



Ohio Public Employees Retirement System

August 31, 2012

Ms. Bethany Rhodes, Director
Ohio Retirement Study Council
88 East Broad Street, Suite 1175
Columbus, OH 43215

Dear Ms. Rhodes:

Enclosed is the *2011 Annual Actuarial Valuation of Defined Benefit Allowances – Traditional, Combined and Member-Directed Plans* of the Ohio Public Employees Retirement System (OPERS) as required by Section 145.22 of the Ohio Revised Code. The purpose of the valuation is to measure the System's funding progress in accordance with previously established contribution rates and OPERS' funding objectives.

The report evaluates the System's financial position for the defined benefit components of OPERS' pension plans. In total, OPERS has three pension plans – the Traditional Pension Plan, which is a defined benefit plan; the Member-Directed Plan, which is a defined contribution plan; and the Combined Plan, which has a defined benefit component for the employer contributions and a defined contribution component for the member contributions. The format of this valuation report provides summary information for the **total** valuation results associated with the defined benefit allowances for the Traditional, Combined and Member-Directed Plans. The defined benefit portion of the Member-Directed Plan reflects the annuitization of the benefits upon retirement. Separate summaries are provided for the valuation results of the Traditional Plan and for the defined benefit component of the Combined and Member-Directed Plans.

Key results

The actuarial valuation concludes that the Ohio Public Employees Retirement System continues to be in sound financial condition based on the current contribution allocation between the pension and retiree health care funds and other valuation assumptions. The valuation incorporates the new assumptions based on the 2006-2010 experience study and the corresponding resetting of the funding value of assets to the market value, the 2011 investment loss and assumes the continuation of the declining contribution to health care. The results reflect the funded ratio for the System decreasing to 77.4% (as compared to 79.1% at year-end 2010 restated after the experience study). Correspondingly, the amortization period for the unfunded actuarial accrued pension liabilities increased to 30 years (as compared to 24 years at year-end 2010 restated after the experience study). Thus the System's amortization period is within the 30-year amortization period required by Section 145.221 of the Ohio Revised Code.

Five-year experience study and Revised Results

During fiscal year 2011, OPERS completed the periodic five-year experience study analyzing plan trends from the period 2006-2010. Consistent with prior experience

studies, OPERS restated the 2010 actuarial valuation results using the new assumptions. Thus, all actuarial results reflected for 2010 include the original results based on the regular annual actuarial valuation using the assumptions in place before the 2006-2010 experience study and revised 2010 results based on the new assumptions adopted as a result of the 2006-2010 experience study. The 2011 actuarial valuation reflects these two sets of results in two columns entitled "Original" and "New".

The demographic assumptions changed as a result of the 2006-2010 experience study are as follows:

- Normal and early retirements
- Withdrawals
- Disability retirements
- Mortality

The economic assumptions changed as a result of the 2006-2010 experience study are as follows:

- Expected long-term average wage inflation = 3.75%
- Expected long-term average price inflation = 3.00%

Corresponding with the adoption of the revised assumptions, the Board reset the funding value of assets to the market value as of December 31, 2010.

More detailed information regarding the results of the five-year experience study can be found in the November 1, 2011 letter to the Ohio Retirement Study Council.

2011 investment return

OPERS' market investment return in 2011 was 0.36% (or \$225 million). This compares to a market investment return of 13.4% in 2010 and 20.1% in 2009. Because the investment return in 2011 was less than the 8.0% investment return assumption, an actuarial loss of \$4.8 billion (the amount less than the expected return) is recognized incrementally over a period of four years (rather than immediately). At year-end 2011, a deferred investment loss of \$3.6 billion is not yet recognized in the funding asset value. Stated more simply, OPERS has yet to recognize \$3.6 billion of unrecognized losses. This results in a funding asset value for December 31, 2011 valuation purposes (\$65.4 billion) that is 5.8% higher than the December 31, 2011 market asset value (\$61.8 billion). All else equal, future recognition of these deferred losses will increase the System's amortization period in future years. However, following the legislative approval of plan design changes, the System's amortization should decline.

Other valuation trends

Similar to last year's valuation, active membership and salary increases were less than expected on average. While the lower than expected salary increases reduced the amortization period, the decrease in active members increased the amortization period. Continued decreases in the active membership could result in continuing upward pressure on the amortization period in future years. Additionally, 2011 activity reflected higher than expected retirements as we continued to experience a "rush to the door".

Proposed pension changes

The Ohio General Assembly is currently considering legislation that would significantly modify the pension plan liability. The legislation is based on recommendations made by

the OPERS Board which were designed to strengthen the funding of the System and to address changes in the demographics of OPERS' population. These changes, if enacted by the legislature, will reduce the System's unfunded pension liability and the corresponding amortization period. Since these changes have not yet been passed by the General Assembly, they have not been included in the 2011 actuarial valuation. Because the proposed pension changes have not been enacted, the OPERS Board modified the allocation of the employer contribution rate into the health care fund in order to ensure OPERS remains within the statutory 30 year amortization period for its pension plan. Based on the current activity, we anticipate these proposed changes to be approved by the General Assembly during September 2012 and thus will be incorporated in the 2012 actuarial valuation.

Member contribution rates for Public Safety and Law Enforcement divisions

Senate Bill 267 (signed into law on December 23, 2008) approved changes in the member contribution rates for Public Safety and Law Enforcement division members. These contribution rates are being phased in through 2014 and have been included in this valuation.

GASB Exposure Drafts for public pension financial reporting

On June 25, 2012, the Governmental Accounting Standards Board (GASB) issued two accounting standards which include substantial and complex changes to financial reporting requirements for OPERS and employers participating in OPERS. The most substantial change requires OPERS to allocate the unfunded pension liability to all participating employers and requires each employer to report its portion of the unfunded liability on its annual financial statements. These new changes will be required for OPERS beginning in fiscal year 2014. OPERS will continue to educate all impacted stakeholders about the impact of the new requirements.

If you have any questions or need any additional information, please let me know.

Sincerely,



Karen E. Carraher
Executive Director

Enclosure

cc: The Honorable Keith Faber, Chairman, ORSC
The Honorable Lynn Wachtmann, Vice Chairman, ORSC
Chairman, House Health and Aging Committee
The Honorable Kevin Bacon, Chairman, Senate Government Oversight and Reform Committee
The Honorable Kirk Schuring, Chairman, House Health and Aging Committee on Retirement and Pension

OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL VALUATION OF DEFINED BENEFIT ALLOWANCES –
TRADITIONAL, COMBINED AND MEMBER DIRECTED PLANS
DECEMBER 31, 2011

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August 30, 2012

The Retirement Board
Ohio Public Employees Retirement System
Columbus, Ohio

Ladies and Gentlemen:

The results of the *December 31, 2011 annual actuarial valuation of defined benefit allowances* of the Ohio Public Employees Retirement System, based upon Chapter 145 of the Code as amended, are presented in this report. The gain/loss analysis of experience by division, the annual actuarial valuation of retiree health and Medicare benefits, projections of defined benefit allowances and projections of retiree health and Medicare benefits are covered in separate reports. The purposes of the valuation are as follows:

- Measure the financial position of OPERS,
- Assist the Board in establishing employer and employee contribution rates necessary to fund the pension defined benefits provided by OPERS,
- Determine the number of years required to amortize the unfunded actuarial accrued liabilities based upon established contribution rates,
- Provide actuarial reporting and disclosure information for the System's financial report, and analyze the experience of the System over the past year.

This report should not be relied on for any purpose other than those described above. It was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

The signing actuaries are independent of the plan sponsor.

The individual member statistical data required for the valuations was furnished by your Executive Director and Staff, together with pertinent data on financial operations. Their cooperation in furnishing these materials is acknowledged with appreciation. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided.

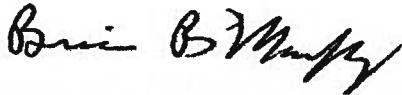
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The actuarial assumptions used in the valuations are summarized in Section X of this report. The assumptions are established by the Retirement Board after consulting with the actuary.


This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the December 31, 2011 as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The signing actuaries are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Brian B. Murphy, FSA, MAAA



Mita D. Drazilov, ASA, MAAA



Randall J. Dziubek, ASA, MAAA

BBM/MDD/RJD:mrb

SECTION I
EXECUTIVE SUMMARY

INTRODUCTION

Section 145.22 of the Revised Code of Ohio (ORC) provides in part as follows:

“(A) The public employees retirement board shall have prepared annually by or under the supervision of an actuary an actuarial valuation of the pension assets, liabilities, and funding requirements of the public employees retirement system as established pursuant to this chapter.”

This report presents the results of the December 31, 2011 annual actuarial valuation of the Ohio Public Employees Retirement System (OPERS) Defined Benefit Allowances of the Traditional, Combined and Member Directed Plans. In conjunction with Chapter 145 of the ORC, the purposes of performing the annual valuation are as follows:

- Measure the financial position of OPERS,
- Assist the Board in establishing employer and employee contribution rates necessary to fund the pension defined benefits provided by OPERS,
- Determine the number of years required to amortize the unfunded actuarial accrued liabilities based upon established contribution rates,
- Provide actuarial reporting and disclosure information for the System’s financial report, and
- Analyze the experience of the System over the past year.

The report is presented as follows:

- Section I - Executive Summary
- Section II - Financial Information
- Section III - Benefits and Conditions Evaluated
- Section IV - Recommendations for Reserve Transfers
- Section V - Active and Inactive Vested Valuation Results for State
- Section VI - Active and Inactive Vested Valuation Results for Local Government
- Section VII - Active and Inactive Vested Valuation Results for Public Safety
- Section VIII - Active and Inactive Vested Valuation Results for Law Enforcement
- Section IX - Allowances Being Paid to Retirees and Beneficiaries
- Section X - Actuarial Methods and Assumptions
- Section XI - Financial Principles
- Section XII - Governmental Accounting Standards Board (GASB) Reporting

There have been no material benefit changes since the last valuation. Actuarial assumptions and methods have been changed since the prior actuarial valuation based upon an experience study issued October 28, 2011.

A summary of the primary valuation results as of December 31, 2011 are presented on the following pages.

SUMMARY OF PENSION DEFINED BENEFIT VALUATION RESULTS
TRADITIONAL, COMBINED, AND MEMBER DIRECTED PLANS
DECEMBER 31
(\$ IN MILLIONS)

	2011						2010		
	General			Law			Grand Total	Assumptions	
	State	Local	Total General	Public Safety	Law Enforcement	Total Law		New	Old
A. Demographic Information									
1. Active Number Counts									
a. Traditional Plan	115,854	205,157	321,011	84	7,545	7,629	328,640	334,507	334,507
b. Combined Plan	<u>2,419</u>	<u>4,295</u>	<u>6,714</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6,714</u>	<u>6,667</u>	<u>6,667</u>
c. Total	118,273	209,452	327,725	84	7,545	7,629	335,354	341,174	341,174
2. Active Payroll									
a. Traditional Plan	\$ 4,717	\$ 6,945	\$ 11,662	\$ 4	\$ 438	\$ 441	\$ 12,103	\$ 12,165	\$ 12,165
b. Combined Plan	<u>126</u>	<u>170</u>	<u>296</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>296</u>	<u>284</u>	<u>284</u>
c. Total	\$ 4,844	\$ 7,115	\$ 11,958	\$ 4	\$ 438	\$ 441	\$ 12,399	\$ 12,450	\$ 12,450
3. Retired Number Counts	66,039	119,321	185,360	169	4,320	4,489	189,849	181,483	181,483
4. Deferred / Inactive Number Counts	183,166	265,058	448,224	35	934	969	449,193	404,009	404,009
5. Member Directed Active Number Counts	<u>3,282</u>	<u>5,999</u>	<u>9,281</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>9,281</u>	<u>8,652</u>	<u>8,652</u>
6. Total Number Counts	370,760	599,830	970,590	288	12,799	13,087	983,677	935,318	935,318
B. Defined Benefit Assets									
1. Market Value (MV)	\$ 24,156	\$ 35,133	\$ 59,289	\$ 37	\$ 2,521	\$ 2,558	\$ 61,847	\$ 63,649	\$ 63,649
2. Rate of Return on MV							0.36 %	13.43 %	13.43 %
3. Funding Value (FV)	\$ 25,558	\$ 37,172	\$ 62,730	\$ 39	\$ 2,667	\$ 2,706	\$ 65,436	\$ 63,649	\$ 60,600
4. Rate of Return on FV							6.09 %	13.64 %	8.26 %
5. Ratio of FV to MV							105.8%	100.0%	95.2%
C. Defined Benefit Actuarial Results									
1. Normal Cost as a % of Payroll	15.37%	15.14%	15.25%	18.12%	20.18%	20.18%	15.42%	15.39%	15.47%
2. Actuarial Accrued Liability (AAL)									
a. Active	\$ 13,749	\$ 20,221	\$ 33,970	\$ 7	\$ 1,519	\$ 1,526	\$ 35,497	\$ 35,764	\$ 35,564
b. Retired	18,942	25,754	44,696	41	1,854	1,895	46,591	42,363	41,717
c. Deferred/Inactive	<u>1,006</u>	<u>1,409</u>	<u>2,415</u>	<u>1</u>	<u>27</u>	<u>27</u>	<u>2,442</u>	<u>2,357</u>	<u>2,349</u>
d. Total	\$ 33,696	\$ 47,385	\$ 81,081	\$ 49	\$ 3,400	\$ 3,449	\$ 84,530	\$ 80,485	\$ 79,630
3. Unfunded AAL (UAAL)	\$ 8,138	\$ 10,213	\$ 18,351	\$ 9	\$ 733	\$ 742	\$ 19,094	\$ 16,836	\$ 19,031
4. Funded Ratio	75.8 %	78.4 %	77.4 %	81.2 %	78.4 %	78.5 %	77.4 %	79.1 %	76.1 %
D. Amortization Years to Fully Amortize UAAL *									
	38	26	30	46	24	24	30	24	29
E. Contribution Rates									
	CY 2014						CY 2013		
1. Pension Contributions									
a. Employer Normal Cost	5.37%	5.14%	5.25%	6.12%	7.18%	7.19%	5.31%	5.30%	5.38%
b. Member Contribution Rate	10.00%	10.00%	10.00%	12.00%	13.00%	12.99%	10.11%	10.09%	10.09%
c. UAAL Contribution Rate	<u>8.63%</u>	<u>8.86%</u>	<u>8.75%</u>	<u>11.98%</u>	<u>10.92%</u>	<u>10.91%</u>	<u>8.84%</u>	<u>7.85%</u>	<u>7.77%</u>
d. Total	24.00%	24.00%	24.00%	30.10%	31.10%	31.09%	24.26%	23.24%	23.24%
2. Retiree Health Contribution Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
3. Total Employer Contribution Rate	14.00%	14.00%	14.00%	18.10%	18.10%	18.10%	14.15%	14.15%	14.15%

* Based on schedule of employer and member contribution rates shown on page III-3. For the 2011 results, the amortization years shown are from December 31, 2012. For GASB purposes, amortization years are determined based upon scheduled contribution rate increases through 2014. See page XII-10 for additional explanation.

Reported pays for certain State employees were increased by 2% assuming these employees will experience fewer future furlough days than experienced during 2011.

SUMMARY OF PENSION DEFINED BENEFIT VALUATION RESULTS
TRADITIONAL PLAN
DECEMBER 31
(\$ IN MILLIONS)

	2011						2010		
	General			Law			Grand Total	Assumptions	
	State	Local	Total General	Public Safety	Law Enforcement	Total Law		New	Old
A. Demographic Information									
1. Active Number Counts	115,854	205,157	321,011	84	7,545	7,629	328,640	334,507	334,507
2. Active Payroll	\$ 4,717	\$ 6,945	\$ 11,662	\$ 4	\$ 438	\$ 441	\$ 12,103	\$ 12,165	\$ 12,165
3. Retired Number Counts	66,021	119,243	185,264	169	4,320	4,489	189,753	181,433	181,433
4. Deferred / Inactive Number Counts	182,675	264,237	446,912	35	934	969	447,881	402,869	402,869
5. Total Number Counts	364,550	588,637	953,187	288	12,799	13,087	966,274	918,809	918,809
B. Defined Benefit Assets									
1. Market Value (MV)	\$ 24,095	\$ 35,039	\$ 24,095	\$ 37	\$ 2,521	\$ 2,558	\$ 61,693	\$ 63,515	\$ 63,515
2. Rate of Return on MV							0.36 %	13.44 %	13.44 %
3. Funding Value (FV)	\$ 25,494	\$ 37,073	\$ 62,567	\$ 39	\$ 2,667	\$ 2,706	65,274	\$ 63,515	\$ 60,461
4. Rate of Return on FV							6.09 %	13.66 %	8.27 %
5. Ratio of FV to MV							105.8%	100.0%	95.2%
C. Defined Benefit Actuarial Results									
1. Normal Cost as a % of Payroll	15.28%	15.05%	15.14%	18.12%	20.18%	20.18%	15.34%	15.32%	15.37%
2. Actuarial Accrued Liability (AAL)									
a. Active	\$ 13,666	\$ 20,108	\$ 33,774	\$ 7	\$ 1,519	\$ 1,526	\$ 35,301	\$ 35,592	\$ 35,398
b. Retired	18,941	25,752	44,693	41	1,854	1,895	46,588	42,362	41,715
c. Deferred/Inactive	<u>1,004</u>	<u>1,406</u>	<u>2,410</u>	<u>1</u>	<u>27</u>	<u>27</u>	<u>2,437</u>	<u>2,354</u>	<u>2,345</u>
d. Total	\$ 33,611	\$ 47,266	\$ 80,877	\$ 49	\$ 3,400	\$ 3,449	\$ 84,325	\$ 80,307	\$ 79,459
3. Unfunded AAL (UAAL)	\$ 8,117	\$ 10,192	\$ 18,309	\$ 9	\$ 733	\$ 742	\$ 19,052	\$ 16,792	\$ 18,997
4. Funded Ratio	75.9 %	78.4 %	77.4 %	81.2 %	78.4 %	78.5 %	77.4 %	79.1 %	76.1 %
D. Amortization Years to Fully Amortize UAAL *									
	39	26	31	46	24	24	30	25	30
E. Contribution Rates									
	CY 2014						CY 2013		
1. Pension Contributions									
a. Employer Normal Cost	5.28%	5.05%	5.14%	6.12%	7.18%	7.19%	5.23%	5.23%	5.28%
b. Member Contribution Rate	10.00%	10.00%	10.00%	12.00%	13.00%	12.99%	10.11%	10.09%	10.09%
c. UAAL Contribution Rate	<u>8.72%</u>	<u>8.95%</u>	<u>8.86%</u>	<u>11.98%</u>	<u>10.92%</u>	<u>10.91%</u>	<u>8.92%</u>	<u>7.92%</u>	<u>7.87%</u>
d. Total	24.00%	24.00%	24.00%	30.10%	31.10%	31.09%	24.26%	23.24%	23.24%
2. Retiree Health Contribution Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
3. Total Employer Contribution Rate	14.00%	14.00%	14.00%	18.10%	18.10%	18.10%	14.15%	14.15%	14.15%

* Based on schedule of employer and member contribution rates shown on page III-3. For the 2011 results, the amortization years shown are from December 31, 2012. For GASB purposes, amortization years are determined based upon scheduled contribution rate increases through 2014. See page XII-10 for additional explanation.

Reported pays for certain State employees were increased by 2% assuming these employees will experience fewer future furlough days than experienced during 2011.

**SUMMARY OF PENSION DEFINED BENEFIT VALUATION RESULTS
COMBINED PLAN
DECEMBER 31
(\$ IN MILLIONS)**

	2011			2010	
	General		Grand Total	Assumptions	
	State	Local		New	Old
A. Demographic Information					
1. Active Number Counts	2,419	4,295	6,714	6,667	6,667
2. Active Payroll	\$ 126	\$ 170	\$ 296	\$ 285	\$ 285
3. Retired Number Counts	12	46	58	32	32
4. Deferred / Inactive Number Counts	<u>491</u>	<u>821</u>	<u>1,312</u>	<u>1,140</u>	<u>1,140</u>
5. Total Number Counts	2,922	5,162	8,084	7,839	7,839
B. Defined Benefit Assets					
1. Market Value (MV)	\$ 61	\$ 92	\$ 153	\$ 134	\$ 134
2. Rate of Return on MV			0.47 %	7.82 %	7.82 %
3. Funding Value (FV)	\$ 64	\$ 97	\$ 161	\$ 134	\$ 138
4. Rate of Return on FV			6.12 %	1.81 %	5.15 %
5. Ratio of FV to MV			105%	100%	103%
C. Defined Benefit Actuarial Results					
1. Normal Cost as a % of Payroll	16.99%	16.83%	16.89%	16.89%	17.00%
2. Actuarial Accrued Liability (AAL)					
a. Active	\$ 83	\$ 113	\$ 196	\$ 172	\$ 167
b. Retired	0	1	2	1	1
c. Deferred/Inactive	<u>2</u>	<u>3</u>	<u>5</u>	<u>4</u>	<u>4</u>
d. Total	\$ 85	\$ 118	\$ 203	\$ 177	\$ 171
3. Unfunded AAL (UAAL)	\$ 21	\$ 21	\$ 42	\$ 43	\$ 33
4. Funded Ratio	75.1 %	82.3 %	79.3 %	75.5 %	80.5 %
D. Amortization Years to Fully Amortize UAAL *					
	2	1	2	3	2
E. Contribution Rates					
	CY 2014			CY 2013	
1. Total Normal Cost	16.99%	16.83%	16.89%	16.89%	17.00%
2. Member Contribution Rate	<u>10.00%</u>	<u>10.00%</u>	<u>10.00%</u>	<u>10.00%</u>	<u>10.00%</u>
3. Employer Normal Cost	6.99%	6.83%	6.89%	6.89%	7.00%
4. Other Contributions #	7.01%	7.17%	7.11%	7.11%	7.00%
5. Total Employer Contribution Rate	14.00%	14.00%	14.00%	14.00%	14.00%

* Based on schedule of employer and member contribution rates shown on page III-3. For the 2011 results, the amortization years shown are from December 31, 2012.

Other contributions include; amortization payments for the pension UAAL, mitigating contributions, and contributions to the retiree health care fund.

Reported pays for certain State employees were increased by 2% assuming these employees will experience fewer future furlough days than experienced during 2011.

SUMMARY OF PENSION DEFINED BENEFIT VALUATION RESULTS
MEMBER DIRECTED PLAN
DECEMBER 31

	2011			2010	
	General		Grand Total	Assumptions	
	State	Local		New	Old
A. Demographic Information					
1. Active Number Counts	3,282	5,999	9,281	8,652	8,652
2. Retired Number Counts	6	32	38	18	18
3. Deferred / Inactive Number Counts	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
4. Total Number Counts	3,288	6,031	9,319	8,670	8,670
B. Defined Benefit Assets					
1. Market Value (MV)	\$ 171,115	\$940,549	\$1,111,664	\$454,025	\$454,025
2. Rate of Return on MV			0.41 %	12.98 %	12.98 %
3. Funding Value (FV)	\$ 177,963	\$978,188	\$1,156,151	\$454,025	\$438,982
4. Rate of Return on FV			6.10 %	13.82 %	8.95 %
5. Ratio of FV to MV			104.0%	100.0%	96.7%
C. Defined Benefit Actuarial Results					
1. Normal Cost as a % of Payroll					
2. Actuarial Accrued Liability (AAL)					
a. Active	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
b. Retired	159,649	1,013,251	1,172,900	496,004	489,792
c. Deferred/Inactive	0	0	0	0	0
d. Total	159,649	1,013,251	1,172,900	496,004	489,792
3. Unfunded AAL (UAAL)	(\$18,314)	\$ 35,063	\$ 16,749	\$ 41,979	\$ 50,810
4. Funded Ratio			98.6 %	91.5 %	89.6 %

COMMENTS AND CONCLUSION

The December 31, 2011 actuarial valuations of members indicate the following about the portion of employer contribution rates allocated to financing retirement allowances:

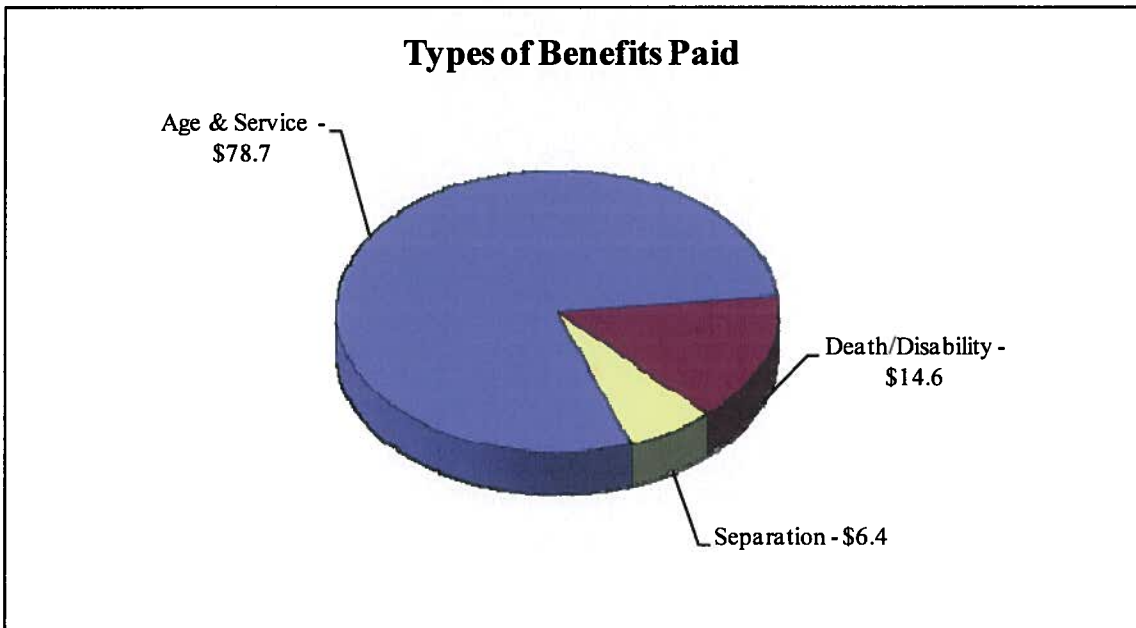
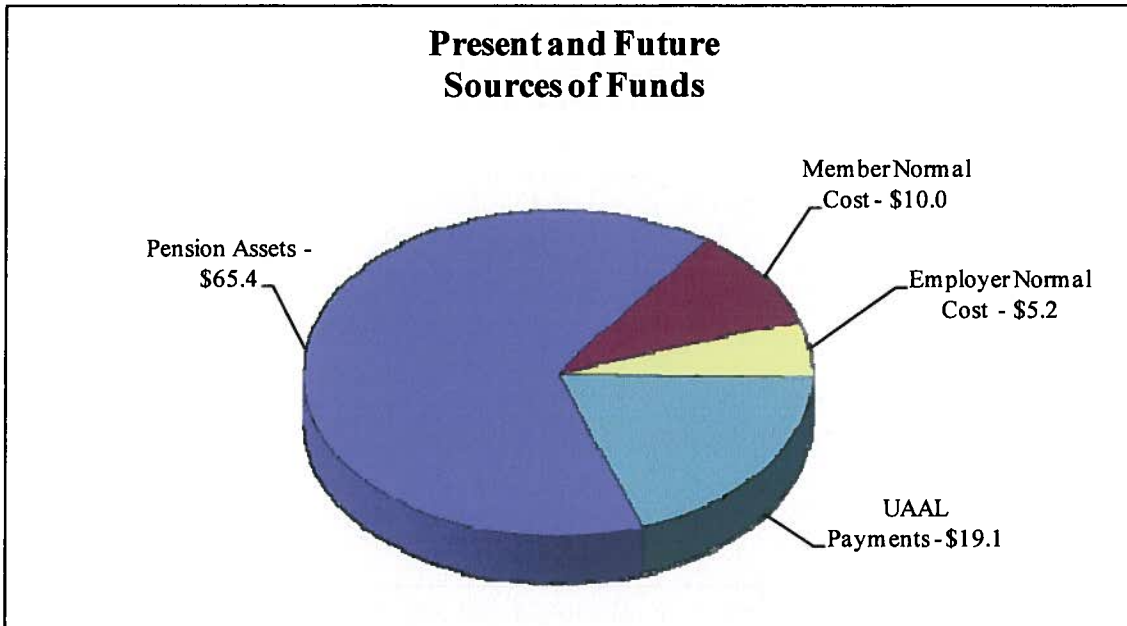
- The employer rates are sufficient to fully fund the cost of benefit commitments being made to members for service currently being rendered.
- After satisfying current cost requirements, the remaining portion of the employer rates provides sufficient funds to amortize unfunded actuarial accrued liabilities over a period of 30 years for the System in total.

Actuarial Assumptions and Methods. The December 31, 2011 actuarial valuation reflects new assumptions adopted in October 2011 as the result of an Experience Study covering the years 2006-2010. Actuarial assumptions and methods are described in section X of this report.

Experience. The computed amortization period, taking into account all scheduled increases in contribution rates is 30 years, compared with the 29 year period that had been reported in the December 31, 2010 valuation. Measured on a market value basis, investment return was 0.36%. This figure is based upon an actuarial calculation and may not agree with figures reported elsewhere. The return on the funding value of assets was 6.09% due to only partial recognition of the 2011 market value loss. Since the expected return on the funding value of assets is 8%, the actual return of 6.09% resulted in a increase to the amortization years. Individual salary increases during 2011 were less than expected on average which improved the amortization period. However, a decrease in active member total payroll during 2011 resulted in an increase to the amortization years. Continued decreases in the active member payroll would result in continued upward pressure on the amortization period. Information concerning 2011 experience including other sources of gains and losses is presented on pages I-14 through I-16.

Conclusion. Based on the results of the December 31, 2011 regular annual actuarial valuation, it is our opinion that the Ohio Public Employees Retirement System continues to operate in accordance with actuarial principles of level percent of payroll financing.

**FINANCING \$99.7 BILLION* OF DEFINED BENEFIT PROMISES
FOR PRESENT ACTIVE AND RETIRED MEMBERS
DECEMBER 31, 2011
(DOLLAR AMOUNTS IN BILLIONS)**



* Present value of future benefits – all divisions combined.

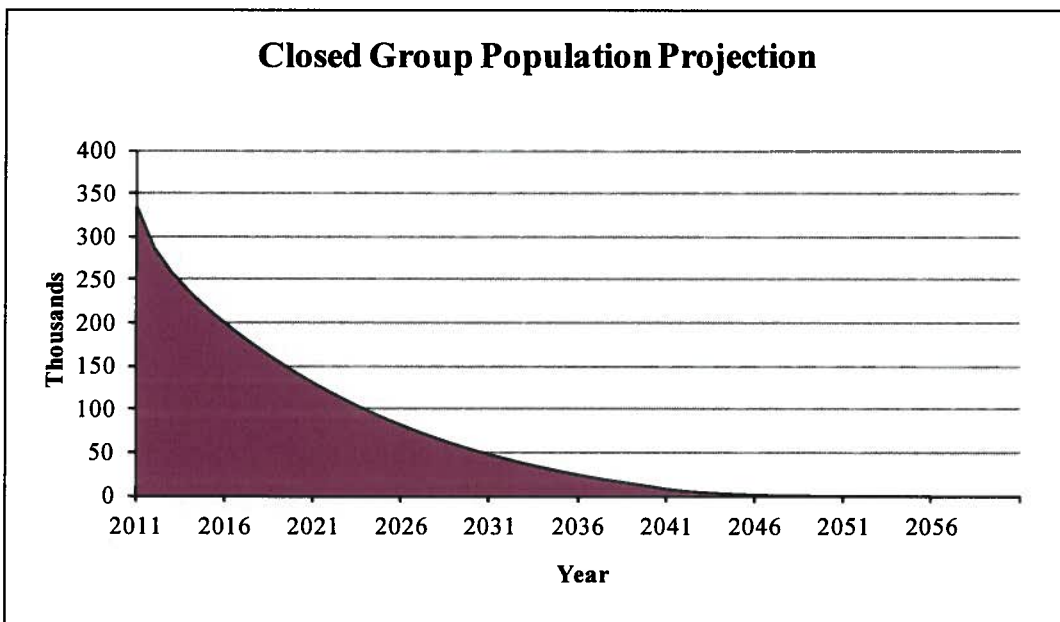
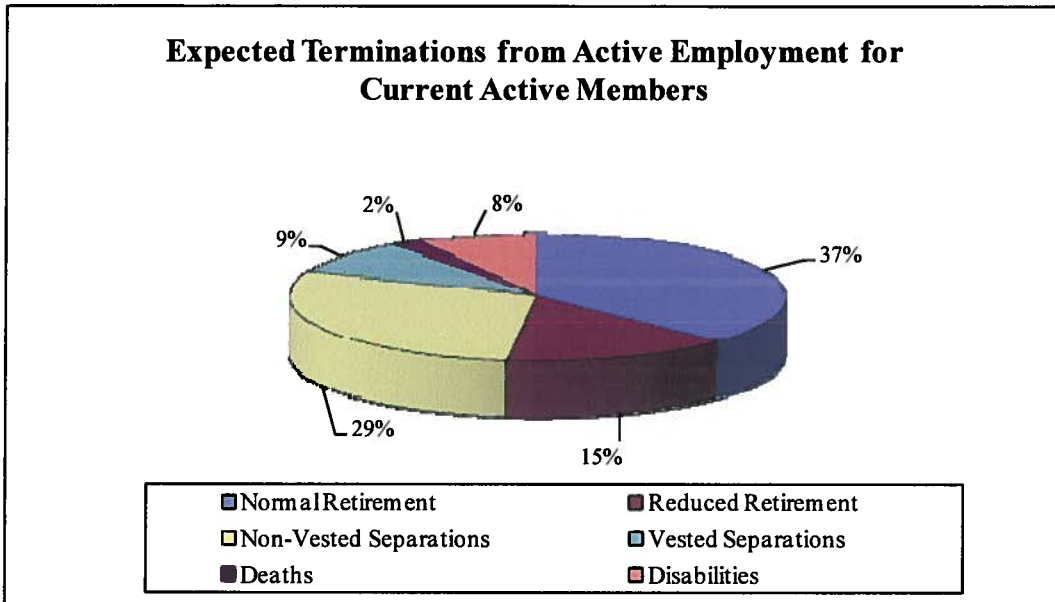
DEFINED BENEFIT ACTIVE MEMBERS IN VALUATION GROUP AVERAGES - COMPARATIVE STATEMENT

Valuation Group	Dec. 31	No. of Active Members	Group Averages				
			Attained Age	Accrued Service Yrs.	Annual Payroll		
					Average	Increase	
STATE	1975	83,220	40.6 yrs.	6.5 yrs.	\$ 9,441	6.4 %	@
	1980	92,872	39.4	7.3	13,934	8.1 %	@
	1985	89,256	39.2	8.4	18,677	7.4 %	@
	1990	98,939	40.7	8.1	25,281	6.2 %	@
	1995	114,596	40.4	8.8	27,962	2.0 %	@
	2000	113,099	41.6	9.7	34,201	4.1 %	@
	2005	114,620	42.0	10.1	37,858	2.1 %	@
	2010	118,240	41.0	9.6	40,691	1.5 %	@
	2011	118,273	40.5	9.2	40,952	0.6 %	
LOCAL GOVT	1975	149,557	40.8 yrs.	6.1 yrs.	\$ 8,771	4.3 %	@
	1980	160,797	40.7	7.4	13,035	8.2 %	@
	1985	158,285	40.1	8.3	15,983	6.2 %	@
	1990	173,220	41.5	7.9	19,506	4.1 %	@
	1995	223,431	41.2	7.6	20,384	0.9 %	@
	2000	245,831	41.8	8.1	24,401	3.7 %	@
	2005	236,073	43.3	9.2	29,933	4.2 %	@
	2010	215,144	44.6	10.1	33,447	2.2 %	@
	2011	209,452	44.9	10.2	33,968	1.6 %	
LAW *	1975	2,111	35.0 yrs.	4.9 yrs.	\$ 10,467	-	
	1980	3,019	36.1	6.8	16,846	10.0 %	@
	1985	4,207	36.5	8.4	20,103	5.5 %	@
	1990	5,804	38.6	9.9	26,936	6.0 %	@
	1995	6,605	39.3	11.1	32,441	3.2 %	@
	2000	8,045	39.3	11.7	40,387	4.5 %	@
	2005	8,111	39.9	12.6	49,472	4.1 %	@
	2010	7,790	41.2	14.0	56,801	2.8 %	@
	2011	7,629	41.3	14.1	57,836	1.8 %	
TOTAL	2003	353,584	42.5 yrs.	9.4 yrs.	\$ 31,577	-	
	2004	355,287	42.7	9.5	32,240	2.1 %	
	2005	358,804	42.8	9.5	32,906	2.1 %	
	2006	362,130	42.9	9.5	33,621	2.2 %	
	2007	364,076	42.9	9.6	34,562	2.8 %	
	2008	356,388	43.2	9.8	35,919	3.9 %	
	2009	348,112	43.3	10.0	36,047	0.4 %	
	2010	341,174	43.3	10.0	36,491	1.2 %	
	2011	335,354	43.2	9.9	36,974	1.3 %	

@ 5-year annual compound rate.

