

**LAW ENFORCEMENT AND CUSTODIAL OFFICER  
SUPPLEMENTAL RETIREMENT FUND  
OF THE  
EMPLOYEES RETIREMENT SYSTEM OF TEXAS  
ACTUARIAL VALUATION  
AUGUST 31, 2011  
FOR THE FISCAL YEAR  
ENDING AUGUST 31, 2011  
AND THE PLAN YEAR  
BEGINNING SEPTEMBER 1, 2011**

November 21, 2011

Board of Trustees  
Employees Retirement System of Texas  
1801 Brazos St.  
Austin, TX 78701

Members of the Board:

This report presents the results of the annual actuarial valuation of the Law Enforcement and Custodial Officer Supplemental Retirement Fund of the Employees Retirement System of Texas as of August 31, 2011, prepared in accordance with the Texas Government Code. The valuation takes into account all of the promised benefits to which members are entitled as of August 31, 2011, including pension and survivor benefits.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, including a valuation interest rate of 8% per annum compounded annually. Projected future salaries were adjusted to reflect legislated across-the-board salary increases. All other actuarial cost methods and procedures are the same as the prior valuation.

The actuarial assumptions and methods comply with the parameters set forth in Governmental Accounting Standards Nos. 25 and 27.

### **Assets and Membership Data**

The Retirement System reported to the actuary the individual data for members of the System as of the valuation date. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System.

### **Funding Adequacy**

The actuary uses an actuarial cost method to determine the portion of the System's liabilities accrued by the members as of the valuation date and the portion that is attributable to future years of service. The portion of the liabilities accrued as of August 31, 2011 — the accrued liability for funding purposes — is equal to \$992,796,846; while the actuarial value of the System's assets equals \$830,522,385. Two measures of the security of promised benefits — the unfunded accrued liability and the funded ratio — can be obtained by comparing the liability and the assets. The unfunded accrued liability for funding purposes as of August 31, 2011 — the difference between the liabilities and the assets — is equal to \$162,274,461. The funded ratio — the ratio of the assets to the liability — is 83.7% for funding purposes. This funded ratio is greater than the August 31, 2010 funded ratio of 83.1%. The increase in the funded ratio is primarily due to the lack of across-the-board salary increases for the next biennium. Improvement in the funded ratio from this source was partially offset by the effect of recognition of deferred asset losses in the calculation of the actuarial value of assets.

Section 811.006 of the Texas Government Code provides that changes in contribution rates or benefit provisions may not be adopted if such changes would cause the time required to amortize the unfunded accrued liability to equal or exceed 31 years. That is, under the Texas Government Code, the System is considered actuarially sound if the current total contribution rate covers the plan's administrative expenses and the cost of benefits being earned during the year by current active members – the normal cost – as well as the cost of amortizing any unfunded accrued liability over a maximum of 31 years. The total normal cost rate, which is calculated under the cost method to be a level percentage of active member payroll, is 2.07% for funding purposes. The level contribution rate needed to fund the normal cost and amortize the \$162,274,461 unfunded accrued liability over 31 years is 2.72%.

The current 0.50% total contribution rate, which is comprised of 0.50% member contributions and 0.00% employer contributions, falls short of the Section 811.006 standard by 2.22% of payroll. The 0.50% rate is not sufficient to cover the normal cost portion of the actuarially sound contribution rate. Therefore, based on the results of the current valuation, the unfunded accrued liability will never be amortized with a 0.50% total contribution rate. At this rate, the unfunded accrued liability is expected to grow indefinitely. Therefore, the current expected funding period is infinite, as was the funding period developed in the 2010 actuarial valuation.

### **Financial Results and Membership Data**

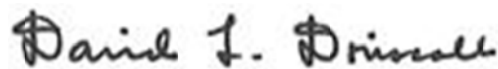
The valuation report shows detailed summaries of the financial results of the valuation and membership data used in preparing this valuation. The actuary prepared supporting schedules included in the Actuarial and Statistical Sections of the Employees Retirement System of Texas Comprehensive Annual Financial Report. The actuary prepared the trend data schedules included in the Financial Section of the Employees Retirement System of Texas Comprehensive Annual Financial Report.

The undersigned qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. We are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice, and we are available to answer questions about it.

Respectfully submitted,



R. Ryan Falls, FSA, EA, MAAA  
Director, Consulting Actuary



David L. Driscoll, FSA, EA, MAAA  
Principal, Consulting Actuary

**LAW ENFORCEMENT AND CUSTODIAL OFFICER  
SUPPLEMENTAL RETIREMENT FUND  
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## **Executive Summary**

This report presents the actuarial valuation as of August 31, 2011 for the Law Enforcement and Custodial Officer Supplemental Retirement Fund (LECOSRF) of the Employees Retirement System of Texas. The principal valuation results include:

- The accrued liability for funding purposes, which is \$992,796,846.
- The actuarial value of assets, which is \$830,522,385.
- The unfunded accrued liability (the difference between the liability and the assets), which is \$162,274,461 for funding purposes.
- The normal cost rate for funding purposes, which is 2.07% of payroll or \$30,541,437 for FY 2012.
- The actuarially sound contribution needed to fund the normal cost and amortize the unfunded accrued liability over no more than 31 years, as specified by Section 811.006 of the Texas Government Code, which is 2.72% of payroll, or \$40,131,743 for FY 2012.
- The time required to fund the normal cost and amortize the unfunded accrued liability, based on the current total 0.50% contribution rate, which is infinite.
- The funded status of the plan determined as of August 31, 2011 based on the accrued liability and the actuarial value of assets as of that date, which is 83.7% for funding purposes.
- The determination of the (gain) or loss as of August 31, 2011, which is a loss of \$19.3 million. This net loss is primarily due to the recognition of deferred asset losses in the calculation of the actuarial value of assets.
- Annual disclosure as of August 31, 2011 as required by Statement Nos. 25 and 27 of the Governmental Accounting Standards Board.

The valuation was based on membership and financial data submitted by the Retirement System.

## **Changes Since Last Year**

### **Legislative and Administrative Changes**

The legislature has budgeted for no across-the-board salary increases for the upcoming biennium.

The benefit and contribution provisions are summarized in Table 13.

**Actuarial Assumptions and Methods**

There have been no changes in actuarial assumptions and methods since the last valuation.

The actuarial assumptions and methods used to develop the amounts in Tables 7, 8 and 9 meet the parameters set for the disclosures presented in the Financial Section by Government Accounting Standards Board (GASB) Statement No. 25, except that current contribution rates may not amortize the unfunded accrued liabilities. For the GASB purposes the accrued liability is based on the total liability less the value of future normal cost for each member based on the benefits in effect for each member.

In our opinion, these assumptions generate reasonable valuation results, and the assumptions individually and in the aggregate relate reasonably to the past and anticipated experience of ERS and LECOSRF.

## Summary of Principal Results

Summarized below are the principal financial results for the Law Enforcement and Custodial Officer Supplemental Retirement Fund Employees Retirement System of Texas based upon the actuarial valuation as of August 31, 2011. Comparable results from the August 31, 2010 valuation are also shown.

Item	August 31, 2011	August 31, 2010
<b>Demographics</b>		
<u>Active Members</u>		
• Number	36,806	39,052
• Average Annual Pay	\$ 39,454	\$ 37,979
<u>Inactive Members</u>		
• Vested	52	47
• Non-Vested	5,733	2,931
<u>Retirees and Beneficiaries</u>		
• Members Receiving Benefits		
• Number	7,728	7,175
• Average Annual Benefit Payment	\$ 5,504	\$ 5,594
<b>Total Contribution Rates</b>		
• Actuarially Sound Rate (funds normal cost and amortizes unfunded accrued liability over 31 years, per Texas law)	2.72%	2.72%
• Actual Contribution Rate	0.50%	2.09%
<b>Total Normal Cost*</b>		
• Percent of Payroll	2.07%	2.07%
• Dollars	\$ 30,541,437	\$ 31,214,564
<b>Actuarial Funded Status*</b>		
• Accrued Liability	\$ 992,796,846	\$ 966,603,698
• Actuarial Value of Assets	<u>830,522,385</u>	<u>802,897,017</u>
• Unfunded (Overfunded) Accrued Liability	\$ 162,274,461	\$ 163,706,681
• Funded Ratio	83.7%	83.1%

\* The actuarial accrued liability is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

## **Plan Experience**

The rate of investment return on the market value of plan assets for the fiscal year ended August 31, 2011 was approximately 12.6%. For the same period, the rate of investment return on the actuarial (smoothed) value of assets was approximately 5.1%, which is less than the assumed return of 8%. As a result, there was an actuarial loss from investment experience. As of August 31, 2011, the market value of assets was \$93.1 million less than the actuarial value.

The actuarial loss on investments, combined with other small gains and losses on salary increase and demographic experience, resulted in a net actuarial loss of \$19.3 million.

The unfunded (overfunded) accrued liability of \$163.7 million as of the prior valuation date decreased by approximately \$1.4 million, to \$162.3 million as of August 31, 2011. Detailed descriptions of the causes for the changes in the unfunded accrued liability are shown in Tables 5 and 6.



