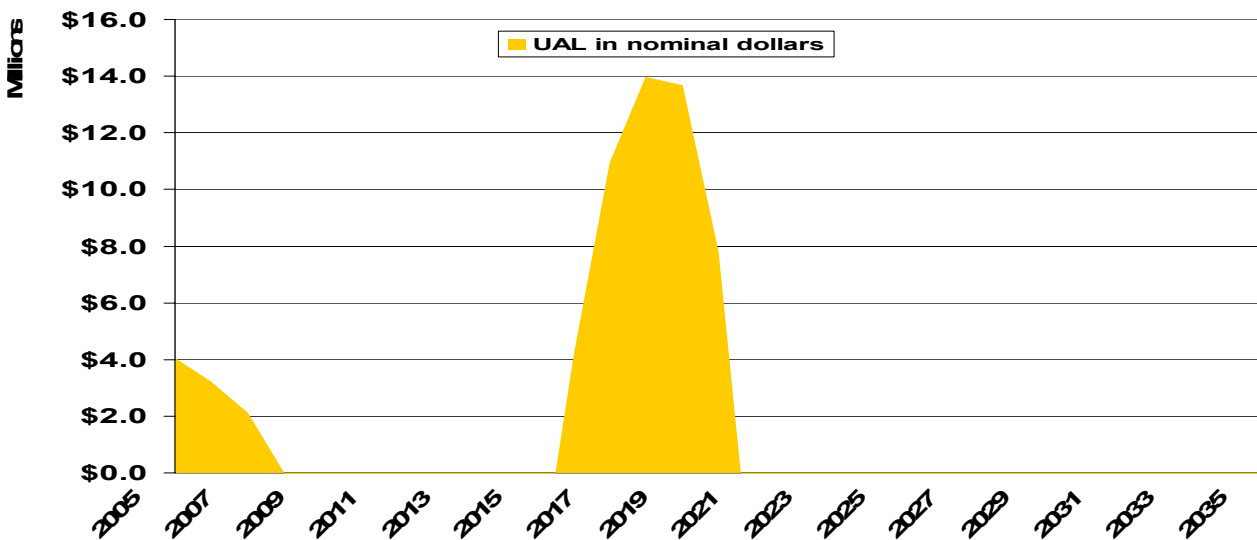
Write down of the Unfunded Actuarial Liability (UAL) Airport Authority

The lower set of charts demonstrates that with varying returns, which will occur, it is very likely that there will often be dramatic swings in the annually computed UAL.

