

FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL VALUATION REPORT FOR THE YEAR ENDING
DECEMBER 31, 2011

May 17, 2012

Retirement Board of the
Firemen's Annuity and Benefit Fund of Chicago
20 South Clark Street, Suite 1400
Chicago, IL 60603

Actuarial Certification

Dear Members of the Board:

At your request, we have performed an actuarial valuation for the Firemen's Annuity and Benefit Fund of Chicago ("the Fund") as of December 31, 2011. This valuation has been performed to measure the funding status of the Fund and determine the actuarially required contribution for 2012. In addition, it includes disclosure information required under GASB Statement No. 25, Statement No. 27, Statement No. 43 and Statement No. 45. The assumptions and methods used were recommended by the actuary and approved by the Board and meet the parameters set for the disclosure presented in the financial section by Government Accounting Standards Board (GASB) Statement Nos. 25 and 43. These actuarial valuations of the Fund are performed annually.

We have provided supporting schedules for the actuarial section of the comprehensive annual financial report, including:

- Schedule of Active Member Data
- Retirements and Beneficiaries Added to and Removed from Rolls
- Solvency (Termination) Test
- Analysis of Financial Experience

We have also provided the following schedules in the financial sections of the report. We relied on information from the prior actuary for years before 1999.

- Schedule of Funding Progress
- Schedule of Employer Contributions

This valuation is based upon:

- a) **Data relative to the members of the Fund** – Data for active members and persons receiving benefits from the fund was provided by the Fund's staff. We have tested this data for reasonableness.

- b) **Asset Values** – The values of assets of the Fund were provided by the Fund's staff. The assets provided by the Fund are still in draft form pending finalization of alternative investment balances. The Fund and their auditor do not anticipate a material change in the asset value. Actuarial value of assets was used to develop actuarial results for the State-reporting basis, as well as for GASB Statement No. 25 and Statement No. 27. In each fiscal year, gains and losses will be phased in over a five year period.
- c) **Actuarial Method** – The actuarial method utilized by the Fund is the Entry-Age Actuarial Cost Method. The objective of this method is to amortize the costs of Fund benefits over the entire career of each member as a level percentage of compensation. Any Unfunded Actuarial Accrued Liability (UAAL) under this method is separately financed. All actuarial gains and losses under this method are reflected in the UAAL.
- d) **Actuarial Assumptions** – The actuarial assumptions have changed from the prior valuation to reflect changes from the experience study performed for the period January 1, 2003 through December 31, 2010. The assumptions used are set forth in Appendix 4: Actuarial Methods and Assumptions of the Valuation Report.
- e) **Plan Provisions** – The liabilities reflect the plan provisions in effect as of December 31, 2011.

The funding objective is to provide employer and employee contributions sufficient to provide the benefits of the Fund when due. State Law currently constrains employer contributions to be 2.26 times the employee contribution level in the second prior fiscal year. Thus, with an administrative lag, the employer contribution is designed to match the employee contribution in a 2.26:1 relationship. The actuarial valuation of the Fund on the State reporting basis shows that a ratio of 7.5:1 is needed to finance the Fund.

The valuation results set forth in this report are based on the data and actuarial techniques described above, and upon the provisions of the Fund as of the valuation date. Based on these items, we certify these results to be true and correct.

This report should not be relied on for any purpose other than the purpose stated.

To the best of our knowledge this report is complete and accurate and was conducted in accordance with standards of practice promulgated by the Actuarial Standards Board and in compliance with the City Ordinance. The actuarial assumptions used for the valuation produce results which, in the aggregate, are reasonable. This valuation was produced under the supervision of a member of the American Academy of Actuaries with significant experience in valuing public employee retirement systems. The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith and Company



Alex Rivera, FSA, EA, MAAA
Senior Consultant



Lance J. Weiss, EA, MAAA
Senior Consultant

ADDITIONAL DISCLOSURES REQUIRED BY ACTUARIAL STANDARDS OF PRACTICE

To the best of our knowledge, this actuarial statement is complete and accurate, fairly presents the actuarial position of the Fund as of December 31, 2011, and has been prepared in accordance with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

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.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contribution shortfalls (the difference between the actual contributions and the annual required contributions) remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this variance, with a view to funding the plan over time.

The signing actuaries are independent of the plan sponsor.

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SUMMARY OF VALUATION RESULTS

This report sets forth the results of the actuarial valuation of the Firemen's Annuity and Benefit Fund of the City of Chicago ("Fund") as of December 31, 2011. The purposes of this valuation are:

1. To develop actuarially determined contributions for 2012.
2. To develop the annual required contributions (ARC) under GASB #25 and GASB #43.
3. To develop the annual pension cost under GASB #27 and the annual OPEB cost under GASB #45.
4. To review the funding status of the Fund.

The funding status, in basic terms, is a comparison of the fund's liabilities to assets expressed as either an unfunded liability or as a ratio of assets to liabilities. This comparison can be measured in various ways. Fund liabilities are dependent on the actuarial assumptions and actuarial cost method. Fund assets can be measured at market value, book value, or some variation to smooth the fluctuations that invariably occur from year to year.

For State reporting, as well as for Fund and City financial reports, the funding status is measured using liabilities under the Entry Age Normal funding method and the Actuarial (Market-Related) Value of Assets.