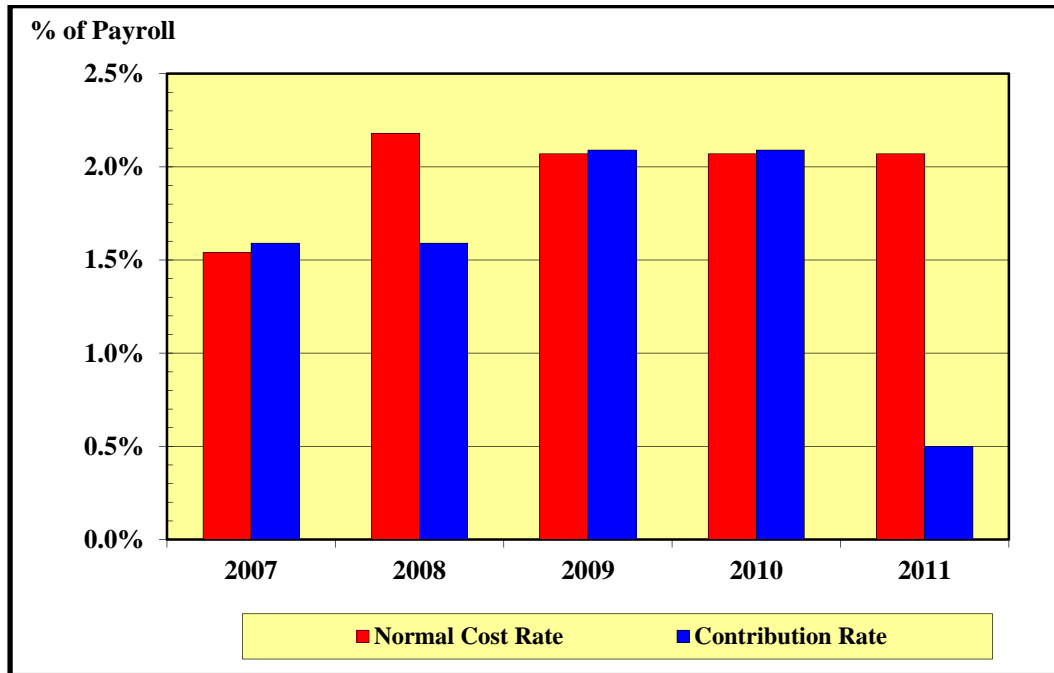
**Five-Year History of Principal Financial Results**

**Five-Year History of Contribution Rates**

<b>Plan Year Beginning September 1</b>	<b>Total Contribution Rate</b>	<b>Normal Cost % of Payroll</b>	<b>Normal Cost Dollars</b>	<b>Expected Contribution Toward UAL</b>
2007	1.59%	1.54%	\$20,956,616	\$680,410
2008	1.59%	2.18%	27,078,251	(7,328,517)
2009	2.09%	2.07%*	30,314,789*	292,897
2010	2.09%	2.07%*	31,214,564*	301,590
2011	0.50%	2.07%*	30,541,437*	(23,164,278)

The following chart shows a five-year history of normal cost rates and contribution rates:

**Five-Year History of Normal Cost Rate**



\* The normal cost is based on the benefits in effect for members hired after August 31, 2009.

## Net (Gain) Loss

The results of the valuation as of August 31, 2011 determine the net (gain) or loss for the year ended August 31, 2011. The net loss is \$19.3 million.

The analysis of the net loss for the fiscal year ended August 31, 2011 is shown in Table 6. The following table shows a five-year history of the net gains or losses.

### Five-Year History of (Gains) or Losses

Fiscal Year Ended August 31	Net (Gain) or Loss
2007	\$ 4,900,000
2008	(6,300,000)
2009	37,800,000
2010	32,800,000
2011	19,300,000

## Funding Period

The funding period is the number of years required to liquidate the unfunded accrued liability. The following table shows a five-year history of the funding period along with the employer contribution rates:

Plan Year Beginning September 1	Funding Period	Contribution Rate	
		Member	Employer
2007	49.0 years	0.00	1.59
2008	Infinite	0.00	1.59
2009	Infinite	0.50	1.59
2010	Infinite	0.50	1.59
2011	Infinite	0.50	0.00

## Funded Ratio

The System's total funded ratio is measured by comparing the actuarial value of assets with the accrued liability. The accrued liability is the present value of benefits accumulated to date under the System's funding method and reflects future pay increases for active employees.

On this basis, the System's funded ratio is 83.7% for funding purposes as of August 31, 2011. This funded ratio is based on an actuarial value of assets of \$830,522,385 and an accrued liability of \$992,796,846 for funding purposes.

## Reasons for Change in the Total Funded Ratio

The total funded ratio for funding purposes increased from 83.1% as of August 31, 2010 to 83.7% for funding purposes as of August 31, 2011. The increase is primarily due to the lack of across-the-board salary increases for the next biennium. This was in part offset by the recognition of deferred asset losses in the calculation of the actuarial value of assets.

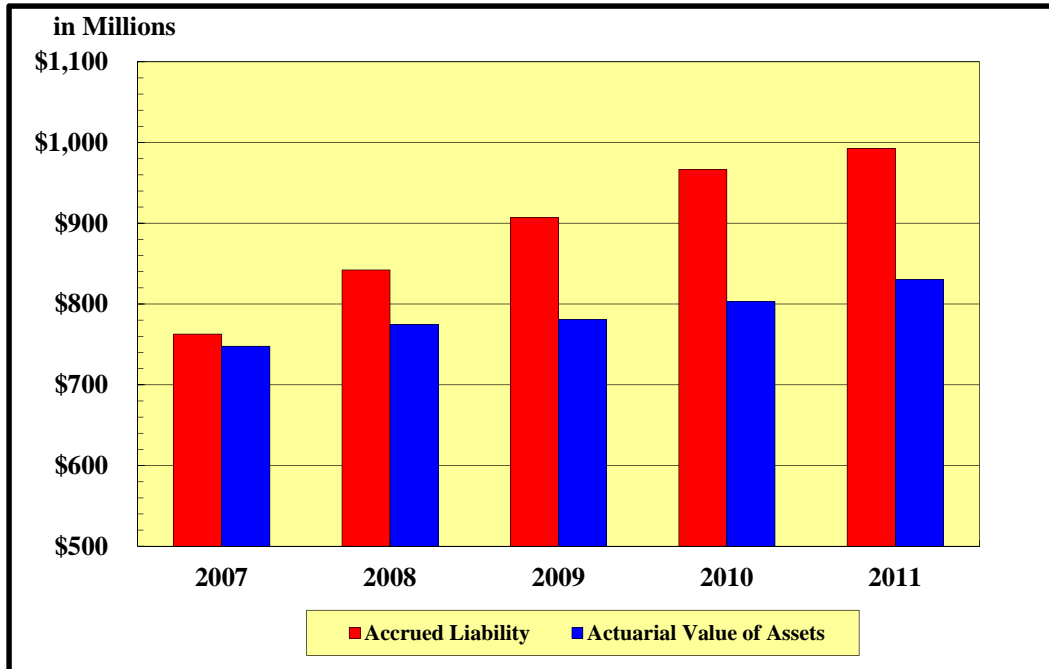
## Five-Year History of Funded Ratio

Valuation as of August 31	Accrued Liability	Actuarial Value of Assets	Unfunded (Overfunded) Accrued Liability	Funded Ratio
2007	\$762,665,669	\$747,765,351	\$14,900,318	98.0%
2008	842,134,732	774,508,817	67,625,915	92.0
2009	907,101,634*	780,807,727	126,293,907	86.1
2010	966,603,698*	802,897,017	163,706,681	83.1
2011	992,796,846*	830,522,385	162,274,461	83.7

\* The actuarial accrued liability is based on a total liability, which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

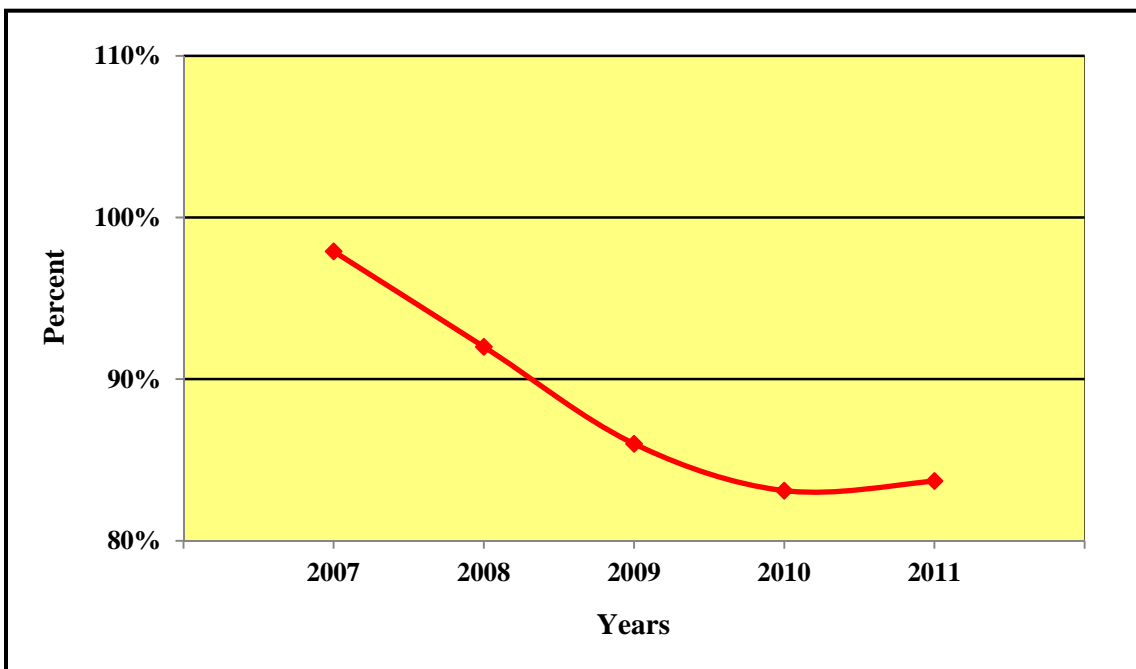
### Five-Year History of Accrued Liability and Actuarial Value of Assets