8% Return Every Year, 16 year amortization write down starting in 2008



Varying Returns average 8%, 16 year amortization write down starting in 2008

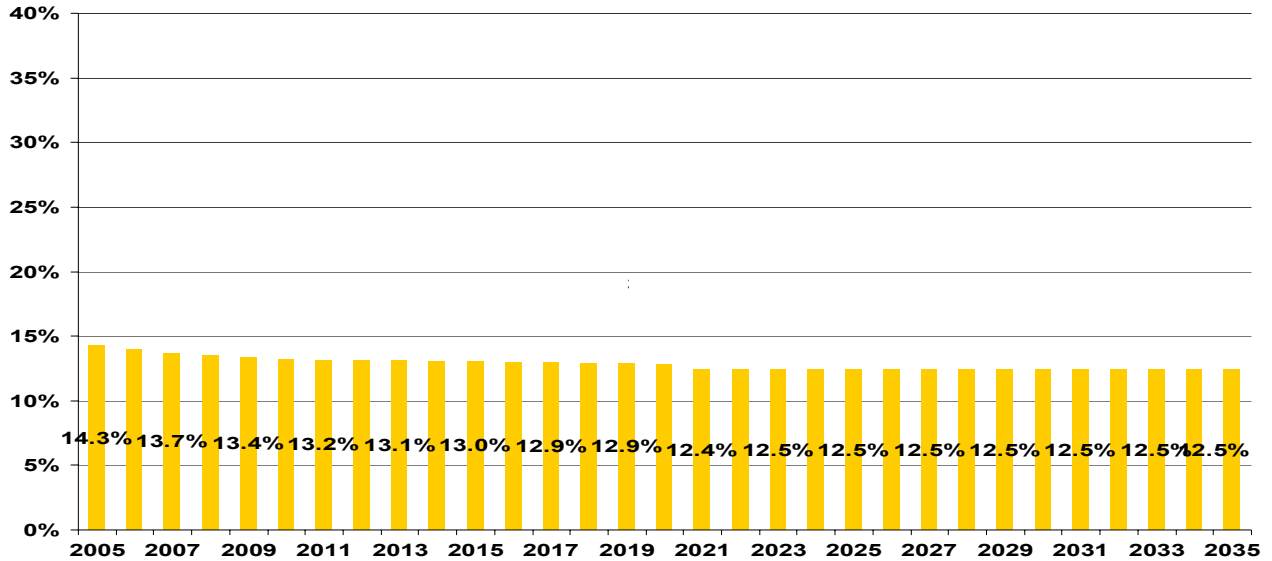


SECTION I  
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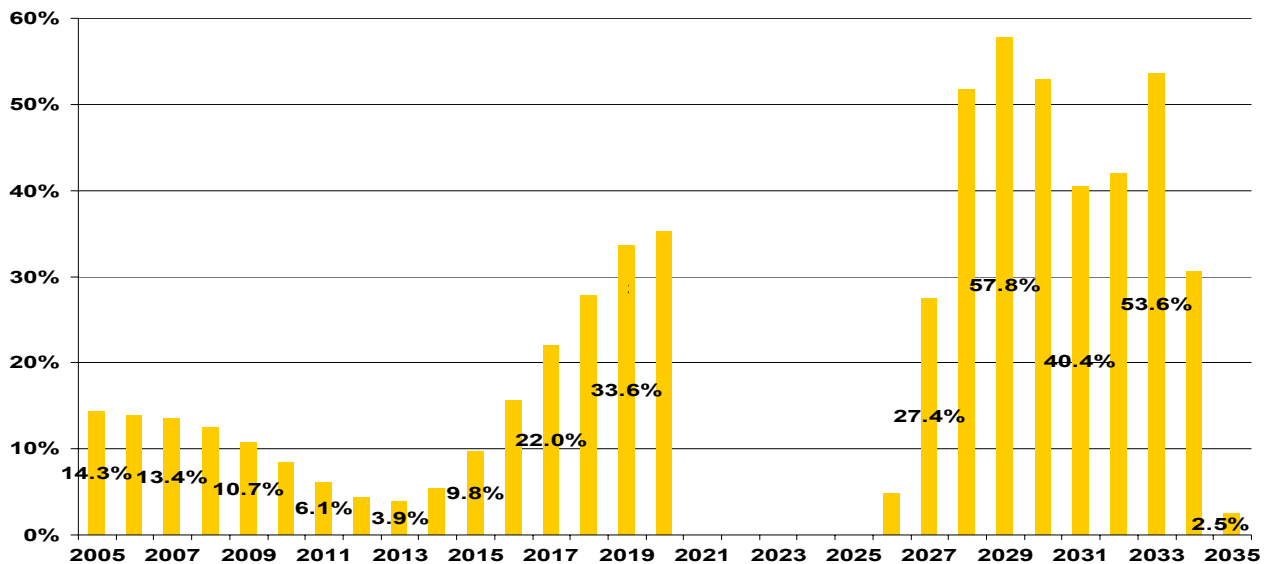
Projection Set 3  
 Contribution Rate – Airport Authority

As can be seen in the bottom chart below, varying returns also has a significant impact on the actuarially computed Airport Authority contribution rate.

8% Return Every Year, 16 year amortization write down starting in 2008



Varying Returns average 8%, 16 year amortization write down starting in 2008



## SECTION II ASSETS

SDCERS has historically used and disclosed three different asset measurements which are presented in this Section of the report: market value, book value and 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 book value of assets, used for little if any actuarial purpose, measures assets based on their value when they were first purchased (cost value), plus earnings that have been realized such as interest and dividends and less depreciation for certain fixed assets. The actuarial value of assets is a value that attempts to smooth annual investment return performance, and is used in determining SDCERS contributions for each employer.

SDCERS has three contributing employers, and each receive separate actuarial valuation reports and cost determinations. However, the assets of all three employers are pooled for investment purposes. The apportionment of the assets between the employers directly impacts each employer's costs. Therefore, in the interest of ensuring transparency, we disclose in this section of the report information on the total assets of the System for all three employers. How those assets are apportioned to the City of San Diego, the Unified Port District, and the Airport Authority is explained here.

On the following pages we present detailed information on Plan assets:

- **Disclosure** of Plan assets at June 30, 2004 and June 30, 2005,
- **Statement of Cash Flows** during the year,
- Development of the **Actuarial Value of Assets**,
- **Apportionment** of Assets to Contributing Employers, and Member Groups within each, and
- Disclosure of **investment performance** for the year.



**SECTION II  
ASSETS**

**A. Disclosure**

The market value of assets represents a “snap-shot” or “cash-out” value which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace, because these fluctuations would result in volatility in the resulting contributions if the market value were used, unadjusted, in the valuation process, an actuarial value is developed. Table II-1 below discloses the market value by asset class of SDCERS – All employers’ gross assets on June 30, 2005. Table II-2 which follows, discloses the book value of gross assets, by type of book reserve.

<b>Table II-1 SDCERS – All Employers Summary of Reported Market Value of Total Defined Benefit Plan Assets</b>	
Cash	\$ 439,955,832
US Stocks	1,408,723,587
International Stocks	580,214,627
Bonds	816,966,124
Mortgages	9,153
Real Estate	317,941,072
Receivables	135,143,522
Short Term Investments	148,312,263
Fixed Assets	141,380
Miscellaneous	300
Accounts Payable	<u>(167,922,823)</u>
<b>Market Value of Assets – June 30, 2005</b>	<b>\$ 3,679,485,037</b>

<b>Table II-2 SDCERS – All Employers Summary of Book Value of Reserves of Total Defined Benefit Plan Assets</b>	
Member Deposit Reserve	\$ 538,320,944
DROP Reserve	228,514,263
Employer Reserve	451,050,443
Retired Members Reserve	1,562,088,465
Undistributed Reserve	368,812,231
Encumbrance Reserve	1,030,778
Receivables Reserve	23,232,804
Fixed Assets Reserve	141,380
Retiree Health 401(h) Reserve	0
Supplemental COLA Reserve	17,839,967
Employee Contribution Rate Inc. Reserve	8,905,418
Other	17,158
<b>Book Value of Reserves – June 30, 2005</b>	<b>\$ 3,199,953,851</b>
<b>Unrealized Appreciation</b>	<b>479,531,186</b>
<b>Market Value of Reserves – June 30, 2005</b>	<b>\$ 3,679,485,037</b>

SDCERS-AIRPORT AUTHORITY  
JUNE 30, 2005 ACTUARIAL VALUATION

**SECTION II  
ASSETS**

Table II-3 below develops both the net market value and net book value of System assets. Net assets are those assets available to fund the liabilities valued in determining the System's contribution requirements.

<b>Table II-3 SDCERS – All Employers Summary of Assets Available for Total Defined Benefit Plan</b>		
	<u>Book Value</u>	<u>Market Value</u>
<b>1. Total Value of Assets – June 30, 2005</b>	<b>\$ 3,199,953,851</b>	<b>\$ 3,679,485,037</b>
2. Less reserves and liabilities excluded from valuation		
a. Contingent benefits payable from distributed Earnings Reserve	\$ 11,912,682	\$ 11,912,682
b. Reserve for Retiree Health Insurance	0	0
c. Reserve for DROP contributions	228,514,263	228,514,263
d. Reserve for Employee Contribution Rate Increase	8,905,418	8,905,418
e. Reserve for Supplemental Cola	<u>17,839,967</u>	<u>17,839,967</u>
f. Total Excludable: Sum of a. through e.	267,172,329	267,172,329
<b>3. Net Value of Assets – June 30, 2005: (1 – 2f)</b>	<b>\$ 2,932,781,522</b>	<b>\$ 3,412,312,708</b>