The Actuarial (Market-Related) Value of Assets is determined from market value with investment gains and losses smoothed over a five-year period. The actuarial assumptions used to determine the liabilities are the same in all three measures.

Comments on Results

For State reporting purposes, the minimum actuarially determined contribution for the year ending December 31, 2012, is \$315.7 million including estimated employee contributions of \$39.9 million. This is 74.2 percent of the total payroll for the Fund and a \$23.6 million increase over the minimum actuarial contribution for 2011.

The annual required contribution (ARC) under GASB #25 for the year ending December 31, 2012, is \$271.5 million, which is for pension benefits only. This amount is net of employee contributions of \$39.9 million.

GASB #43 requires the calculation of a separate ARC for Other Postemployment Benefits (OPEB). The OPEB ARC for the fiscal year ending December 31, 2012, is \$4.3 million.

Because of the requirements of GASB #43, there are some differences between the calculation of the ARC for pension benefits and the ARC for OPEB. These differences are summarized below.

	<u>Pension ARC</u>	<u>OPEB ARC</u>
Investment Return	8.00% per year	4.50% per year
Assets	5-year smoothed market	No assets (Pay-as-you-go)

SUMMARY OF VALUATION RESULTS (CONT'D)

GASB #43 requires that the investment return assumption (or “discount rate”) used to value OPEB liabilities be based on the estimated long-term yield on the investments expected to be used to finance the payment of benefits. The investment return assumption of 4.50 percent reflects the fact that OPEB liabilities are considered to be funded on a pay-as-you-go basis. That is, the health insurance supplement is financed with current contributions, and no separate healthcare account exists to pay the health insurance supplement.

Based on the Market-Related Value of Assets, the Unfunded Actuarial Liability increased from \$2.51 billion to \$2.8 billion during the year. The funded ratio decreased from 32.35 percent to 28.26 percent.

Based on the Market Value of Assets, the Unfunded Actuarial Liability increased from \$2.6 billion to \$2.91 billion, and the funded ratio decreased from 29.87 percent to 25.49 percent.

There were four major gain/loss items:

- The employer cost in excess of actual contributions generated a loss of approximately \$137.8 million.
- The partial recognition of investment gains and losses in plan years 2008 through 2011 due to the asset smoothing method resulted in an overall deferred loss of \$108 million, which will be recognized in subsequent valuations. The investment gain/loss on the actuarial value generated an overall loss of \$102.7 million.
- Pay increases less than expected resulted in a gain of \$43.5 million.
- Actuarial assumptions were changed based on the experience review performed for the period January 1, 2003 through December 31, 2010. The new assumptions are first being used in the valuation as of December 31, 2011, and generated a loss of \$47.8 million.

A more thorough examination of these and other factors can be found in the Reconciliation of Unfunded Liability section and the gain/loss calculation of Table 3.

A summary of the primary results of this valuation is shown in the following table.

SUMMARY OF VALUATION RESULTS (CONT'D)