- \* The actuarial accrued liability is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

The following chart shows a five-year history of the funded ratio:

**Five-Year History of Funded Ratio (2007 – 2011)**



\* The actuarial accrued liability is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

## **GASB No. 25 Disclosure**

Statement No. 25 of the Governmental Accounting Standards Board (GASB) established reporting standards for the annual financial reports of defined benefit pension plans. Beginning with the fiscal year ending August 31, 1996, the System has prepared the plan's financial statements in accordance with GASB No. 25. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the System's financial statements.

The "schedule of funding progress" shows historical trend information about the System's actuarial value of assets, the accrued liability and the unfunded accrued liability. The actuarial funded ratio is measured by comparing the actuarial value of assets with the accrued liability. The accrued liability and the corresponding normal cost rate are based on the benefit provisions in effect for each active member and reflect future pay increases for active employees. On this basis, the System's funded ratio is 86.4% as of August 31, 2011. This funded ratio is based on an actuarial value of assets of \$830,522,385 and an accrued liability of \$960,953,091. Table 9 shows the schedule of funding progress information.

The "schedule of employer contributions" shows historical trend information about the employer's annual required contribution (ARC) for pensions and the percentage of the ARC contributed to the System. The ARC is equal to the employer's normal cost plus the amount to amortize the unfunded accrued liability over a period no longer than 30 years. For years ending on or before August 31, 2006 (based on the results of the August 31, 2005 and prior valuations) the maximum amortization period for calculating the GASB ARC was 40 years. The ARC and the actual employer percentage contributed for the six fiscal years ending August 31, 2011 are shown in Table 8. The State of Texas Government Code requires that the maximum amortization period allowed for funding the plan is 31 years. In addition, the normal cost rates are derived differently for accounting purposes and State funding purposes. As a result, there are different contribution requirements for accounting purposes and for State funding purposes.

## Rate of Return

The investment return of the trust fund (i.e. total return including both realized and unrealized gains and losses) for fiscal years 2007 through 2011 is shown in the table below. The return based on the actuarial value of assets used for determining annual contribution rates is also shown.

The rate of return on market value reflects the investment earnings on the market value of assets from the beginning of the fiscal year to the end of the fiscal year. The actuarial assets are the assets recognized for valuation purposes. Actuarial assets are based on a smoothed market value that spreads the difference between the actual and expected return over a period of time. The rate of return on the actuarial value of assets is a measure of the increase in the actuarial value of assets from the beginning of the fiscal year to the end of the fiscal year.

### Five Year History of Asset Returns

As of 8/31	Asset Values		Rates of Return		
	Market	Actuarial	Market*	Actuarial	Assumed
2007	\$ 762,939,673	\$ 747,765,351	13.9%	8.5%	8.0%
2008	704,939,976	774,508,817	(4.6%)	5.7%	8.0%
2009	634,778,747	780,807,727	(6.6%)	3.2%	8.0%
2010	668,352,945	802,897,017	6.7%	3.7%	8.0%
2011	737,416,639	830,522,385	12.6%	5.1%	8.0%

Compound Rate of Return (five years):                      4.0%                      5.2%

\* Market Value Rate of Return provided by J.P. Morgan Chase & Co., the ERS Master Trust Custodian.

**TABLE 1**  
**SUMMARY OF RESULTS OF ACTUARIAL VALUATION**  
**AS OF AUGUST 31, 2011**

Item	Amount
<b>Participant Data</b>	
1. Number of Participants	
a) Active Participants	36,806
b) Inactive Members	5,785
c) Annuitants	<u>7,728</u>
d) Total	50,319
2. Reported Payroll (August Payroll of Active Members)	\$ 1,452,157,335
3. Valuation Payroll (Expected Covered Payroll for 2012 Plan Year)	\$ 1,475,431,696
4. Annual Benefits	\$ 42,536,244
<b>Valuation Results</b>	
5. Accrued Liability*:	
a) Active Participants	\$ 588,011,532
b) Inactive Members	3,907,847
c) Annuitants	<u>400,877,467</u>
d) Total	\$ 992,796,846
6. Actuarial Value of Assets	\$ 830,522,385
7. Unfunded Accrued Liability: (Item 5d - Item 6)	\$ 162,274,461
8. Funded Status: (Item 6 / Item 5)	83.7 %
9. Funding Period	Infinite
10. Total Normal Cost	
a) Normal Cost*	\$ 29,066,005
b) Administrative Expenses (0.10% x Item 3)	<u>1,475,432</u>
c) Total	\$ 30,541,437
d) Percentage of Payroll	2.07 %
<b>Allocation of Contribution Rate</b>	
11. a) Employer Rate	0.00 %
b) Member Rate	<u>0.50</u>
c) Total Contribution Rate	0.50 %
d) Normal Cost*	2.07
e) Normal Cost Deficiency	<u>(1.57)</u>
f) Total Contribution Rate	0.50 %
12. Contribution Rate Needed to Fund Normal Cost Plus Amortize the Unfunded Accrued Liability Over 31 Years	2.72 %

\* The actuarial accrued liability is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.



**TABLE 2**  
**SECURITY OF PROMISED BENEFITS**  
**UNFUNDED ACCRUED LIABILITY**  
**FUNDED STATUS**

Item	August 31, 2011	August 31, 2010
1. Accrued Liability*		
a. Active Participants	\$ 588,011,532	\$ 595,425,611
b. Participants with Deferred Benefits	3,907,847	3,186,598
c. Participants Receiving Benefits	400,877,467	367,991,489
d. Total All Participants	\$ 992,796,846	\$ 966,603,698
2. Actuarial Value of Assets	830,522,385	802,897,017
3. Unfunded Accrued Liability (1d - 2)	\$ 162,274,461	\$ 163,706,681
4. Funded Status: (2 / 1d)	83.7%	83.1%

The security of promised benefits can be measured by comparing the accrued liability to the actuarial value of assets. As shown above, as of August 31, 2011, accrued liability exceeds the assets by \$162,274,461.

Another measure of the security of promised benefits is the funded status. The funded status is the ratio of actuarial assets to the accrued liability. As of August 31, 2011, the funded status is 83.7%.

Both valuations were based on the same actuarial methods and assumptions and the same plan provisions.

\* The actuarial accrued liability is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

**TABLE 3****SUMMARY RECONCILIATION OF MARKET VALUE OF LECOSRF PLAN ASSETS  
AS OF AUGUST 31, 2011**

Item	Amount
1. Market Value of Assets as of August 31, 2010	\$ 668,352,945
2. Contributions for Plan Year	
a. State (including membership fees)	\$ 24,227,737
b. Member (including penalty interest)	7,604,323
c. Total	<u>31,832,060</u>
3. Disbursements for Plan Year	
a. Benefit payments and refunds	\$ (43,712,784)
b. Net Transfers from TRS	0
c. Administrative expenses	(936,543)
d. Total	<u>(44,649,327)</u>
4. Market Value of Assets as of August 31, 2011	\$ 737,416,639
5. Net Investment Income* (4 - 1 - 2c - 3d)	\$ 81,880,961
6. Estimated Rate of Return on Invested Assets**	12.6%

\* Net Investment is the change in the value of assets for reasons other than contributions and disbursements.

\*\* Market Value Rate of Return provided by J.P. Morgan Chase & Co., the ERS Master Trust Custodian.

**TABLE 4**

**DERIVATION OF ACTUARIAL VALUE OF LECOSRF PLAN ASSETS  
AS OF AUGUST 31, 2011**

Item	Amount
1. Actuarial Value of Assets as of August 31, 2010	\$ 802,897,017
2. Contributions for Plan Year	
a. State (including membership fees)	\$ 24,227,737
b. Member (including penalty interest)	7,604,323
c. Total	<u>31,832,060</u>
3. Disbursements for Plan Year	
a. Benefit payments and refunds	\$ (43,712,784)
b. Net Transfers from TRS	0
c. Administrative expenses	<u>(936,543)</u>
d. Total	<u>(44,649,327)</u>
4. Expected Investment Income (8.00% per annum)	<u>63,719,071</u>
5. Expected Value of Actuarial Assets as of August 31, 2011 (Items 1 + 2c + 3d + 4)	\$ 853,798,821
6. Market Value of Assets as of August 31, 2011	\$ 737,416,639
7. Difference between Market Value and Expected Value (Item 6 - Item 5)	\$ (116,382,182)
8. Adjustment to Expected Value (20% * Item 7)	<u>(23,276,436)</u>
9. Actuarial Value of Assets as of August 31, 2011 (Item 5 + Item 8)	\$ 830,522,385
10. Estimated Rate of Return	5.1%

\* Net Investment Income is the change in the value of assets for reasons other than contributions and disbursements.