SDCERS-AIRPORT AUTHORITY  
JUNE 30, 2005 ACTUARIAL VALUATION

**SECTION II  
ASSETS**

**B. System Cash Flows Year June 30, 2004 through June 30, 2005**

<b>Table II-4 SDCERS – All Employers SDCERS Cash Flows</b>	
<b>Market Value as of June 30, 2004</b>	<b>\$ 3,278,015,068<sup>1</sup></b>
<b><u>Additions</u></b>	
Contributions:	
Employees' Contributions	\$ 69,876,512
Employees' DROP Contributions	1,784,795
Employer Contributions	144,238,133
Employer DROP Contributions	1,795,935
Offset Contributions	34,143,790
DROP Monthly Pension Allowances	44,929,870
DROP Supplemental Benefits	<u>662,772</u>
Total Contributions	\$ 297,431,807
Investment Income:	<u>\$ 367,527,114</u>
Total Additions	\$ 664,958,921
<b><u>Deductions</u></b>	
Monthly Retirement Allowances	\$ (131,417,246)
Monthly Retirement Allowances - DROP	(44,929,870)
Monthly Retirement Allowances – Supp COLA	(3,899,449)
Health Insurance Payments	(7,910,366)
Supplemental Benefit Payments	(4,139,464)
Corbett Retro Payment	(16,023,644)
DROP Payments to Members	(22,287,183)
Death Benefit Payments	(597,142)
Refunds of Member Contributions	(2,802,986)
Administrative, Operating Expenses & Investment Expenses	(29,432,033)
Depreciation Expense	<u>(49,569)</u>
Total Deductions	\$ (263,488,952)
<b>Total Net Increase (Decrease)</b>	<b>\$ 401,469,969</b>
<b>Market Value as of June 30, 2005</b>	<b>\$ 3,679,485,037</b>

<sup>1</sup> This differs from the June 30, 2004 actuarial valuation by \$441,270 – which reflects changes to receivables/payables made after last year's valuation was produced.

**SECTION II  
ASSETS**

**C. Actuarial Value of Assets**

The Actuarial Value of Assets is usually the actuary's best estimate of long-term asset values and is used for evaluating the Plan's ongoing ability to meet its obligations. This value is developed by the actuary to reduce the impact volatile investment performance has on the resulting employer contribution rates.

The Actuarial Value has been calculated by using the average over the past 5 years of the ratio of net book value to net market value. The current book value is then multiplied by this average percentage. The following table illustrates the calculation of Actuarial Value of Assets for the June 30, 2005 valuation. The Actuarial Value of Assets on June 30, 2004 was \$2,786,279,488.

<b>Table II-5 Development of Actuarial Value of Assets as of June 30, 2005</b>			
	(a) Net Market Value	(b) Net Book Value	(a)/(b) Ratio
1. Market Value as percentage of book value at assets:			
a. June 30, 2005	\$ 3,412,312,708	\$ 2,932,781,522	116.35%
b. June 30, 2004	3,018,048,094 <sup>1</sup>	2,594,301,199	116.33%
c. June 30, 2003	2,463,926,769	2,332,055,458	105.65%
d. June 30, 2002	2,326,417,315	2,348,350,495	99.07%
f. June 30, 2001	2,433,217,521	2,341,407,593	103.92%
2. Average Percentage for most recent 5-year period			108.27%
3. Current net book value of assets			\$ 2,932,781,522
4. Preliminary actuarial value of assets: (2)*(3)			\$ 3,175,322,553
5. Actuarial value of assets: (4) adjusted to be within 20% of market value			\$ 3,175,322,553

<sup>1</sup> This differs from the June 30, 2004 actuarial valuation by \$441,270 – which reflects changes to receivables/payables made after last year's valuation was produced.

**SECTION II  
ASSETS**

**D. Apportionment of Actuarial Value of Assets**

The assets for all contributing employers are pooled for investment purposes. Below we show the assets apportioned amongst the three contributing employers, and then amongst the different member groups for the Airport Authority.

<b>Table II-6 Summary of Actuarial Assets Available for Each Member Group As of June 30, 2005</b>			
<b><u>Member Groups</u></b>	<b><u>Market Value</u> Total Net Assets</b>	<b><u>Book Value</u> Designated Reserves</b>	<b><u>Actuarial Value</u> Total Net Assets</b>
General	\$ 1,655,133,812	\$ 1,359,688,561	\$ 1,540,182,326
Elected Officers	4,419,233	3,630,390	4,112,311
Safety	1,546,168,929	1,270,174,164	1,438,785,215
<b>Total City</b>	<b>\$ 3,205,721,975</b>	<b>\$ 2,633,493,114</b>	<b>\$ 2,983,079,852</b>
Unified Port District	175,908,318	144,508,273	163,691,226
Airport Authority	30,682,414	25,205,532	28,551,475
<b>Total-SDCERS</b>	<b>\$ 3,412,312,708</b>	<b>\$ 2,803,206,919</b>	<b>\$ 3,175,322,553</b>

The book value of reserves for each member group is equal to the sum of the following designated book reserves maintained by each employer: (1) the Member Contribution Reserve, (2) the Purchased Service Receivables Reserve, (3) the DROP reserve, (4) the Employer Contribution Reserve, and (5) the Retired Members Reserve.

The actuarial value of assets assigned to each employer is based on multiplying each employer's total designated reserve by a ratio. The ratio is the total SDCERS actuarial value of assets for all employers over the sum of the designated book reserves for all employers. The market value of assets for each employer is arrived at in a similar fashion, by multiplying each employer's actuarial value of assets by the ratio of total SDCERS market value of assets over the total actuarial value of assets.

The assets apportioned to each member group were based on the proportion of that member group's actuarial liability to the total actuarial liability for the employer.

**E. Investment Performance**

The Market Value of Assets returned 10.21% for the year ending June 30, 2005. This is compared to an assumed return of 8% and represents the second consecutive year that the return was above the assumed rate. The return in FY 2004 was 20.33%.

On an actuarial value of assets basis, the return for FY 2005 was 11.36%. This return produced for the Total System all employers, an overall investment gain of \$86.9 million for the year ending June 30, 2005. (Note this reported gain is different than the investment gain of \$1.38 million reported on page 4 in this report. The latter is the gain only for the Airport Authority.)