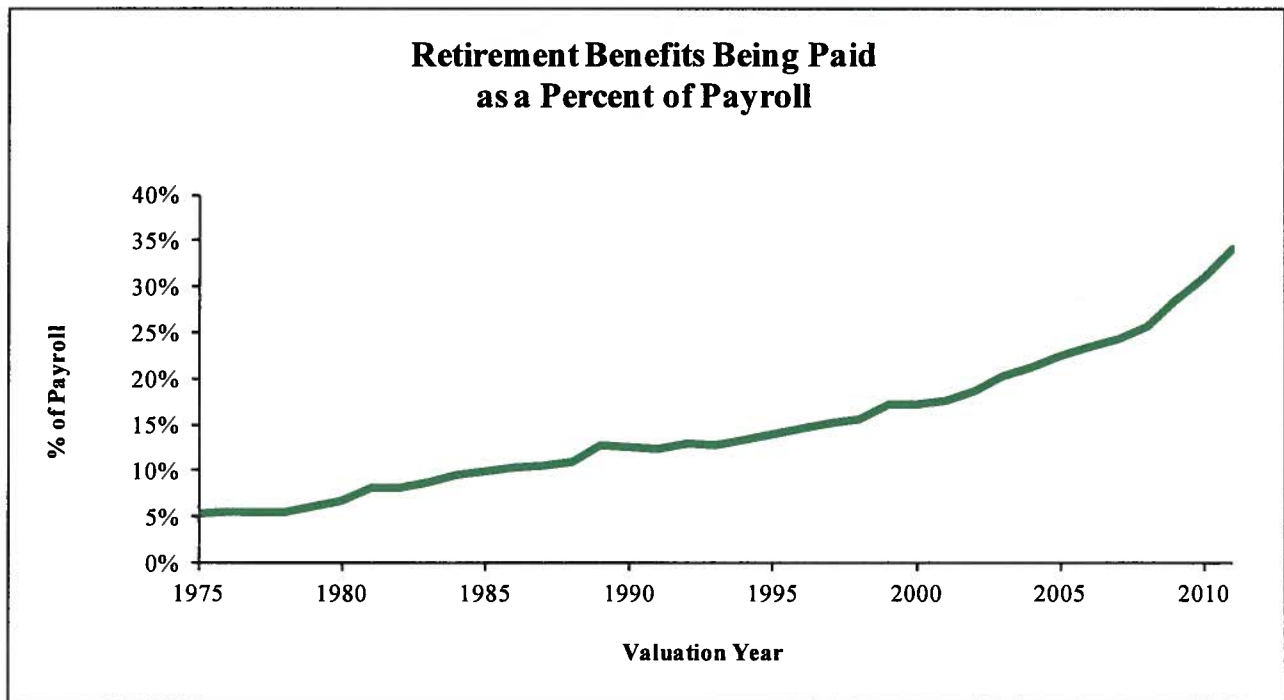
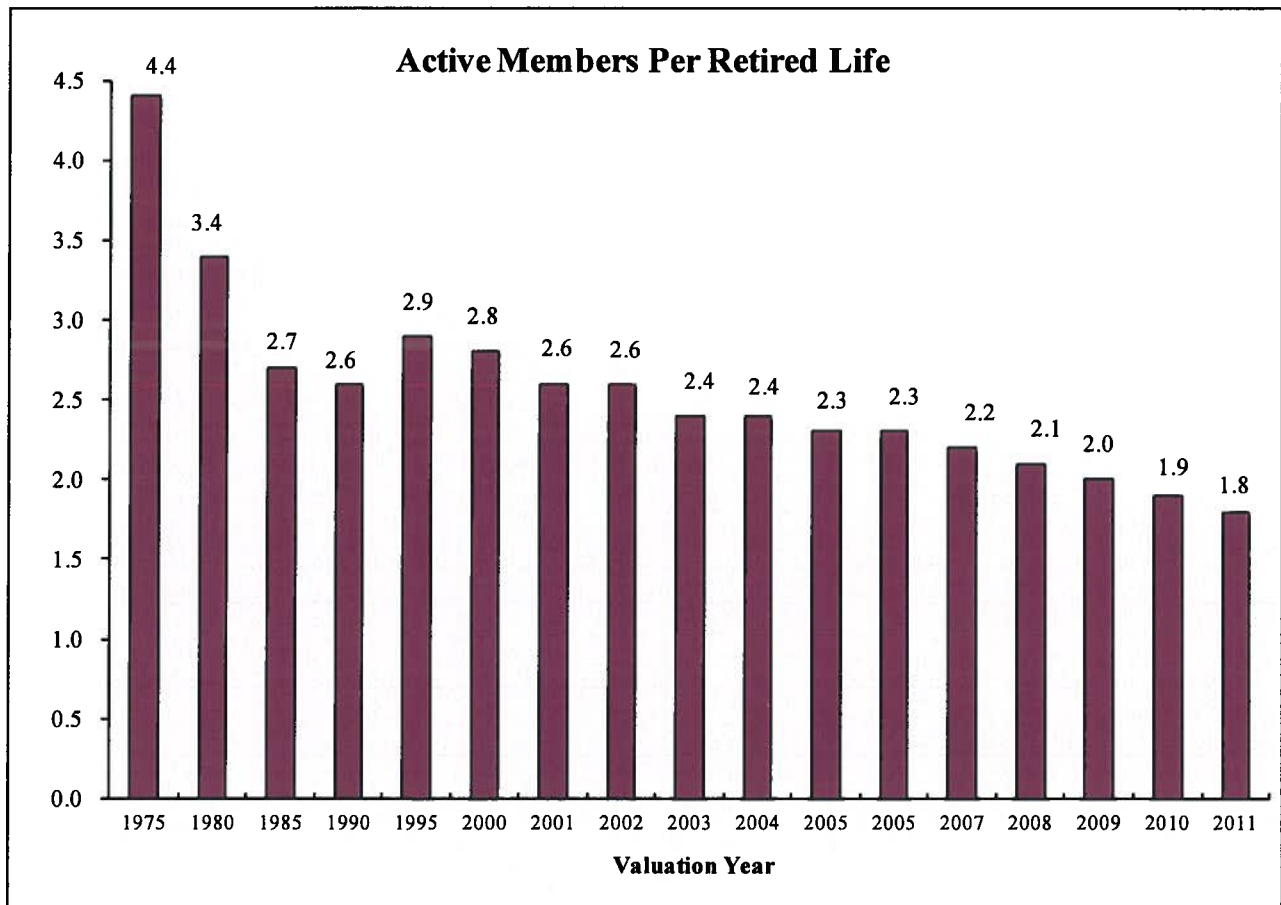
* Beginning with the December 31, 2005 valuation report, valuation results for the Law division are shown separately for Public Safety and Law Enforcement.

DEVELOPMENT OF PRESENT DEFINED BENEFIT POPULATION DECEMBER 31, 2011

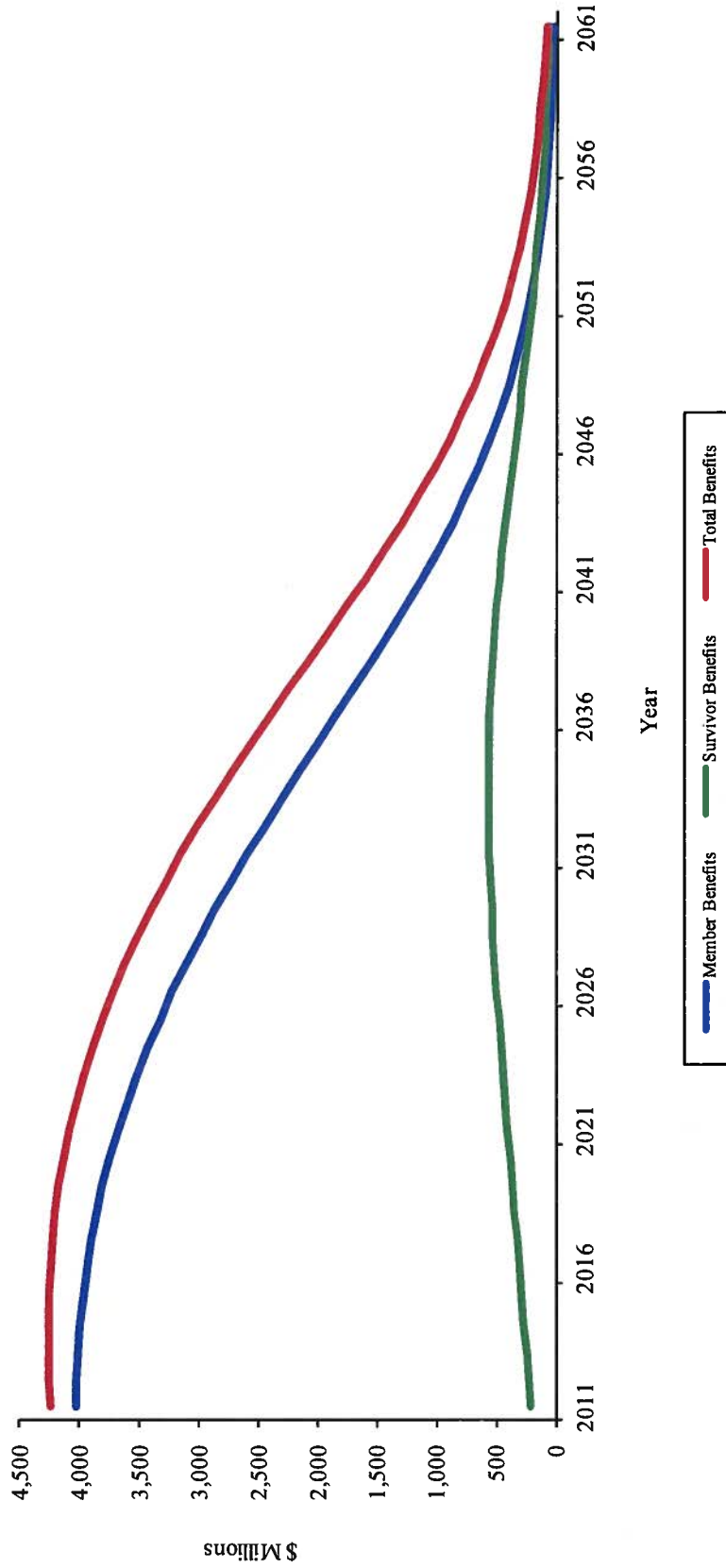


The charts above show the expected future development of the present population in simplified terms. The defined benefit portion of the Retirement System presently covers 335,354 active members. Eventually, 29% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for a monthly benefit. 61% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by separating from service without withdrawing contributions. 10% of the present population is expected to become eligible for death-in-service or disability benefits. Within 8 years, over half of the covered membership is expected to consist of new hires.

ACTIVE/RETIRED MEMBER STATISTICS DECEMBER 31, 2011



**PROJECTED FUTURE BENEFIT PAYMENTS
ON BEHALF OF PRESENT RETIRED LIVES**



Total future payments: \$117.3 billion
 From present assets: \$46.6 billion
 From future earnings: \$70.7 billion

**ALL DIVISIONS
DEFINED BENEFIT ACTIVE MEMBERS IN VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	9,878							9,878
Tot. Pay	\$60,450,956							\$60,450,956
Avg. Pay	\$6,120							\$6,120
20-24	32,417	434						32,851
Tot. Pay	\$346,035,180	\$8,163,068						\$354,198,248
Avg. Pay	\$10,674	\$18,809						\$10,782
25-29	21,021	5,029	258					26,308
Tot. Pay	\$515,248,696	\$187,142,983	\$9,801,808					\$712,193,487
Avg. Pay	\$24,511	\$37,213	\$37,992					\$27,071
30-34	16,269	10,281	4,166	152				30,868
Tot. Pay	\$430,886,787	\$442,345,874	\$189,633,201	\$6,736,856				\$1,069,602,718
Avg. Pay	\$26,485	\$43,026	\$45,519	\$44,321				\$34,651
35-39	10,307	7,925	8,724	2,780	120			29,856
Tot. Pay	\$305,517,640	\$350,093,140	\$431,960,493	\$142,835,458	\$5,500,514			\$1,235,907,245
Avg. Pay	\$29,642	\$44,176	\$49,514	\$51,380	\$45,838			\$41,396
40-44	10,235	7,666	8,578	7,873	3,373	133		37,858
Tot. Pay	\$298,127,242	\$331,013,361	\$418,484,642	\$437,382,122	\$188,060,442	\$7,185,215		\$1,680,253,024
Avg. Pay	\$29,128	\$43,179	\$48,786	\$55,555	\$55,755	\$54,024		\$44,383
45-49	9,208	7,346	7,678	6,744	7,798	3,548	154	42,476
Tot. Pay	\$252,418,731	\$305,940,176	\$361,301,366	\$358,995,697	\$454,786,387	\$206,638,187	\$8,846,193	\$1,948,926,737
Avg. Pay	\$27,413	\$41,647	\$47,057	\$53,232	\$58,321	\$58,241	\$57,443	\$45,883
50-54	8,677	7,026	7,810	6,684	7,415	6,553	1,956	46,121
Tot. Pay	\$226,691,719	\$276,195,937	\$346,718,655	\$332,074,881	\$414,636,286	\$399,604,876	\$118,703,485	\$2,114,625,839
Avg. Pay	\$26,126	\$39,311	\$44,394	\$49,682	\$55,919	\$60,980	\$60,687	\$45,850
55-59	6,870	6,013	6,851	6,076	6,540	4,717	2,670	39,737
Tot. Pay	\$165,758,021	\$227,746,245	\$291,393,296	\$292,137,110	\$345,449,515	\$279,782,111	\$171,143,327	\$1,773,409,625
Avg. Pay	\$24,128	\$37,876	\$42,533	\$48,080	\$52,821	\$59,314	\$64,099	\$44,629
60-64	4,335	3,794	4,277	3,699	4,005	2,810	1,633	24,553
Tot. Pay	\$88,938,971	\$131,239,722	\$176,505,311	\$173,541,169	\$206,975,527	\$160,507,378	\$108,356,324	\$1,046,064,402
Avg. Pay	\$20,516	\$34,591	\$41,268	\$46,916	\$51,679	\$57,120	\$66,354	\$42,604
65-69	2,443	1,576	1,509	1,137	1,110	743	560	9,078
Tot. Pay	\$29,440,187	\$40,479,350	\$55,248,280	\$46,781,365	\$53,185,089	\$39,214,144	\$33,339,129	\$297,687,544
Avg. Pay	\$12,051	\$25,685	\$36,613	\$41,145	\$47,914	\$52,778	\$59,534	\$32,792
70 & Over	2,077	1,270	908	536	416	276	287	5,770
Tot. Pay	\$15,605,982	\$16,066,537	\$17,767,296	\$15,450,647	\$14,547,326	\$11,553,604	\$15,153,481	\$106,144,873
Avg. Pay	\$7,514	\$12,651	\$19,568	\$28,826	\$34,970	\$41,861	\$52,800	\$18,396
Totals	133,737	58,360	50,759	35,681	30,777	18,780	7,260	335,354
Tot. Pay	\$2,735,120,112	\$2,316,426,393	\$2,298,814,348	\$1,805,935,305	\$1,683,141,086	\$1,104,485,515	\$455,541,939	\$12,399,464,698
Avg. Pay	\$20,451	\$39,692	\$45,289	\$50,613	\$54,688	\$58,812	\$62,747	\$36,974

**ALL DIVISIONS
DEFINED BENEFIT ACTIVE MEMBERS IN VALUATION
DECEMBER 31, 2011
BY GENDER AND YEARS OF SERVICE**

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	27,382	31,235	58,617	\$ 729,126,322	\$12,439
1	12,425	14,500	26,925	573,190,864	21,288
2	8,192	8,574	16,766	428,451,884	25,555
3	6,910	8,754	15,664	474,524,044	30,294
4	7,248	8,517	15,765	529,827,001	33,608
5	6,487	7,808	14,295	531,850,654	37,205
6	5,714	6,999	12,713	486,118,233	38,238
7	5,085	6,075	11,160	455,027,235	40,773
8	4,788	5,379	10,167	418,265,981	41,140
9	4,550	5,475	10,025	425,164,290	42,410
10	4,866	5,798	10,664	451,780,062	42,365
11	4,996	6,546	11,542	513,886,682	44,523
12	4,881	5,684	10,565	483,809,645	45,794
13	4,296	5,105	9,401	446,416,066	47,486
14	3,996	4,591	8,587	402,921,892	46,922
15 & Up	45,026	47,472	92,498	5,049,103,843	54,586
Totals	156,842	178,512	335,354	\$12,399,464,698	\$36,974

**SUMMARY OF PENSION EXPERIENCE
TRADITIONAL, COMBINED, AND MEMBER DIRECTED PLANS
(\$ IN MILLIONS)**

	2011		2010	
	Total \$	% of Accrued Liabilities	Total \$	% of Accrued Liabilities
Beginning of Year				
1. Total Accrued Liabilities *	\$80,484.77	100.0 %	\$76,555.02	100.0 %
2. Valuation Assets #	63,649.06	79.1 %	57,629.42	75.3 %
3. Unfunded Actuarial Accrued Liabilities	\$16,835.71	20.9 %	\$18,925.60	24.7 %
Experience Gains(Losses)				
4. Gains (losses) in economic risk areas				
a. Pay increases	\$ 362.46	0.5 %	\$ 775.96	1.0 %
b. Investment return	(1,196.46)	(1.5)%	150.09	0.2 %
c. Total	(834.00)	(1.0)%	926.05	1.2 %
5. Gains (losses) from decrement experience				
a. Service retirement	(179.05)	(0.2)%	(20.59)	0.0 %
b. Disability retirement	92.60	0.1 %	61.98	0.1 %
c. Death-in-service	36.03	0.0 %	32.08	0.0 %
d. Other separations	16.45	0.0 %	98.08	0.1 %
e. Total	(33.97)	(0.1)%	171.55	0.2 %
6. Total experience gains (losses): (4c) + (5e)	\$ (867.97)	(1.1)%	\$ 1,097.60	1.4 %
End of Year				
7. Total Accrued Liabilities	\$84,529.74	100.0 %	\$79,630.07	100.0 %
8. Valuation Assets	65,436.13	77.4 %	60,599.50	76.1 %
9. Unfunded Actuarial Accrued Liabilities	\$19,093.61	22.6 %	\$19,030.57	23.9 %

* Beginning of year accrued liability for 2011 is based on new assumptions adopted after the completion of the December 31, 2010 valuation.

The funding value of assets as of December 31, 2010 was set to the market value.

**SUMMARY OF PENSION EXPERIENCE
TRADITIONAL PLAN
(\$ IN MILLIONS)**

	2011		2010	
	Total \$	% of Accrued Liabilities	Total \$	% of Accrued Liabilities
Beginning of Year				
1. Total Accrued Liabilities *	\$80,307.29	100.0 %	\$76,407.06	100.0 %
2. Valuation Assets #	63,515.01	79.1 %	57,519.36	75.3 %
3. Unfunded Actuarial Accrued Liabilities	\$16,792.28	20.9 %	\$18,887.70	24.7 %
Experience Gains (Losses)				
4. Gains (losses) in economic risk areas				
a. Pay increases	\$ 359.46	0.4 %	\$ 773.67	1.0 %
b. Investment return	(1,193.76)	(1.5)%	153.52	0.2 %
c. Total	(834.30)	(1.1)%	927.19	1.2 %
5. Gains (losses) from decrement experience				
a. Service retirement	(178.97)	(0.2)%	(20.47)	0.0 %
b. Disability retirement	88.08	0.1 %	59.22	0.1 %
c. Death-in-service	36.06	0.0 %	32.04	0.0 %
d. Other separations	15.88	0.0 %	99.76	0.1 %
e. Total	(38.95)	0.0 %	170.55	0.2 %
6. Total experience gains (losses): (4c) + (5e)	\$ (873.25)		\$ 1,097.74	
End of Year				
7. Total Accrued Liabilities	\$84,325.49	100.0 %	\$79,458.52	100.0 %
8. Valuation Assets	65,273.93	77.4 %	60,461.44	76.1 %
9. Unfunded Actuarial Accrued Liabilities	\$19,051.56	22.6 %	\$18,997.08	23.9 %

* Beginning of year accrued liability for 2011 is based on new assumptions adopted after the completion of the December 31, 2010 valuation.

The funding value of assets as of December 31, 2010 was set to the market value.

**SUMMARY OF PENSION EXPERIENCE
COMBINED PLAN
(\$ IN MILLIONS)**

	2011		2010	
	Total \$	% of Accrued Liabilities	Total \$	% of Accrued Liabilities
Beginning of Year				
1. Total Accrued Liabilities *	\$176.98	100.0 %	\$147.71	100.0 %
2. Valuation Assets #	133.60	75.5 %	109.85	74.4 %
3. Unfunded Actuarial Accrued Liabilities	\$ 43.38	24.5 %	\$ 37.86	25.6 %
Experience Gains (Losses)				
4. Gains (losses) in economic risk areas				
a. Pay increases	\$ 3.00	1.7 %	\$ 2.29	1.5 %
b. Investment return	(2.69)	(1.5)%	(3.44)	(2.3)%
c. Total	0.31	0.2 %	(1.15)	(0.8)%
5. Gains (losses) from decrement experience				
a. Service retirement	(0.09)	(0.1)%	(0.12)	(0.1)%
b. Disability retirement	4.52	2.6 %	2.78	1.9 %
c. Death-in-service	(0.02)	0.0 %	0.04	0.0 %
d. Other separations	0.55	0.3 %	(1.67)	(1.1)%
e. Total	4.96	2.8 %	1.03	0.7 %
6. Total experience gains (losses): (4c) + (5e)	\$ 5.27	3.0 %	\$ (0.12)	(0.1)%
End of Year				
7. Total Accrued Liabilities	\$203.08	100.0 %	\$171.06	100.0 %
8. Valuation Assets	161.04	79.3 %	137.63	80.5 %
9. Unfunded Actuarial Accrued Liabilities	\$ 42.04	20.7 %	\$ 33.43	19.5 %

* Beginning of year accrued liability for 2011 is based on new assumptions adopted after the completion of the December 31, 2010 valuation.

The funding value of assets as of December 31, 2010 was set to the market value.

SECTION II
FINANCIAL INFORMATION

FINANCIAL DATA FOR CALENDAR YEAR 2011

CONSOLIDATED ASSET RECONCILIATION

ALL PLANS, ALL DIVISIONS

	Traditional Pension Plan		DB Portion of Combined Pension Plan		Member Directed VEBA	Total Health Care	DC Portion of Combined Pension Plan	Member Directed	Total Defined Contribution	Total 2011
	Pension Plan	Member Directed	Pension Plan	Member Directed						
Beginning Market Value @ 12/31/11	\$ 63,413,744,726	\$ 133,599,951	\$ 454,025	\$ 63,547,798,702	\$ 76,622,073	\$ 12,396,366,052	\$ 167,550,828	\$ 278,644,313	\$ 446,195,141	\$ 76,390,359,895
Assets Held in Trust for Benefits	101,260,795	-	-	101,260,795	-	-	-	-	-	101,260,795
Assets Held for Upcoming Year Budget	63,515,005,521	133,599,951	454,025	63,649,059,497	76,622,073	12,396,366,052	167,550,828	278,644,313	446,195,141	76,491,620,690
Total Beginning Market Value @ 12/31/11										
External Cash Flows:										
Revenues:										
Member Contributions / Deposits	\$ 1,286,724,703	\$ 237,864	\$ -	\$ 1,286,962,567	\$ -	\$ -	\$ 29,391,560	\$ 36,288,383	\$ 65,679,943	\$ 1,352,642,510
Employer Contributions	1,289,436,127	23,288,993	-	1,312,725,120	15,991,930	-	5,934	33,791,406	33,797,340	1,870,545,180
Retiree Paid Health Care Premiums	-	-	-	-	148,370,246	148,370,246	-	-	-	148,370,246
Refund from HC Vendors (Formulary & Guarantees)	-	-	-	-	84,515,422	84,515,422	-	-	-	84,515,422.00
Federal Subsidies (Med D, ERBP & Direct Subsidy)	-	-	-	-	192,118,407	192,118,407	-	-	-	192,118,407.00
Other Income / Cancelled Warrants	340,460	-	-	340,460	10,915,043	10,915,043	-	-	-	11,255,503
Total Revenues	\$ 2,576,501,290	\$ 23,526,857	\$ -	\$ 2,600,028,147	\$ 15,991,930	\$ 959,941,838	\$ 29,397,494	\$ 70,079,789	\$ 99,477,283	\$ 3,659,447,268
Disbursements:										
Refunds of Member Accounts	\$ (302,812,289)	\$ (821,946)	\$ -	\$ (303,634,235)	\$ -	\$ -	\$ (5,640,903)	\$ (14,396,904)	\$ (20,037,807)	\$ (323,677,042)
Retirement Benefits	(4,329,452,581)	(187,052)	(71,192)	(4,329,710,825)	-	-	(118,163)	(89,279)	(207,442)	(4,329,918,267)
Retiree Paid Post Retirement Health Care	-	-	-	-	(148,370,246)	(148,370,246)	-	-	-	(148,370,246)
ER Paid Post Retirement Health Care	-	-	-	-	(1,304,629,646)	(1,304,629,646)	-	-	-	(1,304,629,646)
ER Paid Post Retirement Medicare	-	-	-	-	(109,072,281)	(109,072,281)	-	-	-	(109,072,281)
RMA Funding	-	-	-	-	(13,489,405)	(13,489,405)	-	-	-	(13,489,405)
Administrative Expenses	(72,677,919)	-	-	(72,677,919)	(996,285)	(18,462,493)	(2,759,418)	(2,754,236)	(5,513,654)	(96,654,066)
Total Disbursements	\$ (4,704,942,789)	\$ (1,008,998)	\$ (71,192)	\$ (4,706,022,979)	\$ (1,891,859)	\$ (1,594,919,645)	\$ (8,518,484)	\$ (17,240,419)	\$ (25,758,903)	\$ (6,326,701,527)
Net External Cash Flow	\$ (2,128,441,499)	\$ 22,517,859	\$ (71,192)	\$ (2,105,994,832)	\$ 14,100,071	\$ (649,077,878)	\$ 20,879,010	\$ 52,839,370	\$ 73,718,380	\$ (2,667,254,259)
Inter-Plan Activity										
Member Balance Transfers & Plan Switches	\$ 4,126,746	\$ (1,571,029)	\$ 725,647	\$ 3,281,364	\$ -	\$ -	\$ (985,809)	\$ (2,295,555)	\$ (3,281,364)	\$ -
DCP Fixed Assets Advanced by TP	112,475	-	-	112,475	(25,870)	(25,870)	(30,334)	(56,271)	(86,603)	-
Mitigation Rate	4,990,382	(2,252,949)	-	2,737,433	-	-	-	(2,737,433)	(2,737,433)	-
Interest on 12/31/10 Advance Balance	848,061	-	-	848,061	-	-	(289,241)	(556,518)	(845,759)	-
Income Applied to Advance (Loan) Balance	10,077,664	(3,823,978)	725,647	6,979,333	-	-	(1,305,384)	(5,645,777)	(6,951,161)	-
Total Inter-Plan Activity	\$ 15,125,278	\$ (4,847,926)	\$ 725,647	\$ 10,992,999	\$ (28,172)	\$ (28,172)	\$ (1,305,384)	\$ (5,645,777)	\$ (6,951,161)	\$ -
Investment Income:										
Interest and Dividends	\$ 1,308,772,914	\$ 2,968,499	\$ 14,078	\$ 1,311,755,491	\$ 1,738,493	\$ 338,833,654	\$ 410,981	\$ 634,855	\$ 1,045,836	\$ 1,651,634,981
Other Ordinary Investment Income	1,331,242,330	3,019,463	14,319	1,334,276,112	1,768,340	5,347,927	(6)	(9)	(15)	1,339,624,024
Realized Capital Value Changes	(2,165,938,777)	(4,912,728)	(23,298)	(2,170,894,803)	(2,877,126)	(404,438,067)	(6,437,015)	(9,943,455)	(16,380,470)	(2,591,713,340)
External Asset Management Fees	(178,044,428)	(403,833)	(1,915)	(178,450,176)	(236,503)	(13,884,543)	(255,484)	(445,727)	(701,211)	(193,035,930)
Rounding	-	-	-	-	-	-	-	-	-	-
Investment Return	\$ 296,012,039	\$ 671,401	\$ 3,184	\$ 296,686,624	\$ 393,204	\$ (74,141,029)	\$ (6,281,524)	\$ (9,754,336)	\$ (16,035,860)	\$ 206,309,735
Ending Market Value @ 12/31/11	\$ 61,692,653,725	\$ 152,965,233	\$ 1,111,664	\$ 61,846,730,622	\$ 11,596,131,868	\$ 11,687,219,044	\$ 180,842,930	\$ 316,083,570	\$ 496,926,500	\$ 74,030,876,166

DEVELOPMENT OF FUNDING VALUE OF PENSION DEFINED BENEFIT ASSETS TRADITIONAL, COMBINED, AND MEMBER DIRECTED PLANS

	Year Ended December 31					
	2010	2010**	2011	2012	2013	2014
A. Funding Value Beginning of Year	\$57,629,417,411	57,629,417,411	63,649,059,497			
B. Market Value End of Year	63,649,059,497	63,649,059,497	61,846,730,622			
C. Market Value Beginning of Year	57,733,761,582	57,733,761,582	63,649,059,497			
D. Non-Investment/Administrative Net Cash Flow						
D1. Member Contributions	1,277,263,108	1,277,263,108	1,286,962,567			
D2. Employer and other Non-Member Contributions	1,180,697,746	1,180,697,746	1,315,803,013			
D3. Refund of Member Accounts	(220,131,313)	(220,131,313)	(303,634,235)			
D4. Retirement Benefits	(3,961,305,796)	(3,961,305,796)	(4,329,710,825)			
D5. Member Balance Transfers	1,993,522	1,993,522	3,281,364			
D6. Total Net Cash Flow: D1+D2+D3+D4+D5	(1,721,482,733)	(1,721,482,733)	(2,027,298,116)			
E. Investment Return						
E1. Market Total: B-C-D6	7,636,780,648	7,636,780,648	224,969,241			
E2. Assumed Rate of Return	8.00%	8.00%	8.00%			
E3. Assumed Amount of Return	4,541,494,084	4,541,494,084	5,010,832,835			
E4. Amount Subject to Phase-In: E1-E3	3,095,286,564	3,095,286,564	(4,785,863,594)			
F. Phased-In Recognition of Investment Return						
F1. Current year: 0.25xE4	773,821,641	773,821,641	(1,196,465,899)			
F2. First Prior Year	1,351,809,420	1,351,809,420	-	(\$1,196,465,899)		
F3. Second Prior Year	(1,975,542,045)	(1,975,542,045)	-	-	(\$1,196,465,899)	
F4. Third Prior Year	-	-	-	-	-	(\$1,196,465,897)
F5. Total Phase-Ins	150,089,016	150,089,016	(1,196,465,899)	(1,196,465,899)	(1,196,465,899)	(1,196,465,897)
G. Funding Value End of Year						
G1. Preliminary Funding Value End of Year: A+D6+E3+F5	\$60,599,517,778	60,599,517,778	65,436,128,317			
G2. Upper Corridor Limit: 112% x B	71,286,946,637	71,286,946,637	69,268,338,297			
G3. Lower Corridor Limit: 88% x B	56,011,172,357	56,011,172,357	54,425,122,947			
G4. Funding Value End of Year	60,599,517,778	63,649,059,497	65,436,128,317			
H. Difference Between Market and Funding Value	3,049,541,719	-	(3,589,397,695)	(2,392,931,796)	(1,196,465,897)	-
I. Recognized Rate of Return	8.26 %	13.64 %	6.09 %			
J. Market Rate of Return	13.43 %	13.43 %	0.36 %			
K. Ratio of Funding Value to Market Value	95 %	100 %	106 %			