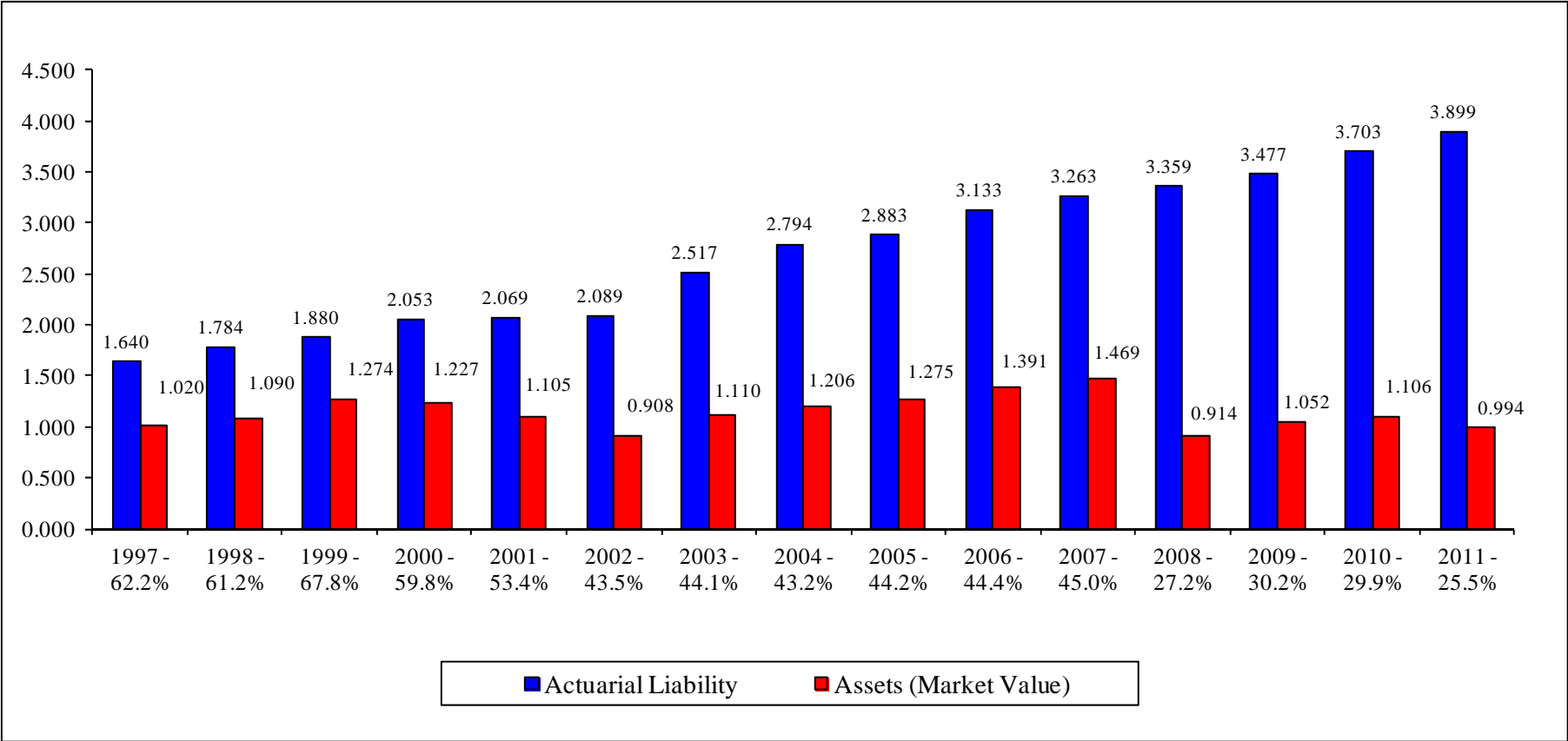
	December 31, 2010		December 31, 2011	
	\$ in Millions	% of Pay ¹	\$ in Millions	% of Pay ¹
Contribution Levels				
Minimum Actuarially Determined Contribution (State Reporting) Annual Required Contribution ² (GASB 25 and 43)	\$ 292.1	72.96 %	\$ 315.7	74.22 %
	254.5	63.57	275.8	64.83
Funding Status -- State/GASB #25 and #43				
Market-Related Value of Assets	\$ 1,198.1	299.23	\$ 1,101.7	259.00
Actuarial Liability	3,703.2	924.88	3,898.9	916.56
Funding Ratios	32.35%	N/A	28.26%	N/A
Funding Status -- Market Value				
Market Value of Assets	\$ 1,106.1	276.24	\$ 993.8	233.62
Actuarial Liability	3,703.2	924.88	3,898.9	916.56
Funding Ratios	29.87%	N/A	25.49%	N/A
Funding Status -- Book Value				
Book Value of Assets	\$ 984.4	245.85	\$ 966.8	227.27
Actuarial Liability	3,703.2	924.88	3,898.9	916.56
Funding Ratios	26.58%	N/A	24.80%	N/A

¹Payroll for 2010 was \$400.4 million and for 2011 was \$425.4 million.

²ARC is for the following fiscal year and equals the total ARC under GASB #25 and GASB #43. The 2012 ARC is \$271,505,718 for pension and \$4,275,669 for OPEB.

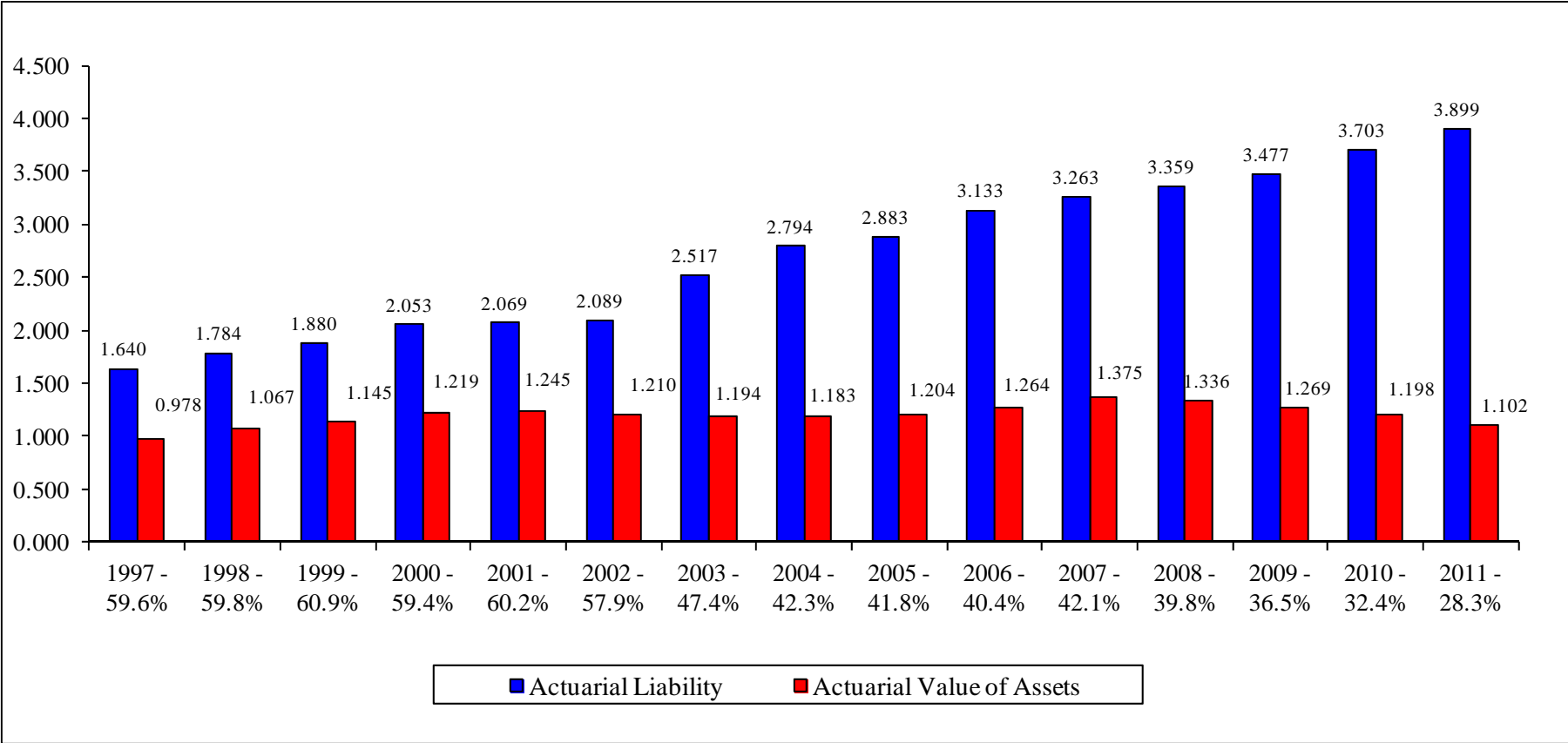
SUMMARY OF VALUATION RESULTS (CONT'D)