### SECTION III LIABILITIES

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

- **Disclosure** of System liabilities at June 30, 2004 and June 30, 2005;
- Statement of **changes** in the unfunded actuarial liabilities during the year; and
- Disclosure of certain **contingent liabilities** not reflected in determining the System's costs and liabilities, and how they have been funded.

#### 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 all Future Benefits:** Used for measuring all future System obligations, represents the amount of money needed today to fully pay off all benefits of the System 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-Projected Unit Credit (PUC):** Used for determining employer contributions and GASB accounting disclosures, this liability is calculated taking the Present Value of Future Benefits based on service as of the valuation date, but including future salaries growth.
- **Actuarial Liability-Entry Age Normal (EAN):** Used in this report purely for informational purposes here. 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.
- **Present Value of Accrued Benefits:** Disclosed in Section V of this report for accounting statement purposes (FASB 35). 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 three of these liabilities for the current and prior year's valuations. With respect to the Actuarial Liability a subtraction of the actuarial value of assets yields a **net surplus** or an **unfunded actuarial liability (UAL)**.

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**SECTION III  
LIABILITIES**

<b>Table III-1</b>		
<b>SDCERS - Airport Authority - Total</b>		
<b>Item</b>	<b>June 30, 2005</b>	<b>June 30, 2004</b>
<b>Present Value of Future Benefits</b>		
Active	\$ 75,706,592	\$ 64,157,542
Terminated Vesteds	1,158,282	243,555
Disabled	-	-
Retirees	2,713,220	795,263
Beneficiaries	-	-
<b>Total Airport Authority</b>	<b>\$ 79,578,094</b>	<b>\$ 65,196,360</b>
<b>Actuarial Liability - PUC</b>		
Active	\$ 28,731,396	\$ 22,539,642
Terminated Vesteds	1,158,282	243,555
Disabled	-	-
Retirees	2,713,220	795,263
Beneficiaries	-	-
<b>Total Airport Authority</b>	<b>\$ 32,602,898</b>	<b>\$ 23,578,460</b>
Market Value of Assets	\$ 30,682,414	\$ 17,559,735
Actuarial Value of Assets	\$ 28,551,475	\$ 16,224,550
<b>Unfunded Actuarial Liability</b>	<b>\$ 4,051,423</b>	<b>\$ 7,353,910</b>
<b>Actuarial Liability - EAN</b>		
Total Present Value of Benefits	\$ 79,578,094	\$ 65,196,360
Present Value of Future Normal Costs		
Employer Portion	26,922,915	N/A
Employee Portion	17,804,606	N/A
<b>Actuarial Liability - EAN</b>	<b>\$ 34,850,573</b>	<b>N/A</b>
Actuarial Value of Assets	\$ 28,551,475	\$ 16,224,550
<b>Unfunded EAN Actuarial Liability</b>	<b>\$ 6,299,098</b>	<b>N/A</b>

The retired member liability for purposes of adjusting the Retired Member Book Reserve as of June 30, 2005 is \$ 2,713,220.

**SDCERS-AIRPORT AUTHORITY  
JUNE 30, 2005 ACTUARIAL VALUATION**

**SECTION III  
LIABILITIES**

Table III-2 which follows shows actuarial liability as of June 30, 2005 for general and executive members of SDCERS-Airport Authority.

<b>Table III-2</b>			
<b>SDCERS - Airport Authority - General &amp; Executives</b>			
<b>Item</b>	<b>June 30, 2005</b>	<b>June 30, 2005</b>	<b>June 30, 2005</b>
<b>Present Value of Future Benefits</b>	<b>Total</b>	<b>General</b>	<b>Executives</b>
Active	\$ 75,706,592	\$ 70,392,354	\$ 5,314,238
Terminated Vesteds	1,158,282	1,032,568	125,714
Disabled	-	-	-
Retirees	2,713,220	2,363,440	349,780
Beneficiaries	-	-	-
<b>Total Airport Authority</b>	<b>\$ 79,578,094</b>	<b>\$ 73,788,362</b>	<b>\$ 5,789,732</b>
<b>Actuarial Liability - PUC</b>			
Active	\$ 28,731,396	\$ 26,269,476	\$ 2,461,920
Terminated Vesteds	1,158,282	1,032,568	125,714
Disabled	-	-	-
Retirees	2,713,220	2,363,440	349,780
Beneficiaries	-	-	-
<b>Total Airport Authority</b>	<b>\$ 32,602,898</b>	<b>\$ 29,665,484</b>	<b>\$ 2,937,414</b>



**SECTION III  
LIABILITIES**

**B. Changes in Unfunded Actuarial Liabilities**

In general, the UAL of any retirement plan is expected to change at each subsequent valuation for a variety of reasons. In each valuation, we will report on those elements of change in the UAL which are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation.

<b>Table III-3</b>			
<b>Development of 2005 Experience Gain/(Loss) SDCERS - Airport Authority</b>			
1.	Unfunded Actuarial Liability at June 30, 2004	\$	7,353,910
2.	Beginning of year accrued liability payment		(586,780)
3.	Interest accrued $((1+2) \times .08)$		<u>541,370</u>
4.	Expected Unfunded Actuarial Liability at June 30, 2005 (1+2+3)		7,308,500
5.	Actual Unfunded Liability at June 30, 2005		4,051,423
6.	Difference: (4 - 5)		3,257,077
7.	Portion of difference (6) due to experience Gain/(Loss)		(1,207,448)
8.	Portion of difference (6) due to contributions less than expected	\$	4,464,525
<b>Elements of Experience Gain/(Loss)</b>			
1.	G(L) due to investment experience	\$	1,380,592
2.	G(L) due to purchased service credit		(1,160,074)
3.	G/(L) due to demographic and payroll experience		(1,539,018)
4.	G/(L) due to payments towards benefits not reflected in valuation		(3,125)
5.	Other Gain/(Loss)		<u>114,177</u>
6.	Total Estimated Experience Gain/(Loss): sum 1 through 5	\$	<b>(1,207,448)</b>

In Table III-4, we show the history of past experience gains and losses.