**Funding Value was set to Market Value as of December 31, 2010.

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

DEVELOPMENT OF FUNDING VALUE OF PENSION DEFINED BENEFIT ASSETS TRADITIONAL PLAN

	Year Ended December 31	2010	2010**	2011	2012	2013	2014
A. Funding Value Beginning of Year		\$57,519,359,607	\$57,519,359,607	\$63,515,005,521			
B. Market Value End of Year		63,515,005,521	63,515,005,521	61,692,653,725			
C. Market Value Beginning of Year		57,630,423,957	57,630,423,957	63,515,005,521			
D. Non-Investment/Administrative Net Cash Flow							
D1. Member Contributions		1,277,113,073	1,277,113,073	1,286,724,703			
D2. Employer and other Non-Member Contributions		1,156,321,523	1,156,321,523	1,294,766,969			
D3. Refund of Member Accounts		(219,808,143)	(219,808,143)	(302,812,289)			
D4. Retirement Benefits		(3,961,217,461)	(3,961,217,461)	(4,329,452,581)			
D5. Member Balance Transfers		4,334,961	4,334,961	4,126,746			
D6. Total Net Cash Flow: D1+D2+D3+D4+D5		(1,743,256,047)	(1,743,256,047)	(2,046,646,452)			
E. Investment Return							
E1. Market Total:B-C-D6		7,627,837,611	7,627,837,611	224,294,656			
E2. Assumed Rate of Return		8.00%	8.00%	8.00%			
E3. Assumed Amount of Return		4,531,818,527	4,531,818,527	4,999,334,584			
E4. Amount Subject to Phase-In: E1-E3		3,096,019,084	3,096,019,084	(\$4,775,039,928)			
F. Phased-In Recognition of Investment Return							
F1. Current year: 0.25xE4		774,004,771	774,004,771	(\$1,193,759,982)			
F2. First Prior Year		1,352,029,747	1,352,029,747	-	(\$1,193,759,982)		
F3. Second Prior Year		(1,972,512,446)	(1,972,512,446)	-	-	(\$1,193,759,982)	
F4. Third Prior Year		-	-	-	-	-	(\$1,193,759,982)
F5. Total Phase-Ins		153,522,072	153,522,072	(1,193,759,982)	(1,193,759,982)	(1,193,759,982)	(1,193,759,982)
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: A+D6+E3+F5		\$60,461,444,159	\$60,461,444,159	\$65,273,933,671			
G2. Upper Corridor Limit: 112% x B		71,136,806,184	71,136,806,184	69,095,772,172			
G3. Lower Corridor Limit: 88% x B		55,893,204,858	55,893,204,858	54,289,535,278			
G4. Funding Value End of Year		60,461,444,159	63,515,005,521	65,273,933,671			
H. Difference Between Market and Funding Value		3,053,561,362	-	(3,581,279,946)	(2,387,519,964)	(1,193,759,982)	-
I. Recognized Rate of Return		8.27 %	13.66 %	6.09 %			
J. Market Rate of Return		13.44 %	13.44 %	0.36 %			
K. Ratio of Funding Value to Market Value		95.00 %	100.00 %	106.00 %			

**Funding Value was set to Market Value as of December 31, 2010.

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

DEVELOPMENT OF FUNDING VALUE OF PENSION DEFINED BENEFIT ASSETS COMBINED PLAN

	Year Ended December 31					
	2010	2010**	2011	2012	2013	2014
A. Funding Value Beginning of Year	\$ 109,852,165	109,852,165	133,599,951			
B. Market Value End of Year	133,599,951	133,599,951	152,965,233			
C. Market Value Beginning of Year	103,129,693	103,129,693	133,599,951			
D. Non-Investment/Administrative Net Cash Flow						
D1. Member Contributions	150,035	150,035	237,864			
D2. Employer and Other Non-Member Contributions	24,376,223	24,376,223	21,036,044			
D3. Refund of Member Accounts	(323,170)	(323,170)	(821,946)			
D4. Retirement Benefits	(61,125)	(61,125)	(187,052)			
D5. Member Balance Transfers	(2,574,390)	(2,574,390)	(1,571,029)			
D6. Total Net Cash Flow: D1+D2+D3+D4+D5	21,567,573	21,567,573	18,693,881			
E. Investment Return						
E1. Market Total:B-C-D6	8,902,685	8,902,685	671,401			
E2. Assumed Rate of Return	8.00%	8.00%	8.00%			
E3. Assumed Amount of Return	9,650,876	9,650,876	11,435,751			
E4. Amount Subject to Phase-In: E1-E3	(748,191)	(748,191)	(10,764,350)			
F. Phased-In Recognition of Investment Return						
F1. Current year: 0.25xE4	(187,048)	(187,048)	(2,691,088)			
F2. First Prior Year	(224,615)	(224,615)	-	(\$2,691,088)		
F3. Second Prior Year	(3,024,314)	(3,024,314)	-	-	(\$2,691,088)	
F4. Third Prior Year	-	-	-	-	-	(\$2,691,086)
F5. Total Phase-Ins	(3,435,977)	(3,435,977)	(2,691,088)	(2,691,088)	(2,691,088)	(2,691,086)
G. Funding Value End of Year						
G1. Preliminary Funding Value End of Year: A+D6+E3+F5	\$137,634,637	\$137,634,637	161,038,495			
G2. Upper Corridor Limit: 112% x B	149,631,945	149,631,945	171,321,061			
G3. Lower Corridor Limit: 88% x B	117,567,957	117,567,957	134,609,405			
G4. Funding Value End of Year	\$137,634,637	133,599,951	\$161,038,495			
H. Difference Between Market and Funding Value	(4,034,686)	-	(8,073,262)	(5,382,174)	(2,691,086)	-
I. Recognized Rate of Return	5.15 %	1.81 %	6.12 %			
J. Market Rate of Return	7.82 %	7.82 %	0.47 %			
K. Ratio of Funding Value to Market Value	103.00 %	100.00 %	105.00 %			

**Funding Value was set to Market Value as of December 31, 2010.

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

DEVELOPMENT OF FUNDING VALUE OF PENSION DEFINED BENEFIT ASSETS MEMBER DIRECTED PLAN

	Year Ended December 31					
	2010	2010**	2011	2012	2013	2014
A. Funding Value Beginning of Year	\$205,639	\$205,639	454,025			
B. Market Value End of Year	454,025	454,025	1,111,664			
C. Market Value Beginning of Year	207,932	207,932	454,025			
D. Non-Investment/Administrative Net Cash Flow						
D1. Member Contributions	-	-	-			
D2. Employer and Other Non-Member Contributions	-	-	-			
D3. Refund of Member Accounts	-	-	-			
D4. Retirement Benefits	(27,210)	(27,210)	(71,192)			
D5. Member Balance Transfers	232,951	232,951	725,647			
D6. Total Net Cash Flow: D1+D2+D3+D4+D5	205,741	205,741	654,455			
E. Investment Return						
E1. Market Total:B-C-D6	40,352	40,352	3,184			
E2. Assumed Rate of Return	8.00%	8.00%	8.00%			
E3. Assumed Amount of Return	24,681	24,681	62,500			
E4. Amount Subject to Phase-In: E1-E3	15,671	15,671	(59,316)			
F. Phased-In Recognition of Investment Return						
F1. Current year: 0.25xE4	3,918	3,918	(14,829)			
F2. First Prior Year	4,288	4,288	-	(\$14,829)		
F3. Second Prior Year	(5,285)	(5,285)	-	-	(\$14,829)	
F4. Third Prior Year	-	-	-	-	-	(\$14,829)
F5. Total Phase-Ins	2,921	2,921	(14,829)	(14,829)	(14,829)	(14,829)
G. Funding Value End of Year						
G1. Preliminary Funding Value End of Year: A+D6+E3+F5	\$438,982	\$438,982	\$1,156,151			
G2. Upper Corridor Limit: 112% x B	508,508	508,508	1,245,064			
G3. Lower Corridor Limit: 88% x B	399,542	399,542	978,264			
G4. Funding Value End of Year	\$438,982	454,025	\$1,156,151			
H. Difference Between Market and Funding Value	15,043	-	(44,487)	(29,658)	(14,829)	-
I. Recognized Rate of Return	8.95 %	13.82 %	6.10 %			
J. Market Rate of Return	12.98 %	12.98 %	0.41 %			
K. Ratio of Funding Value to Market Value	97.00 %	100.00 %	104.00 %			

** Funding Value was set to Market Value as of December 31, 2010.

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

**ALLOCATION OF FUNDING VALUE OF ASSETS AMONG DIVISIONS
DECEMBER 31, 2011**

TRADITIONAL, COMBINED AND MEMBER DIRECTED PLANS

	Total DB System				Total	
	State	Local	Public			Law
			Safety	Enforcement		
(1) Employer Accumulation Fund						
(a) Allocated Amounts	\$ 1,195,920,758	\$ 3,037,054,005	(\$4,087,081)	\$ 247,239,098	\$ 4,476,126,780	
(b) Unallocated Amounts Allocated by I(a)	<u>(29,624,614)</u>	<u>(77,403,058)</u>	<u>106,907</u>	<u>(6,467,096)</u>	<u>(113,387,861)</u>	
(c) Total EAF	\$ 1,166,296,144	\$ 2,959,650,947	(\$3,980,174)	\$ 240,772,002	\$ 4,362,738,919	
(2) Employee Savings Fund						
(a) Total Member Deposits	\$ 5,150,833,006	\$ 8,017,659,712	\$ 3,091,627	\$ 533,791,577	\$13,705,375,923	
(b) ESF Allocated by (2)(a)	\$ 4,622,797,407	\$ 7,195,512,904	\$ 2,774,473	\$ 479,032,654	\$12,300,117,438	
(3) Retired Assets						
(a) Allocated Amounts	\$18,326,591,118	\$24,873,085,921	\$38,403,523	\$1,796,691,988	\$45,034,772,550	
(b) Additional and DC Annuities	<u>244,044</u>	<u>46,081,971</u>	<u>0</u>	<u>0</u>	<u>46,326,015</u>	
(c) Total Retiree Assets	\$18,326,835,162	\$24,919,167,892	\$38,403,523	\$1,796,691,988	\$45,081,098,565	
(4) Subtotal: (1)(c)+ (2)(b)+ (3)(c)	\$24,115,928,713	\$35,074,331,743	\$37,197,822	\$2,516,496,644	\$61,743,954,922	
(5) Assets Held For Upcoming Year Budget Allocated According to (4)	<u>40,141,046</u>	<u>58,373,277</u>	<u>62,072</u>	<u>4,199,305</u>	<u>102,775,700</u>	
(6) Total Employer + Employee Defined Benefit Assets: (4)+(5)	\$24,156,069,759	\$35,132,705,020	\$37,259,894	\$2,520,695,949	\$61,846,730,622	
(7) Market Value Adjustment Allocated According to (6)	<u>1,401,945,481</u>	<u>2,038,961,991</u>	<u>2,162,950</u>	<u>146,327,273</u>	<u>3,589,397,695</u>	
(8) Funding Value of Defined Benefit Assets (6)+(7)	\$25,558,015,240	\$37,171,667,011	\$39,422,844	\$2,667,023,222	\$65,436,128,317	

**ALLOCATION OF FUNDING VALUE OF ASSETS AMONG DIVISIONS
DECEMBER 31, 2011
TRADITIONAL PLAN**

	Traditional Plan				Total
	State	Local	Public Safety	Law Enforcement	
(1) Employer Accumulation Fund (EAF)					
(a) Allocated Amounts	\$ 1,136,359,630	\$ 2,946,327,505	(\$4,087,081)	\$ 247,239,098	\$ 4,325,839,152
(b) Unallocated Amounts Allocated by (1)(a)	<u>(29,724,050)</u>	<u>(77,067,842)</u>	<u>106,907</u>	<u>(6,467,096)</u>	<u>(113,152,081)</u>
(c) Total EAF	\$ 1,106,635,580	\$ 2,869,259,663	(\$3,980,174)	\$ 240,772,002	\$ 4,212,687,071
(2) Employee Savings Fund (ESF)					
(a) Total Member Deposits (Accumulated by Determined Division)	\$ 5,150,413,955	\$ 8,017,255,405	\$ 3,091,627	\$ 533,791,577	\$13,704,552,564
(b) ESF Allocated by (2)(a)	\$ 4,622,059,571	\$ 7,194,806,553	\$ 2,774,473	\$ 479,032,654	\$12,298,673,251
(3) Retired Assets					
(a) Allocated Amounts	\$18,326,183,786	24,870,912,391	\$38,403,523	\$1,796,691,988	\$45,032,191,688
(b) Additional Annuities	<u>244,044</u>	<u>46,081,971</u>	<u>0</u>	<u>0</u>	<u>46,326,015</u>
(c) Total Retiree Assets	\$18,326,427,830	\$24,916,994,362	\$38,403,523	\$1,796,691,988	\$45,078,517,703
Subtotal: (1)(c)+ (2)(b)+ (3)(c)	\$24,055,122,981	\$34,981,060,578	\$37,197,822	\$2,516,496,644	\$61,589,878,025
(4) Assets Held For Upcoming Year Budget Allocated According to (4)	<u>40,141,046</u>	<u>58,373,277</u>	<u>62,072</u>	<u>4,199,305</u>	<u>102,775,700</u>
(5) Total Employer + Employee Defined Benefit Assets: (4)+(5)	\$24,095,264,027	\$35,039,433,855	\$37,259,894	\$2,520,695,949	\$61,692,653,725
(6) Market Value Adjustment Allocated According to (6)	<u>1,398,738,434</u>	<u>2,034,051,289</u>	<u>2,162,950</u>	<u>146,327,273</u>	<u>3,581,279,946</u>
(7) Funding Value of Defined Benefit Assets (6)+(7)	\$25,494,002,461	\$37,073,485,144	\$39,422,844	\$2,667,023,222	\$65,273,933,671

**ALLOCATION OF FUNDING VALUE OF ASSETS AMONG DIVISIONS
DECEMBER 31, 2011
COMBINED PLAN**

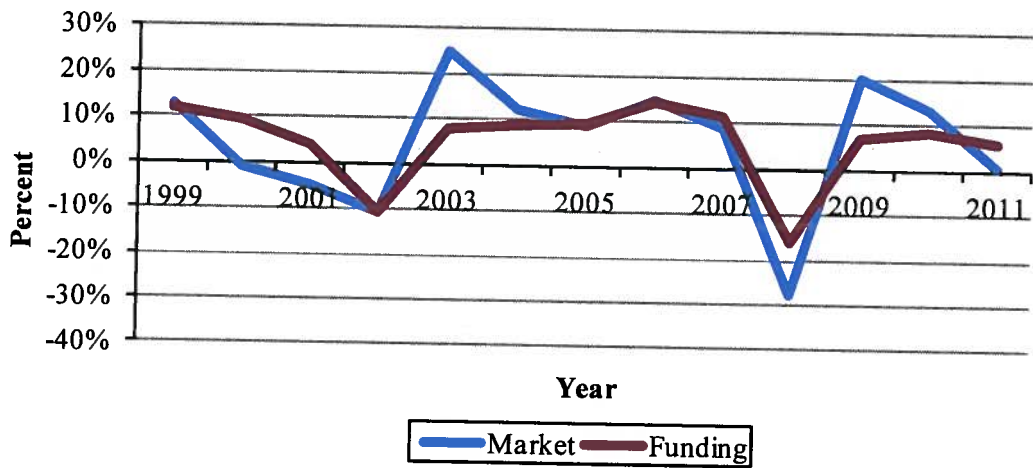
	Combined Plan				Total
	State	Local	Public Safety	Law Enforcement	
(1) Employer Accumulation Fund					
(a) Allocated Amounts	\$59,646,074	\$90,444,924	\$0	\$0	\$150,090,998
(b) Unallocated Amounts Allocated by (1)(a)	(1,161)	(1,761)	0	0	(2,922)
(c) Total EAF	\$59,644,913	\$90,443,163	\$0	\$0	\$150,088,076
(2) Employee Savings Fund					
(a) Total Member Deposits (Reported by Division)	\$ 401,206	\$ 367,583	\$0	\$0	\$ 768,789
(b) ESF Allocated by (2)(a)	\$ 711,255	\$ 651,649	\$0	\$0	\$ 1,362,904
(3) Retired Assets					
(a) Allocated Amounts	\$ 278,449	\$ 1,235,804	\$0	\$0	\$ 1,514,253
(b) DC Annuities	0	0	0	0	0
(c) Total Retiree Assets	\$ 278,449	\$ 1,235,804	\$0	\$0	\$ 1,514,253
(4) Subtotal: (1)(c)+(2)(b)+(3)(c)	\$60,634,617	\$92,330,616	\$0	\$0	\$152,965,233
(5) Assets Held For Upcoming Year Budget Allocated According to (4)	0	0	0	0	0
(6) Total Employer + Employee Defined Benefit Assets: (4)+(5)	\$60,634,617	\$92,330,616	\$0	\$0	\$152,965,233
(7) Market Value Adjustment Allocated According to (6)	3,200,199	4,873,063	0	0	8,073,262
(8) Funding Value of Defined Benefit Assets (6)+(7)	\$63,834,816	\$97,203,679	\$0	\$0	\$161,038,495

**ALLOCATION OF FUNDING VALUE OF ASSETS AMONG DIVISIONS
DECEMBER 31, 2011
MEMBER DIRECTED PLAN**

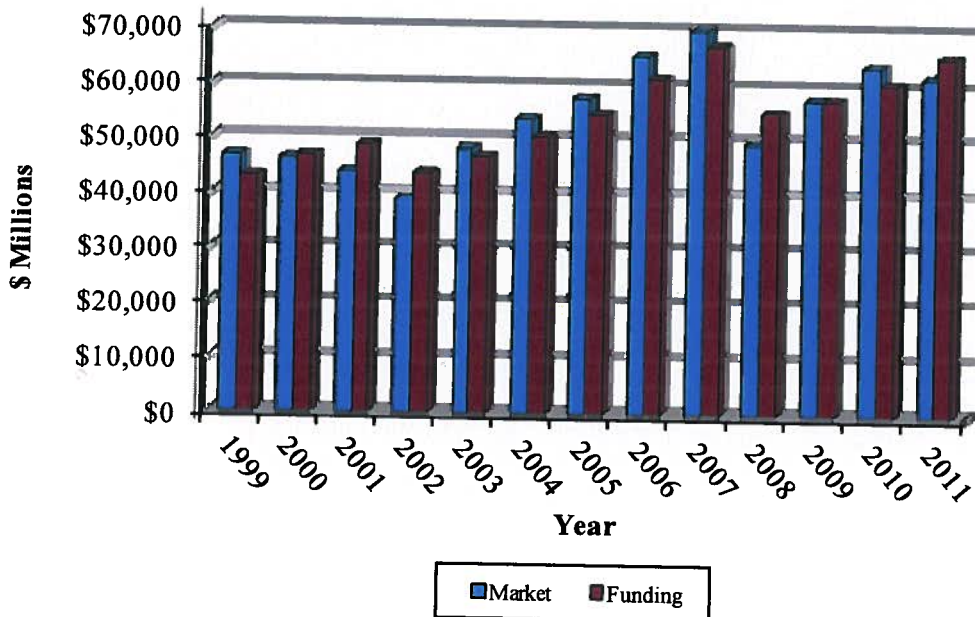
	State	Member Directed Plan			Total
		Local	Public Safety	Law Enforcement	
(1) Employer Accumulation Fund					
(a) Allocated Amounts	\$ (84,946)	\$ 281,576	\$ 0	\$ 0	\$ 196,630
(b) Unallocated Amounts Allocated by 1(a)	<u>100,597</u>	<u>(333,455)</u>	<u>0</u>	<u>0</u>	<u>(232,858)</u>
(c) Total EAF	\$ 15,651	\$ (51,879)	\$ 0	\$ 0	\$ (36,228)
(2) Employee Savings Fund					
(a) Total Member Deposits	\$ 17,845	\$ 36,724	\$ 0	\$ 0	\$ 54,569
(b) ESF Allocated by 2(a)	\$ 26,581	\$ 54,702	\$ 0	\$ 0	\$ 81,283
(3) Retired Assets					
(a) Allocated Amounts	\$ 128,883	\$ 937,726	\$ 0	\$ 0	\$ 1,066,609
(b) DC Annuities	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(c) Total Retiree Assets	\$ 128,883	\$ 937,726	\$ 0	\$ 0	\$ 1,066,609
(4) Subtotal: (1)(c)+ (2)(b)+ (3)(c)	\$ 171,115	\$ 940,549	\$ 0	\$ 0	\$ 1,111,664
(5) Assets Held For Upcoming Year Budget Allocated According to (4)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(6) Total Employer + Employee Defined Benefit Assets: (4)+(5)	\$ 171,115	\$ 940,549	\$ 0	\$ 0	\$ 1,111,664
(7) Market Value Adjustment Allocated According to (6)	<u>6,848</u>	<u>37,639</u>	<u>0</u>	<u>0</u>	<u>44,487</u>
(8) Funding Value of Defined Benefit Assets (6)+(7)	\$ 177,963	\$ 978,188	\$ 0	\$ 0	\$ 1,156,151

COMPARISON OF DEFINED BENEFIT PENSION ASSETS

Comparison of Rates of Return



Comparison of Defined Benefit Pension Asset Values



SECTION III
BENEFITS AND CONDITIONS EVALUATED

BENEFITS AND CONDITIONS EVALUATED

PLANS

Traditional Pension Plan. The Traditional Pension Plan is a defined benefit plan under which a member's retirement benefit is based on a formula. The formula is determined by years of contributing service and the average of the three highest years of earnable salary (or final average salary). OPERS investment professionals manage the investment of employee and employer contributions to ensure that funds are available to pay the formula benefit.

Combined Plan. The Combined Plan is a retirement plan with both a defined benefit and a defined contribution component. Under the defined benefit portion of the Combined Plan, the member's benefit is determined by a reduced formula (similar to the Traditional Pension Plan). OPERS investment professionals manage the investment of employer contributions to ensure that funds are available to pay the reduced formula benefit. Under the defined contribution portion of the Combined Plan, employee contributions are deposited into the member's individual defined contribution account and invested as directed by the member. The member's retirement benefit under this portion of the Combined Plan is based on employee contributions and the gains and losses on those contributions. The member directs the investment by selecting from among the nine professionally-managed OPERS Investment Options.

Member-Directed Plan. The Member-Directed Plan is a defined contribution plan under which employee and employer contributions are deposited into a member's individual defined contribution account and invested as directed by the member. The member's retirement benefit is based on employee and employer contributions and the gains and losses on those contributions. Under the Member-Directed Plan, the member directs the investment by selecting from several professionally-managed OPERS Investment Options.

BENEFITS AND CONDITIONS EVALUATED

TERMS

Final average salary ("FAS") means the average of the annual earnings for the 3 highest calendar years of compensation.

Participant Contribution Account is the account for each Participant in the Combined or Member-Directed Plan to which shall be credited the employee contributions.

Miscellaneous Contribution Account is the account to which shall be credited any voluntary after-tax contributions for members in the Combined and Member-Directed Plans.

Rollover Account is the account to which shall be credited any rollover amounts for members in the Combined or Member-Directed Plans.

Employers' Accumulation Fund is the fund to which shall be credited employer contributions for members in the Traditional or Combined Plan. There are separate accounts in the Employers' Accumulation Fund for the Combined Plan and the Traditional Pension Plan.

Employer Contribution Account is the fund to which shall be credited a portion of the employer contributions for members in the Member-Directed Plan.

CONTRIBUTIONS

Member contributions. State and local government members contribute 10.0% of earnable salary in 2011. The maximum statutory rate is 10% of earnable salary.

Law enforcement members whose primary duties are to preserve the peace, to protect life and property, and to enforce the laws of the state contribute 11.6% of earnable salary in 2011 increasing to 13.00% by 2014. Remaining Law enforcement members (Public Safety) contribute 11.0% of earnable salary in 2011 increasing to 12.00% by 2013.

Employer contributions. Each employer contributes the remaining amounts necessary to finance OPERS benefits. Employer contributions are expressed as percents of member-covered payroll. The maximum statutory rate for state and local government employers is 14%. The maximum statutory rate for law enforcement employers is 18.1% (H.B. 416, effective 1/1/2001).

BENEFITS AND CONDITIONS EVALUATED

CONTRIBUTIONS (CONT'D)

Health Care Preservation Plan (HCPP). The following table shows total scheduled employer contribution rates (includes contributions for both the pension and retiree health programs):

Year	State	Local Government	Law Enforcement	Public Safety
2011 and Later	14.00%	14.00%	18.10%	18.10%

The portion of the above employer contribution rates scheduled to be allocated to the retiree health program are as follows:

Year	All Divisions
2011	4.00%
2012	4.00%
2013	1.00%
2014 and Later	0.00%

The schedule was adopted at the July 21, 2010 Board meeting and is subject to change if conditions warrant.

Member contribution rates scheduled to be allocated to the pension program are as follows:

Year	State	Local Government	Law Enforcement	Public Safety
2011	10.00%	10.00%	11.60%	11.00%
2012	10.00%	10.00%	12.10%	11.50%
2013	10.00%	10.00%	12.60%	12.00%
2014 and Later	10.00%	10.00%	13.00%	12.00%

TRADITIONAL PENSION PLAN

AGE & SERVICE BENEFITS - STATE AND LOCAL GOVERNMENT MEMBERS

Age and service eligibility. A member who (i) has attained age 60 years and has 5 or more years of service credit or 60 contributing months, or (ii) has attained age 55 years and has 25 or more years of service credit, or (iii) has 30 or more years of service credit, may retire with an age and service retirement allowance.

Age and service allowance. A retiring member's age and service allowance is equal to Ohio service credit times the greater of \$86, or 2.2% of FAS for the first 30 years of service plus 2.5% for years of service over 30 years (H.B. 628). The allowance is then adjusted by factors based on attained age or years of service (whichever yields the higher percentage) as determined in the following schedule:

Attained Age	OR	Years of Service Credit	Percentage of Base Amount
58		25	75%
59		26	80
60		27	85
61		N/A	88
N/A		28	90
62		N/A	91
63		N/A	94
N/A		29	95
64		N/A	97
65		30 or more	100

Maximum allowance is 100% of FAS or the limits under IRC Section 415(b). Minimum allowance is based upon twice the member's savings funding balance at retirement together with interest credits, annuitized with unisex factors that reflect plan interest and mortality assumptions, but not the plan's COLA.

TRADITIONAL PENSION PLAN

AGE & SERVICE BENEFITS – LAW MEMBERS (PUBLIC SAFETY) ELIGIBLE TO RETIRE UNDER OHIO REVISED CODE SECTION 145.33(B)(2)(B)

Age and service eligibility. A law member whose secondary duties are to preserve the peace, to protect life and property, and to enforce the laws of the state and who (i) has attained age 52 and has 25 or more years of credited service, or (ii) has attained age 62 and has 15 or more years of credited service, or (iii) has attained age 52 and has 15 or more years of credited service, may retire with an age and service allowance. A member covered by these provisions may retire at age 48 with 25 or more years of service subject to the reduction described in 145.33 (C)(1).

Age and service allowance. A retiring member's age and service allowance under eligibility (i) or (ii) above is equal to 2.5% of FAS times the first 25 years of service credit plus 2.1% of FAS times service credit in excess of 25 years (H.B. 628). Maximum allowance is 90% of FAS or the limits under IRC Section 415(b). A retiring member's age and service allowance under eligibility (iii) above is equal to 1.5% of FAS times years of service credit. Minimum allowance for all law members is based upon twice the member's savings fund balance at retirement together with interest credits.

AGE & SERVICE BENEFITS - LAW MEMBERS (LAW ENFORCEMENT) ELIGIBLE TO RETIRE UNDER OHIO REVISED CODE SECTION 145.33(B)(2)(A)

Age and service eligibility. A law member whose primary duties are to preserve the peace, to protect life and property, and to enforce the laws of the state and who (i) has attained age 48 and has 25 or more years of credited service, or (ii) has attained age 62 and has 15 or more years of credited service, or (iii) has attained age 52 and has 15 or more years of credited service, may retire with an age and service allowance.

Age and service allowance. A retiring member's age and service allowance under eligibility (i) or (ii) above is equal to 2.5% of FAS times the first 25 years of service credit plus 2.1% of FAS times service credit in excess of 25 years (H.B. 628). Maximum allowance is 90% of FAS or the limits under IRC Section 415(b). A retiring member's age and service allowance under eligibility (iii) above is equal to 1.5% of FAS times years of service credit. Minimum allowance for all law members is based upon twice the member's savings fund balance at retirement together with interest credits.

TRADITIONAL PENSION PLAN

DISABILITY RETIREMENT

The disability program was revised in order to comply with the Older Workers Benefit Protection Act. Employees becoming members after July 29, 1992 are covered by the post July 29, 1992 program. Other members were able to elect coverage under the pre July 29, 1992 program (original plan) or elect to be covered by the post July 29, 1992 program (revised plan).

Features of the original plan are:

- a) Upon becoming permanently disabled after completion of at least 5 years or 60 contributing months of service but before attaining age 60, a member is eligible for a disability allowance. The service requirement is waived for Law Enforcement members with an on-duty illness or injury.
- b) The amount of the allowance is the service the member would have had if employment had continued to age 60 times (i) 2.2% of FAS (H.B. 628), or (ii) \$86, whichever produces the greater benefit.
- c) Maximum allowance is 75% of FAS, minimum allowance is 30% of FAS.

Features of the revised plan are:

- a) A member may apply at any age after completion of 5 years or 60 contributing months of service. The service requirement is waived for Law Enforcement members with an on-duty illness or injury.
- b) A disability benefit equal to the greater of 45% of FAS or the actual service credit times 2.2% of FAS (H.B. 628) with no early retirement reduction (maximum 60% of FAS). The disability benefit period is to age 65 if the member is disabled prior to age 60. The benefit period declines gradually from 60 months for members disabled at ages 60 and 61 to 12 months for members disabled at age 69 or older.
- c) After the disability benefit ends, a service retirement benefit equal to the greater of (i) the accrued benefit based on actual service, or (ii) 2.2% of FAS (H.B. 628) times service credit including the period of disability (maximum 45% of FAS). In addition, an amount equal to the cost-of-living increases the member would have received had the member retired on the basis of age and service is paid.

TRADITIONAL PENSION PLAN

SURVIVOR BENEFITS

Death while eligible to retire. If a member dies in service after becoming eligible to retire with an age and service allowance and leaves a surviving spouse or other sole dependent beneficiary, the survivor receives the same amount that would have been paid had the member retired the last day of the month of death and elected the 100% joint and survivor form of payment.

Survivor (death-in-service) allowances. If a deceased member had at least 1-1/2 years of contributing service credit, with at least ¼ year of such service occurring within the 2-1/2 years prior to death, or was receiving a disability benefit, qualified survivors may receive the following monthly benefits. The benefit paid will be the greater of the applicable benefits paid under the following two schedules (H.B. 628):

Schedule 1

<u>Number of Qualified Survivors Affecting the Benefit</u>	<u>Annual Benefit as a % of Deceased Member's FAS</u>	<u>Minimum Monthly Benefit</u>
1	25%	\$250
2	40%	\$400
3	50%	\$500
4	55%	\$500
5 or more	60%	\$500

Schedule 2

<u>Years of Service</u>	<u>Annual Benefit as a % of Deceased Member's FAS</u>
20	29%
21	33%
22	37%
23	41%
24	45%
25	48%
26	51%
27	54%
28	57%
29 or more	60%

Qualifying survivors who are paid benefits under Schedule 2 share equally in the benefits, except that if there is a surviving spouse, the spouse receives the greater of 25% of FAS or \$250.

TRADITIONAL PENSION PLAN

A *qualified spouse* is the surviving spouse of a deceased member who is age 62 or at any age if the deceased member had 10 or more years of Ohio service credit or if the surviving spouse is caring for a qualified child or is adjudged physically or mentally incompetent.

A *qualified child* is a child who has never been married and under the age of 18 (or 22 if attending an approved school), or regardless of age is adjudged physically or mentally incompetent at the time of the member's death.

A *qualified parent* is a dependent parent aged 65 or older (earlier if mentally or physically incompetent) who received at least one-half support from the member during the 12-month period immediately preceding the member's death.

Qualified *survivors of disability benefit recipients* have the FAS used in calculating their benefits adjusted for each year between the effective date of the disability benefit and the recipient's date of death. The FAS is adjusted by the lesser of (1) 3% or (2) the actual average percentage change in the CPI.

BENEFITS AT RETIREMENT

Optional Benefit Forms. Retiring members may elect to have benefits paid in straight life form, in a form that guarantees a minimum number of monthly payments, or in a form that provides a continuation of all or a portion of the monthly benefit to a beneficiary after the death of the retiree. If a retiring member elects benefits in other than straight life form, the monthly amount is adjusted. The adjustment is based upon interest, COLA, and mortality assumptions (with a blend of male and female mortality rates to produce unisex election factors consistent with the gender distribution of members electing optional forms of payment).

TRADITIONAL PENSION PLAN

PLOP. Effective 01/01/2004, retiring members may also elect to receive a Partial Lump Sum Option Payment (PLOP) (S.B.247). The PLOP is an option that allows a retiree to initially receive a partial lump sum benefit payment along with a reduced monthly retirement allowance. The lump sum payment cannot be less than 6 times or more than 36 times the monthly amount that would be payable to the member under the plan of payment selected and shall not result in a monthly allowance that is less than 50% of the monthly benefit. The total amount paid as a lump sum and monthly benefit shall be the actuarial equivalent of the amount that would have been paid had the lump sum not been selected.

QEBA. Qualified Excess Benefit Arrangement was established 01/01/2004 (H.B.190). The QEBA is operated in accordance with Internal Revenue Code Section 415(m). Under this arrangement the recipient may be paid the portion of his/her retirement benefit that was previously limited due to IRC Section 415(b).

Post-retirement increases. Each July after June 30, 1971 or the annual anniversary established 12 months after the initial date of retirement, each allowance is increased by 3.0% of the corresponding base allowance, except that no allowance shall exceed the limits established by Section 415 of the Internal Revenue Code.