**COMPONENTS OF FUNDING RATIO
BASED ON MARKET VALUE
(\$ IN BILLIONS)**



SUMMARY OF VALUATION RESULTS (CONT'D)

**COMPONENTS OF FUNDING RATIO
GASB #25 AND #43 / STATE REPORTING
(\$ IN BILLIONS)**



SUMMARY OF VALUATION RESULTS (CONT'D)

Participants

The major characteristics of the data on the members of the Fund are summarized as follows:

	<u>December 31, 2010</u>	<u>December 31, 2011</u>
Active Participants¹		
Number	5,052	4,842
Average Age	45.3	45.9
Average Service	15.7	16.3
Average Annual Salary	\$79,257	\$87,853
Retirees		
Number	2,577	2,665
Average Age	71.2	70.9
Average Monthly Benefit	\$ 4,928	\$ 5,157
Survivors²		
Number	1,362	1,354
Average Age	77.0	77.2
Average Monthly Benefit	\$ 1,765	\$ 1,846

¹ Includes four participants on ordinary disability who continue to accrue benefit service.

² Includes one parent annuitant.

Total participants receiving benefits under the Fund, including disability, widow, and children, increased 1.6 percent during 2011 from 4,409 to 4,478. Total expenditures for these benefits increased from \$215.8 million in 2010 to \$221.5 million during 2011, or 2.6 percent.

Changes in Provisions of the Fund

There were no changes made to the provisions of the Fund during 2011. Public Act 96-1495, passed in 2010, effective January 1, 2011, changed benefit provisions for members hired after December 31, 2010, and the sponsor's contribution requirements on and after fiscal year 2015. The provisions of Public Act 96-1495 are described under 2010 in Appendix 6 of the report.

Analysis of Actuarial Assumptions

Actuarial assumptions are used to project future demographic and economic expectations for purposes of valuing the liabilities of the plan. The assumptions should reflect current patterns. However, their primary orientation is the long-term outlook for each factor affecting the valuation. Thus, while actual experience will fluctuate over the short run, actuarial assumptions are chosen in an attempt to model the future long-term experience.

There are two general types of actuarial assumptions:

1. Demographic Assumptions - reflect the flow of participants into and out of a retirement system, and
2. Economic Assumptions - reflect the effect of the economic climate on a retirement system.

SUMMARY OF VALUATION RESULTS (CONT'D)

Demographic assumptions can be readily studied over recent plan experience. Economic assumptions can be studied against recent experience; however, future experience is more likely to be a result of outside factors than of plan specifics. The most significant demographic assumptions are: active turnover, retirement, and post-retirement mortality. The most significant economic assumptions are: pay increases, investment return, and inflation. Other actuarial assumptions include: disability incidence, active mortality, and percent married.

An experience review of the economic and demographic assumptions was performed using data for plan years 2003 through 2010, and adjustments were made to the assumption set, including:

- **Price Inflation:** Maintain the rate of price inflation of 3.00 percent.
- **Investment return:** Maintain the current assumed rate of return of 8.00 percent.
- **Salary increase:** The salary increase assumption is generally based on two components - a service/merit/promotional component, and a wage inflation component. For the service based component, use similar increases as provided to members in the July 1, 2007, through June 30, 2012 labor contract. For the wage inflation component, use a long-term assumption of 4.25 percent.
- **Standard mortality rates:** The standard mortality table was updated from the 1983 Group Annuity Mortality Table to the RP-2000 Mortality Table for all healthy members. Assume pre-retirement mortality is 80 percent of the post-retirement rates.
- **Disabled mortality rates:** The disabled mortality rates were updated from the 1992 Railroad Retirement Board Disability Mortality to the RP-2000 Mortality Table set forward six years.
- **Retirement rates:** The overall rates were increased to better reflect observed experience. Maintain separate rates for firefighters and paramedic participants.
- **Disability rates:** Reduction in the disability rates to better reflect observed experience.
- **Withdrawal rates:** Decrease the rates of withdrawal based on the observed experience.