**TABLE 5****EXPLANATION OF CHANGE IN UNFUNDED ACCRUED LIABILITY  
DUE TO AMOUNT OF STATE CONTRIBUTIONS**

<b>Item</b>	<b>2011 Plan Year</b>
1. Unfunded Accrued Liability (UAL) at Beginning of Year This is the amount by which the actuarial value of assets is Less / (More) than the accrued liability at the beginning of the year.	\$ 163,706,681
2. Expected Increase / (Decrease) in UAL before reflecting State contributions made during the year	
a. Employer-paid portion of benefits expected to be earned during the year by active members	\$ 23,250,977
b. Administrative Expenses paid from the trust during the year	936,543
c. Expected Lost / (Extra) Investment Income during the year on account of the beginning of year UAL, and on account of the Administrative Expenses paid during the year [ (8% x Item 1) + (4% x Item 2b) ]	13,133,996
d. Total expected Increase / (Decrease)	\$ 37,321,516
3. Amount of State Contributions during the year (including membership fees)	\$ 24,227,737
4. Expected Investment Income on State Contributions (4% x Item 3)	\$ 969,109
5. Increase/(Decrease) in UAL at End of Year due to State Contributions that were Less/(More) than Normal Cost plus Interest on the Beginning of Year UAL (Item 2d - Item 3 - Item 4)	\$ 12,124,670

**TABLE 6**  
**ACTUARIAL (GAINS)/LOSSES**  
**FISCAL YEAR ENDING AUGUST 31, 2011**

Item	Amount
1. Unfunded Accrued Liability at August 31, 2010	\$ 163,706,681
2. Change due to State Contribution less than Normal Cost and Interest on the Unfunded Accrued Liability	12,124,670
3. Change due to Plan Amendments / Legislation	(32,878,194)
4. Change due to Assumptions	0
5. Expected Unfunded Accrued Liability at August 31, 2011	\$ 142,953,157
6. Actual Unfunded Accrued Liability at August 31, 2011	\$ 162,274,461
7. Total (Gains)/Losses (Item 6 minus item 5)	\$ 19,321,304
<b>Components of (Gains)/Losses</b>	
1. Actuarial Asset (Gains)/Losses	\$ 23,276,436
2. Liability (Gains)/Losses	
a. Pay Increases (Less)/Greater than Expected	\$ 3,554,027
b. Non-Retired Demographic (Gains)/Losses	(7,026,694)
c. Post-Retirement Mortality (Gains)/Losses	(585,886)
d. Other	103,421
e. Total Liability (Gains)/Losses	(3,955,132)
3. Total of Components (Item 1 plus item 2)	\$ 19,321,304

The gain and loss analysis provides a measure of the impact of the demographic and economic factors on the results of the actuarial valuation, when compared to the actuarial assumptions used to anticipate these factors. The analysis is significant in providing a test of the adequacy of these assumptions over a period of time.

The demographic factors affecting the gain and loss analysis include the following:

- a. withdrawal from active membership
- b. mortality during active membership
- c. disability retirement
- d. service retirement; and
- e. mortality after retirement

The economic factors affecting the gain and loss analysis include the following:

- a. investment rate of return; and
- b. active member pay increases

During the fiscal year ended August 31, 2011, there was a net actuarial loss of \$19,321,304 incurred by the System due to demographic and economic experience when compared to the actuarial assumptions used to anticipate these factors.

**TABLE 7**  
**GASB NOS. 25 AND 27 DISCLOSURE**  
**FOR 2011 AND 2012 PLAN YEARS**  
**Schedule of Employer Contributions**

Item	2012 Plan Year	2011 Plan Year
1. Actuarial Valuation Date	August 31, 2011	August 31, 2010
2. Covered Payroll	\$ 1,475,431,696	\$ 1,520,864,574
3. Unfunded Accrued Liability at Beginning of Year	\$ 130,430,706	\$ 127,849,919
4. Employer's Normal Cost		
a. Benefit Normal Cost Rate	1.81%	1.83%
b. Administrative Expense Normal Cost Rate	0.10%	0.06%
c. Amount of Normal Cost: (2) * [(4a) + (4b)]	\$ 28,180,745	\$ 28,768,365
5. Contribution toward Unfunded Accrued Liability	7,832,566	7,677,586
6. Annual Required Contribution (ARC) (4c) + (5)	\$ 36,013,311	\$ 36,445,951
7. Employer Contributions (excluding membership fees)		\$ 24,227,737
8. Percentage Contributed: (7) / (6)		66.5%
9. Excess / (Deficient) Contributions: (7) - (6)		\$ (12,218,214)

**Annual Pension Cost and Net Pension Obligation**

Item	2012 Plan Year	2011 Plan Year
1. Annual Required Contribution (ARC)	\$ 36,013,311	\$ 36,445,951
2. Interest on Net Pension Obligation (NPO)	3,053,536	2,035,474
3. Adjustment to ARC	(2,292,119)	(1,527,917)
4. Annual Pension Cost (APC): (1) + (2) + (3)	\$ 36,774,728	\$ 36,953,508
5. Employer Contributions made		(24,227,737)
6. Increase (Decrease) in NPO: (4) - (5)		\$ 12,725,771
7. NPO at Beginning of Year	38,169,197	25,443,426
8. NPO at End of Year: (6) + (7)		\$ 38,169,197
9. Percent of APC Contributed: (5) / (4)		65.6%

Notes:

- (1) ARC equals employer's normal cost plus the amount to amortize the UAAL (see "Notes to Trend Data"). For plan years ending after August 31, 2006, the maximum amortization period is 30 years (as required by GASB 25 and GASB 27).
- (2) The Covered Payroll for the 2012 plan year is an estimate based on valuation payroll as of August 31, 2011. For the 2011 plan year, the payroll is calculated from the actual member contributions for the fiscal year, and the required member contribution rate.
- (3) The ARC for the 2011 plan year is based on actual payroll and expenses for the plan year. The ARC for the 2012 plan year will be recalculated, based on actual payroll and expenses, at year-end.
- (4) The actuarial accrued liability and corresponding normal cost rate is based on the benefit provisions in effect for each active member.

**TABLE 8****SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR PENSIONS  
GASB STATEMENT NO. 25 DISCLOSURE**

Fiscal Year Ended August 31	Annual Required Contribution	Percentage Contributed
2007	\$ 6,956,403	0.0 %
2008	19,516,223	103.5
2009	33,189,075	62.2
2010	33,759,388	82.3
2011	36,445,951	66.5
2012	36,013,311	N/A *

The benefit normal cost rates and beginning of year unfunded accrued liabilities used in determining the information in the above table were determined as part of the actuarial valuation as of one year before the dates indicated (i.e., the benefit normal cost rate and unfunded liability determined by the valuation completed as of August 31, 2010, was used in determining the ARC for the fiscal year ending August 31, 2011). The dollar amount of the ARC at the end of the fiscal year is then calculated based on the beginning of the year benefit normal cost rate and unfunded liability, the actual administrative expenses for the year, and the actual covered payroll for the year.

Additional information as of the latest actuarial valuation follows:

Valuation Date:	August 31, 2011
Actuarial Cost Method:	Entry Age Normal
Amortization Method:	Level percent of payroll, open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	20% of market plus 80% of expected actuarial value

Actuarial Assumptions:

- Investment Rate of Return	8.00%
- Payroll Growth	3.5%
- Projected Salary Increases	5.5% - 13.5%
Includes Inflation at	3.5%
- Cost-of-Living Adjustments	None

\* Calculation based on estimated fiscal year 2012 covered payroll. At the end of fiscal year 2012 the ARC will be recalculated based on actual 2012 covered payroll.

**TABLE 9**

**REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF FUNDING PROGRESS**

(\$ Amounts in Thousands)

<b>Actuarial Valuation Date</b>	<b>(a) Actuarial Value of Assets</b>	<b>(b) Accrued Liability (AAL)</b>	<b>(c) (Overfunded) Unfunded AL (UAL) (b) - (a)</b>	<b>(d) Funded Ratio (a / b)</b>	<b>(e) Covered Payroll</b>	<b>(f) UAL as a Percentage of Covered Payroll (c) / (e)</b>
8/31/2006	\$ 720,307	\$ 708,437	\$ (11,870)	101.7 %	\$ 1,279,463	(0.9) %
8/31/2007	747,765	762,666	14,901	98.0	1,360,819	1.1
8/31/2008	774,509	842,135	67,626	92.0	1,242,122	5.4
8/31/2009	780,808	870,179	89,371	89.7	1,464,483	6.1
8/31/2010	802,897	930,747	127,850	86.3	1,507,950	8.5
8/31/2011	830,522	960,953	130,431	86.4	1,475,432	8.8

Item (f) shows the one-time contribution, as a percentage of payroll, that would bring the funded ratio to 100%. It is a measure of the significance of the unfunded accrued liability relative to the employer's capacity to pay for that liability.