Post-retirement death benefit. Upon the death of an age and service or disability retiree, a death benefit in the following amount is payable:

Service Credit at Retirement	Amount of Death Benefit
5 to 9 years	\$ 500
10 to 14 years	1,000
15 to 19 years	1,500
20 to 24 years	2,000
25 or more years	2,500

Deferred benefits. A member with at least 5 years of service credit who leaves service before being eligible for an immediate allowance and who does not withdraw accumulated contributions will be entitled to a deferred allowance at age 60. For law members, the age at which benefits commence depends on the amount of service credit. The amount of the allowance will be based on credited service and final average salary at time of leaving service.

TRADITIONAL PENSION PLAN

REFUND OF MEMBERS ACCUMULATED CONTRIBUTIONS

In the event a member leaves service prior to retirement, the member may elect to receive a refund of contributions with interest and may be eligible to receive an additional amount as described below. These refund provisions are available to all members. If a member dies prior to retirement and survivor benefits are not payable, the member's contributions with interest are paid to a designated beneficiary or other survivor. Interest is credited annually to member contribution balances. The rate of interest credited is determined by the OPERS Board and will not be greater than 6%. At the present time, 1% interest is credited to member contribution balances.

If the member has, or had at the time of death, at least 5 years but less than 10 years of qualified service, an additional 33% of the member's eligible contributions will be paid to the member or survivor. If the member has, or had at the time of death, at least 10 years of qualified service credit, an additional 67% of the member's eligible contributions will be paid to the member or survivor. The additional amount is not paid if the member is a re-employed retiree, or in the case of a deceased member, was receiving disability benefits at the time of death.

SUPPLEMENTAL BENEFITS

Health Care Coverage. Health care coverage is available to persons being paid a monthly allowance from OPERS. Members retiring with a normal or early service retirement allowance after June 13, 1986 must have 10 or more years of qualified service credit to be eligible for this benefit.

Medicare premiums. Medicare part B premiums are paid for those eligible, upon proof of coverage. Members retiring with a normal or early service retirement allowance after June 13, 1986 must have 10 or more years of qualified service credit to be eligible for this benefit.

TRADITIONAL PENSION PLAN

ADDITIONAL ANNUITY PROGRAM

The additional annuity program provides Traditional Plan and re-employed retiree members the opportunity of supplementing their retirement income. Members make additional contributions (independent of the contributions described on page III-2) to an account that earns investment income based upon the return of the OPERS Stable Value Fund. At termination, the member may take the additional annuity account balance either as a lump sum or annuitized in monthly payments.

RE-EMPLOYED RETIREES

Re-employed age and service retirees contribute to the "Money Purchase Plan". In most instances, re-employed retirees will continue to receive their retirement allowance during re-employment. Upon termination of re-employment, members are eligible to apply for either a refund of contributions prior to age 65 or a Money Purchase Plan benefit as a lump sum or annuity after age 65. The Money Purchase Plan benefit is equal to member contributions and allowable interest plus an additional 67% matching amount. If monthly benefits are elected, joint and survivor options are also available.

COMBINED PLAN

AGE & SERVICE BENEFITS - STATE AND LOCAL GOVERNMENT MEMBERS*

Eligibility. A member who (i) has attained age 60 years and has 5 or more years of service credit in the Plan or 60 contributing months in the Plan, or (ii) has attained age 55 years and has 25 or more years of service credit, or (iii) has 30 or more years of service credit, may retire under the Combined Plan with an age and service retirement allowance under the defined benefit portion of the Plan and with a retirement benefit under the defined contribution portion of the Plan.

**Law Enforcement and Public Safety members must contribute to the Traditional Pension Plan only.*

Age and service retirement allowance (Defined Benefit portion of the Plan). A retiring member's age and service retirement allowance is equal to Ohio service credit in the Plan times 1.0% of FAS for the first 30 years of service plus 1.25% for years of service over 30 years. The allowance is then adjusted by factors based on attained age or years of service (whichever yields the higher percentage) as determined in the following schedule:

Attained Age	OR	Years of Service Credit	Percentage of Base Amount
58		25	75%
59		26	80
60		27	85
61		N/A	88
N/A		28	90
62		N/A	91
63		N/A	94
N/A		29	95
64		N/A	97
65		30 or more	100

Maximum allowance is 100% of FAS or the limits under IRC Section 415(b).

Retirement benefit (Defined Contribution portion of the Plan). The member's retirement benefit under this portion of the Combined Plan is based on the amounts credited to the Participant Contribution Account, Rollover Account, and Miscellaneous Account and the gains and losses on the amounts in those Accounts.

COMBINED PLAN

DISABILITY RETIREMENT

A Combined Plan member may apply after completion of 5 years in the Plan or 60 contributing months of service in the Plan. Combined Plan members may be covered under the original or revised disability plan. Combined Plan members who apply for disability may:

- 1) Take a lump sum distribution of the Participant Contribution Account, Rollover Account, and Miscellaneous Account and any additional amount they are entitled to from the Employers' Accumulation Fund, or
- 2) Transfer all service credit and the Participant's Accounts (as listed above) in the Combined Plan to the Traditional Pension Plan to be paid a disability benefit under the Traditional Pension Plan guidelines.

SURVIVOR BENEFITS

Combined Plan members are eligible for the same survivor benefits as those listed under the Traditional Pension Plan and must qualify for survivor benefits under the same guidelines as those members in the Traditional Pension Plan.

BENEFITS AT RETIREMENT

Optional Benefit Forms under the Defined Benefit portion of the Plan. Retiring members may elect to have their age and service retirement allowance in straight life form, in a form that guarantees a minimum number of monthly payments, or in a form that provides a continuation of all or a portion of the monthly benefit to a beneficiary after the death of the retiree. If a retiring member elects benefits in other than straight life form, the monthly amount is adjusted. The adjustment is based upon interest, COLA, and mortality assumptions (with a blend of male and female mortality rates to produce unisex election factors consistent with the gender distribution of members electing optional forms of payment).

COMBINED PLAN

Optional Benefit Forms under the Defined Contribution portion of the Plan. Retiring members may elect to have retirement benefits paid in a partial lump sum, subject to any rules adopted by the Board; monthly annuity payments (with joint and survivor options) similar to those offered under the defined benefit portion of the Plan; periodic payments over a period certain; periodic payments of a specific monthly amount; payments with a deferred start date; or a combination of these options.

PLOP. Effective 01/01/2004, retiring members may also elect to receive a Partial Lump Sum Option Payment (PLOP) (S.B.247). The PLOP is an option that allows a retiree to initially receive a partial lump sum benefit payment along with a reduced monthly retirement allowance. The lump sum payment cannot be less than 6 times or more than 36 times the monthly amount that would be payable to the member under the plan of payment selected and shall not result in a monthly allowance that is less than 50% of the monthly benefit. The total amount paid as a lump sum and monthly benefit shall be the actuarial equivalent of the amount that would have been paid had the lump sum not been selected. The PLOP is available to Combined Plan members for the age and service retirement allowance under the defined benefit portion of the Plan and for the monthly annuity under the defined contribution portion of the Plan.

QEBA. Qualified Excess Benefit Arrangement was established 01/01/2004 (H.B.190). The QEBA is operated in accordance with Internal Revenue Code Section 415(m). Under this arrangement the recipient may be paid the portion of his/her retirement benefit that was previously limited due to IRC Section 415(b). The QEBA is available to Combined Plan members for the age and service retirement allowance under the defined benefit portion of the Plan.

Post-retirement increases. Each July after June 30, 1971 or the annual anniversary established 12 months after the initial date of retirement, each age and service retirement allowance under the defined benefit portion of the plan is increased by 3.0% of the corresponding base allowance, except that no allowance shall exceed the limits established by Section 415 of the Internal Revenue Code.

COMBINED PLAN

Post-retirement death benefit. Upon the death of an age and service retiree, a death benefit in the following amount is payable:

Service Credit at Retirement	Amount of Death Benefit
5 to 9 years	\$ 500
10 to 14 years	1,000
15 to 19 years	1,500
20 to 24 years	2,000
25 or more years	2,500

REFUNDS AND VESTING

A participant in the Combined Plan shall at all times be 100% vested in the Participant Contribution Account, Miscellaneous Contribution Account, and the Rollover Account.

If the member has at least 5 years but less than 10 years of qualified service credit in the Plan, an additional 33% of the member's eligible contributions will be paid from the Employers' Accumulation Fund. If the member has at least 10 years of qualified service credit in the Plan, an additional 67% of the member's eligible contributions will be paid to the member. Amounts paid to purchase service credit earn interest at the same rates as the Traditional Pension Plan and are payable as a refund.

In the event a member leaves service prior to retirement, the member may elect to receive a refund of their Participant Contribution Account, the Rollover Account, the Miscellaneous Account, and any additional amounts they are entitled to from the Employers' Accumulation Fund (as described above).

SUPPLEMENTAL BENEFITS

Health Care Coverage. Health care coverage is available to persons being paid a monthly allowance from OPERS. Members retiring with a normal or early service retirement allowance after June 13, 1986 must have 10 or more years of qualified service credit to be eligible for this benefit.

COMBINED PLAN

Medicare premiums. Medicare part B premiums are paid for those eligible, upon proof of coverage. Members retiring with a normal or early service retirement allowance after June 13, 1986 must have 10 or more years of qualified service credit to be eligible for this benefit.

MEMBER-DIRECTED PLAN

AGE & SERVICE BENEFITS - STATE AND LOCAL GOVERNMENT MEMBERS. (Law Enforcement and Public Safety members must contribute to the Traditional Pension Plan Only.)

Eligibility. A participant who has attained age fifty-five (55) may retire under the Member-Directed Plan.

Retirement benefits. The member's retirement benefit is based on the value of the Participant Contribution Account, the Rollover Account, the Miscellaneous Account, and any vested portion of the Employer Contribution Account.

DISABILITY RETIREMENT

Not available under the Member-Directed Plan. Members may:

- 1) If age fifty-five (55), terminate employment and begin receiving retirement benefits, or
- 2) Take a lump sum distribution of their Participant Contribution Account, Rollover Account, Miscellaneous Account and any vested portion of the Employer Contribution Account.

SURVIVOR BENEFITS

Not available under the Member-Directed Plan. Survivors must take a lump sum distribution of the member's Participant Contribution Account, Rollover Account, Miscellaneous Account and any vested portion of the Employer Contribution Account.

MEMBER-DIRECTED PLAN

BENEFITS AT RETIREMENT

Optional Benefit Forms. Retiring members may elect to have retirement benefits paid in a partial lump sum, subject to any rules adopted by the Board; monthly annuity payments (with joint and survivor options) similar to those offered under the defined benefit portion of the Combined Plan; periodic payments over a period certain; periodic payments of a specific monthly amount; payments with a deferred start date; or a combination of these options.

PLOP. Effective 01/01/2004, retiring members who elect a monthly annuity under the Member-Directed Plan may also elect to receive a Partial Lump Sum Option Payment (PLOP) (S.B.247). The PLOP is an option that allows a retiree to initially receive a partial lump sum benefit payment along with a reduced monthly annuity. The lump sum payment cannot be less than 6 times nor more than 36 times the monthly amount that would be payable to the member under the plan of payment selected and shall not result in a monthly annuity that is less than 50% of the monthly benefit. The total amount paid as a lump sum and monthly benefit shall be the actuarial equivalent of the amount that would have been paid had the lump sum not been selected. The PLOP is available to Member-Directed Plan members only if they elect a monthly annuity.

REFUNDS AND VESTING.

A participant shall at all times be 100% vested in the Participant Contribution Account, Miscellaneous Contribution Account, and the Rollover Account. A participant shall vest in the Employer Contribution Account according to the Participant's attained years of participation in the Plan as follows:

One year of participation	20%
Two years of participation	40%
Three years of participation	60%
Four years of participation	80%
Five years of participation	100%

In the event a member leaves service prior to retirement, the member may elect to receive a refund of their Participant Contribution Account, Rollover Account, and Miscellaneous Account and any vested amounts in the Employer Contribution Account (as described above).

MEMBER-DIRECTED PLAN

SUPPLEMENTAL BENEFITS

Health Care Coverage. A portion of the employer contribution for Member-Directed participants is credited to a Retiree Medical Account (RMA). Amounts contributed to the RMA may be used after separation from service and a refund or retirement distribution is made to pay qualified health, dental and vision care expenses. Beginning January 1, 2009, members vest in their RMA based on their attained years of participation in the Plan as follows:

Less than 1 year	0%
1 year	20%
2 years	40%
3 years	60%
4 years	80%
5 years	100%

**SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
STATE OR LOCAL MEMBER - NORMAL RETIREMENT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED**

Data:

A.	<u>\$32,000</u>	Final Average Earnings
B.	<u>33</u>	Years of Credited Service
C.	<u>59</u>	Age of Retiree
D.	<u>56</u>	Age of Spouse
E.	<u>100%</u>	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)

Computations:

F.	Formula Benefit: $(0.022 \times 30 \text{ years} + 0.025 \times 3 \text{ years}) \times \$32,000 =$	\$ 23,520
G.	Reduction for Line E Election: $(1 - 0.84810) \times (F) =$	<u>3,573</u>
H.	Benefit Payable to Retiree while Spouse is Alive: $(F) - (G) =$	19,947
I.	Benefit Payable to Spouse after Retiree's Death	19,947
J.	Benefit Payable to Retiree after Spouse's Death	23,520

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 19,947	\$ 19,947	\$ 23,520
2013	20,545	20,545	24,226
2014	21,144	21,144	24,931
2015	21,742	21,742	25,637
2016	22,341	22,341	26,342
2017	22,939	22,939	27,048
2018	23,537	23,537	27,754
2019	24,136	24,136	28,459
2020	24,734	24,734	29,165
2021	25,333	25,333	29,870

**SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
STATE OR LOCAL MEMBER - EARLY RETIREMENT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED**

Data:

A.	<u>\$32,000</u>	Final Average Earnings
B.	<u>26</u>	Years of Credited Service
C.	<u>59</u>	Age of Retiree
D.	<u>56</u>	Age of Spouse
E.	<u>100%</u>	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)

Computations:

F.	Formula Benefit: $0.022 \times 26 \text{ years} \times \$32,000 =$	\$ 18,304
G.	Adjustment factor for Early Retirement (from schedule)	80%
H.	Adjusted benefit: $(F) \times (G) =$	14,643
I.	Reduction for Line E Election: $(1 - 0.84810) \times (H) =$	<u>2,224</u>
J.	Benefit Payable to Retiree while Spouse is Alive: $(H) - (I)$	12,419
K.	Benefit Payable to Spouse after Retiree's Death	12,419
L.	Benefit Payable to Retiree after Spouse's Death	14,643

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 12,419	\$ 12,419	\$ 14,643
2013	12,792	12,792	15,082
2014	13,164	13,164	15,522
2015	13,537	13,537	15,961
2016	13,910	13,910	16,400
2017	14,282	14,282	16,840
2018	14,655	14,655	17,279
2019	15,027	15,027	17,718
2020	15,400	15,400	18,158
2021	15,772	15,772	18,597

SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
SECTION 145.33 (B)(2)(b) PUBLIC SAFETY
MEMBER - NORMAL RETIREMENT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED

Data:

A.	<u>\$38,000</u>	Final Average Earnings
B.	<u>28</u>	Years of Credited Service
C.	<u>49</u>	Age of Retiree
D.	<u>46</u>	Age of Spouse
E.	<u>100%</u>	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)

Computations:

F.	Formula Benefit: $(0.025 \times 25 \text{ years} + 0.021 \times 3 \text{ years}) \times \$38,000 \times 80\% =$	\$ 20,915
G.	Reduction for Line E Election: $(1 - 0.91118) \times (F) =$	<u>1,858</u>
H.	Benefit Payable to Retiree while Spouse is Alive: $(F) - (G) =$	19,057
I.	Benefit Payable to Spouse after Retiree's Death	19,057
J.	Benefit Payable to Retiree after Spouse's Death	20,915

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 19,057	\$ 19,057	\$ 20,915
2013	19,629	19,629	21,542
2014	20,200	20,200	22,170
2015	20,772	20,772	22,797
2016	21,344	21,344	23,425
2017	21,916	21,916	24,052
2018	22,487	22,487	24,680
2019	23,059	23,059	25,307
2020	23,631	23,631	25,935
2021	24,202	24,202	26,562

**SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
SECTION 145.33 (B)(2)(a) LAW ENFORCEMENT
MEMBER - NORMAL RETIREMENT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED**

Data:

A.	<u> \$38,000 </u>	Final Average Earnings
B.	<u> 28 </u>	Years of Credited Service
C.	<u> 49 </u>	Age of Retiree
D.	<u> 46 </u>	Age of Spouse
E.	<u> 100% </u>	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)

Computations:

F. Formula Benefit:	$(0.025 \times 25 \text{ years} + 0.021 \times 3 \text{ years}) \times \$38,000 =$	\$ 26,144
G. Reduction for Line E Election:	$(1 - 0.91118) \times (F) =$	<u>2,322</u>
H. Benefit Payable to Retiree while Spouse is Alive:	$(F) - (G) =$	23,822
I. Benefit Payable to Spouse after Retiree's Death		23,822
J. Benefit Payable to Retiree after Spouse's Death		26,144

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 23,822	\$ 23,822	\$ 26,144
2013	24,537	24,537	26,928
2014	25,251	25,251	27,713
2015	25,966	25,966	28,497
2016	26,681	26,681	29,281
2017	27,395	27,395	30,066
2018	28,110	28,110	30,850
2019	28,825	28,825	31,634
2020	29,539	29,539	32,419
2021	30,254	30,254	33,203

**SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
STATE OR LOCAL MEMBER – TERMINATION BENEFIT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED**

Data:

A.	<u>\$32,000</u>	Final Average Earnings
B.	<u>15</u>	Years of Credited Service
C.	<u>45</u>	Age of Member
D.	<u>42</u>	Age of Spouse
E.	<u>60:57</u>	Ages at Which Benefits are Payable
F.	<u>100%</u>	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)
G.	<u>\$44,000</u>	Accumulated Contributions with Interest at Termination Date

Computations:

H.	Formula Benefit: $(0.022 \times 15 \text{ years} + 0.025 \times 0 \text{ years}) \times \$32,000 =$	\$ 10,560
I.	Adjustment factor for Early Retirement (from schedule)	85%
J.	Adjusted benefit: $(H) \times (I) =$	8,976
K.	Reduction for Line F Election: $(1 - 0.84024) \times (J) =$	<u>1,434</u>
L.	Benefit Payable to Retiree while Spouse is Alive: $(J) - (K) =$	7,542
M.	Benefit Payable to Spouse after Retiree's Death	7,542
N.	Benefit Payable to Retiree after Spouse's Death	8,976
O.	In lieu of a lifetime benefit, terminnee may elect to receive a refund of accumulated contributions with interest plus an additional 67% of eligible accumulated contributions because terminnee had more than 10 years of service.	73,480

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 7,542	\$ 7,542	\$ 8,976
2013	7,768	7,768	9,245
2014	7,995	7,995	9,515
2015	8,221	8,221	9,784
2016	8,447	8,447	10,053
2017	8,673	8,673	10,322
2018	8,900	8,900	10,592
2019	9,126	9,126	10,861
2020	9,352	9,352	11,130
2021	9,578	9,578	11,400

**SAMPLE BENEFIT COMPUTATION – TRADITIONAL PLAN
SECTION 145.33 (B)(2)(a) PUBLIC SAFETY / LAW ENFORCEMENT
MEMBER – TERMINATION BENEFIT
RETIRING DECEMBER 31, 2011
UNDER BENEFIT PROVISIONS EVALUATED**

Data:

A.	\$38,000	Final Average Earnings
B.	15	Years of Credited Service
C.	37	Age of Retiree
D.	34	Age of Spouse
E.	52:49	Ages at Which Benefits are Payable
F.	100%	Percentage of Pension to Continue to Spouse after retiree's death (Retiree makes the choice of 100% Joint and Survivor with Pop-Up)
G.	\$46,000	Accumulated Contributions at Termination Date

Computations:

H.	Formula Benefit: $(0.015 \times 15 \text{ years}) \times \$38,000 =$	\$ 8,550
I.	Reduction for Line F Election: $(1 - 0.89538) \times (H) =$	895
J.	Benefit Payable to Retiree while Spouse is Alive: $(H) - (I) =$	7,655
K.	Benefit Payable to Spouse after Retiree's Death	7,655
L.	Benefit Payable to Retiree after Spouse's Death	8,550
M.	In lieu of a lifetime benefit, terminee may elect to receive a refund of accumulated contributions with interest plus an additional 67% of eligible accumulated contributions because terminee had more than 10 years of service.	76,820

Projected Benefits:

Year Ended December 31,	Retiree's Benefit (Both Alive)	Spouse's Benefit (After Retiree's Death)	Retiree's Benefit (After Spouse's Death)
2012	\$ 7,655	\$ 7,655	\$ 8,550
2013	7,885	7,885	8,807
2014	8,114	8,114	9,063
2015	8,344	8,344	9,320
2016	8,574	8,574	9,576
2017	8,803	8,803	9,833
2018	9,033	9,033	10,089
2019	9,263	9,263	10,346
2020	9,492	9,492	10,602
2021	9,722	9,722	10,859

SECTION IV
RECOMMENDATIONS FOR RESERVE TRANSFERS

DECEMBER 31, 2011 RETIRED LIFE VALUATION RESERVE TRANSFERS

Reserve transfers from the Employer Accumulation Fund to the A & PR Fund and/or Survivor Benefit Funds are recommended in the following instances.

- Whenever the December 31 valuation shows unfunded accrued liabilities or assets in excess of computed liabilities in any of the retired life funds.
- To adjust retired life reserves for the payment of health insurance premiums and Medicare reimbursements for the previous 12 month period if this has not already been done.
- To cover the cost of ad-hoc post retirement benefit increases.
- To adjust retired life reserves for any changes in computed liabilities resulting from assumption changes.

By making these annual adjustments in addition to the regular transfers when allowances are added to the rolls, the ratio of assets to liabilities for retired members and beneficiaries will stay at 100%. Year to year changes in this ratio before recommended transfers will normally be isolated to mortality experience within the retired life group.

In 1992, OPERS began making interim benefit payments for certain retirements to shorten the delay between the retirement effective date and receipt of the first monthly check. However, reserve transfers are not made until benefit amounts are final. Transfers for these cases have been accrued based upon supplemental information supplied by OPERS staff and are shown on the following page. The accruals, when added to other assets, are intended to put retired life reserves in the same position they would have been in if reserve transfers for the interim benefit cases had been coincident with benefit commencement.

It is recommended that the transfers shown on the following page be made from the Employer Accumulation Fund to the Annuity & Pension Reserve Fund and Survivor Benefit Funds as indicated. The Accrued Transfers is an estimate of pending future transfers for interim cases, and does not require a year end transfer. Any accrued transfers that have been made prior to OPERS' extract date and hence are not included in the "Accrued Transfers" column on pages IV-2 through IV-5 should be netted off the "Other" column on pages IV-2 through IV-5.

**TRADITIONAL PLAN
RESERVE TRANSFERS AFFECTING THE EMPLOYER ACCUMULATION FUND
DECEMBER 31, 2011**

	Assets		Transfers		Liabilities	Ratio
	Before Transfers	Accrued	Other	Assets After Transfers		
State						
A&PR FUND						
SR	\$15,194,301,945	\$137,782,942	\$331,224,085	\$15,663,308,972	\$15,663,308,972	
MP	29,316,544	120,143	5,129,842	34,566,529	34,566,529	
AA	244,044	0	13,999	258,043	258,043	
JR	270,178	0	(270,178)	0	0	
CR	61,677,144	0	14,056,981	75,734,125	75,734,125	
DR	2,078,143,424	9,153,525	82,732,613	2,170,029,562	2,170,029,562	
BD	390,762,650	5,244,717	22,966,911	418,974,278	418,974,278	
TOTAL A&PR	17,754,715,929	152,301,327	455,854,253	18,362,871,509	18,362,871,509	100.0%
SBF						
AA	0	0	0	0	0	
S-1	111,471,422	630,019	131,180	112,232,621	112,232,621	
S-2	460,240,479	2,116,852	3,838,466	466,195,797	466,195,797	
TOTAL SBF	571,711,901	2,746,871	3,969,646	578,428,418	578,428,418	100.0%
TOTAL STATE	\$18,326,427,830	\$155,048,198	\$459,823,899	\$18,941,299,927	\$18,941,299,927	100.0%
Local						
A&PR FUND						
SR	\$20,642,804,084	\$165,754,749	\$507,238,746	\$21,315,797,579	\$21,315,797,579	
MP	68,946,918	71,805	10,428,361	79,447,084	79,447,084	
AA	46,081,972	253,981	1,007,759	47,343,712	47,343,712	
JR	402,606	0	(402,606)	0	0	
CR	80,859,653	0	20,104,614	100,964,267	100,964,267	
DR	2,649,843,566	6,150,523	77,350,164	2,733,344,253	2,733,344,253	
BD	487,660,257	4,336,231	28,505,762	520,502,250	520,502,250	
TOTAL A&PR	23,976,599,056	176,567,289	644,232,800	24,797,399,145	24,797,399,145	100.0%
SBF						
AA	0	0	0	0	0	
S-1	168,446,536	1,575,076	297,886	170,319,498	170,319,498	
S-2	771,948,771	2,669,945	9,394,708	784,013,424	784,013,424	
TOTAL SBF	940,395,307	4,245,021	9,692,594	954,332,922	954,332,922	100.0%
TOTAL LOCAL	\$24,916,994,363	\$180,812,310	\$653,925,394	\$25,751,732,067	\$25,751,732,067	100.0%

**TRADITIONAL PLAN
RESERVE TRANSFERS AFFECTING THE EMPLOYER ACCUMULATION FUND
DECEMBER 31, 2011**

	Assets		Transfers		Liabilities	Ratio
	Before Transfers	Accrued	Other	Assets After Transfers		
Public Safety						
A&PR FUND						
SR	\$7,874,184	\$ 0	\$185,190	\$8,059,374	\$8,059,374	
MP	0	0	0	0	0	
AA	0	0	0	0	0	
JR	0	0	0	0	0	
CR	0	0	0	0	0	
DR	12,321,560	0	972,939	13,294,499	13,294,499	
BD	1,866,297	262,551	227,702	2,356,550	2,356,550	
TOTAL A&PR	22,062,041	262,551	1,385,831	23,710,423	23,710,423	100.0%
SBF						
AA	0	0	0	0	0	
S-1	119,679	0	(119,679)	0	0	
S-2	16,221,803	154,105	698,587	17,074,495	17,074,495	
TOTAL SBF	16,341,482	154,105	578,908	17,074,495	17,074,495	100.0%
TOTAL PUBLIC SAFETY	\$38,403,523	\$416,656	\$1,964,739	\$40,784,918	\$40,784,918	100.0%
Law Enforcement						
A&PR FUND						
SR	\$1,151,756,657	\$10,908,456	\$15,716,330	\$1,178,381,443	\$1,178,381,443	
MP	790	0	\$(790)	0	0	
AA	0	0	0	0	0	
JR	221	0	\$(221)	0	0	
CR	258,084	0	118,064	376,148	376,148	
DR	526,019,293	1,384,634	21,276,001	548,679,928	548,679,928	
BD	79,055,524	194,950	7,753,227	87,003,701	87,003,701	
TOTAL A&PR	1,757,090,569	12,488,040	44,862,611	1,814,441,220	1,814,441,220	100.0%
SBF						
AA	0	0	0	0	0	
S-1	12,328,563	0	\$(135,669)	12,192,894	12,192,894	
S-2	27,272,856	0	422,580	27,695,436	27,695,436	
TOTAL SBF	39,601,419	0	286,911	39,888,330	39,888,330	100.0%
TOTAL LAW ENFORCEMENT	\$ 1,796,691,988	\$ 12,488,040	\$ 45,149,522	\$ 1,854,329,550	\$ 1,854,329,550	100.0%
GRAND TOTAL	\$45,078,517,704	\$348,765,204	\$1,160,863,554	\$46,588,146,462	\$46,588,146,462	100.0%

**COMBINED PLAN
RESERVE TRANSFERS AFFECTING THE EMPLOYER ACCUMULATION FUND
DECEMBER 31, 2011**

	Assets Before Transfers	Transfers			Assets After Transfers	Liabilities	Ratio
		Accrued	Other				
State							
A&PR FUND							
CA	\$ 65,631	\$0	\$ (572)	\$ 65,059	\$ 65,059		
CB	212,818	124,902	(23,427)	314,293	314,293		
TOTAL A&PR	278,449	124,902	(23,999)	379,352	379,352		
TOTAL STATE	\$278,449	\$124,902	(23,999)	\$379,352	\$379,352		
Local							
A&PR FUND							
CA	\$410,280	\$ 109,205	\$13,472	\$532,957	\$532,957		
CB	825,524	109,228	3,831	938,583	938,583		
TOTAL A&PR	1,235,804	218,433	17,303	1,471,540	1,471,540		100.0%
TOTAL LOCAL	\$1,235,804	\$218,433	\$17,303	\$1,471,540	\$1,471,540		100.0%
GRAND TOTAL	\$1,514,253	\$343,335	(6,696)	\$1,850,892	\$1,850,892		100.0%

MEMBER DIRECTED PLAN
RESERVE TRANSFERS AFFECTING THE EMPLOYER ACCUMULATION FUND
DECEMBER 31, 2011

	Assets Before Transfers	Transfers		Assets After Transfers	Liabilities	Ratio
		Accrued	Other			
State						
A&PR FUND						
MD	\$ 128,883	\$ 0	30,766	\$ 159,649	\$ 159,649	
TOTAL A&PR	128,883	0	30,766	159,649	159,649	
TOTAL STATE	\$ 128,883	\$ 0	30,766	\$ 159,649	\$ 159,649	
Local						
A&PR FUND						
MD	\$937,726	\$ 92,793	(17,269)	\$1,013,250	\$1,013,250	100.0%
TOTAL A&PR	937,726	92,793	(17,269)	1,013,250	1,013,250	100.0%
TOTAL LOCAL	\$937,726	\$ 92,793	(17,269)	\$1,013,250	\$1,013,250	100.0%
GRAND TOTAL	\$1,066,609	\$ 92,793	\$ 13,497	\$1,172,899	\$1,172,899	100.0%

SECTION V
STATE DIVISION

STATE DIVISION

Data on active, inactive, retired and money purchase members that was used in the valuation is tabulated briefly below.

Defined Benefit Active Members in Valuation December 31, 2011

Groups	Number	Annual Payroll	Average		
			Pay	Age	Service
Traditional Plan					
Men	52,451	\$2,220,069,972	\$42,327	40.5 yrs.	9.5 yrs.
Women	63,403	2,496,976,724	39,383	40.5	9.1
Traditional Plan Total	115,854	\$4,717,046,696	40,715	40.5 yrs.	9.3 yrs.
Combined Plan					
Men	995	\$52,772,239	\$53,037	41.5 yrs.	5.8 yrs.
Women	1,424	73,724,340	51,773	41.6	5.4
Combined Plan Total	2,419	\$126,496,579	52,293	41.5 yrs.	5.6 yrs.
Grand Total	118,273	\$4,843,543,275	\$40,952	40.5 yrs.	9.2 yrs.

Reported pays for certain State employees were increased by 2% assuming these employees will experience fewer future furlough days than experienced during 2011.

Also included in the valuation were 183,166 inactive members and 4,040 members active in the money purchase plan.

Retired Members in Valuation December 31, 2011

Fund / Type of Allowance	Number	Current Monthly Benefits	Actuarial Liabilities
Traditional Plan			
A & PR Fund			
Superannuation Retirement	52,051	\$ 118,722,926	\$ 15,739,301,140
Disability Retirement	8,620	19,144,047	2,589,003,840
Money Purchase	579	288,236	34,566,529
Total A & PR Fund	61,250	138,155,209	18,362,871,509
Total SBF	4,771	5,035,481	578,428,418
Traditional Plan Total	66,021	\$ 143,190,690	\$ 18,941,299,927
Combined Plan			
A & PR Fund			
CMDB	9	\$ 2,173	\$ 314,293
CMDC	3	470	65,059
Total A & PR Fund	12	2,643	379,352
Combined Plan Total	12	\$ 2,643	\$ 379,352
Member Directed Plan			
A & PR Fund	6	\$ 1,112	\$ 159,649
Member Directed Plan Total	6	\$ 1,112	\$ 159,649
Grand Total	66,039	\$ 143,194,445	\$ 18,941,838,928

**STATE DIVISION
EMPLOYER CONTRIBUTIONS TO SUPPORT
DEFINED BENEFIT RETIREMENT ALLOWANCES
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL**

Valuation Date December 31 Contributions for	2011			2010*
	Traditional Plan	Combined Plan	Traditional and Combined Plans	2013 Traditional and Combined Plans
Normal Cost				
Age and Service Allowances	8.36 %	3.61 %	8.55 %	8.62 %
Disability Allowances	2.60 %	2.03 %	2.58 %	2.51 %
Survivor's Benefits	0.39 %	0.27 %	0.38 %	0.42 %
Separation Benefits	3.93 %	1.08 %	3.86 %	3.94 %
Total Normal Cost	15.28 %	6.99 %	15.37 %	15.49 %
(Member Contributions) Employer Normal Cost	10.00 %	0.00 %	10.00 %	10.00 %
	5.28 %	6.99 %	5.37 %	5.49 %
Unfunded Actuarial Accrued Liabilities				
Total Available Contribution Amortization Years	8.72 % 39	7.01 % 2	8.63 % 38	7.51 % 43
Total Pension Employer Contribution Rate	14.00 %	14.00 %	14.00 %	13.00 %

* As shown in the December 31, 2010 valuation report before the changes to actuarial assumptions adopted in October 2011.

The term "Amortization Years" refers to the period sufficient to produce the Total Employer Contribution Rate for retirement allowances and survivor benefits and incorporates all scheduled employer and member contribution rate increases and scheduled employer rate reallocations between the pension and retiree health programs.