<b>Table III-4</b>				
<b>Experience Gain/(Loss) - Historical SDCERS - Airport Authority</b>				
Valuation		Beginning-of-Year		Gain/(Loss)
<u>Date</u>	<u>Gain/(Loss)</u>	<u>Actuarial Liabilities</u>		<u>Percentage</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)

**SECTION III  
LIABILITIES**

**C. Other Liabilities**

At the request of the Board, we disclose here certain liabilities that are not reflected in the determination of costs and liabilities disclosed elsewhere in this report. These liabilities are attributable to either prior legal settlements, provisions within the San Diego Municipal Code (SDMC), or already funded and are simply being disclosed here (e.g. DROP). All liabilities shown in this part are SDCERS-Airport Authority.

<b>1. "13th Check" Liabilities</b> .....	\$	265,659
<b>FY2006 estimated payment</b> .....	\$	2,878

The 13<sup>th</sup> Check resulted from a legal settlement between the SDCERS and retirees back in the 1980's. The benefit was designed as an alternate method of dividing and sharing realized gains between the retirees and the Retirement System. The 13<sup>th</sup> Check benefit for most retirees consists of \$30 per year of service credit, payable in November of each year. A small group of retirees receive \$45, \$60 or \$75 for each year of service credit, depending on their dates of retirement. The Airport Authority's 13<sup>th</sup> Check benefit is projected at just about \$ 3 thousand. The 13<sup>th</sup> Check benefit is closed to new hires after June 30, 2005. Finally payment of the "13<sup>th</sup> check" benefits are made only when there are sufficient "Surplus Undistributed Earnings

<b>2. DROP Account Balance</b> .....	\$	157,227
--------------------------------------	----	---------

This represents as of June 30, 2005 the total amounts deposited in the DROP Reserves plus credited interest. These amounts will be paid when DROP participants enter into pay status. The amounts are not included in either the liabilities or assets used to determine the costs of the System.

## 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 a funding method that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the funding methodology employed is the **Projected Unit Credit Cost Method**. Under this method, there are two components to the total contribution: the **normal cost**, and the **unfunded actuarial liability contribution**. The normal cost represents for each active participant, the present value as of the valuation date of that portion of the projected benefit assigned to the current year. Subtracting from the normal cost the expected employee contribution for the year yields the employer's normal cost contribution. The difference between the PUC Actuarial Liability and the actuarial value of assets is the unfunded actuarial liability. The UAL for FY 2007 is to be amortized over 16 years.

Table IV-1 on the following page shows how the Airport Authority's contribution rate for the System for FY 2007 is developed. This methodology and assumptions used are in full compliance with the parameters set in GASB Statement No. 25 for purposes of determining the annual required contribution (ARC).

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**SECTION IV  
CONTRIBUTIONS**

**Table IV-1  
SDCERS - Airport Authority  
Development of the Airport Authority's Contribution  
as of June 30, 2005, For (FY 2007)  
(dollars in millions)**

	<b>WEIGHTED TOTAL AIRPORT</b>		
		<b>General</b>	<b>Executives</b>
1. Total Normal Cost Rate	<b>21.92%</b>	21.55%	26.15%
2. Member Contribution Rate	<b><u>9.46%</u></b>	<u>9.41%</u>	<u>10.43%</u>
3. Employer Normal Cost Rate (1-2)	<b>12.46%</b>	12.14%	15.72%
4. June 30, 2005 Payroll	<b>\$ 17.6</b>	\$ 16.2	\$ 1.4
5. Present Value Future Payroll	<b>189.1</b>	179.0	10.1
6. Present Value Future Normal Costs (1 x 5)	<b>41.2</b>	38.6	2.6
7. Actuarial Liability	<b>\$ 32.6</b>	\$ 29.7	\$ 2.9
8. Actuarial Assets <sup>1</sup>	<b>28.5</b>	26.0	2.5
9. Unfunded Actuarial Liability (7-8)	<b>\$ 4.1</b>	\$ 3.7	\$ 0.4
10. Unfunded Actuarial Liability Rate	<b>1.84%</b>	1.82%	2.07%
11. Total Contribution Rate (3+10)	<b>14.30%</b>	13.96%	17.79%
12. Total Contribution Rate Beginning of Year	<b>13.76%</b>	13.43%	17.12%
13. Beginning of Year FY 2007 Contribution	<b>\$ 2.6</b>	\$ 2.3	\$ 0.3
14. FY 2007 Contribution if Paid During Year	<b>\$ 2.7</b>	\$ 2.4	\$ 0.3

<sup>1</sup> Assets are allocated to subset member groups within Non Safety and Safety proportionately to each group's liabilities in row 8.

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

Statement No. 35 of the Financial Accounting Standards Board (FASB) requires the Plan to disclose 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 FASB-35 disclosures provide a “snap shot” view of how the System’s assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied.

The GASB-25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes, that is, the PUC Actuarial Liability.

Both the present value of accrued benefits (FASB-35) and the actuarial liability (GASB-25) are determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 8% per annum.

FASB Statement No. 35 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2004 and June 30, 2005 are exhibited in Table V-1 and Table V-2.

**SDCERS-AIRPORT AUTHORITY  
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**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

<b>Table V-1</b>			
<b>SDCERS - Airport Authority - Total</b>			
<b>Item</b>	<b>June 30, 2005</b>	<b>June 30, 2004 <sup>1</sup></b>	<b>% Change</b>
<b>FASB No. 35 Basis</b>			
1. Present Value of Benefits Accrued and Vested to Date			
a. Members Currently Receiving Payments	\$ 2,713,220	\$ 795,263	241.2%
b. Vested Terminated and Inactive Members	1,158,282	243,555	375.6%
c. Active Members	<u>17,582,993</u>	<u>13,600,000</u>	<u>29.3%</u>
d. Total PVAB	\$ 21,454,495	\$ 14,638,818	46.6%
2. Assets at Market Value	30,682,414	17,559,735	74.7%
3. Unfunded Present Value of Accrued Benefits, But Not Less Than Zero	\$ -	\$ -	0.0%
4. Ratio of Assets to Value of Benefits (2)/(1)(d)	143.01%	119.95%	19.2%
<b>GASB No. 25 Basis</b>			
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 2,713,220	\$ 795,263	241.2%
b. Vested Terminated and Inactive Members	1,158,282	243,555	375.6%
c. Active Members	<u>28,731,396</u>	<u>22,539,642</u>	<u>27.5%</u>
d. Total PVAB	\$ 32,602,898	\$ 23,578,460	38.3%
2. Actuarial Value of Assets	\$ 28,551,475	\$ 16,224,550	76.0%
3. Unfunded Actuarial Liability	\$ 4,051,423	\$ 7,353,910	-44.9%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	87.57%	68.81%	27.3%

<sup>1</sup>The June 30, 2004 FASB No. 35 active member liability was estimated by Cheiron.