The trend in items (d) and (f) provide information about whether the financial strength of the plan is improving or deteriorating over time. An improvement is indicated when item (d) (the funded ratio) is increasing and item (f) (the ratio of the unfunded accrued liability to payroll) is decreasing.

The actuarial accrued liability and corresponding normal cost rate is based on the benefit provisions in effect for each active member.



**TABLE 10**

**SOLVENCY TEST**  
(\$ Amounts in Thousands)

Valuation Year	Aggregate Accrued Liabilities* for			Valuation Assets (4)	Portion of Accrued Liability Covered by Valuation Assets		
	Active Member Contributions (1)	Retirees and Beneficiaries (2)	Active Members (Employer Financed Portion) (3)		(1)	(2)	(3)
2006	\$ 0	\$ 256,920	\$ 451,517	\$ 720,307	N/A %	100.0 %	102.6 %
2007	0	278,059	484,607	747,765	N/A	100.0	96.9
2008	0	314,618	527,517	774,509	N/A	100.0	87.2
2009	0	334,639	572,463	780,808	N/A	100.0	77.9
2010	7,315	367,991	591,297	802,897	100.0	100.0	72.3
2011	13,898	400,877	578,022	830,522	100.0	100.0	71.9

**Funding Objective**

The System's funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due – the ultimate test of financial soundness.

**Evaluation of Funding Objective**

A short-term solvency test is one way of evaluating a system's progress under its funding program. In a short-term solvency test, the plan's present assets are compared with:

- (1) Active member contributions on deposit;
- (2) The liabilities for future benefits to present retirees; and
- (3) The employer-financed portion of liabilities for service already rendered by active members

In a system that has been following the level contribution rate of payroll financing principle, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retirees (liability 2) will be fully covered by present assets except in rare cases. In addition, the employer-financed portion of liabilities for service already rendered by active members (liability 3) will be partially or fully covered by the remainder of present assets.

The above table summarizes the results of the solvency test for the six most recent actuarial valuation dates. For example, at August 31, 2011, the actuarial value of assets equals \$830,522,000. These assets are sufficient to cover 100% of the \$13,898,000 in active member contributions, 100% of the \$400,877,000 liability for current retirees and beneficiaries, plus 71.9% of the \$578,022,000 employer-financed portion of liabilities for current active members.

\* The actuarial accrued liability for 2009 through 2011 is based on a total liability which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

**TABLE 11**  
**ACTUARIAL BALANCE SHEET FOR**  
**PLAN YEARS ENDING AUGUST 31, 2010 AND AUGUST 31, 2011**

Item	August 31, 2011	August 31, 2010
<b>Actuarial Assets</b>		
1. Actuarial Value of Assets at End of Year	\$ 830,522,385	\$ 802,897,017
2. Present Value of Future Normal Cost*		
a. Member	\$ 46,829,052	\$ 49,801,058
b. Employer	137,677,414	146,415,110
c. Total	\$ 184,506,466	\$ 196,216,168
3. Total	\$ 1,015,028,851	\$ 999,113,185
<b>Liabilities</b>		
4. Present Value of Future Benefits		
a. Active Members		
Service Retirement	\$ 743,648,187	\$ 763,068,379
Disability Benefits	13,490,824	13,829,724
Death Before Retirement	7,400,102	7,564,772
Termination	7,978,885	7,178,904
Total Active	\$ 772,517,998	\$ 791,641,779
b. Inactive Members	3,907,847	3,186,598
c. Annuitants	400,877,467	367,991,489
d. Total	\$ 1,177,303,312	\$ 1,162,819,866
<b>Unfunded Accrued Liability*</b>	\$ 162,274,461	\$ 163,706,681

The actuarial balance sheet compares the actuarial value of assets on the valuation date, plus the value of benefits expected to be earned in the future by current active members, to the present value of benefits expected to be paid in the future on account of all current members and current annuitants.

The unfunded accrued liability is equal to the difference between these two amounts.

\* The actuarial accrued liability is based on a total liability, which is based on the benefit provisions in effect for each active member and a normal cost rate which is based on the benefits in effect for members hired after August 31, 2009.

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS  
Adopted Effective August 31, 2008 (except as noted)**

**ASSUMPTIONS****Interest Rate:** 8.0% per annum

Components:

- 3.5% Inflation
- 4.5% Real Rate of Return

**Administrative Expenses:** 0.1% of valuation payroll per annum**Salary Increases:** Increases are assumed to occur at the beginning of the valuation year. The components of the annual increases are:

<b>Employee Group</b>	<b>Inflation*</b>	<b>Real Wage Growth (Productivity)</b>	<b>Merit, Promotion and Longevity</b>
CPO/CO Employee Class Members	3.5%	0%	See sample rates

\* Total liabilities for this valuation reflect all known legislative pay increases for the biennium.

**Sample Rates:**

<b>Annual Salary Increases for Merit, Promotion and Longevity Male and Female</b>					
	<b>Years of ERS Decrement Service</b>				
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2-4</b>	<b>5-9</b>	<b>10+</b>
All	10.0%	6.0%	4.0%	3.2%	2.0%

**Payroll Growth:** 3.5% per year, compounded annually (for projecting valuation payroll)

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
 (Continued)

**Age and Service Assumptions and Methods:**Rounding of ages:

Current and projected ages rounded to the nearest year are used for all purposes - determining eligibility for benefits, present value factors, early retirement reductions, option factors, salary increase rates, and decrements.

Funding Entry Age:

The method of calculating the age at hire for the entry age normal cost method is shown in formulas below.

Benefit Service:

Current Benefit Service in years and months as of the valuation date was provided by ERS. This service plus Future Earned Service, Service Credit at Retirement, and Eligibility Service at Retirement were used to project benefit amounts.

Future Earned Service:

Active members were assumed to earn one additional year of service credit in each future year employed (but not beyond the amount of credit needed to provide a 100% of average monthly compensation standard service retirement annuity).

Service Credit at Retirement:

For members hired on or before August 31, 2009, service credit when eligible for service retirement is assumed to be increased by:

- 1.0 year for members retiring from CPO/CO class if service, prior to adjustment, is at least 18 years; and
- 0.5 years for members retiring from CPO/CO class if service, prior to adjusting for any additional service, is less than 18 years.

(but not beyond the amount of credit needed to provide a 100% of average monthly compensation standard service retirement annuity).

For members hired after August 31, 2009, service credit when eligible for service retirement is assumed to be increased by:

- 1.0 year for members retiring from CPO/CO class if service, prior to adjustment, is at least 19 years; and
- 0.5 years for members retiring from CPO/CO class if service, prior to adjusting for any additional service, is less than 19 years.

(but not beyond the amount of credit needed to provide a 100% of average monthly compensation standard service retirement annuity).

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
 (Continued)

Service for Decrements:

The method of calculating ERS Decrement Service and CPO/CO Decrement Service on the valuation date is shown below. Decrement service is assumed to increase by one year for each future year employed.

- Valuation Age: Age rounded to nearest year on valuation date
- ERS Benefit Service: Years and months of all creditable ERS service on valuation date.
- Pre-9/1/1993 TRS Service: Years and months of pre-9/1/1993 creditable TRC &TEA service
- CPO/CO Benefit Service: Years and months of creditable CPO/CO service on valuation date
- Date 1: (Valuation date) minus (ERS Benefit Service)
- Service 1: (Valuation age) minus (age rounded to nearest year on Date 1)
- ERS Funding Entry Age: (Valuation age) minus (Service 1)
- ERS Decrement Service: (Service 1) plus (Pre-9/1/1993 TRS service rounded to nearest year)
- Date 2: (Valuation date) minus (CPO/CO Benefit Service)
- CPO/CO Decrement Service: (Valuation age) minus (age rounded to nearest year on Date 2)

Eligibility Service at Retirement

For members hired on or before August 31, 2009, eligibility service is assumed to be increased by the following to reach eligibility for service retirement:

- 2.0 years for members retiring from regular employee class service if age plus service, prior to adjustment, are greater than or equal to 78;
- 1.0 year for members retiring from regular employee class if age plus service, prior to adjustment, are less than 78;
- 2.0 years for members retiring from CPO/CO class service if service, prior to adjustment, is at least 18 years; and
- 1.0 year for members retiring from CPO/CO class service if service, prior to adjustment, is less than 18 years.

For members hired after August 31, 2009, eligibility service is assumed to be increased by the following to reach eligibility for service retirement:

- 1.0 year for members retiring from regular employee class; and
- 1.0 year for members retiring from CPO/CO class service.

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
(Continued)

**Decrements:** All decrements – mortality, service retirement, disability retirement, and termination of employment for reasons other than death or retirement – are assumed to occur at the beginning of the valuation year.