**STATE DIVISION
COMPARATIVE STATEMENT**

Valuation Date	Contribution Rate Effective January 1	Defined Benefit Active Members in Valuation			Computed Employer Contributions as % of Payroll					
		No.	Total (\$Millions)	Average Annual Payroll	Increase	Normal Cost	Unfunded Accrued Liability	Pension Total	Retiree Health	Grand Total
1998	2001	112,323	\$ 3,500	\$ 31,159	4.4 %	6.21 %	2.80 %	9.01 %	4.30 %	13.31 %
1999#	2002	112,761	3,592	31,851	2.2 %	7.68 %	0.63 %	8.31 %	5.00 %	13.31 %
2000	2003	113,099	3,868	34,201	7.4 %	7.69 %	0.62 %	8.31 %	5.00 %	13.31 %
2001@	2004	109,219	3,996	36,589	7.0 %	6.17 %	3.14 %	9.31 %	4.00 %	13.31 %
2002	2005	110,017	4,129	37,531	2.6 %	5.95 %	3.36 %	9.31 %	4.00 %	13.31 %
2003##	2006	108,249	4,079	37,679	0.4 %	5.70 %	3.34 %	9.04 %	4.50 %	13.54 %
2004	2007	110,207	4,165	37,794	0.3 %	5.67 %	2.60 %	8.27 %	5.50 %	13.77 %
2005@	2008	114,620	4,339	37,858	0.2 %	5.43 %	1.57 %	7.00 %	7.00 %	14.00 %
2006	2009	115,930	4,522	39,005	3.0 %	4.97 %	2.03 %	7.00 %	7.00 %	14.00 %
2007	2010	118,466	4,703	39,695	1.8 %	5.44 %	1.56 %	7.00 %	7.00 %	14.00 %
2008	2011	114,925	4,780	41,590	4.8 %	5.44 %	4.56 %	10.00 %	4.00 %	14.00 %
2009	2012	117,008	4,763	40,704	(2.1)%	5.45 %	4.55 %	10.00 %	4.00 %	14.00 %
2010	2013	118,240	4,811	40,691	0.0 %	5.49 %	7.51 %	13.00 %	1.00 %	14.00 %
2010@	2013	118,240	4,811	40,691	0.0 %	5.36 %	7.64 %	13.00 %	1.00 %	14.00 %
2011	2014	118,273	4,844	40,952	0.6 %	5.37 %	8.63 %	14.00 %	0.00 %	14.00 %

After benefit changes.

@ Revised actuarial assumptions.

Combined Plan members are included beginning with the December 31, 2003 valuation.

STATE DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
DECEMBER 31, 2011

Actuarial Present Value	(1) Total Actuarial Present Value	Allocation by Entry Age	
		(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Allowances currently being paid from the Annuity & Pension Reserve Fund	\$ 18,363,410,510	\$ -	\$ 18,363,410,510
Allowances currently being paid from the Survivors Benefit Fund	578,428,418	-	578,428,418
Age and service allowances based on service rendered before and likely to be rendered after valuation date	15,405,682,545	3,162,190,613	12,243,491,932
Disability allowances likely to be paid present active members who become permanently disabled	2,236,013,959	975,797,981	1,260,215,978
Survivor benefits likely to be paid to spouses and children of present active members who die before retiring	427,875,496	141,390,221	286,485,275
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	2,479,176,932	1,514,975,124	964,201,808
Total	\$ 39,490,587,860	\$ 5,794,353,939	\$ 33,696,233,921
Actuarial Value of Assets			25,558,015,240
Unfunded Actuarial Accrued Liability			\$ 8,138,218,681

STATE DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT
(\$ IN MILLIONS EXCEPT AVERAGES)

Dec. 31	Defined Benefit Active Payroll		Active and Inactive Member Accrued Liabilities for Retirement Allowances				Unfunded /Payroll
			Computed Total	Valuation Assets	Unfunded	Amortization Years	
	Total	Average					
1996@	\$3,319	\$28,684	\$ 8,104	\$7,387	\$717	8	0.22
1997	3,405	29,858	8,591	8,268	323	3	0.09
1998	3,500	31,159	9,223	9,666	(443)	-	-
1999#	3,592	31,851	10,298	10,474	(176)	-	-
2000	3,868	34,201	11,273	11,558	(285)	-	-
2001@	3,996	36,589	11,352	11,863	(511)	-	-
2002	4,129	37,531	11,822	8,965	2,857	38	0.69
2003##	4,079	37,679	12,230	9,030	3,200	43	0.78
2004	4,165	37,794	12,441	9,664	2,777	34	0.67
2005@	4,339	37,858	13,326	10,296	3,030	39	0.70
2006	4,522	39,005	14,006	12,131	1,875	35	0.41
2007	4,703	39,695	14,526	13,442	1,084	20	0.23
2008	4,780	41,590	14,872	7,488	7,384	N/A	1.54
2009	4,763	40,704	14,843	6,648	8,195	N/A	1.71
2010	4,811	40,691	14,787	6,220	8,567	61	1.78
2010@	4,811	40,691	14,903	7,113	7,790	48	1.62
2011	4,844	40,952	14,754	6,616	8,138	37	1.68

After benefit changes.

@ Revised actuarial assumptions.

Combined Plan members are included beginning with the December 31, 2003 valuation.

While no one or two numeric indices can fully describe the financial condition of a retirement plan, the ratio of unfunded actuarial accrued liabilities divided by active member payroll ("UNFUNDED / PAYROLL" above) is significant. Unfunded actuarial accrued liabilities represent plan debt, while active member payroll represents the plan's capacity to collect contributions to pay toward debt --- thus the ratio is a relative index of condition. The lower the ratio, the greater the financial strength, and vice-versa.

STATE DIVISION
MALE ACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	752							752
Tot. Pay	\$4,647,869							\$4,647,869
Avg Pay	\$6,181							\$6,181
20-24	8,731	40						8,771
Tot. Pay	\$86,090,268	\$767,519						\$86,857,787
Avg Pay	\$9,860	\$19,188						\$9,903
25-29	4,890	811	25					5,726
Tot. Pay	\$116,646,862	\$34,380,584	\$1,041,201					\$152,068,647
Avg Pay	\$23,854	\$42,393	\$41,648					\$26,558
30-34	2,734	1,652	552	8				4,946
Tot. Pay	\$86,525,333	\$79,682,322	\$28,836,519	\$379,998				\$195,424,172
Avg Pay	\$31,648	\$48,234	\$52,240	\$47,500				\$39,512
35-39	1,789	1,214	1,271	364	8			4,646
Tot. Pay	\$62,210,800	\$62,564,072	\$72,151,470	\$21,184,607	\$510,953			\$218,621,902
Avg Pay	\$34,774	\$51,535	\$56,767	\$58,199	\$63,869			\$47,056
40-44	1,557	1,108	1,241	1,373	555	12		5,846
Tot. Pay	\$56,854,754	\$59,196,794	\$70,641,935	\$87,008,112	\$37,192,507	\$798,198		\$311,692,300
Avg Pay	\$36,516	\$53,427	\$56,923	\$63,371	\$67,014	\$66,517		\$53,317
45-49	1,282	947	1,004	1,139	1,481	705	18	6,576
Tot. Pay	\$45,958,624	\$49,699,413	\$57,362,128	\$71,884,462	\$100,115,425	\$47,664,654	\$1,247,217	\$373,931,923
Avg Pay	\$35,849	\$52,481	\$57,134	\$63,112	\$67,600	\$67,609	\$69,290	\$56,863
50-54	1,026	777	904	955	1,210	1,349	350	6,571
Tot. Pay	\$36,874,353	\$42,127,016	\$50,140,525	\$58,320,877	\$81,091,266	\$92,816,327	\$23,625,406	\$384,995,770
Avg Pay	\$35,940	\$54,218	\$55,465	\$61,069	\$67,018	\$68,804	\$67,501	\$58,590
55-59	798	740	735	786	851	841	481	5,232
Tot. Pay	\$27,392,692	\$38,622,412	\$41,375,106	\$49,026,342	\$55,194,873	\$56,357,484	\$35,468,437	\$303,437,346
Avg Pay	\$34,327	\$52,192	\$56,293	\$62,374	\$64,859	\$67,012	\$73,739	\$57,996
60-64	472	387	451	465	484	468	318	3,045
Tot. Pay	\$15,152,625	\$20,385,475	\$25,986,768	\$28,501,238	\$32,167,870	\$32,012,957	\$25,978,630	\$180,185,563
Avg Pay	\$32,103	\$52,676	\$57,620	\$61,293	\$66,463	\$68,404	\$81,694	\$59,174
65-69	227	122	152	120	115	95	90	921
Tot. Pay	\$4,761,743	\$4,715,920	\$8,614,142	\$7,512,248	\$7,905,792	\$6,757,629	\$7,507,807	\$47,775,281
Avg Pay	\$20,977	\$38,655	\$56,672	\$62,602	\$68,746	\$71,133	\$83,420	\$51,873
70 & Over	176	71	56	34	30	19	28	414
Tot. Pay	\$1,862,182	\$1,770,883	\$2,174,122	\$1,855,143	\$1,628,822	\$1,336,727	\$2,575,772	\$13,203,651
Avg Pay	\$10,581	\$24,942	\$38,824	\$54,563	\$54,294	\$70,354	\$91,992	\$31,893
Totals	24,434	7,869	6,391	5,244	4,734	3,489	1,285	53,446
Tot. Pay	\$544,978,105	\$393,912,410	\$358,323,916	\$325,673,027	\$315,807,508	\$237,743,976	\$96,403,269	\$2,272,842,211
Avg. Pay	\$22,304	\$50,059	\$56,067	\$62,104	\$66,711	\$68,141	\$75,022	\$42,526

STATE DIVISION
FEMALE ACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	1,048							1,048
Tot. Pay	\$5,285,559							\$5,285,559
Avg Pay	\$5,043							\$5,043
20-24	10,318	38						10,356
Tot. Pay	\$93,857,652	\$752,330						\$94,609,982
Avg Pay	\$9,096	\$19,798						\$9,136
25-29	5,454	921	24					6,399
Tot. Pay	\$144,763,494	\$39,053,282	\$992,810					\$184,809,586
Avg Pay	\$26,543	\$42,403	\$41,367					\$28,881
30-34	4,784	2,051	596	11				7,442
Tot. Pay	\$129,561,067	\$97,694,157	\$29,252,254	\$550,080				\$257,057,558
Avg Pay	\$27,082	\$47,632	\$49,081	\$50,007				\$34,541
35-39	2,017	1,510	1,348	381	14			5,270
Tot. Pay	\$73,240,276	\$77,420,379	\$72,414,036	\$21,291,065	\$726,234			\$245,091,990
Avg Pay	\$36,311	\$51,272	\$53,720	\$55,882	\$51,874			\$46,507
40-44	1,932	1,402	1,296	1,321	545	34		6,530
Tot. Pay	\$72,551,563	\$70,843,414	\$68,025,288	\$78,952,685	\$33,010,472	\$1,898,864		\$325,282,286
Avg Pay	\$37,553	\$50,530	\$52,489	\$59,767	\$60,570	\$55,849		\$49,814
45-49	1,623	1,356	1,190	1,152	1,469	731	31	7,552
Tot. Pay	\$59,908,532	\$68,977,943	\$61,126,938	\$66,089,630	\$93,241,798	\$46,379,940	\$1,956,517	\$397,681,298
Avg Pay	\$36,912	\$50,869	\$51,367	\$57,369	\$63,473	\$63,447	\$63,113	\$52,659
50-54	1,502	1,300	1,261	1,137	1,357	1,302	403	8,262
Tot. Pay	\$55,772,584	\$62,693,543	\$64,030,832	\$63,056,092	\$80,238,672	\$85,746,527	\$25,257,094	\$436,795,344
Avg Pay	\$37,132	\$48,226	\$50,778	\$55,458	\$59,129	\$65,858	\$62,673	\$52,868
55-59	1,013	1,054	1,142	1,027	1,235	899	461	6,831
Tot. Pay	\$36,217,361	\$52,328,101	\$58,164,936	\$56,739,991	\$72,894,271	\$57,418,629	\$30,530,098	\$364,293,387
Avg Pay	\$35,753	\$49,647	\$50,933	\$55,248	\$59,024	\$63,869	\$66,226	\$53,329
60-64	463	483	663	587	710	533	243	3,682
Tot. Pay	\$16,061,464	\$22,049,465	\$33,966,491	\$32,766,847	\$41,770,734	\$31,396,339	\$16,142,119	\$194,153,459
Avg Pay	\$34,690	\$45,651	\$51,232	\$55,821	\$58,832	\$58,905	\$66,428	\$52,730
65-69	125	164	196	140	212	130	107	1,074
Tot. Pay	\$3,187,075	\$6,496,634	\$9,318,648	\$6,987,908	\$11,073,763	\$7,390,631	\$6,351,139	\$50,805,798
Avg Pay	\$25,497	\$39,614	\$47,544	\$49,914	\$52,235	\$56,851	\$59,356	\$47,305
70 & Over	90	52	45	43	52	47	52	381
Tot. Pay	\$1,421,356	\$1,438,166	\$1,688,073	\$2,291,039	\$2,695,500	\$2,270,022	\$3,030,661	\$14,834,817
Avg Pay	\$15,793	\$27,657	\$37,513	\$53,280	\$51,837	\$48,298	\$58,282	\$38,937
Totals	30,369	10,331	7,761	5,799	5,594	3,676	1,297	64,827
Tot. Pay	\$691,827,983	\$499,747,414	\$398,980,306	\$328,725,337	\$335,651,444	\$232,500,952	\$83,267,628	\$2,570,701,064
Avg. Pay	\$22,781	\$48,374	\$51,408	\$56,687	\$60,002	\$63,248	\$64,200	\$39,655

STATE DIVISION
INACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Total Number
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	256							256
20-24	16,299	3						16,302
25-29	32,616	144						32,760
30-34	56,537	534	27					57,098
35-39	22,526	606	153	12				23,297
40-44	14,482	769	356	86	9			15,702
45-49	8,563	870	538	215	66	11		10,263
50-54	7,616	916	717	347	163	62	2	9,823
55-59	6,578	917	752	428	172	36	1	8,884
60-64	4,324	557	365	175	60	17	3	5,501
65-69	1,838	158	56	20	9	5	1	2,087
70 & Over	1,135	32	17	7	1	1		1,193
Totals	172,770	5,506	2,981	1,290	480	132	7	183,166

SECTION VI
LOCAL GOVERNMENT DIVISION

LOCAL GOVERNMENT DIVISION

Data on active, inactive, retired and money purchase members that was used in the valuation is tabulated briefly below.

Defined Benefit Active Members in Valuation December 31, 2011

Groups	Number	Annual Payroll	Average		
			Pay	Age	Service
Traditional Plan					
Men	94,785	\$3,395,903,326	\$35,827	45.2 yrs.	10.3 yrs.
Women	110,372	3,549,074,801	32,156	44.6	10.2
Traditional Plan Total	205,157	\$6,944,978,127	\$33,852	44.9 yrs.	10.3 yrs.
Combined Plan					
Men	1,890	\$80,453,873	\$42,568	44.3 yrs.	6.3 yrs.
Women	2,405	89,255,350	37,112	43.2	6.1
Combined Plan Total	4,295	\$169,709,223	\$39,513	43.7 yrs.	6.2 yrs.
Grand Total	209,452	\$7,114,687,350	\$33,968	44.9 yrs.	10.2 yrs.

Also included in the valuation were 265,058 inactive members and 15,323 members active in the money purchase plan.

Retired Members in Valuation December 31, 2011

Fund / Type of Allowance	Number	Current Monthly Benefits	Actuarial Liabilities
Traditional Plan			
A & PR Fund			
Superannuation Retirement	95,234	\$162,946,793	\$21,464,105,558
Disability Retirement	12,283	24,601,077	3,253,846,503
Money Purchase	1,732	670,221	79,447,084
Total A & PR Fund	109,249	188,218,091	24,797,399,145
Total SBF	9,994	8,453,346	954,332,922
Traditional Plan Total	119,243	\$196,671,437	\$25,751,732,067
Combined Plan			
A & PR Fund			
CMDB	27	\$ 6,311	\$ 938,583
CMDC	19	3,721	532,957
Total A & PR Fund	46	\$ 10,032	\$ 1,471,540
Combined Plan Total	46	\$ 10,032	\$ 1,471,540
Member Directed Plan			
A & PR Fund	32	\$ 7,286	\$ 1,013,251
Member Directed Plan Total	32	\$ 7,286	\$ 1,013,251
Grand Total	119,321	\$196,688,755	\$25,754,216,858

**LOCAL GOVERNMENT DIVISION
EMPLOYER CONTRIBUTIONS TO SUPPORT
DEFINED BENEFIT RETIREMENT ALLOWANCES
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL**

Valuation Date December 31 Contributions for	2011			2010* 2013
	Traditional Plan	Combined Plan	Traditional and Combined Plans	
Normal Cost				
Age and Service Allowances	8.62 %	3.76 %	8.80 %	8.68 %
Disability Allowances	2.07 %	1.58 %	2.06 %	1.96 %
Survivor's Benefits	0.46 %	0.31 %	0.45 %	0.48 %
Separation Benefits	3.90 %	1.18 %	3.83 %	4.03 %
Total Normal Cost	15.05 %	6.83 %	15.14 %	15.15 %
(Member Contributions) Employer Normal Cost	10.00 %	0.00 %	10.00 %	10.00 %
	5.05 %	6.83 %	5.14 %	5.15 %
Unfunded Actuarial Accrued Liabilities				
Total Available Contribution Amortization Years	8.95 % 26	7.17 % 1	8.86 % 26	7.85 % 24
Total Pension Employer Contribution Rate	14.00 %	14.00 %	14.00 %	13.00 %

* As shown in the December 31, 2010 valuation report before the changes to actuarial assumptions adopted in October 2011.

The term "Amortization Years" refers to the period sufficient to produce the Total Employer Contribution Rate for retirement allowances and survivor benefits and incorporates all scheduled employer and member contribution rate increases and scheduled employer rate reallocations between the pension and retiree health programs.

**LOCAL GOVERNMENT DIVISION
COMPARATIVE STATEMENT**

Valuation Date December 31	Contribution Rate Effective January 1	Defined Benefit Active Members in Valuation			Computed Employer Contributions as % of Payroll					
		No.	Total (\$Millions)	Annual Payroll	Increase	Normal Cost	Unfunded Accrued Liability	Pension Total	Retiree Health	Grand Total
1998	2001	234,601	\$5,240	\$22,334	4.0 %	6.17 %	3.08 %	9.25 %	4.30 %	13.55 %
1999#	2002	240,005	5,586	23,276	4.2 %	7.68 %	0.87 %	8.55 %	5.00 %	13.55 %
2000	2003	245,831	5,999	24,401	4.8 %	7.68 %	0.87 %	8.55 %	5.00 %	13.55 %
2001@	2004	243,202	6,451	26,526	8.7 %	6.14 %	3.41 %	9.55 %	4.00 %	13.55 %
2002	2005	247,377	6,721	27,171	2.4 %	5.92 %	3.63 %	9.55 %	4.00 %	13.55 %
2003##	2006	237,082	6,702	28,269	4.0 %	5.66 %	3.54 %	9.20 %	4.50 %	13.70 %
2004	2007	236,907	6,896	29,110	3.0 %	5.57 %	2.78 %	8.35 %	5.50 %	13.85 %
2005@	2008	236,073	7,066	29,933	2.8 %	5.00 %	2.00 %	7.00 %	7.00 %	14.00 %
2006	2009	237,981	7,234	30,399	1.6 %	4.53 %	2.47 %	7.00 %	7.00 %	14.00 %
2007	2010	237,225	7,438	31,354	3.1 %	5.12 %	1.88 %	7.00 %	7.00 %	14.00 %
2008	2011	233,163	7,566	32,451	3.5 %	5.14 %	4.86 %	10.00 %	4.00 %	14.00 %
2009	2012	223,004	7,334	32,889	1.3 %	5.14 %	4.86 %	10.00 %	4.00 %	14.00 %
2010	2013	215,144	7,196	33,447	1.7 %	5.15 %	7.85 %	13.00 %	1.00 %	14.00 %
2010@	2013	215,144	7,196	33,447	1.7 %	5.12 %	7.88 %	13.00 %	1.00 %	14.00 %
2011	2014	209,452	7,115	33,968	1.6 %	5.14 %	8.86 %	14.00 %	0.00 %	14.00 %

After benefit changes.

@ Revised actuarial assumptions.

Combined Plan members are included beginning with the December 31, 2003 valuation.

LOCAL GOVERNMENT DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
DECEMBER 31, 2011

Actuarial Present Value	(1) Total Actuarial Present Value	Allocation by Entry Age	
		(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Allowances currently being paid from the Annuity & Pension Reserve Fund	\$24,799,883,936	\$ -	\$24,799,883,936
Allowances currently being paid from the Survivors Benefit Fund	954,332,922	-	954,332,922
Age and service allowances based on service rendered before and likely to be rendered after valuation date	23,012,544,423	4,892,304,266	18,120,240,157
Disability allowances likely to be paid present active members who become permanently disabled	2,617,982,137	1,172,628,092	1,445,354,045
Survivor benefits likely to be paid to spouses and children of present active members who die before retiring	762,166,465	245,875,843	516,290,622
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	3,825,558,220	2,276,811,231	1,548,746,989
Total	\$55,972,468,103	\$8,587,619,432	\$47,384,848,671
Actuarial Value of Assets			37,171,667,011
Unfunded Actuarial Accrued Liability			\$10,213,181,660

LOCAL GOVERNMENT DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT
(\$ IN MILLIONS EXCEPT AVERAGES)

Dec. 31	Defined Benefit Active Payroll		Active and Inactive Member Accrued Liabilities for Retirement Allowances				Unfunded /Payroll
			Computed Total	Valuation Assets	Unfunded	Amortization Years	
	Total	Average					
1998	\$ 5,240	\$22,334	\$ 12,912	\$ 13,135	\$ (223)	-	-
1999#	5,586	23,276	14,643	14,498	145	2	0.03
2000	5,999	24,401	15,881	16,131	(250)	-	-
2001@	6,451	26,526	15,983	16,651	(668)	-	-
2002	6,721	27,171	16,710	12,682	4,028	25	0.60
2003##	6,702	28,269	17,645	13,148	4,497	27	0.67
2004	6,896	29,110	18,269	14,223	4,046	23	0.59
2005@	7,066	29,933	19,484	14,921	4,563	25	0.65
2006	7,234	30,399	20,147	17,523	2,624	19	0.36
2007	7,438	31,354	20,838	19,656	1,182	9	0.16
2008	7,566	32,451	21,590	11,561	10,029	N/A	1.33
2009	7,334	32,889	21,620	11,599	10,021	N/A	1.37
2010	7,196	33,447	21,584	11,799	9,785	27	1.36
2010@	7,196	33,447	21,668	13,212	8,456	22	1.18
2011	7,115	33,968	21,631	11,418	10,213	25	1.44

After benefit changes.

@ Revised actuarial assumptions.

Combined Plan members are included beginning with the December 31, 2003 valuation.

While no one or two numeric indices can fully describe the financial condition of a retirement plan, the ratio of unfunded actuarial accrued liabilities divided by active member payroll ("UNFUNDED / PAYROLL" above) is significant. Unfunded accrued liabilities represent plan debt, while active member payroll represents the plan's capacity to collect contributions to pay toward debt --- thus the ratio is a relative index of condition. The lower the ratio, the greater the financial strength, and vice-versa.

**LOCAL GOVERNMENT DIVISION
MALE ACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	3,813							3,813
Tot. Pay	\$25,327,322							\$25,327,322
Avg Pay	\$6,642							\$6,642
20-24	6,761	136						6,897
Tot. Pay	\$85,228,165	\$3,035,389						\$88,263,554
Avg Pay	\$12,606	\$22,319						\$12,797
25-29	4,844	1,491	99					6,434
Tot. Pay	\$110,366,389	\$52,639,630	\$4,040,398					\$167,046,417
Avg Pay	\$22,784	\$35,305	\$40,812					\$25,963
30-34	3,421	2,531	1,205	61				7,218
Tot. Pay	\$89,385,827	\$103,993,587	\$53,886,450	\$2,892,715				\$250,158,579
Avg Pay	\$26,129	\$41,088	\$44,719	\$47,422				\$34,658
35-39	2,796	2,171	2,221	796	32			8,016
Tot. Pay	\$74,122,102	\$91,775,363	\$108,428,152	\$40,653,296	\$1,582,857			\$316,561,770
Avg Pay	\$26,510	\$42,273	\$48,820	\$51,072	\$49,464			\$39,491
40-44	2,927	2,168	2,452	2,008	900	32		10,487
Tot. Pay	\$76,074,441	\$90,598,029	\$120,901,176	\$108,962,330	\$49,498,870	\$1,718,845		\$447,753,691
Avg Pay	\$25,991	\$41,789	\$49,307	\$54,264	\$54,999	\$53,714		\$42,696
45-49	2,675	2,131	2,333	1,991	2,114	928	50	12,222
Tot. Pay	\$65,485,227	\$84,660,789	\$112,191,408	\$105,716,368	\$120,341,009	\$52,935,381	\$2,880,537	\$544,210,719
Avg Pay	\$24,480	\$39,728	\$48,089	\$53,097	\$56,926	\$57,042	\$57,611	\$44,527
50-54	2,694	2,068	2,234	1,967	2,269	1,870	609	13,711
Tot. Pay	\$62,248,797	\$77,168,876	\$101,824,169	\$98,641,052	\$125,422,791	\$111,432,915	\$37,791,108	\$614,529,708
Avg Pay	\$23,106	\$37,316	\$45,579	\$50,148	\$55,277	\$59,590	\$62,054	\$44,820
55-59	2,427	1,826	1,961	1,787	1,944	1,572	943	12,460
Tot. Pay	\$51,603,642	\$62,977,636	\$80,728,437	\$84,875,582	\$103,260,680	\$92,196,370	\$61,552,680	\$537,195,027
Avg Pay	\$21,262	\$34,489	\$41,167	\$47,496	\$53,118	\$58,649	\$65,273	\$43,114
60-64	1,878	1,433	1,356	1,117	1,141	874	603	8,402
Tot. Pay	\$31,160,888	\$44,984,918	\$53,743,365	\$53,070,762	\$59,809,949	\$52,260,488	\$39,963,401	\$334,993,771
Avg Pay	\$16,593	\$31,392	\$39,634	\$47,512	\$52,419	\$59,795	\$66,274	\$39,871
65-69	1,405	754	571	383	307	225	201	3,846
Tot. Pay	\$14,342,140	\$17,189,864	\$19,261,120	\$15,373,594	\$14,755,777	\$11,862,690	\$11,896,472	\$104,681,657
Avg Pay	\$10,208	\$22,798	\$33,732	\$40,140	\$48,064	\$52,723	\$59,186	\$27,218
70 & Over	1,252	817	514	253	137	100	96	3,169
Tot. Pay	\$8,890,143	\$9,015,314	\$8,998,752	\$6,232,261	\$3,988,991	\$3,405,382	\$5,104,141	\$45,634,984
Avg Pay	\$7,101	\$11,035	\$17,507	\$24,633	\$29,117	\$34,054	\$53,168	\$14,400
Totals	36,893	17,526	14,946	10,363	8,844	5,601	2,502	96,675
Tot. Pay	\$694,235,083	\$638,039,395	\$664,003,427	\$516,417,960	\$478,660,924	\$325,812,071	\$159,188,339	\$3,476,357,199
Avg. Pay	\$18,818	\$36,405	\$44,427	\$49,833	\$54,123	\$58,170	\$63,624	\$35,959

**LOCAL GOVERNMENT DIVISION
FEMALE ACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	4,265							4,265
Tot. Pay	\$25,190,206							\$25,190,206
Avg Pay	\$5,906							\$5,906
20-24	6,487	218						6,705
Tot. Pay	\$76,896,165	\$3,520,751						\$80,416,916
Avg Pay	\$11,854	\$16,150						\$11,994
25-29	5,480	1,585	103					7,168
Tot. Pay	\$127,966,852	\$49,728,141	\$3,320,807					\$181,015,800
Avg Pay	\$23,352	\$31,374	\$32,241					\$25,253
30-34	5,135	3,515	1,454	66				10,170
Tot. Pay	\$116,866,105	\$131,748,866	\$56,700,441	\$2,613,384				\$307,928,796
Avg Pay	\$22,759	\$37,482	\$38,996	\$39,597				\$30,278
35-39	3,573	2,730	3,107	950	62			10,422
Tot. Pay	\$90,141,619	\$102,133,325	\$132,954,152	\$41,599,381	\$2,455,873			\$369,284,350
Avg Pay	\$25,229	\$37,411	\$42,792	\$43,789	\$39,611			\$35,433
40-44	3,746	2,790	3,155	2,395	1,084	52		13,222
Tot. Pay	\$89,386,029	\$99,639,733	\$133,342,794	\$114,121,526	\$49,008,472	\$2,562,040		\$488,060,594
Avg Pay	\$23,862	\$35,713	\$42,264	\$47,650	\$45,211	\$49,270		\$36,913
45-49	3,595	2,817	2,957	2,167	2,315	1,045	51	14,947
Tot. Pay	\$79,826,912	\$97,579,499	\$119,245,189	\$97,793,506	\$114,249,438	\$49,935,400	\$2,448,146	\$561,078,090
Avg Pay	\$22,205	\$34,640	\$40,326	\$45,129	\$49,352	\$47,785	\$48,003	\$37,538
50-54	3,437	2,841	3,332	2,501	2,361	1,832	531	16,835
Tot. Pay	\$70,980,389	\$92,077,203	\$126,355,080	\$104,668,686	\$114,221,426	\$96,012,900	\$27,127,844	\$631,443,528
Avg Pay	\$20,652	\$32,410	\$37,922	\$41,851	\$48,378	\$52,409	\$51,088	\$37,508
55-59	2,619	2,364	2,961	2,402	2,411	1,306	720	14,783
Tot. Pay	\$50,097,868	\$72,236,171	\$108,164,556	\$97,319,211	\$108,359,708	\$67,172,386	\$38,790,300	\$542,140,200
Avg Pay	\$19,129	\$30,557	\$36,530	\$40,516	\$44,944	\$51,434	\$53,875	\$36,673
60-64	1,516	1,483	1,792	1,489	1,629	912	438	9,259
Tot. Pay	\$26,366,607	\$43,425,221	\$62,086,576	\$56,923,668	\$70,688,544	\$43,440,896	\$24,141,651	\$327,073,163
Avg Pay	\$17,392	\$29,282	\$34,647	\$38,229	\$43,394	\$47,633	\$55,118	\$35,325
65-69	685	531	583	491	464	290	161	3,205
Tot. Pay	\$7,146,188	\$11,831,180	\$17,708,226	\$16,723,689	\$18,823,138	\$13,023,454	\$7,525,608	\$92,781,483
Avg Pay	\$10,432	\$22,281	\$30,374	\$34,060	\$40,567	\$44,908	\$46,743	\$28,949
70 & Over	558	328	290	206	196	109	109	1,796
Tot. Pay	\$3,362,994	\$3,764,896	\$4,749,652	\$5,072,204	\$6,189,903	\$4,505,951	\$4,271,425	\$31,917,025
Avg Pay	\$6,027	\$11,478	\$16,378	\$24,622	\$31,581	\$41,339	\$39,187	\$17,771
Totals	41,096	21,202	19,734	12,667	10,522	5,546	2,010	112,777
Tot. Pay	\$764,227,934	\$707,684,986	\$764,627,473	\$536,835,255	\$483,996,502	\$276,653,027	\$104,304,974	\$3,638,330,151
Avg. Pay	\$18,596	\$33,378	\$38,747	\$42,381	\$45,999	\$49,883	\$51,893	\$32,261

LOCAL GOVERNMENT DIVISION
INACTIVE MEMBERS IN DEFINED BENEFIT VALUATION
DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Total Number
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19	2,167							2,167
20-24	28,289	17						28,306
25-29	38,264	363	1					38,628
30-34	44,060	886	94					45,040
35-39	30,284	1,242	329	31				31,886
40-44	23,563	1,617	707	166	18			26,071
45-49	18,523	1,697	1,038	393	103	13		21,767
50-54	19,270	1,991	1,362	572	213	76	3	23,487
55-59	17,750	2,146	1,611	758	297	33	5	22,600
60-64	11,962	1,281	769	326	111	19	6	14,474
65-69	6,045	464	151	55	16	8	6	6,745
70 & Over	3,646	172	51	11	5	2		3,887
Totals	243,823	11,876	6,113	2,312	763	151	20	265,058

SECTION VII
PUBLIC SAFETY DIVISION

PUBLIC SAFETY DIVISION

Data on active, inactive, retired and money purchase members that was used in the valuation is tabulated briefly below.

Active Members in Valuation December 31, 2011

Groups	Number	Annual Payroll	Average		
			Pay	Age	Service
Men	76	\$3,272,176	\$43,055	37.5 yrs.	8.8 yrs.
Women	8	356,791	44,599	39.2	9.3
Totals	84	\$3,628,967	\$43,202	37.7 yrs.	8.8 yrs.

Also included in the valuation were 35 inactive members and 4 members active in the money purchase plan.

Retired Members in Valuation December 31, 2011

Fund / Type of Allowance	Number	Current Monthly Benefits	Actuarial Liabilities
A & PR Fund			
Superannuation Retirement	30	\$ 49,620	\$ 8,059,373
Disability Retirement	38	105,322	15,651,050
Money Purchase	0	0	0
Total A & PR Fund	68	154,942	23,710,423
Total SBF	101	122,573	17,074,495
Grand Total	169	\$277,515	\$40,784,918

**PUBLIC SAFETY DIVISION
EMPLOYER CONTRIBUTIONS TO SUPPORT
RETIREMENT ALLOWANCES
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL**

Valuation Date December 31	2011	2010*
Contributions for	2014	2013
Normal Cost		
Age and Service Allowances	8.41 %	10.58 %
Disability Allowances	4.22 %	5.23 %
Survivor's Benefits	0.51 %	0.63 %
Separation Benefits	4.98 %	3.18 %
Total Normal Cost	18.12 %	19.62 %
(Member Contributions)	12.00 %	12.00 %
Employer Normal Cost	6.12 %	7.62 %
Unfunded Actuarial Accrued Liabilities		
Total Available Contribution	11.98 %	9.48 %
Amortization Years	46	N/A
Total Pension Employer Contribution Rate	18.10 %	17.10 %

N/A – The unfunded actuarial accrued liabilities are unable to be amortized based upon the total pension contribution rate.

** As shown in the December 31, 2010 valuation report before the changes to actuarial assumptions adopted in October 2011.*

The term “Amortization Years” refers to the period sufficient to produce the Total Employer Contribution Rate for retirement allowances and survivor benefits and incorporates all scheduled employer and member contribution rate increases and scheduled employer rate reallocations between the pension and retiree health programs.