Changes in Actuarial Assumptions & Methods

The valuation as of December 31, 2011, reflects the results of the experience study performed for the period from January 1, 2003, through December 31, 2010. The change in assumptions increased actuarial liabilities by \$47.8 million or 1.2 percent of total liabilities.

Asset Valuation Method

The method used to develop the Fund's Actuarial Value of Assets is as follows: In years when Fund assets earn above 8.0 percent (i.e., experience gain) or below 8.0 percent (i.e., experience loss) the gain (or loss) will be gradually recognized over five years. This approach both smoothes the Fund's level of actuarially determined contribution and insures the Fund's assets will track the market value of assets.

SUMMARY OF VALUATION RESULTS (CONT'D)

2011 Experience Analysis

Investment Return

The Fund had an investment loss in 2011 of \$107.3 million relative to the 8.0 percent expected rate of return on a market value basis. The loss on the Actuarial (Market-Related) Value of Assets relative to the 8.0 percent expected rate of return was \$102.7 million.

Pay Increase

The current salary increase assumption consists of a 4.25 percent base increase with an additional service-based increase. This is an increase from 4.00 percent used in the valuation as of December 31, 2010. For the current continuing actives, the overall effect is an annual increase of approximately 5.1 percent when using the estimated salary from the December 31, 2010, which included an adjustment for expected retroactive salary increases. When comparing members active in both 2010 and 2011 the average salary increase was 11.6 percent using actual pay and not the estimated pay for retroactive adjustments. Using the 2010 estimated pay which included retroactive payments, the average salary increase for continuing actives was 1.7 percent. This was 3.4 percentage points below our aggregate assumption of 5.1 percent resulting in an actuarial gain of approximately \$43.5 million, or 1.1 percent of total liabilities.

Other

The combination of retirements, disablements, and deaths resulted in a net actuarial loss of \$14.4 million. Gains and losses from all other sources, including new hires and data corrections, resulted in a net loss of \$22.6 million. Programming changes increased liabilities by \$10.1 million.

Conclusion

Overall, we believe the current set of assumptions is reasonable. Table 3 of Appendix 1 shows a more detailed development of the actuarial gains and losses for the plan years ending December 31, 2010, and December 31, 2011.

APPENDIX 1

RESULTS OF ACTUARIAL VALUATION

TABLE 1
SUMMARY

	<u>December 31,</u> <u>2010</u>	<u>December 31,</u> <u>2011</u>
<u>Assets</u>		
Market Value - Beginning of Year	\$ 1,051,644,127	\$ 1,106,078,177
<u>Income</u>		
Investment Income Net Expenses	\$ 150,846,550	\$ (22,433,671)
Employer Contributions	83,591,601	85,498,002
Employee Contributions	41,730,194	51,917,510
Miscellaneous	18,216	16,891
Subtotal	<u>\$ 276,186,561</u>	<u>\$ 114,998,732</u>
 <u>Outgo (Refunds, Benefits, & Administration)</u>	 <u>\$ 221,752,511</u>	 <u>\$ 227,303,360</u>
 Market Value - End of Year	 \$ 1,106,078,177	 \$ 993,773,549
Actuarial Value - End of Year	1,198,113,789	1,101,741,862
Book Value - End of Year	984,403,680	966,774,161
 <u>Members</u>		
Active	5,052	4,842
Retirees	2,577	2,665
Survivors ²	1,362	1,354
Disabilities	383	370
Children	83	85
 <u>Payroll Data</u>		
Valuation Payroll ¹	\$ 400,404,320	\$ 425,385,354
Average Salary	79,257	87,853

¹ The valuation payroll includes compensation for four ordinary disability participants. They continue to accrue benefit service and hence additional liability while on ordinary disability.

² Includes Widow, Compensation, and Parent Annuitants.

TABLE 1 (CONT'D)
SUMMARY

	<u>December 31,</u> <u>2010</u>	<u>December 31,</u> <u>2011</u>
<u>Actuarial Values</u>		
<u>Funding - State Basis</u>		
Actuarial Liability	\$3,703,247,835	\$3,898,899,224
Assets - Actuarial Value - Net	1,198,113,789	1,101,741,862
Unfunded Liability	2,505,134,046	2,797,157,362
Funded Ratio	32.35%	28.26%
Actuarially Required Total Contribution ¹	\$292,116,301	\$315,701,635
Deficiency in Required Contribution (est.)	166,582,011	187,289,833
Required Employer Contribution Multiple	6.94	7.47
<u>Termination Values</u>		
Liability	\$2,683,910,880	\$2,899,494,150
Deficiency	1,485,797,091	1,797,752,288
Quick Ratio	44.64%	38.00%
<u>GASB #25 and #43 Values</u>		
Actuarial Liability	\$3,703,247,835	\$3,898,899,224
Assets - Actuarial Value	1,198,113,789	1,101,741,862
Unfunded Liability	2,505,134,046	2,797,157,362
Funded Ratio	32.35%	28.26%
Annual Required Contribution (ARC) ²	254,525,565	275,781,387
<u>Market Values</u>		
Actuarial Liability	\$3,703,247,835	\$3,898,899,224
Assets - Market Value	1,106,078,177	993,773,549
Unfunded Liability	2,597,169,658	2,905,125,675
Funded Ratio	29.87%	25.49%

¹Includes projected employee contributions of \$37,590,736 for December 31, 2010, and \$39,920,248 for December 31, 2011.