**Mortality Decrements:**Active Members, Service Retirees, Beneficiaries, and Inactive Members

1994 Group Annuity Mortality set forward one year for males and forward two years for females. Generational mortality improvements in accordance with Scale AA from the year 2000.

Disability Retirees

PBGC Disabled Mortality tables 2-M and 2-F, set back seven years.

**Service Retirement Decrements: Graded tables based on LECOSRF experience.**For members hired on or before August 31, 2009

CPO/CO Decrement Service is used to determine when the rates apply:

- Any age with 18 years CPO/CO service
- Age 55 with nine years CPO/CO service

Sample rates for eligible members:

<b>Annual Service Retirement Rates per 100 Participants</b>						
<b>CPO/CO Employee Class Members – Male and Female</b>						
<b>Age</b>	<b>Years of Decrement Service</b>					
	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>
50				45	45	45
51				30	30	30
52				30	30	30
53				30	30	30
54				30	30	30
55		20	20	35	35	35
56		12	15	35	35	35
57		12	15	35	35	35
58		12	15	35	35	35
59		12	15	35	35	35
60	4	12	15	35	35	35
65	15	50	50	65	65	65
70	100	100	100	100	100	100

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
(Continued)

For members hired after August 31, 2009

CPO/CO Decrement Service is used to determine when the rates apply:

- Any age with 19 years CPO/CO service
- Age 55 with nine years CPO/CO service

Sample rates for eligible members:

<b>Annual Service Retirement Rates per 100 Participants</b>						
<b>CPO/CO Employee Class Members – Male and Female</b>						
<b>Age</b>	<b>Years of Decrement Service</b>					
	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>
50				5	5	5
51				5	5	5
52				5	5	5
53				5	5	5
54				5	5	5
55		20	20	65	65	65
56		12	15	30	30	30
57		12	15	30	30	30
58		12	15	30	30	30
59		12	15	30	30	30
60		12	15	50	50	50
65		50	50	65	65	65
70		100	100	100	100	100
75	100	100	100	100	100	100

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
 (Continued)

**Disability Retirement Decrements: Graded Tables Based on LECOSRF Experience.**

ERS Decrement Service and CPO/CO Decrement Service are used to determine when the rates apply:

- Service greater than zero is required for occupational disability retirement.
- 10 years of service is required for non-occupational disability retirement.
- Members are not eligible for non-occupational disability retirement if they are eligible for service retirement under the Rule of 80, or under the age 55 with at least 10 years of CPO/CO service provisions.
- For a member with 20 years CPO/CO service, the combined ERS/LECO service retirement annuity is much greater than the ERS non-occupational disability retirement annuity. Therefore, the rates of non-occupational disability retirement are zero for members with 20 years of CPO/CO service.

Sample rates for eligible members:

<b>Annual Disability Retirement Rates Per 100 Participants</b>	
	<b>Males and Females</b>
25	0.0100
30	0.0206
35	0.0697
40	0.1302
45	0.2179
50	0.3662
55	0.5467
60	0.2700

95% of all disabilities are assumed to be non-occupational, 4% are assumed to be non-occupational and 1% are assumed to be total occupational.



**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
(Continued)

**Termination Decrements for Reasons Other Than Death or Retirement: Graded Tables Based on LECORF Experience.**

Rates of termination are zero for members eligible for service retirement.

Sample rates for members not eligible for service retirement:

For members hired on or before August 31, 2009

<b>Annual Rates of Termination per 100 Participants</b>								
<b>Male and Female – Years of ERS Decrement Service</b>								
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>15</b>
20	29	24	22	15				
25	25	20	17	17	14	13		
30	21	16	15	14	12	11	9	
35	20	14	11	10	10	9	8	3
40	18	13	11	10	7	7	4	3
45	16	13	9	8	6	6	3	2
50	15	11	9	8	6	5	3	2
55	16	10	7	7	6	5		
60	16	10	7	7				

For members hired after August 31, 2009

<b>Annual Rates of Termination per 100 Participants</b>								
<b>Male and Female – Years of ERS Decrement Service</b>								
<b>Age</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>15</b>
20	32	27	25	23				
25	28	23	20	20	17	16		
30	24	19	18	17	14	14	10	
35	23	17	14	13	13	11	9	4
40	21	16	14	13	9	9	5	4
45	19	16	11	10	8	8	4	3
50	18	14	11	10	8	6	4	3
55	19	13	9	9	8	6		
60	19	13	9	9	8	6		

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
(Continued)

**Percentage of Members Electing Various Benefit Options:**

<b>Sex / Benefit</b>	<b>Standard Life Annuity</b>	<b>Option 1</b>	<b>Option 4</b>
Male Member			
Disability	50%	40%	10%
Service Retirement	100%	0%	0%
Death Benefit Plan	0%	75%	25%
Female Member			
Disability	75%	20%	5%
Service Retirement	100%	0%	0%
Death Benefit Plan	0%	50%	50%

**Beneficiary Characteristics:** Male member is three years older than female beneficiary; and female member is same age as male beneficiary.

**Missing Data:** There were data elements that were changed for some members as part of the valuation in order to make the data complete. However, the number of missing data items was immaterial.

**METHODS**

**Calculations:** The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system, and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

**Actuarial Cost Method:** Entry Age Normal Cost Method. Under the Entry Age Normal Cost Method, an annual Normal Cost is determined for each covered active Member which is the contribution required to provide all the projected pension benefits assuming this contribution is payable over a period starting at entry date and ending on each projected date of separation from active service and expressed as a level percentage of compensation. For funding purposes, the normal cost rate for the plan is based on the benefits payable to a new member and the entry age characteristics of the current population. For accounting purposes, the normal cost rate for the plan is based on the average normal cost rate for each member reflecting the benefits in effect for each member. The Accrued Liability is determined as the excess of the total present value of all pension benefits, based on the benefit provisions in effect for each Member, over the total present value of future Normal Costs.

The excess of the accrued liability over the actuarial value of plan assets is the unfunded accrued liability.

**TABLE 12**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
**Adopted Effective August 31, 2008 (except as noted)**  
 (Continued)

The actuarial gain (loss) is a measure of the difference between actual experience and that expected based upon the actuarial assumptions between two actuarial valuation dates. Under this actuarial cost method, the actuarial gains (losses) are directly calculated and reduce (increase) the unfunded accrued liability.

Adjustments to the unfunded accrued liability can result from changes in actuarial assumptions and plan provisions. Such adjustments are determined by calculating, as of the actuarial valuation date, the increase or decrease in the unfunded accrued liability resulting from the change.

**Asset Valuation Method:** The actuarial value of plan assets is based on the market-related value of plan assets, with smoothing of unexpected returns. The market-related value is equal to the value of net assets held in trust for pension benefits (fair value of investments) as of the valuation date.

Specifically, the actuarial value of assets is determined as the expected value of plan assets as of the valuation date plus 20% of the difference between the market-related value and the expected value. The expected value equals the actuarial value of plan assets as of the prior valuation date, plus contributions, less benefit payments and administrative expenses, all accumulated at the assumed rate of interest to the current valuation date.

**Other Actuarial Valuation Procedures:** No provision was made in this actuarial valuation for the limitations of Internal Revenue Code Section 415.

Valuation payroll (earnings applied to the current valuation year) is the expected payroll for the fiscal year following the valuation date. It is based on reported payroll determined from August member contributions increased to reflect the across-the-board salary increases effective on or after September 1 and projected according to the actuarial assumptions for the upcoming fiscal year.

No liability was included for benefits which are funded by special State appropriations.

State appropriations for membership fees have been ignored.

**DATA**

**Census and Assets:** The valuation was based on members of the System as of August 31, 2011 and does not take into account future members. All census data was supplied by the System and was subject to reasonable consistency checks. Asset data was supplied by the System.

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS****Membership**

Members of the Employees Retirement System are employees of state agencies in a fulltime or part-time position (after a 90-day waiting period), or elected state officials.

**Classes of Membership**

**Elected Class:** Membership in the elected class is optional and is limited to elected state officials not covered by either of the Judicial Retirement Systems; members of the Legislature; and district and criminal district attorneys, to the extent they receive salaries from the state general revenue fund. In this summary, we will refer to the following two types of elected class service:

Legislator: Elected class service while a member of the legislature.

Non-Legislator: Elected class service while not a member of the legislature.

**Employee Class:** Membership in the employee class is mandatory for eligible employees and begins on the 91<sup>st</sup> day of employment. Membership includes all employees and appointed officers of every department, commission, board, agency, or institution of the state except that:

- (1) Independent contractors are not eligible; and
- (2) Persons covered by the Teacher Retirement System or by either of the Judicial Retirement Systems are not eligible; and
- (3) A retiree receiving employee class retirement benefits may not rejoin the System as a member of the employee class.

In this summary, we will refer to the following two types of employee class service:

CPO/CO: CPO/CO service is employee class service rendered while a law enforcement officer, a custodial officer, or a parole officer or caseworker.

Regular: Regular employee class service is employee class service that is not considered CPO/CO service.

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

**Compensation**

Compensation includes base salary, longevity and hazardous duty pay. Overtime pay is excluded. Amounts in excess of Internal Revenue Code Section 401(a)(17) limits are excluded for persons who first became members after August 31, 1996.