**PUBLIC SAFETY DIVISION
COMPARATIVE STATEMENT ***

Valuation Date December 31	Contribution Rate Effective January 1	Active Members in Valuation			Computed Employer Contributions as % of Payroll					
		No.	Total (\$Thousands)	Annual Payroll Average	Increase	Normal Cost	Unfunded Accrued Liability	Pension Total	Retiree Health	Grand Total
2005@	2008	135	\$6,078	\$45,023	6.7 %	9.01 %	1.39 %	10.40 %	7.00 %	17.40 %
2006	2009	127	5,851	46,067	2.3 %	8.73 %	1.90 %	10.63 %	7.00 %	17.63 %
2007	2010	120	5,638	46,985	2.0 %	8.95 %	1.92 %	10.87 %	7.00 %	17.87 %
2008	2011	127	6,219	48,969	4.2 %	8.32 %	5.78 %	14.10 %	4.00 %	18.10 %
2009	2012	94	4,061	43,205	(11.8)%	7.77 %	6.33 %	14.10 %	4.00 %	18.10 %
2010	2013	88	3,650	41,480	(4.0)%	7.62 %	9.48 %	17.10 %	1.00 %	18.10 %
2010@	2013	88	3,650	41,480	(4.0)%	6.22 %	10.88 %	17.10 %	1.00 %	18.10 %
2011	2014	84	3,629	43,202	4.2 %	6.12 %	11.98 %	18.10 %	0.00 %	18.10 %

* Prior to 2005, Public Safety and Law Enforcement results were reported together. Historical information prior to 2005 may be found on page VIII-3.
@ Revised actuarial assumptions.

PUBLIC SAFETY DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
DECEMBER 31, 2011

	(1) Total Actuarial Present Value	Allocation by Entry Age	
		(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Actuarial Present Value			
Allowances currently being paid from the Annuity & Pension Reserve Fund	\$23,710,423	\$ -	\$23,710,423
Allowances currently being paid from the Survivors Benefit Fund	17,074,495	-	17,074,495
Age and service allowances based on service rendered before and likely to be rendered after valuation date	8,030,259	2,690,807	5,339,452
Disability allowances likely to be paid present active members who become permanently disabled	2,638,883	1,309,073	1,329,810
Survivor benefits likely to be paid to spouses and children of present active members who die before retiring	339,490	153,273	186,217
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	2,543,940	1,629,666	914,274
Total	\$54,337,490	\$5,782,819	\$48,554,671
Actuarial Value of Assets			39,422,844
Unfunded Actuarial Accrued Liability			\$9,131,827

PUBLIC SAFETY DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT *
(\$ IN MILLIONS EXCEPT AVERAGES)

Dec. 31	Defined Benefit Active Payroll		Active and Inactive Member Accrued Liabilities for Retirement Allowances				Unfunded /Payroll
			Computed Total	Valuation Assets	Unfunded	Amortization Years	
	Total	Average					
2005@	\$6	\$45,023	\$16	\$(44)	\$60	N/A	10.00
2006	6	46,067	16	(64)	80	N/A	13.33
2007	6	46,985	18	(82)	100	N/A	16.67
2008	6	48,969	18	9	9	79	1.50
2009	4	43,205	12	0	12	N/A	3.00
2010	4	41,480	7	(8)	15	N/A	3.75
2010@	4	41,480	7	(7)	14	N/A	3.50
2011	4	43,202	8	(1)	9	45	2.25

N/A – The unfunded actuarial accrued liabilities are unable to be amortized based upon the total pension contribution rate.

** Prior to 2005, Public Safety and Law Enforcement results were reported together. Historical information prior to 2005 may be found on page VIII-5.*

@ Revised actuarial assumptions.

While no one or two numeric indices can fully describe the financial condition of a retirement plan, the ratio of unfunded actuarial accrued liabilities divided by active member payroll (“UNFUNDED / PAYROLL” above) is significant. Unfunded accrued liabilities represent plan debt, while active member payroll represents the plan’s capacity to collect contributions to pay toward debt --- thus the ratio is a relative index of condition. The lower the ratio, the greater the financial strength, and vice-versa.

PUBLIC SAFETY DIVISION
MALE ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date						Total	
	0-4	5-9	10-14	15-19	20-24	25-29		30+
15-19								
Tot. Pay								
Avg Pay								
20-24	8							8
Tot. Pay	\$351,272							\$351,272
Avg Pay	\$43,909							\$43,909
25-29	12	3						15
Tot. Pay	\$495,128	\$104,939						\$600,067
Avg Pay	\$41,261	\$34,980						\$40,004
30-34	3	6	2					11
Tot. Pay	\$122,155	\$289,960	\$96,155					\$508,270
Avg Pay	\$40,718	\$48,327	\$48,078					\$46,206
35-39	4	1	6					11
Tot. Pay	\$141,459	\$35,175	\$290,725					\$467,359
Avg Pay	\$35,365	\$35,175	\$48,454					\$42,487
40-44	2	2	4	4	1			13
Tot. Pay	\$77,977	\$80,723	\$172,111	\$182,231	\$42,761			\$555,803
Avg Pay	\$38,989	\$40,362	\$43,028	\$45,558	\$42,761			\$42,754
45-49		3	2	1	1			7
Tot. Pay		\$132,448	\$89,624	\$6,013	\$48,234			\$276,319
Avg Pay		\$44,149	\$44,812	\$6,013	\$48,234			\$39,474
50-54		1		1				2
Tot. Pay		\$55,708		\$40,454				\$96,162
Avg Pay		\$55,708		\$40,454				\$48,081
55-59				3	1			4
Tot. Pay				\$135,180	\$48,022			\$183,202
Avg Pay				\$45,060	\$48,022			\$45,801
60-64	1	1		1	1			4
Tot. Pay	\$33,020	\$64,111		\$54,889	\$37,592			\$189,612
Avg Pay	\$33,020	\$64,111		\$54,889	\$37,592			\$47,403
65-69								
Tot. Pay								
Avg Pay								
70 & Over					1			1
Tot. Pay					\$44,110			\$44,110
Avg Pay					\$44,110			\$44,110
Totals	30	17	14	10	5			76
Tot. Pay	\$1,221,011	\$763,064	\$648,615	\$418,767	\$220,719	\$ -	\$ -	\$3,272,176
Avg. Pay	\$40,700	\$44,886	\$46,330	\$41,877	\$44,144			\$43,055

PUBLIC SAFETY DIVISION
FEMALE ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19								
Tot. Pay								
Avg Pay								
20-24	1							1
Tot. Pay	\$48,289							\$48,289
Avg Pay	\$48,289							\$48,289
25-29		2						2
Tot. Pay		\$88,128						\$88,128
Avg Pay		\$44,064						\$44,064
30-34								
Tot. Pay								
Avg Pay								
35-39		1						1
Tot. Pay		\$32,949						\$32,949
Avg Pay		\$32,949						\$32,949
40-44					1			1
Tot. Pay					\$76,903			\$76,903
Avg Pay					\$76,903			\$76,903
45-49			1					1
Tot. Pay			\$34,381					\$34,381
Avg Pay			\$34,381					\$34,381
50-54					1			1
Tot. Pay					\$45,172			\$45,172
Avg Pay					\$45,172			\$45,172
55-59		1						1
Tot. Pay		\$30,969						\$30,969
Avg Pay		\$30,969						\$30,969
60-64								
Tot. Pay								
Avg Pay								
65-69								
Tot. Pay								
Avg Pay								
70 & Over								
Tot. Pay								
Avg Pay								
Totals	3	2	1		2			8
Tot. Pay	\$136,417	\$63,918	\$34,381	\$ -	\$122,075	\$ -	\$ -	\$356,791
Avg. Pay	\$45,472	\$31,959	\$34,381		\$61,038			\$44,599

PUBLIC SAFETY DIVISION
INACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Total Number
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19								
20-24	1							1
25-29	7							7
30-34	10	1						11
35-39	7	1						8
40-44	4			1				5
45-49				1				1
50-54								
55-59				1				1
60-64								
65-69	1							1
70 & Over								
Totals	30	2		3				35

SECTION VIII
LAW ENFORCEMENT DIVISION

LAW ENFORCEMENT DIVISION

Data on active, inactive, retired and money purchase members that was used in the valuation is tabulated briefly below.

Active Members in Valuation December 31, 2011

Groups	Number	Annual Payroll	Average		
			Pay	Age	Service
Men	6,645	\$388,742,047	\$58,501	41.4 yrs.	14.3 yrs.
Women	900	48,863,059	54,292	41.3	13.4
Totals	7,545	\$437,605,106	\$57,999	41.3 yrs.	14.2 yrs.

Also included in the valuation were 934 inactive members and 46 members active in the money purchase plan.

Retired Members in Valuation December 31, 2011

Fund / Type of Allowance	Number	Current Monthly Benefits	Actuarial Liabilities
A & PR Fund			
Superannuation Retirement	2,481	\$ 7,723,146	\$ 1,178,757,591
Disability Retirement	1,535	4,489,061	635,683,629
Money Purchase	0	0	0
Total A & PR Fund	4,016	12,212,207	1,814,441,220
Total SBF	304	317,948	39,888,330
Grand Total	4,320	\$12,530,155	\$1,854,329,550

**LAW ENFORCEMENT DIVISION
EMPLOYER CONTRIBUTIONS TO SUPPORT
RETIREMENT ALLOWANCES
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL**

Valuation Date December 31	2011	2010*
Contributions for	2014	2013
Normal Cost		
Age and Service Allowances	12.14 %	12.12 %
Disability Allowances	4.81 %	5.19 %
Survivor's Benefits	0.53 %	0.59 %
Separation Benefits	2.70 %	2.60 %
Total Normal Cost	20.18 %	20.50 %
(Member Contributions)	13.00 %	12.60 %
Employer Normal Cost	7.18 %	7.90 %
Unfunded Actuarial Accrued Liabilities		
Total Available Contribution	10.92 %	9.20 %
Amortization Years	24	21
Total Pension Employer Contribution Rate	18.10 %	17.10 %

* As shown in the December 31, 2010 valuation report before the changes to actuarial assumptions adopted in October 2011.

The term "Amortization Years" refers to the period sufficient to produce the Total Employer Contribution Rate for retirement allowances and survivor benefits and incorporates all scheduled employer and member contribution rate increases and scheduled employer rate reallocations between the pension and retiree health programs.

**LAW ENFORCEMENT DIVISION
COMPARATIVE STATEMENT ***

Valuation Date December 31	Contribution Rate Effective January 1	Active Members in Valuation			Computed Employer Contributions as % of Payroll					
		No.	Total (\$Thousands)	Annual Payroll		Normal Cost	Unfunded Accrued Liability	Pension Total	Retiree Health	Grand Total
				Average	Increase					
1998	2001	7,507	\$277,239	\$36,931	3.5 %	10.48 %	1.92 %	12.40 %	4.30 %	16.70 %
1999#	2002	7,766	299,040	38,506	4.3 %	11.54 %	0.16 %	11.70 %	5.00 %	16.70 %
2000	2003	8,045	324,918	40,387	4.9 %	11.59 %	0.11 %	11.70 %	5.00 %	16.70 %
2001@	2004	7,892	335,432	42,503	5.2 %	8.88 %	3.82 %	12.70 %	4.00 %	16.70 %
2002	2005	8,030	356,694	44,420	4.5 %	8.77 %	3.93 %	12.70 %	4.00 %	16.70 %
2003	2006	8,253	384,388	46,576	4.9 %	8.65 %	3.78 %	12.43 %	4.50 %	16.93 %
2004	2007	8,173	392,672	48,045	3.2 %	8.63 %	3.04 %	11.67 %	5.50 %	17.17 %
2005@	2008	7,976	395,189	49,547	3.0 %	9.65 %	0.75 %	10.40 %	7.00 %	17.40 %
2006	2009	8,092	413,182	51,061	3.1 %	9.65 %	0.98 %	10.63 %	7.00 %	17.63 %
2007	2010	8,265	437,223	52,901	3.6 %	9.95 %	0.92 %	10.87 %	7.00 %	17.87 %
2008	2011	8,173	448,694	54,900	3.8 %	8.43 %	5.67 %	14.10 %	4.00 %	18.10 %
2009	2012	8,006	447,232	55,862	1.8 %	8.16 %	5.94 %	14.10 %	4.00 %	18.10 %
2010	2013	7,702	438,830	56,976	2.0 %	7.90 %	9.20 %	17.10 %	1.00 %	18.10 %
2010@	2013	7,702	438,830	56,976	2.0 %	7.56 %	9.54 %	17.10 %	1.00 %	18.10 %
2011	2014	7,545	437,605	57,999	1.8 %	7.18 %	10.92 %	18.10 %	0.00 %	18.10 %

After benefit changes.

@ Revised actuarial assumptions.

* Prior to 2005, Law Enforcement and Public Safety are combined for purposes of this schedule.

LAW ENFORCEMENT DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
DECEMBER 31, 2011

Actuarial Present Value	(1) Total Actuarial Present Value	Allocation by Entry Age	
		(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1)-(2)
Allowances currently being paid from the Annuity & Pension Reserve Fund	\$ 1,814,441,220	\$ -	\$ 1,814,441,220
Allowances currently being paid from the Survivors Benefit Fund	39,888,330	-	39,888,330
Age and service allowances based on service rendered before and likely to be rendered after valuation date	1,747,280,980	471,781,626	1,275,499,354
Disability allowances likely to be paid present active members who become permanently disabled	394,188,439	183,797,217	210,391,222
Survivor benefits likely to be paid to spouses and children of present active members who die before retiring	49,761,832	19,994,680	29,767,152
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active and inactive members	135,244,988	105,123,061	30,121,927
Total	\$4,180,805,789	\$780,696,584	\$3,400,109,205
Actuarial Value of Assets			2,667,023,222
Unfunded Actuarial Accrued Liability			\$ 733,085,983

LAW ENFORCEMENT DIVISION
DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT *
(\$ IN MILLIONS EXCEPT AVERAGES)

Dec. 31	Defined Benefit Active Payroll		Active and Inactive Member Accrued Liabilities for Retirement Allowances				Unfunded /Payroll
			Computed Total	Valuation Assets	Unfunded	Amortization Years	
	Total	Average					
1998	\$277	\$36,931	\$ 914	\$ 895	\$ 19	5	0.07
1999#	299	38,506	1,080	1,038	42	20	0.14
2000	325	40,387	1,175	1,137	38	18	0.12
2001@	335	42,503	1,071	1,149	(78)	-	-
2002	357	44,420	1,135	854	281	36	0.79
2003	384	46,576	1,170	838	332	41	0.86
2004	393	48,045	1,197	868	329	43	0.84
2005@	395	49,547	1,298	926	372	N/A	0.94
2006	413	51,061	1,356	1,069	287	N/A	0.69
2007	437	52,901	1,430	1,214	216	N/A	0.49
2008	449	54,900	1,500	771	729	N/A	1.62
2009	447	55,862	1,534	807	727	N/A	1.63
2010	439	56,976	1,535	871	664	25	1.51
2010@	439	56,976	1,542	966	576	19	1.31
2011	438	57,999	1,546	813	733	23	1.67

After benefit changes.

@ Revised actuarial assumptions.

* Prior to 2005, Law Enforcement and Public Safety are combined for purposes of this schedule.

While no one or two numeric indices can fully describe the financial condition of a retirement plan, the ratio of unfunded actuarial accrued liabilities divided by active member payroll ("UNFUNDED / PAYROLL" above) is significant. Unfunded accrued liabilities represent plan debt, while active member payroll represents the plan's capacity to collect contributions to pay toward debt --- thus the ratio is a relative index of condition. The lower the ratio, the greater the financial strength, and vice-versa.

LAW ENFORCEMENT DIVISION
MALE ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date						Total	
	0-4	5-9	10-14	15-19	20-24	25-29		30+
15-19								
Tot. Pay								101
Avg. Pay								\$3,269,984
20-24	99	2						
Tot. Pay	\$3,182,905	\$87,079						\$32,376
Avg. Pay	\$32,151	\$43,540						
25-29	298	196	5					
Tot. Pay	\$13,038,995	\$10,041,662	\$304,205					499
Avg. Pay	\$43,755	\$51,233	\$60,841					\$23,384,862
30-34	159	453	307	6				
Tot. Pay	\$7,100,901	\$25,088,222	\$18,082,092	\$300,679				\$46,863
Avg. Pay	\$44,660	\$55,382	\$58,899	\$50,113				925
35-39	116	258	687	257	2			
Tot. Pay	\$5,256,136	\$14,085,187	\$41,035,973	\$16,182,278	\$126,312			\$50,571,894
Avg. Pay	\$45,312	\$54,594	\$59,732	\$62,966	\$63,156			\$54,672
40-44	65	163	387	693	263	3		
Tot. Pay	\$2,888,162	\$8,967,244	\$22,961,519	\$43,396,098	\$17,719,065	\$207,268		1,320
Avg. Pay	\$44,433	\$55,014	\$59,332	\$62,621	\$67,373	\$69,089		\$76,685,886
45-49	29	74	166	258	376	128	4	
Tot. Pay	\$1,129,716	\$3,957,607	\$9,923,362	\$15,541,910	\$24,299,544	\$8,969,320	\$313,776	\$58,095
Avg. Pay	\$38,956	\$53,481	\$59,779	\$60,240	\$64,626	\$70,073	\$78,444	\$61,080
50-54	15	29	67	100	187	183	56	
Tot. Pay	\$683,763	\$1,657,176	\$3,731,298	\$6,016,154	\$11,957,871	\$12,433,950	\$4,438,332	1,035
Avg. Pay	\$45,584	\$57,144	\$55,691	\$60,162	\$63,946	\$67,945	\$79,256	\$64,135,235
55-59	12	24	43	58	86	85	64	
Tot. Pay	\$435,883	\$1,328,193	\$2,429,112	\$3,303,819	\$5,078,687	\$5,759,485	\$4,735,618	\$61,966
Avg. Pay	\$36,324	\$55,341	\$56,491	\$56,962	\$59,055	\$67,759	\$73,994	\$62,018
60-64	5	6	13	33	36	21	28	
Tot. Pay	\$164,367	\$275,040	\$610,240	\$1,888,841	\$2,268,993	\$1,295,711	\$1,947,673	372
Avg. Pay	\$32,873	\$45,840	\$46,942	\$57,238	\$63,028	\$61,701	\$69,560	\$23,070,797
65-69	1	5	6	3	12	3	1	
Tot. Pay	\$3,041	\$245,752	\$307,157	\$183,926	\$626,619	\$179,740	\$58,103	\$59,513
Avg. Pay	\$3,041	\$49,150	\$51,193	\$61,309	\$52,218	\$59,913	\$58,103	\$31
70 & Over	1	2	3			1	2	
Tot. Pay	\$69,307	\$77,278	\$156,697			\$35,522	\$171,482	9
Avg. Pay	\$69,307	\$38,639	\$52,232			\$35,522	\$85,741	\$510,286
Totals	800	1,212	1,684	1,408	962	424	155	
Tot. Pay	\$33,953,176	\$65,810,440	\$99,541,655	\$86,813,705	\$62,077,091	\$28,880,996	\$11,664,984	6,645
Avg. Pay	\$42,441	\$54,299	\$59,110	\$61,657	\$64,529	\$68,116	\$75,258	\$388,742,047
								\$58,501

LAW ENFORCEMENT DIVISION
FEMALE ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service To Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19								
Tot. Pay								
Avg. Pay								
20-24	12							12
Tot. Pay	\$380,464							\$380,464
Avg. Pay	\$31,705							\$31,705
25-29	41	22	2					65
Tot. Pay	\$1,882,848	\$1,194,745	\$102,387					\$3,179,980
Avg. Pay	\$45,923	\$54,307	\$51,194					\$48,923
30-34	33	73	50					156
Tot. Pay	\$1,325,399	\$3,848,760	\$2,779,290					\$7,953,449
Avg. Pay	\$40,164	\$52,723	\$55,586					\$50,984
35-39	12	40	84	32	2			170
Tot. Pay	\$405,248	\$2,046,690	\$4,685,985	\$1,924,831	\$98,285			\$9,161,039
Avg. Pay	\$33,771	\$51,167	\$55,786	\$60,151	\$49,143			\$53,888
40-44	6	33	43	79	24			185
Tot. Pay	\$294,316	\$1,687,424	\$2,439,819	\$4,759,140	\$1,511,392			\$10,692,091
Avg. Pay	\$49,053	\$51,134	\$56,740	\$60,242	\$62,975			\$57,795
45-49	4	18	25	36	42	11		136
Tot. Pay	\$109,720	\$932,477	\$1,328,336	\$1,963,808	\$2,490,939	\$753,492		\$7,578,772
Avg. Pay	\$27,430	\$51,804	\$53,133	\$54,550	\$59,308	\$68,499		\$55,726
50-54	3	10	12	23	30	17	7	102
Tot. Pay	\$131,833	\$416,415	\$636,751	\$1,331,566	\$1,659,088	\$1,162,257	\$463,701	\$5,801,611
Avg. Pay	\$43,944	\$41,642	\$53,063	\$57,894	\$55,303	\$68,368	\$66,243	\$56,879
55-59	1	4	9	13	12	14	1	54
Tot. Pay	\$10,575	\$222,763	\$531,149	\$736,985	\$613,274	\$877,757	\$66,194	\$3,058,697
Avg. Pay	\$10,575	\$55,691	\$59,017	\$56,691	\$51,106	\$62,697	\$66,194	\$56,643
60-64		1	2	7	4	2	3	19
Tot. Pay		\$55,492	\$111,871	\$334,924	\$231,845	\$100,987	\$182,850	\$1,017,969
Avg. Pay		\$55,492	\$55,936	\$47,846	\$57,961	\$50,494	\$60,950	\$53,577
65-69			1					1
Tot. Pay			\$38,987					\$38,987
Avg. Pay			\$38,987					\$38,987
70 & Over								
Tot. Pay								
Avg. Pay								
Totals	112	201	228	190	114	44	11	900
Tot. Pay	\$4,540,403	\$10,404,766	\$12,654,575	\$11,051,254	\$6,604,823	\$2,894,493	\$712,745	\$48,863,059
Avg. Pay	\$40,539	\$51,765	\$55,503	\$58,164	\$57,937	\$65,784	\$64,795	\$54,292

**LAW ENFORCEMENT DIVISION
INACTIVE MEMBERS IN VALUATION DECEMBER 31, 2011
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Ages	Years of Service to Valuation Date							Total Number
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
15-19								
20-24	7							7
25-29	69	3						72
30-34	105	25	1					131
35-39	124	27	20	2				173
40-44	134	31	15	8	2			190
45-49	75	10	17	13	3	3		121
50-54	45	16	12	12	7	2		94
55-59	36	9	14	9	6			74
60-64	32	3	4	3				42
65-69	10	3			1			14
70 & Over	15				1			16
Totals	652	127	83	47	20	5		934

SECTION IX

**ALLOWANCES BEING PAID TO
RETIREES AND BENEFICIARIES**

**MONTHLY ALLOWANCES OF RETIRED LIVES
BY YEAR OF RETIREMENT
AS OF DECEMBER 31, 2011**

Year of Retirement	No.	Initial	Post-Ret. Increase	Total	Average
2011	12,863	\$28,737,750	\$ 121,575	\$ 28,859,325	\$2,244
2010	10,970	22,481,694	778,592	23,260,286	2,120
2009	10,914	22,858,028	1,436,121	24,294,149	2,226
2008	9,572	18,218,627	1,693,106	19,911,733	2,080
2007	9,109	16,777,496	2,071,310	18,848,806	2,069
2006	9,707	17,005,127	2,593,831	19,598,958	2,019
2005	9,082	16,276,667	2,966,803	19,243,470	2,119
2004	8,599	14,489,017	3,066,277	17,555,294	2,042
2003	8,085	13,787,441	3,321,959	17,109,400	2,116
2002	8,948	14,856,307	4,037,196	18,893,503	2,111
2001	7,400	11,585,433	3,482,841	15,068,274	2,036
2000	7,107	10,401,803	3,391,964	13,793,767	1,941
1999	6,254	8,671,009	2,967,859	11,638,868	1,861
1998	6,163	7,897,532	2,844,952	10,742,484	1,743
1997	5,719	7,527,104	2,911,255	10,438,359	1,825
1996	5,602	6,760,324	2,804,729	9,565,053	1,707
1995	5,069	5,903,682	2,591,144	8,494,826	1,676
1990-1994	19,532	19,412,709	10,234,948	29,647,657	1,518
1985-1989	15,582	12,997,856	9,008,605	22,006,461	1,412
1980-1984	8,381	4,620,988	4,275,406	8,896,394	1,061
1975-1979	3,820	1,509,962	2,185,917	3,695,879	968
1970-1974	971	240,710	515,834	756,544	779
1965-1969	272	59,709	187,041	246,750	907
1960-1964	128	28,425	95,832	124,257	971
Before 1960	0	0	0	0	
TOTAL	189,849	\$283,105,400	\$69,585,097	\$352,690,497	\$1,858

**MONTHLY ALLOWANCES OF RETIRED LIVES
BY YEARS OF SERVICE
AS OF DECEMBER 31, 2011**

Years of Service	No.	Initial	Post-Ret. Increase	Total	Average
<5 or n/a	6,598	\$ 2,203,639	\$ 405,835	\$ 2,609,474	\$395
5	4,269	1,588,178	422,504	2,010,682	471
6	3,400	1,391,389	369,829	1,761,218	518
7	3,243	1,420,180	369,805	1,789,985	552
8	2,960	1,395,993	354,311	1,750,304	591
9	2,225	1,184,339	296,248	1,480,587	665
10	9,372	4,325,098	1,173,498	5,498,596	587
11	5,489	2,967,162	783,334	3,750,496	683
12	5,424	3,070,807	853,079	3,923,886	723
13	4,881	3,142,258	855,376	3,997,634	819
14	4,701	3,151,116	870,464	4,021,580	855
15	5,203	3,754,465	1,053,384	4,807,849	924
16	5,017	3,828,192	1,092,333	4,920,525	981
17	4,560	3,895,159	1,109,723	5,004,882	1,098
18	4,540	4,083,960	1,177,387	5,261,347	1,159
19	4,475	4,279,362	1,207,594	5,486,956	1,226
20	5,575	5,823,676	1,593,659	7,417,335	1,330
21	4,726	5,256,105	1,502,728	6,758,833	1,430
22	4,498	5,439,339	1,521,743	6,961,082	1,548
23	4,432	5,699,974	1,558,358	7,258,332	1,638
24	4,159	5,785,042	1,572,512	7,357,554	1,769
25	8,517	13,145,311	3,484,289	16,629,600	1,953
26	5,332	8,852,319	2,466,994	11,319,313	2,123
27	5,387	9,746,234	2,680,546	12,426,780	2,307
28	5,881	12,191,879	3,152,527	15,344,406	2,609
29	5,758	12,902,352	2,968,939	15,871,291	2,756
30	24,704	59,373,605	12,491,428	71,865,033	2,909
31	7,654	19,068,496	4,228,601	23,297,097	3,044
32	5,935	15,266,484	3,521,936	18,788,420	3,166
33	4,589	12,318,296	2,772,060	15,090,356	3,288
34	3,650	10,010,831	2,382,538	12,393,369	3,395
35	3,384	9,474,353	2,279,345	11,753,698	3,473
36	2,435	6,854,893	1,673,572	8,528,465	3,502
37	1,907	5,407,068	1,341,990	6,749,058	3,539
38	1,399	3,931,752	1,015,152	4,946,904	3,536
39	1,138	3,138,443	873,631	4,012,074	3,526
40 & Over	2,432	7,737,651	2,107,845	9,845,496	4,048
TOTAL	189,849	\$283,105,400	\$69,585,097	\$352,690,497	\$1,858

ANNUITY AND PENSION RESERVE FUND
ANNUAL ALLOWANCE, REPORTED ASSETS AND ACTUARIAL LIABILITIES
COMPARATIVE STATEMENT
(\$ MILLIONS)

Valuation Date	Annual Allowances			Reported Assets*	Actuarial Liabilities	Ratio of Assets to Liabilities	Ratio of DB Active to Retired
	No.	\$ Millions	% of DB Payroll				
12/31/1983	74,442	\$ 333	8.7 % **	\$ 3,554	\$ 3,428	103.7 %	3.3
12/31/1984	77,493	386	9.5 % **	3,993	3,993	100.0 %	3.2
12/31/1985	80,999	429	10.0 % **	4,498	4,456	100.9 %	3.1
12/31/1986	84,892	474	10.4 % **	4,965	4,935	100.6 %	3.0
12/31/1987	86,924	518	10.6 % **	5,485	5,437	100.9 %	3.0
12/31/1988	89,972	581	10.9 % **	6,182	6,173	100.1 %	2.9
12/31/1989@	92,504	661	12.4 % **	6,985	6,911	101.1 %	2.9
12/31/1990	94,088	706	11.7 % **	7,438	7,338	101.4 %	3.0
12/31/1991	95,843	762	11.5 % **	8,014	7,904	101.4 %	3.4
12/31/1992	98,609	835	12.1 % **	8,814	8,692	101.4 %	3.4
12/31/1993	100,651	901	12.5 % **	9,390	9,356	100.4 %	3.4
12/31/1994	102,587	958	12.6 % **	9,964	9,893	100.7 %	3.3
12/31/1995	104,806	1,036	13.0 % **	10,808	10,737	100.7 %	3.3
12/31/1996@	107,617	1,141	13.7 % **	11,819	11,762	100.5 %	3.3
12/31/1997	110,470	1,233	14.3 % **	12,843	12,755	100.7 %	3.2
12/13/1998	113,000	1,327	14.7 % **	13,885	13,751	101.0 %	3.1
12/31/1999+	115,431	1,530	16.1 % **	14,978	16,139	92.8 %	3.1
12/31/2000	118,620	1,641	16.1 % **	16,980	16,980	100.0 %	3.1
12/31/2001@	121,875	1,775	16.5 % **	18,001	18,001	100.0 %	3.0
12/31/2002	126,409	1,958	17.5 % **	20,085	20,085	100.0 %	2.9
12/31/2003	130,433	2,136	19.1 % **	22,535	22,535	100.0 %	2.7
12/31/2004	134,535	2,311	20.2 % **	24,470	24,470	100.0 %	2.6
12/31/2005@	138,996	2,508	21.2 % **	27,084	27,084	100.0 %	2.6
12/31/2006	144,037	2,710	22.3 % **	29,304	29,304	100.0 %	2.5
12/31/2007	148,493	2,916	23.2 % **	31,547	31,547	100.0 %	2.5
12/31/2008	153,931	3,148	24.6 % **	34,060	34,060	100.0 %	2.3
12/31/2009	159,518	3,419	27.2 % **	37,098	37,098	100.0 %	2.2
12/31/2010	166,247	3,705	29.8 % **	40,184	40,184	100.0 %	2.1
12/31/2010@	166,247	3,705	29.8 % **	40,184	40,818	100.0 %	2.1
12/31/2011	174,679	4,065	32.8 % **	45,001	45,001	100.0 %	1.9

* Including certain recommended transfers and accrued transfers.

@ Revised actuarial assumptions.

** Excluding health insurance and Medicare payments.

+ Including estimated effect of legislated benefit changes.