²ARC is for the following fiscal year and equals the total ARC under GASB #25 and GASB #43. The 2012 ARC is \$271,505,718 for pension and \$4,275,669 for OPEB.

TABLE 2
DEVELOPMENT OF ANNUAL REQUIRED
CONTRIBUTION UNDER GASB #25 AND GASB #43 FOR 2012¹

	<u>Pension</u>	<u>Health Ins. Supplement</u>	<u>Total</u>
(1) Normal Cost	\$ 73,067,873	\$ 1,419,104	\$ 74,486,977
(2) Actuarial Accrued Liability (AAL)	\$ 3,851,918,889	\$ 46,980,335	\$ 3,898,899,224
(3) Unfunded AAL (UAAL)			
(a) Actuarial Value of Assets	\$ 1,101,741,862	\$ -	\$ 1,101,741,862
(b) UAAL [2-3(a)]	\$ 2,750,177,027	\$ 46,980,335	\$ 2,797,157,362
(4) Amortization (Level \$) Payable at Beginning of Year ²	\$ 226,195,525	\$ 2,759,995	\$ 228,955,520
(5) Actuarially Determined Contribution			
(a) Interest Adjustment for Semimonthly Payment	\$ 12,162,568	\$ 96,570	\$ 12,259,138
(b) Total Contribution [1+4+5(a)]; but not less than zero	\$ 311,425,966	\$ 4,275,669	\$ 315,701,635
(c) Total Contribution (Percent of Pay)	73.21%	1.01%	74.22%
(6) Estimated Member Contributions	\$ 39,920,248	\$ -	\$ 39,920,248
(7) Annual Required Contribution (ARC)			
(a) Annual Required Contribution [5(b)-6]	\$ 271,505,718	\$ 4,275,669	\$ 275,781,387
(b) Annual Required Contribution (Percent of Pay)	63.83%	1.00%	64.83%
(8) Estimated City Contribution (after 4% loss)	\$ 85,753,112	\$ 2,738,442 ³	\$ 88,491,554
(9) City Contribution Deficiency/(Excess)			
(a) in Dollars [(7(a)-8)]	\$ 185,752,606	\$ 1,537,227	\$ 187,289,833
(b) as a Percentage of Pay	43.67%	0.36%	44.03%
(10) Combined City/Member Contributions Deficiency/(Excess)			
(a) in Dollars [5(b)-6-8]	\$ 185,752,606	\$ 1,537,227	\$ 187,289,833
(b) as a Percentage of Pay	43.67%	0.36%	44.03%

¹ Pension liabilities were discounted at 8.0% per year, and OPEB liabilities were discounted at 4.5% per year.

² Pension and Healthcare UAAL are amortized over a 30-year period.

³ Represents expected health insurance supplemental benefits for 2012.

TABLE 3
RECONCILIATION OF UNFUNDED LIABILITY

	<u>2010</u>	<u>2011</u>
<u>(1) Unfunded Actuarial Accrued Liability - Beginning of Year</u>	\$2,207,539,617	\$2,505,134,046
 (2) Gains (Losses) During the Year Attributable to:		
Employer Cost in Excess of Contributions	(120,172,857)	(137,833,108)
Gain (Loss) on Investment Return	(76,812,217)	(102,693,719)
Gain (Loss) from Salary Changes	54,625,757	43,535,222
Gain (Loss) from Demographic Assumptions	(6,709,702)	(14,434,661)
Gain (Loss) from Retroactive Pay Adjustments	(142,091,101)	-
Gain (Loss) from Assumption Changes	-	(47,816,880)
Gain (Loss) from Programming Changes	-	(10,142,608)
Gain (Loss) from All Other Sources	<u>(6,434,309)</u>	<u>(22,637,562)</u>
Total Actuarial Gain (Loss)	\$ (297,594,429)	\$ (292,023,316)
<u>(3) Unfunded Actuarial Accrued Liability - End of Year (1)-(2)</u>	\$2,505,134,046	\$2,797,157,362

TABLE 4
SUMMARY OF BASIC ACTUARIAL VALUES

	APV of Projected Benefits	Actuarial Accrued Liability (AAL)
<u>(1) Values for Active Members</u>	\$2,393,508,704	\$1,637,343,328
<u>(2) Values for Inactive Members</u>		
(a) Retired	1,691,770,113	1,691,770,113
(b) Spouse Annuitants	170,611,909	170,611,909
(c) Compensation Widows	62,383,895	62,383,895
(d) Ordinary Disability	1,139,595	1,139,595
(e) Occupational Disease Disability	106,132,246	106,132,246
(f) Duty Disability	206,626,250	206,626,250
(g) Inactive (Deferred Vested)	16,160,900	16,160,900
(h) Children	6,636,715	6,636,715
(i) Parent Annuitants	94,273	94,273
Total for Inactives	\$2,261,555,896	\$2,261,555,896
<u>(3) Grand Totals</u>	\$4,655,064,600	\$3,898,899,224
<u>(4) Normal Cost for Active Members</u>	\$ 74,486,977	
<u>(5) Actuarial Present Value of Future Compensation</u>	\$4,288,577,332	