<b>Table V-2</b>	
<b>SDCERS - Airport Authority - Total</b>	
<b>Item</b>	<b>Accumulated Benefit Obligation (FASB 35)</b>
<b>Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2004</b>	<b>\$ 14,638,818</b>
Increase (Decrease) During Year Attributable to:	
Passage of Time	1,158,245
Benefits Paid - FY 2005	(321,503)
Assumption Change	-
Plan Amendment	-
Benefits Accrued, Other Gains/Losses	<u>5,978,935</u>
Net Increase (Decrease)	\$ 6,815,677
<b>Actuarial Present Value of Benefits Accrued and Vested as of June 30, 2005</b>	<b>\$ 21,454,495</b>

**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 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 is a history of gains and losses in Actuarial Liability, and Table V-5 is the Solvency Test which shows the portion of Actuarial Liability covered by Assets.

**Table V-3  
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**

The information presented in the required supplementary schedules to the Financial Section of the 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, 2005
Actuarial cost method	Projected Unit Credit
Amortization method	Level percent closed
Remaining amortization period	16 years
Asset valuation method	5-Year ratio market to book value
Actuarial assumptions:	
Investment rate of return	8.0%
Projected salary increases due to inflation*	4.25%
Cost-of-living adjustments	2.0%

The actuarial assumptions used have been recommended by the actuary and adopted by the System's Board of Administration based on the most recent review of the System's experience, completed in 2000.

The rate of employer contributions to the System 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.

\* Additional merit salary increases of 0.50% to 4.50% based on a participant's years of service, and membership group are also assumed. These increases are not used in the amortization of SDCERS Unfunded Actuarial Liabilities.

SECTION V  
ACCOUNTING STATEMENT INFORMATION

<b>Table V-4</b>	
<b>ANALYSIS OF FINANCIAL EXPERIENCE</b>	
<b>Gain and Loss in Actuarial Liability During Years Ended June 30</b>	
<b>Resulting from Differences Between Assumed Experience</b>	
<b>and Actual Experience</b>	
	<i>Gain (or Loss) for Year ending June 30, 2005</i>
<b>Type of Activity</b>	
Investment Income	\$ 1,380,592
Combined Liability Experience	<u>\$ (2,588,040)</u>
Gain (or Loss) During Year from Financial Experience	\$ (1,207,448)
Non-Recurring Gain (or Loss) Items	<u>\$ 114,177</u>
Composite Gain (or Loss) During Year	<b>\$ (1,321,625)</b>



**SDCERS-AIRPORT AUTHORITY  
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**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

**Table V-5  
GASB SOLVENCY TEST  
Actuarial Liabilities For  
(\$ in thousands)**

Valuation Date June 30,	(A)	(B)	(C)	Reported Assets <sup>1</sup>	Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)
2005	\$ 4,255	\$ 2,713	\$ 25,635	\$ 28,551	100%	100%	84.19%
2004	2,935*	795	19,848	16,225	100	100	62.95
2003	2,200*	300	13,779	11,142	100	100	62.72
12/31/2002 <sup>2</sup>	1,509	0	10,018	11,028	100	100	95.02

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

<sup>2</sup> Interim (mid-year) actuarial valuations performed due to split of San Diego County Regional Airport Authority from Unified Port of San Diego

\* estimated

SDCERS-AIRPORT AUTHORITY  
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**APPENDIX A  
MEMBERSHIP INFORMATION**

<b>Table A-1</b>			
<b>SDCERS - Airport Authority</b>			
<b>Active Member Data</b>			
	June 30, 2005	June 30, 2004	% Change
Count	284	265	7.2%
Average Current Age	44.0	43.4	1.5%
Average Service	6.5	5.9	9.6%
Average Valuation Pay	\$ 62,003	\$ 58,890	5.3%
Annual Compensation	\$ 17,608,879	\$ 15,605,857	12.8%
Service Without Permissive Service Purchased	6.1	5.6	9.1%
Members with Purchased Service	39	18	116.7%
Amount of Service Purchased	101	80	26.3%

<b>Table A-2</b>						
<b>SDCERS - Airport Authority</b>						
<b>Non-Active Member Data</b>						
	Count			Average Age		
	June 30, 2005	June 30, 2004	%Change	June 30, 2005	June 30, 2004	%Change
Retired	7	3	133.3%	64.9	67.1	-3.3%
Disabled	-	-		-	-	
Beneficiaries	-	-		-	-	
Payee Total	7	3	133.3%	64.9	67.1	-3.3%
DROP Participants	3	1	200.0%	64.2	67.1	-4.3%
Deferred Vested <sup>1</sup>	26	12	116.7%	47.5	45.3	5.1%
Vested < 5 yrs svc	16	9	77.8%			

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

<b>Table A-3</b>						
<b>SDCERS - Airport Authority</b>						
<b>Non-Active Member Data</b>						
	Total Annual Benefit			Average Annual Benefit		
	June 30, 2005	June 30, 2004	%Change	June 30, 2005	June 30, 2004	%Change
Retired	\$ 220,945	\$ 71,779	207.8%	\$ 31,564	\$ 23,926	31.9%
Disabled	-	-		-	-	
Beneficiaries	-	-		-	-	
Payee Total	220,945	71,779	207.8%	31,564	23,926	31.9%
DROP Participants	107,304	25,614	318.9%	35,768	25,614	39.6%
Deferred Vested <sup>1</sup>	243,263	47,659	410.4%	9,356	3,972	135.6%

<sup>1</sup> Includes all members having a contribution balance still on account with SDCERS. Annual Benefit for deferred vested members is the total Contribution Balance on account as of June 30, 2005