**ANNUITY AND PENSION RESERVE FUND
 RETIREES AND BENEFICIARIES DECEMBER 31, 2011
 TYPE OF BENEFIT, MONTHLY AMOUNT AND ACTUARIAL LIABILITIES**

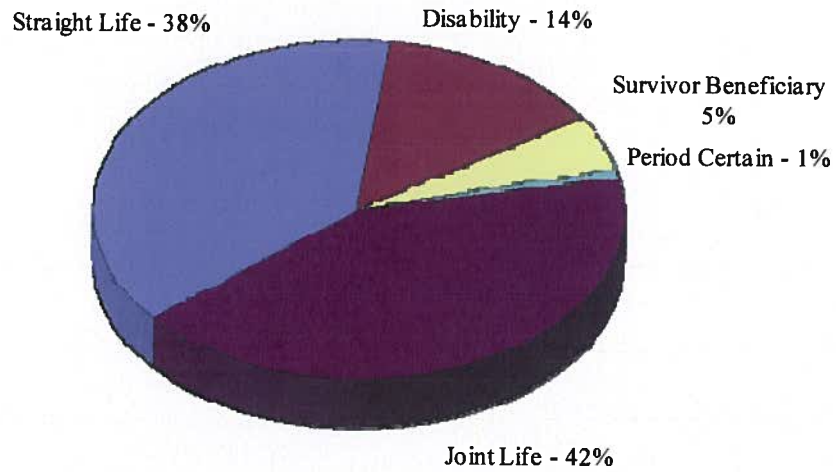
Type of Allowance	Number	Current Total \$	Actuarial Liabilities
Superannuation Retirement			
Plan A - Joint & 50%	22,023	49,669,591	6,968,017,339
Plan B - Straight Life	68,896	125,782,468	15,092,476,933
Plan C - Special Joint & Survivor	17,278	41,690,113	5,932,000,580
Plan D - Joint & 100%	23,332	51,403,896	8,261,543,779
Plan E - Life & 0 to 5 Years Guaranteed	365	571,615	69,727,123
- Life & 6 to 10 Years Guaranteed	517	876,952	107,070,913
- Life & 11 to 15 Years Guaranteed	735	1,050,384	130,289,374
- Life & 16 to 20 Years Guaranteed	56	111,941	17,339,155
Plan F - Multiple Continuing Beneficiaries	577	1,409,961	267,185,659
Money Purchase	2,311	958,457	114,013,615
Survivor Beneficiary - Life Benefit	16,047	16,828,122	1,544,006,769
Survivor Beneficiary - Temporary Benefit	66	68,515	3,589,825
Total Superannuation	152,203	290,422,015	38,507,261,064
Disability Retirement	22,476	48,339,507	6,494,185,022
Total from A & PR	174,679	338,761,522	45,001,446,086

**ANNUITY AND PENSION RESERVE FUND
 RETIREES AND BENEFICIARIES DECEMBER 31, 2011
 TYPE OF BENEFIT AND AMOUNT BY GENDER OF RECIPIENT**

Type of Allowance	Men		Women		Total	
	Number	Monthly Allowances	Number	Monthly Allowances	Number	Monthly Allowances
Superannuation Retirement						
Plan A - Joint & 50%	14,846	35,593,040	7,177	14,076,551	22,023	49,669,591
Plan B - Straight Life	21,018	44,264,778	47,878	81,517,690	68,896	125,782,468
Plan C - Special Joint & Survivor	7,212	21,151,527	10,066	20,538,586	17,278	41,690,113
Plan D - Joint & 100%	18,867	43,324,392	4,465	8,079,504	23,332	51,403,896
Plan E - Life & 0 to 5 Years Guaranteed	152	257,812	213	313,803	365	571,615
- Life & 6 to 10 Years Guaranteed	256	440,525	261	436,427	517	876,952
- Life & 11 to 15 Years Guaranteed	431	603,490	304	446,894	735	1,050,384
- Life & 16 to 20 Years Guaranteed	37	71,421	19	40,520	56	111,941
Plan F - Multiple Continuing Beneficiaries	226	666,479	351	743,482	577	1,409,961
Money Purchase	1,571	769,212	740	189,245	2,311	958,457
Survivor Beneficiary - Life Benefit	1,557	1,043,018	14,490	15,785,104	16,047	16,828,122
Survivor Beneficiary - Temporary Benefit	17	13,653	49	54,862	66	68,515
Total Superannuation	66,190	148,199,347	86,013	142,222,668	152,203	290,422,015
Disability Retirement	11,512	27,367,564	10,964	20,971,943	22,476	48,339,507
Total from A & PR	77,702	175,566,911	96,977	163,194,611	174,679	338,761,522

ANNUITIES BEING PAID BY TYPE
DECEMBER 31, 2011

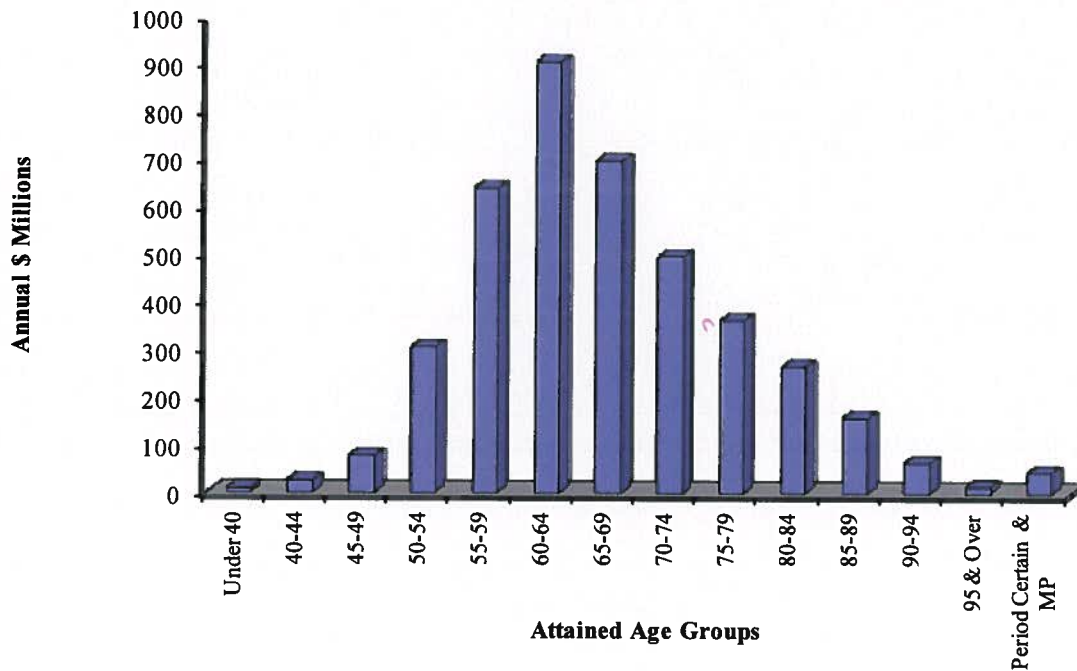
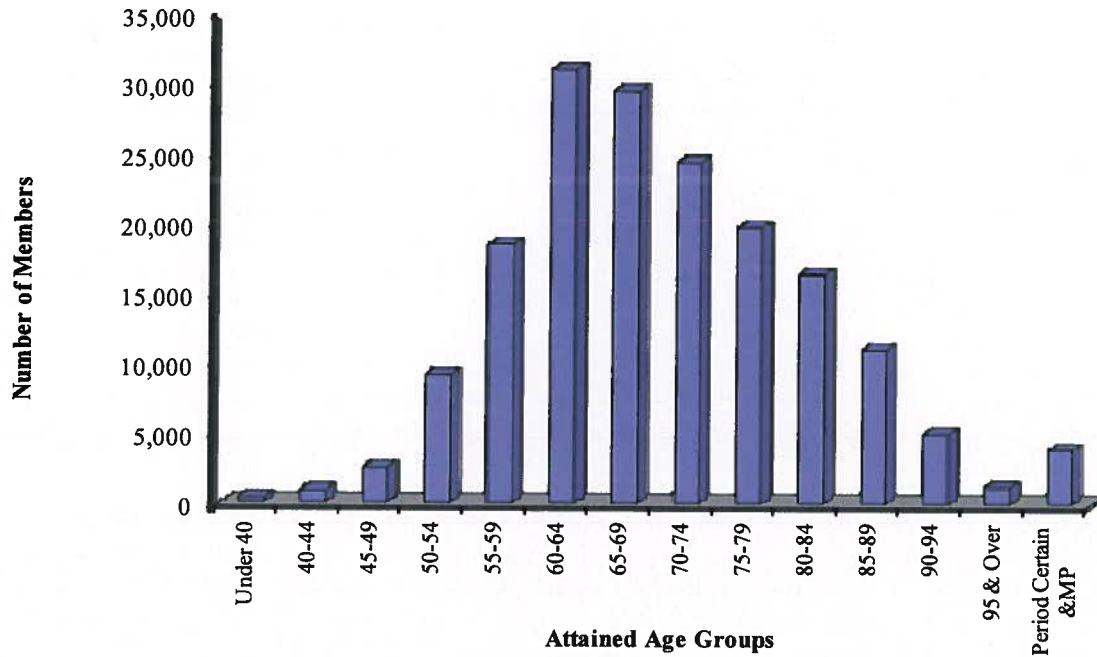
Annuity and Pension Reserve Fund



**ANNUITY AND PENSION RESERVE FUND
 RETIREES AND BENEFICIARIES DECEMBER 31, 2011
 CURRENT MONTHLY TOTAL \$ BY ATTAINED AGES**

Attained Ages	Superannuation		Disability		Totals	
	No.	Monthly Total \$	No.	Monthly Total \$	No.	Monthly Total \$
Under 20	11	\$ 4,467			11	\$ 4,467
20-24	12	6,686			12	6,686
25-29	13	9,243	4	6,600	17	15,843
30-34	25	11,943	83	125,541	108	137,484
35-39	27	17,046	274	459,945	301	476,991
40-44	53	34,440	911	2,003,361	964	2,037,801
45-49	524	1,273,687	2,006	4,981,879	2,530	6,255,566
50-54	5,530	16,308,867	3,722	9,139,479	9,252	25,448,346
55-59	13,509	41,682,347	5,053	11,724,728	18,562	53,407,075
60-64	26,055	64,895,482	5,036	10,682,011	31,091	75,577,493
65-69	27,059	53,420,497	2,547	5,050,882	29,606	58,471,379
70-74	23,150	39,268,821	1,380	2,292,164	24,530	41,560,985
75-79	19,113	29,282,867	718	1,019,336	19,831	30,302,203
80-84	16,061	21,611,988	451	550,857	16,512	22,162,845
85-89	10,831	12,829,046	209	222,837	11,040	13,051,883
90-94	4,995	5,057,097	72	71,773	5,067	5,128,870
95 & Over	1,251	1,138,142	10	8,114	1,261	1,146,256
Period Certain & Money Purchase	3,984	3,569,349			3,984	3,569,349
Totals	152,203	\$290,422,015	22,476	\$48,339,507	174,679	\$338,761,522

**ANNUITY AND PENSION RESERVE FUND
BENEFITS BEING PAID BY ATTAINED AGES
DECEMBER 31, 2011**



**ANNUITY AND PENSION RESERVE FUND
PERCENT OF RECIPIENTS
BY AGE GROUPS
AND YEAR**

Attained Age Group	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Under 30	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
30-39	0.2%	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%
40-49	2.0%	2.2%	2.5%	2.7%	2.9%	3.1%	3.3%	3.4%	3.5%	3.5%	3.3%	3.2%	3.1%
50-59	15.9%	15.9%	16.0%	15.9%	15.9%	16.1%	15.8%	14.7%	13.7%	12.9%	11.7%	10.7%	9.8%
60-69	34.8%	33.5%	32.6%	31.4%	30.7%	29.6%	28.9%	28.8%	28.6%	28.3%	28.1%	28.2%	28.9%
70-79	25.4%	25.7%	26.2%	26.7%	27.2%	27.7%	28.5%	29.4%	30.4%	31.5%	32.7%	34.0%	35.5%
80-89	15.8%	16.6%	16.9%	17.4%	17.7%	17.9%	18.0%	18.2%	18.3%	18.4%	18.7%	18.5%	18.7%
90 & Over	3.6%	3.6%	3.4%	3.4%	3.3%	3.2%	3.2%	3.2%	3.2%	3.1%	3.1%	3.0%	3.1%
Period Certain & MP	2.3%	2.2%	2.1%	2.1%	1.9%	1.9%	1.8%	1.8%	1.8%	1.7%	1.8%	1.8%	0.3%
TOTALS	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Average Age	69.9	70.0	70.0	70.1	70.1	70.2	70.2	70.4	70.6	70.7	71.0	71.2	71.4

**STATE DIVISION
SURVIVOR BENEFIT FUND TABULATED BY
TYPE OF BENEFIT BEING PAID AND MONTHLY AMOUNT
DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
S-1 - Survivor Benefit to Beneficiary of Deceased Member Joint and Survivor Computation			
Men	147	\$ 146,706	\$ 15,990,851
Women	664	935,016	96,241,770
Totals	811	\$1,081,722	\$112,232,621
S-2 - Survivor Benefit to Beneficiary of Deceased Member Fixed Rate Amount			
Widower - no child	643	\$ 685,999	\$ 86,462,689
Widower - child	58	56,487	9,386,618
Child's record	150	84,133	5,511,091
Parent	0	0	0
Other	0	0	0
Child only	186	147,843	7,287,112
Subtotals - male	1,037	974,462	\$ 108,647,510
Widower - no child	2,191	\$2,416,559	\$299,556,221
Widower - child	142	156,101	28,047,317
Child's record	146	80,083	6,225,619
Parent	2	2,331	149,518
Other	2	1,585	257,085
Child only	199	157,304	7,926,738
Subtotals - female	2,682	2,813,963	342,162,498
Totals	3,719	\$3,788,425	\$450,810,008
Total Benefits Being Paid from Survivor Benefit Fund			
Men	1,184	\$ 1,121,168	\$124,638,361
Women	3,346	3,748,979	438,404,268
Totals	4,530	\$4,870,147	\$563,042,629

**LOCAL GOVERNMENT DIVISION
SURVIVOR BENEFIT FUND TABULATED BY
TYPE OF BENEFIT BEING PAID AND MONTHLY AMOUNT
DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
S-1 - Survivor Benefit to Beneficiary of Deceased Member Joint and Survivor Computation			
Men	200	\$ 161,715	\$ 15,665,694
Women	1,377	1,517,679	154,653,804
Totals	1,577	1,679,394	170,319,498
S-2 - Survivor Benefit to Beneficiary of Deceased Member Fixed Rate Amount			
Widower - no child	1,061	\$ 821,325	\$ 100,476,083
Widower - child	86	66,431	11,507,219
Child's record	241	119,612	8,440,730
Parent	0	0	0
Other	3	1,722	191,539
Child only	344	245,196	15,189,662
Subtotals - male	1,735	1,254,286	135,805,233
Widower - no child	5,149	\$4,486,673	\$538,732,590
Widower - child	301	294,367	51,652,194
Child's record	329	169,937	13,660,669
Parent	2	2,046	124,797
Other	5	3,360	443,487
Child only	353	235,953	12,043,362
Subtotals - female	6,139	5,192,336	616,657,099
Totals	7,874	6,446,622	752,462,332
Total Benefits Being Paid from Survivor Benefit Fund			
Men	1,935	\$1,416,001	\$151,470,927
Women	7,516	6,710,015	771,310,903
Totals	9,451	\$8,126,016	\$922,781,830

PUBLIC SAFETY DIVISION
SURVIVOR BENEFIT FUND TABULATED BY
TYPE OF BENEFIT BEING PAID AND MONTHLY AMOUNT
DECEMBER 31, 2011

Group	Number	Current	Total	Actuarial Liabilities
S-1 - Survivor Benefit to Beneficiary of Deceased Member				
Joint and Survivor Computation				
Men	0	\$ 0	\$ 0	\$ 0
Women	0	0	0	0
Totals	0	\$ 0	\$ 0	0
S-2 - Survivor Benefit to Beneficiary of Deceased Member				
Fixed Rate Amount				
Widower - no child	3	\$ 3,543	\$ 314,070	\$ 314,070
Widower - child	0	0	0	0
Child's record	3	1,974	87,516	87,516
Other	0	0	0	0
Child only	6	5,157	336,489	336,489
Subtotals - male	12	10,674	738,075	738,075
Widower - no child	74	\$ 96,883	\$14,901,562	\$14,901,562
Widower - child	4	5,040	916,323	916,323
Child's record	2	1,740	94,845	94,845
Other	5	6,295	259,937	259,937
Child only	0	0	0	0
Subtotals - female	85	109,958	16,172,667	16,172,667
Totals	97	\$ 120,632	\$16,910,742	\$16,910,742
Total Benefits Being Paid from Survivor Benefit Fund				
Men	12	\$ 10,674	\$ 738,075	\$ 738,075
Women	85	109,958	16,172,667	16,172,667
Totals	97	\$ 120,632	\$16,910,742	\$16,910,742

**LAW ENFORCEMENT DIVISION
SURVIVOR BENEFIT FUND TABULATED BY
TYPE OF BENEFIT BEING PAID AND MONTHLY AMOUNT
DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
S-1 - Survivor Benefit to Beneficiary of Deceased Member Joint and Survivor Computation			
Men	0	\$ 0	\$ 0
Women	57	99,048	12,192,894
Totals	57	\$ 99,048	\$12,192,894
S-2 - Survivor Benefit to Beneficiary of Deceased Member Fixed Rate Amount			
Widower - no child	8	\$ 7,515	\$ 1,227,329
Widower - child	2	1,949	349,864
Child's record	14	7,789	579,666
Other	0	0	0
Child only	15	11,984	893,966
Subtotals - male	39	29,237	3,050,825
Widower - no child	139	\$ 136,341	\$19,159,882
Widower - child	17	17,667	3,310,557
Child's record	18	8,816	709,396
Other	22	16,333	482,405
Child only	0	0	0
Subtotals - female	196	179,157	23,662,240
Totals	235	\$ 208,394	\$26,713,065
Total Benefits Being Paid from Survivor Benefit Fund			
Men	39	\$ 29,237	\$ 3,050,825
Women	253	278,205	35,855,134
Totals	292	\$ 307,442	\$38,905,959

**STATE DIVISION
DEFERRED SURVIVOR BENEFICIARIES
TABULATED BY GENDER AND DEFERRED AGE
DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
Widowers			
Deferred to age 50	0	\$ 0	\$ 0
Deferred to age 62	70	44,576	4,168,910
Deferred to age 65	0	0	0
Total	70	44,576	4,168,910
Widows			
Deferred to age 50	2	1,696	243,014
Deferred to age 62	168	118,170	10,932,797
Deferred to age 65	1	892	41,068
Total	171	120,758	11,216,879
Totals	241	\$165,334	\$15,385,789

**LOCAL GOVERNMENT DIVISION
DEFERRED SURVIVOR BENEFICIARIES
TABULATED BY GENDER AND DEFERRED AGE
DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
Widowers			
Deferred to age 50	0	\$ 0	\$ 0
Deferred to age 62	121	70,437	6,711,246
Deferred to age 65	0	0	0
Total	121	70,437	6,711,246
Widows			
Deferred to age 50	3	2,884	471,594
Deferred to age 62	419	254,009	24,368,252
Deferred to age 65	0	0	0
Total	422	256,893	24,839,846
Totals	543	\$327,330	\$31,551,092

**PUBLIC SAFETY DIVISION
 DEFERRED SURVIVOR BENEFICIARIES
 TABULATED BY GENDER AND DEFERRED AGE
 DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
Widowers			
Deferred to age 50	0	\$ 0	\$ 0
Total	0	0	0
Widows			
Deferred to age 50	0	\$ 0	\$ 0
Deferred to age 62	4	1,941	163,753
Total	4	1,941	163,753
Totals	4	\$ 1,941	\$163,753

**LAW ENFORCEMENT DIVISION
 DEFERRED SURVIVOR BENEFICIARIES
 TABULATED BY GENDER AND DEFERRED AGE
 DECEMBER 31, 2011**

Group	Number	Current Total	Actuarial Liabilities
Widowers			
Deferred to age 50	0	\$ 0	\$ 0
Deferred to age 62	0	0	0
Total	0	0	0
Widows			
Deferred to age 50	0	\$ 0	\$ 0
Deferred to age 62	12	10,506	982,371
Total	12	10,506	982,371
Totals	12	\$ 10,506	\$982,371

SURVIVOR BENEFIT FUND
REPORTED ASSETS AND LIABILITIES
DIVISIONS COMBINED

Valuation Date	Monthly Allowances				\$ Millions		Ratio of Assets to Liabilities
	Current		Deferred		Reported Assets+	Actuarial Liabilities	
	No.	Amount	No.	Amount			
6/30/1979	8,824	\$ 1,914,251	1,039	\$ 146,549	\$ 355.2	\$ 245.1	145 %
12/31/1979	8,971	2,033,403	1,044	155,890	383.0	259.5	148 %
12/31/1980	9,389	2,220,641	1,022	170,246	429.4	285.4	150 %
12/31/1981@	9,629	2,468,950	1,045	191,228	460.6	336.0	137 %
12/31/1982@	9,913	2,654,686	1,006	199,239	499.7	330.6	151 %
12/31/1983	10,132	2,812,639	1,020	225,475	454.7	352.8	129 %
12/31/1984*	11,819	3,119,531	990	248,373	492.2	451.1	109 %
12/31/1985	11,889	3,278,253	979	259,842	532.8	469.6	113 %
12/31/1986	12,054	3,489,915	960	268,931	575.5	451.2	128 %
12/31/1987	12,153	3,656,420	933	279,327	626.1	472.9	132 %
12/31/1988	12,237	3,822,085	941	283,026	490.8	490.8	100 %
12/31/1989@	12,198	4,177,540	941	320,792	525.3	522.1	101 %
12/31/1990	12,182	4,330,622	907	321,218	542.5	537.1	101 %
12/31/1991	12,268	4,528,326	860	314,414	567.9	557.1	102 %
12/31/1992	12,318	4,750,848	852	329,509	589.8	583.3	101 %
12/31/1993	12,437	4,985,681	862	345,937	620.7	607.7	102 %
12/31/1994	12,569	5,207,186	845	347,178	641.5	628.5	102 %
12/31/1995	12,608	5,408,577	866	376,573	668.9	652.4	103 %
12/31/1996@	12,724	5,822,113	878	395,594	711.6	710.6	100 %
12/31/1997	12,856	6,074,566	932	433,430	743.0	740.5	100 %
12/13/1998	13,079	6,337,739	1,060	500,514	780.2	779.6	100 %
12/31/1999#	13,236	7,345,740	989	550,153	801.4	910.9	88 %
12/31/2000	13,317	9,026,315	666	348,886	1,037.4	1,037.4	100 %
12/31/2001@	13,588	9,449,543	993	490,441	1,086.4	1,086.4	100 %
12/31/2002	13,708	9,764,826	902	470,284	1,120.2	1,120.2	100 %
12/31/2003	13,988	10,246,174	842	493,329	1,193.1	1,193.1	100 %
12/31/2004	13,903	10,503,169	858	524,733	1,227.1	1,227.1	100 %
12/31/2005@	14,108	10,948,727	831	528,162	1,289.3	1,289.3	100 %
12/31/2006	14,172	11,333,735	832	508,430	1,332.6	1,332.6	100 %
12/31/2007	14,186	11,714,551	832	510,846	1,375.9	1,375.9	100 %
12/31/2008	14,238	12,122,501	847	526,623	1,425.6	1,425.6	100 %
12/31/2009	14,301	12,576,956	840	527,032	1,479.4	1,479.4	100 %
12/31/2010	14,407	13,047,857	829	524,242	1,532.5	1,532.5	100 %
12/31/2010@	14,407	13,047,857	829	524,242	1,545.7	1,545.7	100 %
12/31/2011	14,370	13,424,237	800	505,111	1,589.7	1,589.7	100 %

@ Revised actuarial assumptions.

* Benefits increased.

After benefit changes.

+ Includes certain recommended transfers and accrued transfers.

RETIREES AND BENEFICIARIES DECEMBER 31, 2011 HISTORICAL AVERAGES

All Retirees										
December 31	# count	Average Age at Retirement	Average Service at Retirement	Average Pension at Retirement	Average Age on Valuation Date	Average Pension on Valuation Date	Median Pension on Valuation Date	Average FAS at Retirement		
2011	189,849	57.3	22.6	\$18,218	69.3	\$22,611	\$19,212	\$36,552		
2010	181,483	57.2	22.4	\$17,379	69.3	\$21,598	\$18,144	\$35,025		
2009	174,659	57.2	22.2	\$16,724	69.3	\$20,730	\$17,256	\$33,808		
2008	169,016	57.2	22.0	\$15,942	69.4	\$19,750	\$16,284	\$32,401		
2007	163,511	57.2	21.9	\$15,318	69.4	\$18,917	\$15,480	\$31,214		
2006	159,041	57.3	21.7	\$14,711	69.4	\$18,096	\$14,700	\$29,975		
2005	153,935	57.3	21.5	\$14,131	69.5	\$17,322	\$13,956	\$28,817		
Traditional Plan										
December 31	# count	Average Age at Retirement	Average Service at Retirement	Average Pension at Retirement	Average Age on Valuation Date	Average Pension on Valuation Date	Median Pension on Valuation Date	Average FAS at Retirement		
2011	189,753	57.3	22.6	\$18,221	69.3	\$22,614	\$19,224	\$36,549		
2010	181,433	57.2	22.4	\$17,380	69.3	\$21,600	\$18,144	\$35,025		
2009	174,637	57.2	22.2	\$16,725	69.3	\$20,731	\$17,256	\$33,808		
2008	169,000	57.2	22.0	\$15,942	69.4	\$19,751	\$16,284	\$32,401		
2007	163,505	57.2	21.9	\$15,318	69.4	\$18,917	\$15,480	\$31,214		
2006	159,039	57.3	21.7	\$14,711	69.4	\$18,096	\$14,700	\$29,974		
2005	153,935	57.3	21.5	\$14,131	69.5	\$17,322	\$13,956	\$28,817		
Combined Plan										
December 31	# count	Average Age at Retirement	Average Service at Retirement	Average Pension at Retirement	Average Age on Valuation Date	Average Pension on Valuation Date	Median Pension on Valuation Date	Average FAS at Retirement		
2011	58	64.2	7.9	\$2,757	66	\$2,828	\$2,202	\$49,751		
2010	32	64.3	7.9	\$2,158	65.9	\$2,219	\$1,962	\$40,548		
2009	12	65	7.6	\$1,590	66.6	\$1,635	\$1,740	\$35,139		
2008	12	64	7.4	\$1,239	64.8	\$1,260	\$1,092	\$29,454		
2007	4	61.1	4.8	\$1,620	62	\$1,644	\$1,644	\$43,743		
2006	2	62.1	3.8	\$1,656	62.3	\$1,656	\$1,656	\$50,116		
2005	NA									
Member Directed Plan										
December 31	# count	Average Age at Retirement	Average Service at Retirement	Average Pension at Retirement	Average Age on Valuation Date	Average Pension on Valuation Date	Median Pension on Valuation Date	Average FAS at Retirement		
2011	38	NA	NA	NA	NA	NA	NA	NA		
2010	18	NA	NA	NA	NA	NA	NA	NA		
2009	10	NA	NA	NA	NA	NA	NA	NA		
2008	4	NA	NA	NA	NA	NA	NA	NA		
2007	2	NA	NA	NA	NA	NA	NA	NA		
2006	NA									
2005	NA									

SECTION X
ACTUARIAL METHODS AND ASSUMPTIONS

**SUMMARY OF
ACTUARIAL METHODS AND ASSUMPTIONS USED FOR OPERS
ACTUARIAL VALUATIONS
ASSUMPTIONS ADOPTED BY RETIREMENT BOARD
AFTER CONSULTING WITH ACTUARY**

The individual entry age actuarial cost method of valuation was used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest) which are level percent of payroll contributions.

The actuarial assumptions used in the valuation are shown in this Section. Assumptions were established following the December 31, 2010 actuarial valuation.

ECONOMIC ASSUMPTIONS

The investment return rate assumed in the valuations was 8.00% per year, compounded annually (net after administrative expenses).

The wage inflation rate assumed in this valuation was 3.75% per year. The wage inflation rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes rated to individual merit and seniority effects.

The price inflation component of the investment return rate and the wage inflation rate is assumed to be 3.00%

The assumed real rate of return over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 8.00% investment return rate translates to an assumed real rate of return over wage inflation of 4.25%. The assumed real rate of return over price inflation is 5.00%.

The active member population (the sum of the Traditional and Combined Plan active members) is assumed to remain constant. For purposes of financing the unfunded actuarial accrued liabilities, total payroll (the sum of the Traditional and Combined Plan active payroll) is assumed to grow at the wage inflation rate – 3.75% per year.

Pay increase assumptions for individual active members are shown for sample ages on pages X-5, X-6, X-7 & X-8. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.75% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

NON-ECONOMIC ASSUMPTIONS

The post-retirement mortality rates used in evaluating age and service and survivor benefit allowances to be paid are based upon the RP-2000 mortality table projected 20 years using Projection Scale AA. For males, 105% of the Combined Healthy male mortality rates are used. For females, 100% of the Combined Healthy female mortality rates are used. Related values are shown on page X-9. The mortality rates used in evaluating disability allowances are based upon the RP-2000 mortality table with no projection. For males, 120% of the Disabled female mortality rates are used set forward 2 years. For females, 100% of the Disabled female mortality rates are used. The mortality rates were established based upon the experience of the OPERS membership in total. Based upon the experience observed during the most recent 5-year period study, it appears that the current rates provide for an approximate 13% margin for future mortality improvement.

The probabilities of unreduced and reduced age and service retirement are shown on pages X-3 and X-4. For State and Local Government members that satisfy the 30-year unreduced retirement condition prior to age 65, the service-based unreduced retirement probabilities are used. For State and Local Government members that satisfy the 30-year unreduced retirement condition on or after age 65, the age-based unreduced retirement probabilities are used.

The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on pages X-5, X-6, X-7 & X-8. For withdrawal from service it was assumed that members terminating before age 35, members terminating with less than 5 years of service, and a percentage of all other members would withdraw their contributions and forfeit their entitlement to an employer financed benefit. The percentage is 100% at age 35 and is reduced for each year of age after 35, becoming 0% at age 55 (age 45 for law members).

For purposes of death-in-service and disability benefits, it is assumed that Combined Plan members will take a benefit from the Traditional Plan, unless a lump sum distribution from the Combined Plan would have a greater value.

Defined Contribution Accounts under the Combined Plan are assumed to earn 8% per year.

The Funding Value of Defined Benefit Assets recognizes assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed 4-year period. Funding value is not permitted to deviate from market value by more than 12%. Traditional and Combined Plan retiree health funding values of assets are developed independently beginning with the December 31, 2004 valuation.

Present assets (cash & investments) at funding value are shown on pages II-2 through II-9.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). Great care was taken in the production of this report, but there may be cases where schedules do not add, or where they do not exactly balance to other related schedules due to rounding.

PROBABILITIES OF UNREDUCED AGE AND SERVICE RETIREMENT

Ages	Percent of Eligible Active Members Retiring Within Next Year			
	State		Local Government	
	Men	Women	Men	Women
65	22%	22%	20%	20%
66	22%	22%	20%	20%
67	20%	20%	15%	20%
68	20%	20%	15%	17%
69	20%	20%	15%	17%
70	20%	20%	15%	17%
71	20%	20%	15%	17%
72	15%	20%	15%	17%
73	15%	20%	15%	17%
74	15%	20%	15%	17%
75	15%	20%	15%	17%
76	15%	20%	15%	17%
77	15%	25%	15%	17%
78	15%	25%	15%	17%
79	15%	25%	15%	22%
80	25%	25%	20%	22%
81	25%	25%	20%	22%
82	25%	25%	20%	22%
83	25%	25%	20%	22%
84	25%	25%	20%	22%
85 & Over	100%	100%	100%	100%
Ref	2094	2095	2096	2097

Ages	Percent of Eligible Active Members Retiring Within Next Year	
	Public Safety	Law Enforcement
	48	
49		20%
50		20%
51		20%
52	30%	20%
53	30%	20%
54	25%	20%
55	25%	20%
56	25%	23%
57	25%	23%
58	20%	25%
59	20%	25%
60	35%	30%
61	35%	25%
62	35%	25%
63	35%	25%
64	35%	25%
65	35%	25%
66	35%	25%
67	35%	25%
68	35%	25%
69	35%	25%
70 & Over	100%	100%
Ref	1334	2084

Service	Percent of Eligible Active Members Retiring Within Next Year			
	State		Local Government	
	Men	Women	Men	Women
30	37%	40%	35%	35%
31	28%	33%	26%	30%
32-39	24%	26%	23%	24%
40	35%	33%	32%	24%
41	35%	33%	32%	24%
42	35%	33%	32%	24%
43	35%	33%	32%	20%
44	35%	33%	32%	20%
45	25%	25%	32%	20%
46	25%	25%	25%	20%
47	25%	25%	25%	20%
48	25%	25%	25%	20%
49	25%	25%	25%	20%
50 & Over	100%	100%	100%	100%
Ref	2091	2093	2098	2099

PROBABILITIES OF REDUCED RETIREMENT

Ages	Percent of Eligible Active Members Retiring Within Next Year				
	State		Local Government		Public Safety
	Men	Women	Men	Women	
48					8%
49					8%
50					8%
51					8%
52					
53					
54					
55	10%	10%	9%	11%	
56	10%	10%	9%	11%	
57	10%	10%	9%	11%	
58	10%	10%	9%	11%	
59	10%	11%	9%	11%	
60	10%	12%	9%	11%	
61	10%	13%	9%	12%	
62	15%	15%	13%	13%	
63	15%	15%	14%	14%	
64	15%	15%	12%	15%	
Ref	2085	2086	2087	2088	1496

STATE
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE & SERVICE RETIREMENT
& INDIVIDUAL PAY INCREASE ASSUMPTIONS

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year						Pay Increase Assumptions For An Individual Employee			
		Death		Withdrawal		Disability		Merit & Seniority	Base (Economy)	Increase Next Year	
		Men	Women	Men	Women	Men	Women				
	0			45.00%	45.00%						
	1			30.00%	30.00%						
	2			17.00%	18.00%						
	3			12.00%	13.00%						
	4			10.00%	10.00%						
25	5 & Over	0.03%	0.01%	7.20%	8.28%	0.15%	0.15%	4.30%	3.75%	8.05%	
30		0.04%	0.02%	5.16%	6.66%	0.18%	0.18%	3.00%	3.75%	6.75%	
35		0.07%	0.03%	3.82%	4.82%	0.32%	0.32%	2.20%	3.75%	5.95%	
40		0.10%	0.04%	2.82%	3.32%	0.52%	0.52%	1.80%	3.75%	5.55%	
45		0.14%	0.06%	2.14%	2.50%	0.72%	0.72%	1.40%	3.75%	5.15%	
50		0.19%	0.09%	1.90%	2.30%	0.92%	0.92%	1.20%	3.75%	4.95%	
55		0.33%	0.17%	1.90%	2.30%	1.36%	1.36%	0.90%	3.75%	4.65%	
60		0.61%	0.34%	1.90%	2.30%	2.20%	2.20%	0.70%	3.75%	4.45%	
Ref		#506x0.9sb0	#455x0.75sb0	751 #1202x1	755 #1203x1	#385x1	#385x1	301			

The pay increase assumptions are age based only, and not service based.

**LOCAL GOVERNMENT
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE & SERVICE RETIREMENT
& INDIVIDUAL PAY INCREASE ASSUMPTIONS**

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year								Pay Increase Assumptions For An Individual Employee		
		Death		Withdrawal		Disability		Merit & Seniority	Base (Economy)	Increase Next Year		
		Men	Women	Men	Women	Men	Women					
	0			40.00%	40.00%							
	1			26.00%	26.00%							
	2			16.00%	17.00%							
	3			11.00%	13.00%							
	4			10.00%	10.00%							
25	5 & Over	0.03%	0.01%	6.74%	8.30%	0.13%	0.12%	4.30%	3.75%	8.05%		
30		0.04%	0.02%	5.24%	6.54%	0.17%	0.13%	3.00%	3.75%	6.75%		
35		0.07%	0.03%	3.96%	4.94%	0.28%	0.21%	2.20%	3.75%	5.95%		
40		0.10%	0.04%	2.86%	3.52%	0.44%	0.33%	1.80%	3.75%	5.55%		
45		0.14%	0.06%	2.38%	2.76%	0.62%	0.45%	1.40%	3.75%	5.15%		
50		0.19%	0.09%	2.30%	2.60%	0.90%	0.66%	1.20%	3.75%	4.95%		
55		0.33%	0.17%	2.30%	2.60%	1.34%	0.98%	0.90%	3.75%	4.65%		
60		0.61%	0.34%	2.30%	2.60%	1.54%	1.35%	0.70%	3.75%	4.45%		
Ref		#506x0.9sb0	#455x0.75sb0	752	754	#333xl	#334xl	301				
				#1205xl	#1206xl							

The pay increase assumptions are age based only, and not service based.