**Average Monthly Compensation**

- Average of the 36 highest months of compensation for service in the employee class of membership for members hired on or before August 31, 2009.
- Average of the 48 highest months of compensation for service in the employee class of membership for members hired after August 31, 2009.

**Contributions**

**Member:** 6% of compensation is contributed to the ERS, and 0.5% to the LECOSRF. Senate Bill 1664 maintains the member contribution rate to the LECOSRF at 0.50% for the 2011 plan year regardless of the State's contribution level. Members may make additional payments to purchase service, but such payments are credited to the ERS, not to the LECOSRF.

**State of Texas:** The State contribution is set biennially by the legislature. The contribution recommended to the legislature is one that meets the funding standards of section 811.006 of the Texas Government Code, under which contributions should be sufficient to fund normal cost and amortize any unfunded accrued liability over a period that does not exceed 31 years. The State contribution rate for the 2010 and 2011 plan years is 0.00% and 0.50%, respectively, of the eligible compensation of active LECOSRF members who are also active contributing members. The State contribution rate for the 2013 and 2014 plan years will be set in 2013.

**Limits on Contributions:** Both member and state contributions cease when the maximum amount of service credit is accrued or established by a member; except that for a member with at least 20 years of CPO/CO service, employee class contributions cease when an accrued standard

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

service retirement annuity percentage is achieved, based on a 2.8% multiplier for CPO/CO employee class service, and a multiplier of 2.3% for regular employee class service. After contributions cease, the member retains membership until pre-retirement death, retirement, or withdrawal of the member's accumulated contributions.

**Accumulated Contributions**

Each member's individual account balance is credited with the member's contributions, plus 5% interest per annum until the member retires, takes a refund, or dies before retirement.

**Creditable Service**

Creditable service consists of membership service, military service, and equivalent membership service.

**Limits on Creditable Service:** A member who has accrued a standard service retirement annuity of 100% of average monthly compensation for employee class service may not accrue or establish additional service in the employee class. For purposes of determining when the limit on service accruals has been met, the accrued standard service retirement annuity percentage equals 2.3% times employee class service credit.

**Membership Service:** Service is credited in the applicable membership class for each month in which a member holds a position, and for which the required contributions are made. A full month of service credit is granted for each month a contribution is deducted from the member's salary, regardless of the number of days worked during the month or the amount of salary.

**Military Service:** An eligible member may purchase up to 60 months of service credit for active U.S. military service that precedes some (not necessarily all) of the member's membership service. In addition, a member who returns to active military service while employed by the State is allowed to purchase credit for such military service, even if it causes the 60-month maximum to be exceeded. In general, military service is credited to the class of membership the member held *after* the military service was rendered. Military service counts as CPO/CO service

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

for a member who both entered military service within 90 days of leaving CPO/CO employment and returned to CPO/CO service within 90 days after completing the active military service.

- Military service is used in determining the amount of occupational disability retirement benefits and death benefits, and in determining eligibility to select a death benefit plan.
- Military service is used in determining eligibility for and the amount of service retirement or non-occupational disability retirement benefits if the member has, without military service, at least five years of employee class membership service credit.

**Purchased Service (other than military service):** An eligible member may purchase, prior to retirement, previously refunded ERS service credit, unestablished service credit, waiting period service credit, and additional service credit.

- **Previously Refunded Service.** A member may buy back ERS service credit that was canceled by a refund of contributions. The refund must be repaid with 10 percent penalty interest.
- **Unestablished Service Credit, and Waiting Period Service Credit.** An eligible member may purchase service credit for state service before September 1947; and for state service during a waiting period that was required before a state employee could become an ERS member. The payment required is generally the member contributions due plus 10 percent penalty interest; except the cost of post-August 2003 waiting period service equals the actuarial present value of the benefit created by the additional service credit.
- **Additional Service Credit (ASC).** After purchasing all other service for which the member is eligible, an active, contributing, member may be eligible to purchase up to 3 years of ASC. The member must have at least 120 months of actual membership service of the type of ASC to be established – regular employee class, or CPO/CO employee class – and the ASC is credited as the type of membership held when the ASC is purchased. The payment required is the actuarial present value of the benefit created by the ASC.

**Unused Sick and Annual Leave:** Credit for unused leave may be used by only members hired on or before August 31, 2009 to qualify an eligible member for retirement, or to qualify a

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

death benefit designee for a death benefit plan. It may also be used by all members to calculate the amount of these benefits. Credits for unused sick leave and unused annual leave are calculated separately as one month of service credit for every 160 hours, plus one month for any fraction of 160 hours that remain after division of the total hours by 160; except that the credit for unused annual leave cannot exceed five months. In order to be eligible for credit for unused leave, the member must be a contributing employee class member at the time of retirement or pre-retirement death. If the member retires directly from (or dies in) a CPO/CO position, the credit for unused sick and annual leave will be treated as CPO/CO service. Otherwise, it will be treated as regular employee class service.

**TRC, TEA Service, Higher Ed, TYC, Schools for Blind/Deaf, etc.**

Contributing members of agencies previously under TRS were transferred to ERS effective September 1, 1993 as a result of legislation passed by the 1993 legislature. That prior service is considered in determining the eligibility and amount of ERS benefits for these members. ERS pays benefits on all of the member's service, and TRS reimburses ERS for that portion of the benefit that is based on TRC and TEA service.

**Service Retirement Supplement****Eligibility**

- Any age and 20 years of CPO/CO service

**Standard Service Retirement Supplement:** A life annuity that commences immediately, and equal to AMC times (H minus B minus E), where B, E, and H are defined in the following multi-step procedure:

- A = 2.8% times CPO/CO non-leave service, to a maximum of 100%
- B = 2.3% times CPO/CO non-leave service, to a maximum of 100%
- H = 2.8% times all CPO/CO service, to a maximum of 100%
- C = H minus A
- D = 2.3% times all regular employee class service, to a maximum of (100% minus H)
- E = 2.3% times CPO/CO leave service, to a maximum of (100% minus B minus D)



**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**  
(Continued)

The life annuity is then reduced by the LECOSRF Reduction Percentage for Early Retirement.

**LECOSRF Reduction Percentage for Early Retirement****For Members Hired On or Before August 31, 2009**

The reduction percentage is 100% if the member retires after attaining age 50, or after satisfying the Rule of 80. Otherwise, the reduction percentage is based on the following table:

Attained Age at Retirement	Reduction Percentage	Attained Age at Retirement	Reduction Percentage
36	31.5%	43	55.5%
37	34.1%	44	60.2%
38	37.0%	45	65.5%
39	40.1%	46	71.2%
40	43.4%	47	77.4%
41	47.1%	48	84.2%
42	51.1%	49	91.7%

**For Members Hired After August 31, 2009**

The reduction percentage is 100% if the member retires after attaining age 55. Otherwise, the reduction percentage is based on the following table:

Attained Age at Retirement	Reduction Percentage
50 and prior	75.0%
51	80.0%
52	85.0%
53	90.0%
54	95.0%
55	100.0%

**Optional Forms of Payment:** Five optional forms and partial lump sum option assumed actuarially equivalent to standard supplement. Members retire simultaneously under LECOSRF and ERS, and must choose the same form of payment (and survivor for Options 1, 2, or 5, if applicable) under both plans. Member and survivor ages for option factors are based on the LECOSRF retirement date.

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

**Occupational Disability Retirement Supplements**

A disability that results from a sudden and unexpected injury or disease resulting solely from a specific act or occurrence at a definite time and place as a direct result of some risk or hazard inherent to the person's state employment is considered an occupational disability.

**Eligibility:** Medical Board certification of permanent mental or physical incapacity for further performance of duty; and executive director and ERS Board determination that the disability is occupational. The member must be an active member at the commencement of the disability, must have service credit greater than zero, and the disability must result from a risk to which CPO/CO members are exposed because of the nature of their CPO/CO duties.

- Total occupational disability: Incapable of substantial gainful activity solely because of the occupational disability, and considered a total disability under federal social security law.
- Non-total occupational disability: Any occupational disability that does not satisfy the definition of total occupational disability.

**Standard Occupational Disability Supplement:** Monthly annuity payable for life, or until the member is no longer incapacitated for the performance of duty, calculated as follows:

- "Non-total" with less than 20 years CPO/CO service: 15% of AMC.
- "Non-total" with 20 years CPO/CO service: AMC times (A minus B), where A and B are as defined above in the Service Retirement Supplement section.
- "Total" with any CPO/CO service: 100% of AMC offset by the greater of (35% of AMC or B times AMC), where B is defined in the Service Retirement Supplement section.

If an employee class member hired on or before August 31, 2009 has less than 36 months of compensation history, then only the contributory months available will be used to determine AMC. Similarly, if an employee class member hired after August 31, 2009 has less than 48 months of compensation history, then only the contributory months available will be used to determine AMC.

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

**Optional Forms of Payment:** Five optional forms actuarially equivalent to the standard annuity. Members retire simultaneously under LECOSRF and ERS, and must choose the same form of payment (and survivor under Option 1, 2 or 5, if applicable) under both plans.