SDCERS-AIRPORT AUTHORITY  
 JUNE 30, 2005 ACTUARIAL VALUATION  
**APPENDIX A**  
**MEMBERSHIP INFORMATION**

**Table A-4**  
**SDCERS - Airport Authority**  
**Distribution of Active Members (Excludes DROP Participants) as of June 30, 2005**  
**Total Airport Authority**

Age	Years of Service										Total	Avg. 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	1	1	-	-	-	-	-	-	-	-	2	36,576
25 to 29	5	14	1	-	-	-	-	-	-	-	20	44,399
30 to 34	6	24	7	-	-	-	-	-	-	-	37	55,108
35 to 39	3	16	7	5	-	-	-	-	-	-	31	61,244
40 to 44	11	17	12	9	7	2	-	-	-	-	58	55,727
45 to 49	8	22	7	10	9	2	1	-	-	-	59	62,359
50 to 54	7	14	10	7	2	4	2	-	-	-	46	68,004
55 to 59	2	8	7	1	2	1	-	-	-	-	21	90,387
60 to 64	-	1	1	3	2	-	-	-	-	-	7	70,119
65 to 69	1	-	-	-	1	-	-	-	-	-	2	65,740
70 and up	-	1	-	-	-	-	-	-	-	-	1	143,287
<b>Tot Count</b>	44	118	52	35	23	9	3	-	-	-	284	
<b>Avg. Salary</b>	57,387	59,918	70,495	63,087	55,886	71,875	66,858	-	-	-	61,979	

**Table A-5**  
**SDCERS - Airport Authority**  
**Retirees (Includes DROP Participants), Disabled, and Beneficiaries Tabulate 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	-	-	-	3	1	-	-	-	-	-	4
<b>Total</b>	-	-	-	3	3	1	-	-	-	-	7

Surviving Spouses Benefit Effective Date no longer based on member's original date of retirement.

**Average Age at Retirement/Disability** 63.7  
**Average Current Age** 64.9  
**Average Annual Pension** \$ 31,564

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

**Data Assumptions and Practices**

In preparing our data, we relied without audit, on information (some oral and some written) 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 used in the valuation is the benefit service field supplied by the retirement system. We assumed that purchased service that has been paid for is included in this field. Additional purchased service—to be paid in the future—will be added in future valuations after they occur.
- Valuation Salary is based on the maximum of “Current Annual Pensionable Salary” and annualized “Average Compensation.”
- For accounts having duplicate records, we assume that any records with the same Social Security Number and “Mandatory Employee Contributions” are duplicates and value only one copy.
- For accounts having duplicate records in the Actives and Inactives by Social Security Number, but having different “Mandatory Employee Contribution” amounts, the information from the latest payroll date is regarded as most up to date and “Mandatory Employee Contributions” and “Mandatory Employee Contribution Interest” were summed together for each person.
- For members in payment having duplicate records, we valued only one copy. With exception of any retiree who had two records with different benefit start dates, different plans and different benefit amounts. We added these records together to make one copy.
- Records on the provided “Member” file are considered to be Actives if they have no “Date of Death” and no “Date of Separation” 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 Inactives if they do not have a “Date of Death” and do not fit the Active criteria list above.
- 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-Coal Adjustments”. “Non-Cola Adjustments” field is mainly for QDRO purposes.
- Members may retire and receive benefits from multiple Plan IDs (e.g., a City police member could have also worked for the airport); however for the valuation, they are counted as one retiree and their total benefits are applied towards whichever plan they receive the most benefit.

**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions**

**1. Investment Return Rate**

System assets are assumed to earn 8.0% net of expenses

**2. Inflation Rate**

An inflation assumption of 4.25% compounded annually is used for projecting the total annual payroll growth for amortization of the UAL. It also represents the difference between the investment return rate and the assumed real rate of return.

**3. Interest Credited to Member Contributions**

8.0%, compounded annually.

**4. Salary Increase Rate**

Inflation component            4.25%

The additional merit component:

<b>Table B-1</b>	
<b>Years of Service at Valuation Date</b>	<b>General</b>
0	4.50%
1	3.50%
2	2.50%
3	1.50%
4	0.50%

**5. Cost-of-Living Increase in Benefits**

Assumed to be 2.0% per annum, compounded.

**6. COLA Annuity Benefit**

For active members, there is a 2.0% load on valued benefits to anticipate the impact of the annuitized employee COLA contributions at retirement.

**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**7. Member Refunds**

All or part of the employee contribution rate is subject to potential “pick up” by the employer. That “pick up” and the related accumulated interest are not to be refunded to employees at termination. The liability for potential refunds is reduced to reflect this.

Rates provided in the census included both the integrated rate and excess rate. The integrated rate was applied to the first \$400 per month of salary and the excess rate was applied to the salary amounts over \$400 per month.

**8. Rates of Termination**

<b>Table B-2</b>		
<b>SDCERS - Airport Authority</b>		
<b>Rates of Termination at Selected Ages and Service</b>		
<b>(number becoming non-active per 10,000 members)</b>		
<b>Service</b>	<b>Age</b>	<b>General</b>
0	All	563
1	All	553
2	All	433
3	All	433
4	All	424
5 & Over	20	462
	25	462
	30	313
	35	232
	40	165
	45	134
	50	103
	55	77
	60	0

20% of terminating employees, with 5+ years of service at termination, are assumed to subsequently work for a reciprocal employer and receive 4.75% pay increases per year.

**APPENDIX B  
 ACTUARIAL ASSUMPTIONS AND METHODS**

**9. Rates of Disability**

<b>Table B-3</b>	
<b>SDCERS - Airport Authority</b>	
<b>Rates of Disability at Selected Ages</b>	
<b>(members becoming disabled per 10,000 members)</b>	
<b>Age</b>	<b>General</b>
20	6
25	8
30	10
35	16
40	22
45	33
50	50
55	75
60	97

70% 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**

All members follow the Uninsured Pensioner 1994 (UP1994) set back 5 years (male and female). Set back 5 years is when a member currently age 50 uses the age 45 mortality rate.

<b>Table B-4</b>		
<b>SDCERS - Airport Authority</b>		
<b>Rates of Mortality for Active Lives at Selected Ages</b>		
<b>(members becoming disabled per 10,000 members)</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	4	2
25	5	3
30	7	3
35	9	4
40	9	5
45	12	8
50	17	10
55	28	15
60	48	25
65	86	48
70	156	93

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**

All retired healthy members use the Uninsured Pensioner 1994 (UP1994) table set back 2 years (male and female).