PUBLIC SAFETY
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE & SERVICE RETIREMENT
& INDIVIDUAL PAY INCREASE ASSUMPTIONS

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year										Pay Increase Assumptions For An Individual Employee						
		Death		Withdrawal		Disability		Merit & Seniority	Base (Economy)	Increase Next Year	Men	Women	Men	Women				
		Men	Women	Men	Women	Men	Women											
	0			19.00%	19.00%													
	1			17.00%	17.00%													
	2			10.00%	10.00%													
	3			10.00%	10.00%													
	4			10.00%	10.00%													
25	5 & Over	0.03%	0.01%	10.00%	10.00%	0.24%	0.40%	6.30%	3.75%	10.05%								
30		0.04%	0.02%	8.80%	8.80%	0.44%	0.52%	4.00%	3.75%	7.75%								
35		0.07%	0.03%	6.20%	6.20%	0.76%	1.02%	1.60%	3.75%	5.35%								
40		0.10%	0.04%	3.50%	3.50%	0.96%	1.42%	0.85%	3.75%	4.60%								
45		0.14%	0.06%	2.20%	2.20%	1.18%	1.86%	0.60%	3.75%	4.35%								
50		0.19%	0.09%	2.00%	2.00%	1.98%	2.34%	0.50%	3.75%	4.25%								
55		0.33%	0.17%	2.00%	2.00%	2.76%	3.40%	0.50%	3.75%	4.25%								
60		0.61%	0.34%	2.00%	2.00%	3.50%	4.00%	0.50%	3.75%	4.25%								
Ref		#506x0.9sb0	#455x0.75sb0	756	756	#699xi	#743xi	303										
				#1211xi	#1211xi													

The pay increase assumptions are age based only, and not service based.

LAW ENFORCEMENT
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE AGE & SERVICE RETIREMENT
& INDIVIDUAL PAY INCREASE ASSUMPTIONS

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year								Pay Increase Assumptions For An Individual Employee			
		Death		Withdrawal		Disability		Merit & Seniority	Base (Economy)	Increase Next Year			
		Men	Women	Men	Women	Men	Women						
	0			16.00%	16.00%								
	1			10.00%	12.00%								
	2			8.00%	8.00%								
	3			6.00%	7.00%								
	4			5.00%	7.00%								
	5 & Over			3.54%	3.80%			0.24%	0.40%			6.30%	10.05%
25		0.03%	0.01%										
30		0.04%	0.02%										
35		0.07%	0.03%										
40		0.10%	0.04%										
45		0.14%	0.06%										
50		0.19%	0.09%										
55		0.33%	0.17%										
60		0.61%	0.34%										
Ref		#506x0.9sb0	#455x0.75sb0	753	445	#699x1	#743x1	303					
		#876x1	#575x1										

The pay increase assumptions are age based only, and not service based.

SINGLE LIFE RETIREMENT VALUES

Sample Attained Ages	Present Value of \$1 Monthly for Life Increasing 3.0% Annually (First Increase After 1 Year)		Future Life Expectancy (years)	
	Males	Females	Males	Females
50	\$177.31	\$181.07	32.36	34.63
55	165.65	170.43	27.64	29.88
60	151.34	157.52	23.09	25.31
65	134.71	142.57	18.81	21.02
70	116.28	125.95	14.89	17.06
75	95.74	107.82	11.29	13.47
80	74.64	88.38	8.17	10.23
Ref:	#454xl.05sb0	#455xlsb0		

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
DECEMBER 31, 2011

Marriage Assumption:	70% of males and 60% of females are assumed to be married for purposes of death-in-service benefits for State and Local members. 90% of males and 90% of females are assumed to be married for purposes of death-in-service benefits for Law members. Male spouses are assumed to be three years older than female spouses for active member valuation purposes. In retired or inactive cases where spouse information is needed, but not available, the three year age difference is also assumed.
Pay Increase Timing:	Beginning of year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Final Average Salary:	For present value of future benefit purposes, final average salary was calculated in accordance with pay increase assumptions, but was not permitted to fall below the final average salary reported in the data.
Decrement Timing:	Decrements are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service.
Death after Disability:	Death after disability benefits were approximated by assuming that the disability benefit would be paid as a joint and 35% survivor benefit for people in the original disability plan and as a joint and 20% survivor benefit for people in the post 1992 plan.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year. A (0.80)% factor is applied to State active member liabilities (other than for refunds) and a (1.00)% factor is applied to Local active member liabilities (other than for refunds) to recognize that a portion of the membership is part time.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
DECEMBER 31, 2011 (CONCLUDED)

Miscellaneous Loads:	A load of approximately 0.60% of payroll is included in the computed normal cost to recognize subsidized service purchases. Law active accrued liabilities for retirement are reduced by 10% to recognize that total service reported is not entirely Law service, and that non-Law service cannot be used to satisfy Law eligibility conditions. Reported pays for certain State employees were increased by 2% assuming these employees will experience fewer future furlough days than experienced during 2011.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon contribution rates presented in the Summary of Benefits, and the actual payroll payable at the time contributions are made.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Normal Form of Benefit:	The assumed normal form of benefit is a straight life benefit, except where otherwise noted.
Missing Member Data:	Active and inactive records with missing dates of birth were given dates of birth that resulted in an entry age of 30 based upon the reported service. Active and inactive records with missing gender codes were assumed to be female.

SECTION XI
FINANCIAL PRINCIPLES

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES OF OPERS

Promises Made, and To Be Paid For. As each year is completed, OPERS in effect hands an “IOU” to each member then acquiring a year of service credit --- the “IOU” says: “The Ohio Public Employees Retirement System owes you one year’s worth of retirement benefits, payments in cash commencing when you qualify for retirement.”

The related *key financial questions* are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member’s present year of service? ***Or the future taxpayers***, who happen to be in Ohio at the time the IOU becomes a cash demand, years and often decades later?

The law governing OPERS financing intends that this year’s taxpayers contribute the money to cover the IOUs being handed out this year. With this financial objective, ***the employer contribution rate is expected to remain approximately level from generation to generation of taxpayers.***

There are systems which have a design for deferring contributions to future taxpayers. Lured by a lower contribution rate now, they put aside the consequence that the contribution rate must then relentlessly grow to a level much higher than would be required if a level contribution pattern were followed.

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. ***Investment income*** becomes ***the 3rd and largest contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Normal Cost (the cost of members' service being rendered this year)

... plus ...

Interest on Unfunded Actuarial Accrued Liabilities (unfunded actuarial accrued liabilities are the difference between: liabilities for service already rendered; and the accrued assets of OPERS).

Computing Contributions to Support Fund Benefits. From a given schedule of benefits and from employee and asset data, the actuary calculates the contribution rates to support the benefits by means of ***an actuarial valuation and a funding method.***

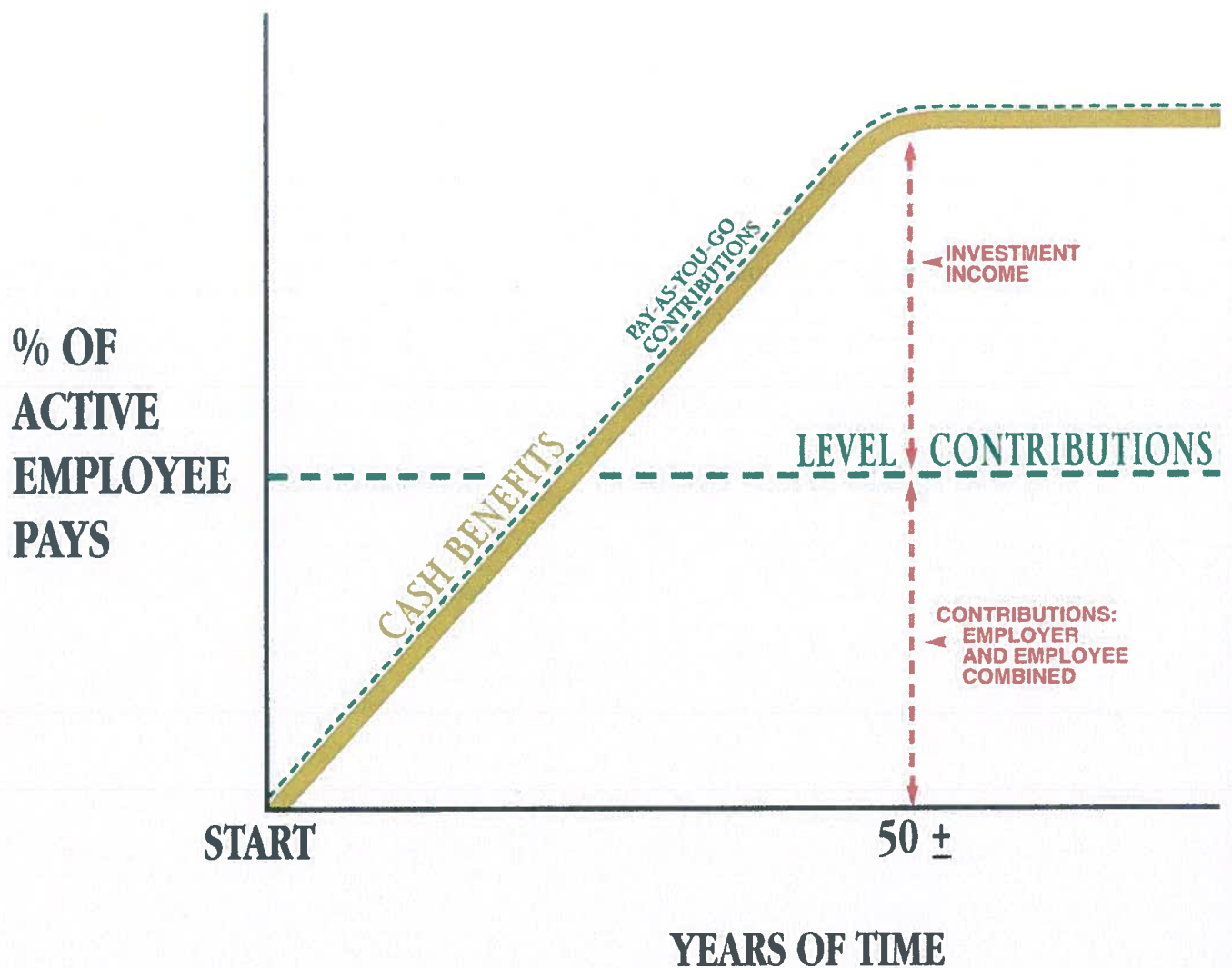
An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement.

In an actuarial valuation, assumptions must be made as to what the above rates will be for the next year and for decades in the future. The assumptions are established by the Retirement Board after receiving the advice of the actuary.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and has been observed, it will not coincide exactly with assumed experience, regardless of the skill of the actuary and the many calculations made. The future can not be predicted with 100% precision.

OPERS copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is ***continuing adjustments in financial position.***

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CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the opposite page shows the relationship between *the two fundamentally different philosophies of paying* for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is thus an *increasing contribution method*; and, the *level contribution method* which attempts to equalize contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined. The activity constituting the valuation may be summarized as follows:

- A. **Census Data**, including:
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees

- B. + **Asset data** (cash & investments)

- C. + **Benefit provisions** that establish eligibility and amounts of payments to members

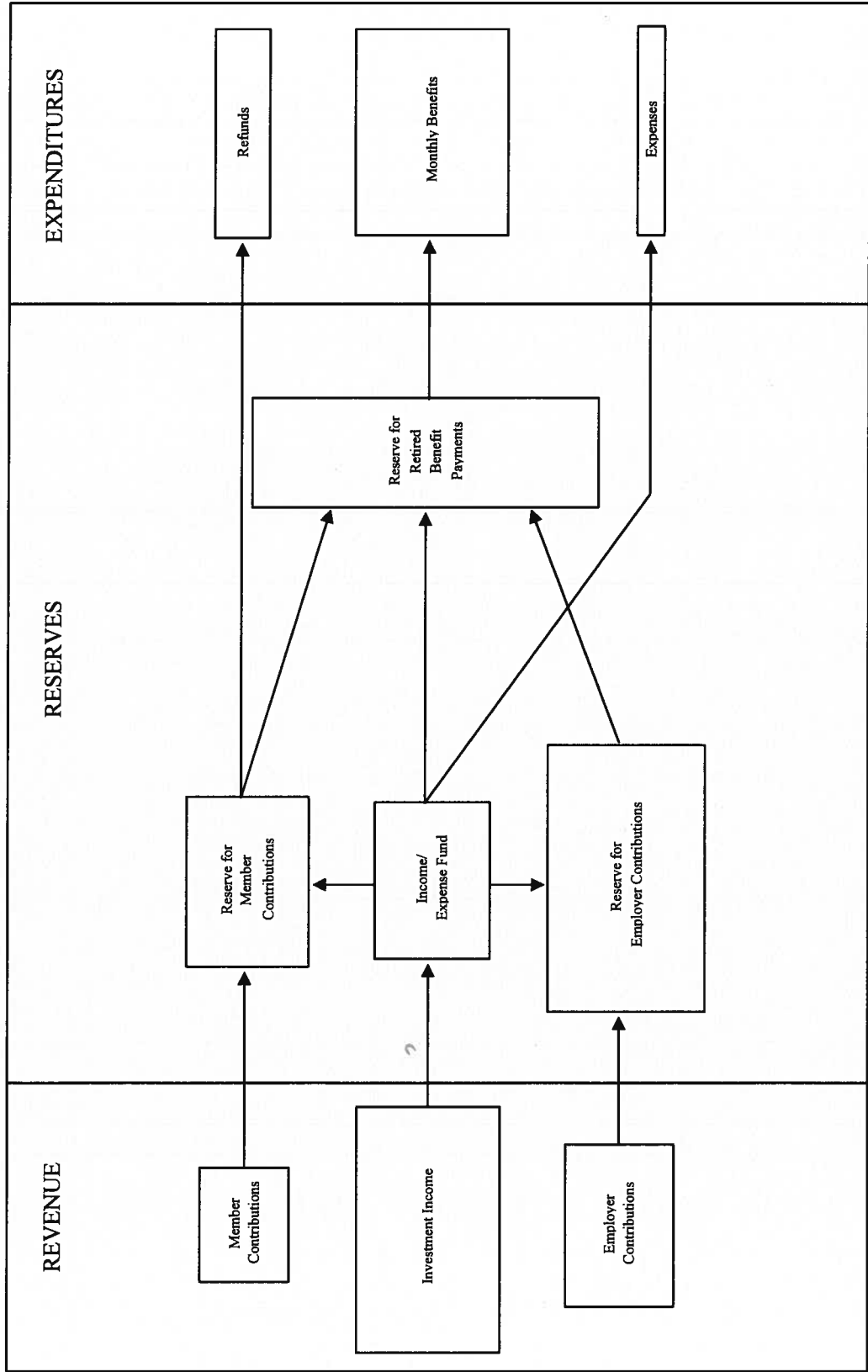
- D. + **Assumptions concerning future experience** in various risk areas

- E. + **The funding method** for employer contributions (the long-term, planned pattern for employer contributions)

- F. + **Mathematically combining the assumptions, the funding method, and the data**

- G. = Determination of:
 - Plan Financial Position; and/or
 - New Employer Contribution Rate

Flow of Money Through the Retirement System



GLOSSARY

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Accumulated Benefit Obligation. The actuarial present value of vested and non-vested benefits based on service to date and past and current salary levels.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Actuarial Assumptions. 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.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuary. A person who is trained in the applications of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries (MAAA). The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.

Amortization. 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.

Experience Gain (Loss). 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.

Funding Value of Assets. The value of current plan assets recognized for valuation purposes. Generally based on a phased-in recognition of all or a portion of market related investment return. Sometimes referred to as Actuarial Value of Assets.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Plan Termination Liability. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a “going concern” basis and is not normally determined in a routine actuarial valuation.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

MEANING OF “UNFUNDED ACTUARIAL ACCRUED LIABILITIES”

“Actuarial accrued liabilities” are the present value of the portions of promised benefits that are not covered by future normal cost contributions --- a liability has been established (“accrued”) because the service has been rendered but the resulting monthly cash benefit may not be payable until years in the future.

If “actuarial accrued liabilities” at any time exceed the plan’s accrued assets (cash & investments), the difference is *“unfunded actuarial accrued liabilities.”* This is the common condition. If the plan’s assets equaled the plan’s “actuarial accrued liabilities”, the plan would be termed “fully funded.” This is an unusual condition.

Each time a plan adds a new benefit which applies to service already rendered, an “actuarial accrued liability” is created, which is also an “unfunded actuarial accrued liability” because the plan can’t print instant cash to cover the value of the new benefit promises. Payment for such unfunded actuarial accrued liabilities is spread over a period of years, commonly in the 15-30 year range.

Unfunded actuarial accrued liabilities can occur in another way: if actual plan experience is less favorable than assumed, the difference is added to unfunded actuarial accrued liabilities. For example, in plans where benefits are directly related to an employee’s pay near time of retirement, unfunded actuarial accrued liabilities increased rapidly during the 1970’s because unexpected rates of pay increase created additional actuarial accrued liabilities which could not be matched by reasonable investment results. Most of the unexpected pay increases were the direct result of inflation, which is a very destructive force on financial stability.

The existence of unfunded actuarial accrued liabilities is not bad but the changes from year to year in amount of unfunded actuarial accrued liabilities are important--- “bad” or “good” or somewhere in between.

Nor are unfunded actuarial accrued liabilities a bill payable immediately, but it is important that policy-makers prevent the amount from becoming unreasonably high and *it is vital for plans to have a sound method for making payments toward them* so that they are controlled.

SECTION XII

GASB REPORTING

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.

**SCHEDULE OF DEFINED BENEFIT FUNDING PROGRESS
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
(\$ AMOUNTS IN MILLIONS)
TRADITIONAL, COMBINED, AND MEMBER DIRECTED PLANS**

The schedule below measures the funding progress with respect to the *retirement allowance* portion of OPERS benefits for compliance with GASB Statement No. 25. Assets and liabilities related to post-employment health care benefits are specifically excluded from the schedule. Assets do, however, include market value adjustments.

Valuation Year	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
1991	\$22,027	\$18,108	\$3,919	82 %	\$6,651	59 %
1992	23,961	20,364	3,597	85 %	6,889	52 %
1993	26,506	23,063	3,443	87 %	7,236	48 %
1994	28,260	25,066	3,194	89 %	7,625	42 %
1995	30,556	27,651	2,905	90 %	7,973	36 %
1995*	30,224	27,651	2,573	91 %	7,973	32 %
1996	32,631	30,534	2,097	94 %	8,340	25 %
1997	34,971	33,846	1,125	97 %	8,640	13 %
1998	37,714	38,360	(646)	102 %	9,017	0 %
1999	43,070	43,060	10	100 %	9,477	0 %
2000	46,347	46,844	(497)	101 %	10,192	0 %
2001	49,095	48,748	347	99 %	10,782	3 %
2001*	47,492	48,748	(1,256)	103 %	10,782	0 %
2002	50,872	43,706	7,166	86 %	11,207	64 %
2003	54,774	46,746	8,028	85 %	11,165	72 %
2004	57,604	50,452	7,152	88 %	11,454	62 %
2005	61,146	54,473	6,673	89 %	11,807	57 %
2005*	62,498	54,473	8,025	87 %	11,807	68 %
2006	66,161	61,296	4,865	93 %	12,175	40 %
2007	69,734	67,151	2,583	96 %	12,583	21 %
2008	73,466	55,315	18,150	75 %	12,801	142 %
2009	76,555	57,629	18,926	75 %	12,548	151 %
2010	79,630	60,600	19,031	76 %	12,450	153 %
2010*	80,485	63,649	16,836	79 %	12,450	135 %
2011	84,530	65,436	19,094	77 %	12,399	154 %

* Revised actuarial assumptions.

**SCHEDULE OF DEFINED BENEFIT FUNDING PROGRESS
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
(\$ AMOUNTS IN MILLIONS)
TRADITIONAL PLAN**

The schedule below measures the funding progress with respect to the *retirement allowance* portion of OPERS benefits for compliance with GASB Statement No. 25. Assets and liabilities related to post-employment health care benefits are specifically excluded from the schedule. Assets do, however, include market value adjustments.

Valuation Year	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
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1993	26,506	23,063	3,443	87 %	7,236	48 %
1994	28,260	25,066	3,194	89 %	7,625	42 %
1995	30,556	27,651	2,905	90 %	7,973	36 %
1995*	30,224	27,651	2,573	91 %	7,973	32 %
1996	32,631	30,534	2,097	94 %	8,340	25 %
1997	34,971	33,846	1,125	97 %	8,640	13 %
1998	37,714	38,360	(646)	102 %	9,017	0 %
1999	43,070	43,060	10	100 %	9,477	0 %
2000	46,347	46,844	(497)	101 %	10,192	0 %
2001	49,095	48,748	347	99 %	10,782	3 %
2001*	47,492	48,748	(1,256)	103 %	10,782	0 %
2002	50,872	43,706	7,166	86 %	11,207	64 %
2003	54,756	46,737	8,019	85 %	11,056	73 %
2004	57,573	50,430	7,143	88 %	11,313	63 %
2005	61,099	54,433	6,666	89 %	11,633	57 %
2005*	62,447	54,433	8,014	87 %	11,633	69 %
2006	66,089	61,235	4,854	93 %	11,971	41 %
2007	69,639	67,067	2,572	96 %	12,347	21 %
2008	73,346	55,230	18,116	75 %	12,546	144 %
2009	76,407	57,519	18,888	75 %	12,290	154 %
2010	79,459	60,461	18,997	76 %	12,165	156 %
2010*	80,307	63,515	16,792	79 %	12,165	138 %
2011	84,325	65,274	19,052	77 %	12,103	157 %

* Revised actuarial assumptions.

**SCHEDULE OF DEFINED BENEFIT FUNDING PROGRESS
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
(\$ AMOUNTS IN MILLIONS)
COMBINED PLAN**

The schedule below measures the funding progress with respect to the *retirement allowance* portion of OPERS benefits for compliance with GASB Statement No. 25. Assets and liabilities related to post-employment health care benefits are specifically excluded from the schedule. Assets do, however, include market value adjustments.

Valuation Year	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
1991						
1992						
1993						
1994						
1995						
1995						
1996						
1997						
1998						
1999						
2000						
2001						
2001						
2002						
2003	\$18	\$9	\$9	50 %	\$109	8 %
2004	31	22	9	71 %	141	6 %
2005	47	40	7	85 %	174	4 %
2005*	51	40	11	78 %	174	6 %
2006	72	61	11	85 %	205	5 %
2007	95	84	11	88 %	236	5 %
2008	120	85	35	71 %	255	14 %
2009	148	110	38	74 %	258	15 %
2010	171	138	33	81 %	284	12 %
2010*	177	134	43	76 %	284	15 %
2011	203	161	42	79 %	296	14 %

* Revised actuarial assumptions.

**SCHEDULE OF DEFINED BENEFIT FUNDING PROGRESS
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
(\$ AMOUNTS)
MEMBER DIRECTED PLAN**

The schedule below measures the funding progress with respect to the *retirement allowance* portion of OPERS benefits for compliance with GASB Statement No. 25. Assets and liabilities related to post-employment health care benefits are specifically excluded from the schedule. Assets do, however, include market value adjustments.

Valuation Year	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
1991						
1992						
1993						
1994						
1995						
1995						
1996						
1997						
1998						
1999						
2000						
2001						
2001						
2002						
2003						
2004						
2005						
2005*						
2006						
2007						
2008	\$166,354	\$147,976	\$18,378	89 %	NA	NA
2009	252,670	205,639	47,031	81 %	NA	NA
2010	489,792	438,982	50,810	90 %	NA	NA
2010*	496,004	454,025	41,979	92 %	NA	NA
2011	1,172,900	1,156,151	16,749	99 %	NA	NA

* Revised actuarial assumptions.

SCHEDULE OF EMPLOYER CONTRIBUTIONS*
FOR COMPLIANCE WITH GASB STATEMENT NO. 25

Traditional Plan		
Valuation Date December 31	Year Ended December 31	Annual Required Contributions
2004	2006	8.44%
2005	2008	7.12%
2006	2009	7.13%
2007	2010	7.14%
2008	2011	13.33%
2009	2012	13.64%
2010	2013	13.52%
2011	2014	14.15%

Combined Plan		
Valuation Date December 31	Year Ended December 31	Annual Required Contributions
2004	2006	8.33%
2005	2008	7.29%
2006	2009	7.33%
2007	2010	7.22%
2008	2011	10.00%
2009	2012	10.00%
2010	2013	13.00%
2011	2014	14.00%

Member Directed Plan		
Valuation Date December 31	Year Ended December 31	Annual Required Contributions
2008	2011	\$ 1,570
2009	2012	\$ 4,019
2010	2013	\$ 4,342
2011	2014	\$ 1,669

* The amounts reported in this schedule do not include contributions for post-employment healthcare benefits.

**SCHEDULE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY@
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
TRADITIONAL, COMBINED AND MEMBER DIRECTED PLANS**

	December 31, 2011						Total
	State Group	Local Group	General Group	Public Safety Group	Law Enforcement Group	Total	
Accrued Liabilities							
Active and Inactive Members	\$14,754,394,993	\$21,630,631,813	\$36,385,026,806	\$ 7,769,753	\$1,545,779,655	\$37,938,576,214	
Retirees and Beneficiaries	18,941,838,928	25,754,216,858	44,696,055,786	40,784,918	1,854,329,550	46,591,170,254	
Total Accrued Liabilities	\$33,696,233,921	\$47,384,848,671	\$81,081,082,592	\$ 48,554,671	\$3,400,109,205	\$84,529,746,468	
Assets							
Active and Inactive Members							
EAF*	\$ 551,292,378	\$ 2,124,601,981	\$ 2,675,894,359	\$ (6,361,569)	\$ 183,134,440	\$ 2,852,667,230	
ESF	4,622,797,407	7,195,512,904	11,818,310,311	2,774,473	479,032,654	12,300,117,438	
Unallocated	40,141,046	58,373,277	98,514,323	62,072	4,199,305	102,775,700	
Market Value Adjustment	1,401,945,481	2,038,961,991	3,440,907,472	2,162,950	146,327,273	3,589,397,695	
Total Active and Inactive Assets	\$ 6,616,176,312	\$11,417,450,153	\$18,033,626,465	\$ (1,362,074)	\$812,693,672	\$18,844,958,063	
Retirees and Beneficiaries							
A & PR Fund*	\$18,363,410,510	\$24,799,883,936	\$43,163,294,446	\$ 23,710,423	\$1,814,441,220	\$45,001,446,089	
SBF Fund*	578,428,418	954,332,922	1,532,761,340	17,074,495	39,888,330	1,589,724,165	
Total R&B Assets	\$18,941,838,928	\$25,754,216,858	\$44,696,055,786	\$ 40,784,918	\$1,854,329,550	\$46,591,170,254	
Total Assets	\$25,558,015,240	\$37,171,667,011	\$62,729,682,251	\$ 39,422,844	\$2,667,023,222	\$65,436,128,317	
Unfunded Actuarial Accrued Liability	\$8,138,218,681	\$10,213,181,660	\$18,351,400,341	\$ 9,131,827	\$ 733,085,983	\$19,093,618,151	

@ The amounts reported in this schedule do not include contributions for post-employment healthcare benefits.
* After reserve transfers.

**SCHEDULE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY^(a)
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
TRADITIONAL PLAN**

	December 31, 2011					Total
	State Group	Local Group	General Group	Public Safety Group	Law Enforcement Group	
Accrued Liabilities						
Active and Inactive Members	\$14,669,736,393	\$21,514,057,498	\$36,183,793,891	\$ 7,769,753	\$1,545,779,655	\$37,737,343,299
Retirees and Beneficiaries	18,941,299,927	25,751,732,067	44,693,031,994	40,784,918	1,854,329,550	46,588,146,462
Total Accrued Liabilities	\$33,611,036,320	\$47,265,789,565	\$80,876,825,885	\$ 48,554,671	\$3,400,109,205	\$84,325,489,761
Assets						
Active and Inactive Members						
EAF*	\$ 491,763,483	\$ 2,034,521,958	\$ 2,526,285,441	\$ (6,361,569)	\$ 183,134,440	\$ 2,703,058,312
ESF	4,622,059,571	7,194,806,553	11,816,866,124	2,774,473	479,032,654	12,298,673,251
Unallocated	40,141,046	58,373,277	98,514,323	62,072	4,199,305	102,775,700
Market Value Adjustment	1,398,738,434	2,034,051,289	3,432,789,723	2,162,950	146,327,273	3,581,279,946
Total Active and Inactive Assets	\$ 6,552,702,534	\$11,321,753,077	\$17,874,455,611	\$ (1,362,074)	\$ 812,693,672	\$18,685,787,209
Retirees and Beneficiaries						
A & PR Fund*	\$18,362,871,509	\$24,797,399,145	\$43,160,270,654	\$ 23,710,423	\$1,814,441,220	\$44,998,422,297
SBF Fund*	578,428,418	954,332,922	1,532,761,340	17,074,495	39,888,330	1,589,724,165
Total R&B Assets	\$18,941,299,927	\$25,751,732,067	\$44,693,031,994	\$ 40,784,918	\$1,854,329,550	\$46,588,146,462
Total Assets	\$25,494,002,461	\$37,073,485,144	\$62,567,487,605	\$ 39,422,844	\$2,667,023,222	\$65,273,933,671
Unfunded Actuarial Accrued Liability	\$ 8,117,033,859	\$ 10,192,304,421	\$18,309,338,280	\$ 9,131,827	\$ 733,085,983	\$19,051,556,090

^(a) The amounts reported in this schedule do not include contributions for post-employment healthcare benefits.

* After reserve transfers.

**SCHEDULE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY[@]
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
COMBINED PLAN**

	December 31, 2011					
	State Group	Local Group	General Group	Public Safety Group	Law Enforcement Group	Total
Accrued Liabilities						
Active and Inactive Members ¹⁾	\$ 84,658,600	\$ 116,574,315	\$ 201,232,915			\$ 201,232,915
Retirees and Beneficiaries	379,352	1,471,540	1,850,892			1,850,892
Total Accrued Liabilities	\$ 85,037,952	\$ 118,045,855	\$ 203,083,807			\$ 203,083,807
Assets						
Active and Inactive Members						
EAF*	\$ 59,544,010	\$ 90,207,427	\$ 149,751,437			\$ 149,751,437
ESF	711,255	651,649	1,362,904			1,362,904
Unallocated	0	0	0			0
Market Value Adjustment	3,200,199	4,873,063	8,073,262			8,073,262
Total Active and Inactive Assets	\$ 63,455,464	\$ 95,732,139	\$ 159,187,603			\$ 159,187,603
Retirees and Beneficiaries						
A & PR Fund*	\$ 379,352	\$ 1,471,540	\$ 1,850,892			\$ 1,850,892
SBF Fund*	0	0	0			0
Total R&B Assets	\$ 379,352	\$ 1,471,540	\$ 1,850,892			\$ 1,850,892
Total Assets	\$ 63,834,816	\$ 97,203,679	\$ 161,038,495			\$ 161,038,495
Unfunded Actuarial Accrued Liability	\$ 21,203,136	\$ 20,842,176	\$ 42,045,312			\$ 42,045,312

[@] The amounts reported in this schedule do not include contributions for post-employment healthcare benefits.
* After reserve transfers.

**SCHEDULE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY@
FOR COMPLIANCE WITH GASB STATEMENT NO. 25
MEMBER DIRECTED PLAN**

	December 31, 2011					Total
	State Group	Local Group	General Group	Public Safety Group	Law Enforcement Group	
Accrued Liabilities						
Active and Inactive Members Retirees and Beneficiaries	\$ -	\$ -	\$ -			\$ -
Total Accrued Liabilities	\$ 159,649	\$ 1,013,251	\$ 1,172,900			\$ 1,172,900
Assets						
Active and Inactive Members EAF*	\$ (15,115)	\$ (127,404)	\$ (142,519)			\$ (142,519)
ESF	26,581	54,702	81,283			81,283
Unallocated	0	0	0			0
Market Value Adjustment	6,848	37,639	44,487			44,487
Total Active and Inactive Assets	\$ 18,314	\$ (35,063)	\$ (16,749)			\$ (16,749)
Retirees and Beneficiaries A & PR Fund*	\$ 159,649	\$ 1,013,251	\$ 1,172,900			\$ 1,172,900
SBF Fund*	0	0	0			0
Total R&B Assets	\$ 159,649	\$ 1,013,251	\$ 1,172,900			\$ 1,172,900
Total Assets	\$ 177,963	\$ 978,188	\$ 1,156,151			\$ 1,156,151
Unfunded Actuarial Accrued Liability	\$ (18,314)	\$ 35,063	\$ 16,749			\$ 16,749

@ The amounts reported in this schedule do not include contributions for post-employment healthcare benefits.
* After reserve transfers.

**REQUIRED SUPPLEMENTARY INFORMATION
FOR COMPLIANCE WITH GASB STATEMENT NO. 25**

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest valuation date follows:

Valuation date	December 31, 2011
Actuarial cost method	Individual entry age
Amortization method for unfunded actuarial accrued liabilities	Level percent open - Traditional and Combined Level dollar open - Member Directed
Equivalent Single Amortization Period (Years from December 31, 2013)	
Traditional Plan	29
Combined Plan	1
Member Directed Plan	30
Asset valuation method	4-year smoothed market
Actuarial assumptions:	
Investment rate of return	8.00%
Projected salary increases including wage inflation at 3.75%	4.25% - 10.05%
Cost-of-living adjustments	3.0% simple

Membership of the Traditional, Combined and Member Directed Plans consisted of the following at December 31, 2011, the date of the latest actuarial valuation:

	Traditional	Combined	Member Directed	Total
Retirees and beneficiaries receiving benefits	189,753	58	38	189,849
Terminated plan members entitled to but not yet receiving benefits				
Less than 5 years of service	416,378	956	0	417,334
5 or more years of service	31,503	356	0	31,859
Total	447,881	1,312	0	449,193
Active plan members				
Less than 5 years of service	130,975	2,762	0	133,737
5 or more years of service	197,665	3,952	0	201,617
Total	328,640	6,714	0	335,354
Total				
Less than 5 years of service	547,353	3,718	0	551,071
5 or more years of service	418,921	4,366	38	423,325
Total	966,274	8,084	38	974,396

August 30, 2012

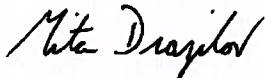
Ms. Karen E. Carraher
Executive Director
Ohio Public Employees Retirement System
277 East Town Street
Columbus, Ohio 43215

Re: Report of December 31, 2011 Actuarial Valuation

Dear Karen:

Enclosed are the 5 bound copies of the final report.

Sincerely,



Mita Drazilov, MAAA, ASA

MD:sc
Enclosures

cc: Mr. Tom Heseltine
Clifton Gunderson LLP