TABLE 5
HISTORY OF RECOMMENDED EMPLOYER MULTIPLES

Year of Report	Statutory Multiple	Normal Cost Plus Interest	Normal Cost Plus Amortization⁶	
			Level \$	Level % of Salary
1985 ²	2.26	5.07	5.27	4.03
1986 ¹	2.26	4.70	4.86	3.71
1987 ¹	2.26	4.39	4.54	3.47
1988	2.26	4.53	4.68	3.58
1989 ^{1,2}	2.26	4.39	4.52	3.41
1990 ^{1,2}	2.26	4.41	4.55	3.43
1991	2.26	4.55	4.69	3.53
1992 ²	2.26	4.75	4.89	3.69
1993 ²	2.26	4.89	5.03	3.81
1994 ^{1,2}	2.26	4.92	5.09	3.71
1995 ²	2.26	5.16	5.33	3.78
1996	2.26	5.02	5.19	3.78
1997 ^{1,2,3}	2.26	3.95	4.08	3.00
1998 ^{2,4}	2.26	4.31	4.22	2.91
1999	2.26	3.56	3.49	2.41
2000 ¹	2.26	4.39	4.30	2.99
2001 ⁴	2.26	4.61	4.44	3.12
2002	2.26	4.07	4.19	2.93
2003 ^{1,2}	2.26	4.90	5.08	3.18
2004 ^{2,5}	2.26	4.99	5.19	3.22
2005 ^{1,7}	2.26	4.35	4.54	3.09
2006	2.26	5.14	5.61	4.05
2007 ⁵	2.26	4.93	5.39	3.89
2008	2.26	5.24	5.72	4.13
2009	2.26	5.70	6.24	4.47
2010	2.26	6.35	6.94	4.98
2011 ¹	2.26	6.81	7.47	5.30

¹ Change in actuarial assumptions.

² Change in benefits.

³ Change in asset valuation method to GASB.

⁴ Change in actuary.

⁵ To reflect long term funding requirements, we have excluded \$10,182,825 and \$3,229,938 from the 2003 and 2006 employee contributions in the calculation of the respective recommended multiples. This amount is employee contributions for the retroactive pay increases.

⁶ Prior to 2005, 40-year amortization used. In 2005, OPEB based on 30-year amortization and pension on 40-year amortization. In 2006, 30-year amortization used for both pension and OPEB.

⁷ There was a significant decrease in the multiple from 2004 to 2005. This change is primarily due to the significant increase in employee contributions.

TABLE 6
ORDINARY DEATH BENEFIT RESERVE

ASSETS

Fund Balance	\$ (13,367,531)
Present Values of Future Contributions:	
Contributions by Members at \$30.00 a Year	1,481,151
Annual City Contribution of \$142,000	1,447,910
Unfunded Liability	24,590,781
TOTAL ASSETS	\$ 14,152,311

LIABILITIES

Present Value of Future Death Benefits (3%, Plan Mortality Basis)	
Active Members	3,194,883
Retired Members	10,957,428
TOTAL LIABILITIES	\$ 14,152,311

Note: Benefits are also included in the accrued liability and valued using the actuarial assumptions.

TABLE 7
SUMMARY OF RESERVES

	<u>2010</u>	<u>2011</u>
Prior Service Annuity Reserve	\$ 1,431,459,965	\$ 1,546,305,851
City Contribution Reserve	724,590,057	754,343,760
Annuity Payment Reserve	682,471,519	748,377,216
Salary Deduction Reserve	598,628,457	622,803,838
Death Benefit Reserve	(12,426,798)	(13,367,531)
Ordinary Disability Reserve	214,986	242,722
Supplementary Payment Reserve	344,116	233,884
Gift Reserve	4,150,045	4,836,392
Reserve (Deficit)	<u>(2,323,354,170)</u>	<u>(2,670,002,583)</u>
Total Net Assets for Pension Benefits (Market Value)	\$ 1,106,078,177	\$ 993,773,549