<b>Table B-5</b>		
<b>SDCERS - Airport Authority</b>		
<b>Rates of Mortality for Retired Healthy Lives at Selected Ages</b>		
<b>(members becoming disabled per 10,000 members)</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
40	10	6
45	15	9
50	23	13
55	39	21
60	68	36
65	123	72
70	214	126
75	335	197
80	540	341
85	887	590
90	1365	1009

**12. Rates of Mortality for Retired Disabled Lives**

Disabled members use Uninsured Pensioner 1994 (UP 1994) male only table set forward five years.

<b>Table B-6</b>		
<b>SDCERS - Airport Authority</b>		
<b>Rates of Mortality for Disabled Lives at Selected Ages</b>		
<b>(members becoming disabled per 10,000 members)</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	7	7
25	9	9
30	9	9
35	12	12
40	17	17
45	28	28
50	48	48
55	86	86
60	156	156
65	255	255
70	400	400



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

**13. The Rates of Retirement**

<b>Age</b>	<b>General</b>
55	20
56	10
57	10
58	15
59	15
60	20
61	25
62	50
63	40
64	25
65	50
66	40
67	40
68	40
69	40
70	100

For vested deferred members, we assume that retirement will occur provided they have at least 5 years of service (excluding the permissible 5 year 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 member is not vested, the liability is the member's contributions with interest.

**14. Family Composite Assumptions**

80% of men and 50% of women were assumed married at retirement. Female spouse is assumed to be 4 years younger than the 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.

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

**16. Deferred Member Actuarial Accrued Benefit**

For the Deferred Vested and Non Vested participants, 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 members without sufficient data or service, accumulated member contribution balances, with interest, were used as the actuarial accrued liability.

**17. Other**

The contribution requirements and benefit values of the Plan are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost methods described in the following section.

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

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

**B. Actuarial Methods**

**1. Funding Method**

The Projected Unit Credit Method is used to determine costs. Under this funding method, a total contribution rate is determined which consists of two elements: the normal cost rate and the unfunded actuarial liability (UAL) rate.

The normal cost is the present value of the amount of benefits allocated to the participant during the year. This amount is the increase in all participants' accumulated plan benefit during the year. For the Airport Authority, the normal cost rate is determined by taking the sum of the normal cost for all participants divided by the total annual payroll and subtracting that expected member contributions.

In addition to contributions required to meet the Plan's normal cost, contributions are required to fund the Plan's unfunded actuarial liability. The actuarial liability is defined as the total of the cumulative benefit allocated to each participant on the date of the valuation. The unfunded actuarial liability is the actuarial liability for all members less the actuarial value of the Plan's 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 4.25% per year. The UAL measured as of June 30, 2005 is amortized over a 16 year period. A 30 year period was established beginning July 1, 1991, 16 years remain.

**2. Asset Valuation Method**

For the purposes of determining the Airport Authority's contribution to the Plan, we use an actuarial value of assets. The asset adjustment 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.

In determining the actuarial value of assets, we calculate the average over the past 5 years of the ratio of net book value to net market value. The current book value is then multiplied by this average percentage. The assets for all contributing employers are commingled for investment purposes. The assets are apportioned amongst the three contributing employers, and then amongst the different member groups.

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

The Airport Authority was spun off from Unified Port District effective 1/1/2003. Existing liabilities and assets were transferred to the new plan based on an interim valuation dated 12/31/2002. 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 one-year average. (§ 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 formula in place on December 31, 2001 with 10% increase in Final Average Compensation, “Andrecht” formula effective as of January 1, 2002, or “2.5 % at 55” multiplier with a benefit cap of 90% of Final Average Compensation effective April 1, 2004 for Non-Executive General Members. Executives 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 COLA 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.

APPENDIX C  
 SUMMARY OF PLAN PROVISIONS

**Member Service Retirement Calculation Factors**

<b>Table C-1</b>				
<b>SDCERS - Airport Authority</b>				
<b>Member Service Retirement Calculation Factors</b>				
<b>Age</b>	<b>Pre 12/31/2001</b>	<b>Andrecht</b>	<b>Post 4/1/2004</b>	<b>Executive</b>
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%

<b>Table C-2</b>	
<b>SDCERS – Airport Authority</b>	
<b>For Vested Members who terminated--</b>	<b>--the calculation factors are--</b>
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 COLA benefit.

**Unmodified Form of Payment**

Monthly payments continued for the life of the member, with 50% continuance to the eligible spouse upon member's death.

Note: Airport Authority employees are 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 (subject to 10% increase), 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 (subject to 10% increase), 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 surviving eligible spouse.

**8. Industrial Death**

50% of the final average compensation (subject to 10% increase) preceding death, payable to eligible spouse.

**9. Death After Retirement**

50% of member's unmodified allowance continued to eligible spouse.  
\$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.

**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.

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

**12. Member Contributions**

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

<b>Table C-5</b>		
<b>SDCERS - Airport Authority</b>		
<b>Employee Contribution Rates<sup>1</sup></b>		
<b>Integrated Members<sup>2</sup></b>		
<b>Entry Age</b>	<b>First \$400/Mo.</b>	<b>Over \$400/Mo.</b>
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

<sup>1</sup>Rate = Normal Cost + Cost of Living Rate

<sup>2</sup>Non-Integrated members will follow the “Over \$400/month” rate



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

Interest: 8.00%  
Salary: 5.00%  
Mortality: 83 Group Annuity Mortality (GAM) male  
(Males set back 3 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

**13. Internal Revenue Code Compliance**

Benefits provided by the Plan 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.

**Note:** The summary of major plan provision 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 Accrued 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 liability”.

**2. Actuarial Assumptions**

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

**3. Accrued Service**

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

**4. Actuarial Equivalent**

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

**5. Actuarial Cost Method**

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of 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) that must be disclosed annually. The SDCERS-Airport Authority's Computed Contribution rate for FY 2007 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 cost method.

**11. Unfunded Actuarial Accrued Liability**

The difference between actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial liability" or unfunded accrued liability".

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

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued 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).