**Non-occupational Disability Retirement Supplement:** None

**Death Benefit Plan (DBP) Annuity Supplement****Eligibility**

20 years of CPO/CO service and

- Death occurs while an active member; or
- Death occurs while an inactive member, and the member either:
  - Filed a DBP prior to September 1, 2006; or
  - Was eligible for service retirement when the member became inactive.

**DBP Annuity Supplement calculation:** Calculated as if the member had elected an optional form of payment, retired on service retirement at the time of death, and died immediately thereafter. Available options are Option 1 and Option 4.

**Rejection of a DBP Annuity:** A person eligible for a DBP Annuity may reject the annuity. If they do so, no benefits will be payable from the LECOSRF.

**TABLE 13****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

**Benefits After Termination of Employment for Reasons Other than Death or Retirement****Deferred Service Retirement Annuity Supplement****Eligibility:** 20 years of CPO/CO service at termination of CPO/CO employment, and either:

- The member transfers to and retires from active regular employee class service; or
- The member terminates all employee class service, and the regular employee class account balance is not withdrawn from the ERS trust.

**Amount:** The formula used is the same as for the Service Retirement Annuity Supplement, based on the member's age at benefit commencement. The Average Monthly Compensation (AMC) used in calculating the benefit payable from the ERS trust and the supplement payable from LECOSRF will both be based on all employee class service.

**Payments may commence at:** Any age, provided that the member has terminated all employee class service. (The member must retire simultaneously from the regular employee class and the CPO/CO employee class.)

**Optional forms of payment:** Five optional forms actuarially equivalent to standard annuity.

**Refund of Contributions**

**Eligibility:** Termination of all employee class membership, and application for a refund of the ERS and LECOSRF member contributions that were accumulated for such service.

**Amount:** The amount in the member's account for service in LECOSRF.

**Consequence of a Refund:** Taking a refund of accumulated employee class contributions from the LECOSRF trust cancels employee class membership and forfeits all other employee class benefits.

**TABLE 14**  
**SUMMARY OF MEMBERSHIP DATA**  
**AS OF AUGUST 31, 2011**

Item	Male	Female	Total
Number of Participants	23,429	13,377	36,806
Average Annual Salaries	\$41,244	\$36,321	\$39,454
Average Age	42.2	42.3	42.2
Average Service	9.3	8.2	8.9

**Annuitants**

Item	Number	Annual Annuities	Average Annuities	Average Age
Retired Participants and Beneficiaries	7,615	41,448,624	5,443	62.3
Disability Retirees	113	1,087,620	9,625	63.7
Total	7,728	\$ 42,536,244	\$ 5,504	62.3

**Inactive Members Assumed Eligible for Deferred Annuities**

Item	Number	Annual Annuities	Average Annuities	Average Age
Participants with Deferred Benefits	52	319,848	6,151	51.4

**Non-vested Inactive Members**

Item	Number	Account Balances	Average Account Balances	Average Age
Non-vested Members	5,733	803,638	140	35.4

**EXHIBIT I****ACTIVE MEMBERSHIP DATA****NUMBER AND AVERAGE ANNUAL SALARY  
AS OF AUGUST 31, 2011**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>	2,708	43								2,751
	31,013	34,601								31,069
<b>25-29</b>	2,979	896	40							\$3,915
	34,898	37,553	40,707							35,565
<b>30-34</b>	2,087	1,322	652	24						4,085
	\$34,973	\$42,908	\$42,124	\$41,845						\$38,723
<b>35-39</b>	1,682	1,144	1,119	751	18					4,714
	\$34,423	41,830	\$45,778	\$46,327	\$49,235					\$40,869
<b>40-44</b>	1,583	1,050	1,122	1,389	498	23				5,665
	\$34,325	\$40,012	\$44,079	\$47,302	\$50,824	\$55,839				\$42,031
<b>45-49</b>	1,412	874	911	1,249	895	585	25			5,951
	\$33,946	\$38,246	\$40,511	\$44,144	\$52,062	\$54,301	\$58,577			\$42,552
<b>50-54</b>	1,109	767	831	1,024	325	220	52	2		4,330
	\$33,820	\$38,002	\$39,523	\$42,377	\$51,770	\$66,244	\$77,617	\$71,752		\$41,217
<b>55-59</b>	846	606	630	748	162	58	22	2		3,074
	\$33,980	\$37,249	\$38,880	\$41,513	\$45,673	\$65,188	\$67,696	\$74,983		\$38,935
<b>60-64</b>	519	419	328	399	73	19	6			1,763
	\$33,536	\$36,211	\$38,547	\$41,603	\$44,833	\$54,455	\$55,954			\$37,699
<b>Over 64</b>	155	165	117	96	20	2	2	1		558
	\$33,225	\$36,203	\$38,474	\$39,569	\$48,643	\$42,543	\$65,141	\$48,248		\$37,025
<b>Total</b>	15,080	7,286	5,750	5,680	1,991	907	107	5		36,806
	\$33,814	\$39,531	\$41,942	\$44,274	\$50,860	\$57,910	\$69,681	\$68,344		\$39,454

**EXHIBIT II****RETIREE AND BENEFICIARY MEMBERSHIP DATA  
AS OF AUGUST 31, 2011****NUMBER AND AVERAGE ANNUAL BENEFIT**

<b>Age Last Birthday</b>	<b>Number</b>	<b>Annual Benefit</b>	<b>Average Annual Benefit</b>
<b>Retired Participants</b>			
Under 60	3,502	20,505,780	5,855
60 - 64	1,600	8,184,696	5,115
65 - 69	938	4,751,232	5,065
70 - 74	526	2,893,824	5,502
75 - 79	286	1,721,292	6,019
Over 79	252	1,450,440	5,756
Total	7,104	39,507,264	5,561
<b>Beneficiary Participants</b>			
Under 60	88	327,900	3,726
60 - 64	65	232,224	3,573
65 - 69	53	201,000	3,792
70 - 74	72	289,596	4,022
75 - 79	69	277,788	4,026
Over 79	164	612,852	3,737
Total	511	1,941,360	3,799
<b>Disabled Participants</b>			
Under 60	40	334,908	8,373
60 - 64	23	249,120	10,831
65 - 69	19	185,976	9,788
70 - 74	9	83,088	9,232
75 - 79	17	185,304	10,900
Over 79	5	49,224	9,845
Total	113	1,087,620	9,625
<b>Grand Total</b>	<b>7,728</b>	<b>42,536,244</b>	<b>5,504</b>

**EXHIBIT III****5-YEAR HISTORY OF MEMBERSHIP DATA****Active Participants**

<b>Valuation as of August 31</b>	<b>Number of Active Participants</b>	<b>Percentage Change in Membership</b>	<b>Total Annual Payroll</b>	<b>Percentage Change in Payroll</b>
2007	36,413	(1.86%)	\$ 1,276,561,016	0.79%
2008	33,642	(7.61%)	1,245,471,002	(2.44%)
2009	37,819	12.42%	1,387,451,717	11.40%
2010	39,052	3.26%	1,483,167,539	6.90%
2011	36,806	(5.75%)	1,452,157,335	(2.09%)

**Retired, Disabled, and Beneficiary Participants**

<b>Valuation as of August 31</b>	<b>Number on roll</b>	<b>Additions</b>	<b>Deletions</b>	<b>Percentage Change in Membership</b>	<b>Annual Annuities</b>	<b>Percentage Change in Annuities</b>
2007	5,805	553	132	7.92%	\$ 31,932,874	7.87%
2008	6,204	637	141	8.54%	35,177,112	10.16%
2009	6,647	561	169	6.32%	37,814,736	7.50%
2010	7,175	635	147	7.34%	40,135,308	6.14%
2011	7,728	695	186	7.09%	42,536,244	5.98%



**EXHIBIT IV****GLOSSARY**

<b>Accrued Liability</b>	The difference between (a) the present value of future plan benefits, and (b) the present value of future normal cost. It is the portion of the present value of future plan benefits attributable to service accrued as of the valuation date. Sometimes referred to as “actuarial accrued liability.”
<b>Accrued Service</b>	The service credited under the plan which was rendered before the date of the actuarial valuation.
<b>Actuarial Assumptions</b>	Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement 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.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure for allocating the dollar amount of the “present value of future plan benefits” between the present value of future normal cost and the accrued liability. Sometimes referred to as the “actuarial funding method.”
<b>Actuarial Equivalent</b>	A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.
<b>Actuarial Value of Assets</b>	The value of current plan assets recognized for valuation purposes. Based on a smoothed market value that recognizes investment gains and losses over a period of time.
<b>Amortization</b>	Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**EXHIBIT IV****GLOSSARY**

(Continued)

<b>Annual Required Contribution</b>	The Annual Required Contribution, or ARC, is the amount determined in accordance with Governmental Accounting Standards Board Statements Nos. 25 and 27.
<b>Experience Gain (Loss)</b>	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.
<b>Normal Cost</b>	The annual cost assumed, under the actuarial funding method, for current and subsequent plan years. Sometimes referred to as “current service cost.”
<b>Present Value</b>	The amount of funds presently required to provide a payment or series of payments in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.
<b>Unfunded Accrued Liability</b>	The difference between the accrued liability and valuation assets.