TABLE 8
ACTUARIAL ACCRUED LIABILITY
PRIORITIZED SOLVENCY TEST

Valuation Date 12/31	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered by Assets		
	Active Member Contributions	Retirees and Beneficiaries	Active Members (ER Financed Portion)		(1)	(2)	(3)
1992	\$233,769,778	\$ 620,585,314	\$413,794,955	\$ 636,208,355	100.00%	64.85%	0.00%
1993 ^b	247,328,526	652,460,861	401,268,935	680,145,547	100.00%	66.34%	0.00%
1994	231,721,857	820,223,870	388,977,064	712,992,314	100.00%	58.68%	0.00%
1995 ^b	284,613,679	890,790,702	356,835,156	787,000,898	100.00%	56.40%	0.00%
1996	302,854,182	928,790,813	344,144,574	845,432,187	100.00%	58.42%	0.00%
1997 ^{a,b}	320,757,406	992,967,015	326,296,251	978,313,319	100.00%	66.22%	0.00%
1998 ^{b,c}	335,026,373	1,075,922,284	372,620,521	1,066,891,190	100.00%	68.02%	0.00%
1999	357,739,707	1,146,375,517	375,551,644	1,145,215,019	100.00%	68.69%	0.00%
2000 ^a	354,336,276	1,279,911,268	419,092,931	1,219,486,962	100.00%	67.59%	0.00%
2001 ^c	379,067,821	1,294,672,267	394,977,813	1,245,129,955	100.00%	66.89%	0.00%
2002	394,531,369	1,329,341,162	364,833,686	1,209,768,204	100.00%	61.33%	0.00%
2003 ^{a,b}	422,940,367	1,458,548,217	635,779,523	1,194,007,767	100.00%	52.87%	0.00%
2004 ^b	443,541,204	1,588,594,240	761,388,911	1,182,578,954	100.00%	46.52%	0.00%
2005 ^a	467,820,652	1,686,377,622	728,737,443	1,203,654,052	100.00%	43.63%	0.00%
2006	501,048,807	1,766,921,009	865,171,711	1,264,497,434	100.00%	43.21%	0.00%
2007	530,027,472	1,859,630,135	873,313,282	1,374,960,353	100.00%	45.44%	0.00%
2008	563,953,942	1,891,673,504	902,950,885	1,335,695,474	100.00%	40.80%	0.00%
2009	581,786,867	2,004,957,552	890,026,376	1,269,231,178	100.00%	34.29%	0.00%
2010	614,377,840	2,069,533,040	1,019,336,955	1,198,113,789	100.00%	28.21%	0.00%
2011 ^a	637,938,254	2,261,555,896	999,405,074	1,101,741,862	100.00%	20.51%	0.00%

^a Change in actuarial assumptions.

^b Change in benefits.

^c Change in actuary.

APPENDIX 2

ASSETS OF THE PLAN

ASSETS OF THE PLAN

The book value of the plan assets, net of accounts payable, decreased from \$984 million as of December 31, 2010, to \$967 million as of December 31, 2011. The market value of the plan assets decreased from \$1,106 million as of December 31, 2010, to \$994 million as of December 31, 2011. Table 9 details the reconciliation of asset values during 2011 and Table 10 shows the development of the actuarial value of assets as of December 31, 2011.

TABLE 9
RECONCILIATION OF ASSET VALUES
AS OF DECEMBER 31, 2011

	Market Value	Book Value
1. Value of assets as of 12/31/2010	\$ 1,106,078,177	\$ 984,403,680
2. Income for plan year:		
a) Member contributions	\$ 51,917,510	\$ 51,917,510
b) City contributions	85,498,002	85,498,002
c) Investment income net of expenses	(22,433,671)	72,241,438
d) Miscellaneous revenue	16,891	16,891
e) Total income	\$ 114,998,732	\$ 209,673,841
3. Disbursements for plan year:		
a) Benefit payments		
i) Pension	\$ 218,897,479	\$ 218,897,479
ii) OPEB	2,628,163	2,628,163
iii) Total	221,525,642	221,525,642
b) Refunds	2,054,456	2,054,456
c) Administration	3,723,262	3,723,262
d) Total disbursements	\$ 227,303,360	\$ 227,303,360
4. Value of assets as of 12/31/2011	\$ 993,773,549	\$ 966,774,161
5. Approximate rate of return in 2011:		
a) Gross (Investment expense of \$5,903,646)	-1.56%	8.32%
b) Net of investment expense	-2.11%	7.69%

Method used for calculating approximate rate of return does not reflect specific timing of income and outflows. It is also based on total assets, not invested assets.

The assets provided by the Fund are still in draft form pending finalization of alternative investment balances. The Fund and their auditor do not anticipate a material change in the asset value.

TABLE 10
DEVELOPMENT OF ACTUARIAL (MARKET-RELATED)
VALUE OF ASSETS
AS OF DECEMBER 31, 2011

1. Expected Return on Market Value of Assets

- a) Market value of assets as of 12/31/2010 \$ 1,106,078,177
b) Actual income and disbursements in year ending 12/31/2011 weighted for timing

Item	Amount	Weight for Timing	Weighted Amount
i) Member contributions	\$ 51,917,510	50.0%	\$ 25,958,755
ii) City contributions	85,498,002	50.0%	42,749,001
iii) Miscellaneous revenue	16,891	50.0%	8,446
iv) Benefit payments	(221,525,642)	50.0%	(110,762,821)
v) Refunds	(2,054,456)	50.0%	(1,027,228)
vi) Administration	(3,723,262)	50.0%	(1,861,631)
vii) Total	\$ (89,870,957)		\$ (44,935,478)

- c) Market value of assets adjusted for actual income and disbursements [(a) + (b)(vii)] \$ 1,061,142,699
d) Assumed rate of return on plan assets for the year 8.00%
e) Expected return [(c) * (d)] \$ 84,891,416

2. Actual Return on Market Value of Assets for Year Ending 12/31/2011

- a) Market value of assets as of 12/31/2010 \$ 1,106,078,177
b) Income (less investment income) for year ending 12/31/2011 137,432,403
c) Disbursements paid in year ending 12/31/2011 227,303,360
d) Market value of assets as of 12/31/2011 993,773,549
e) Actual return [(d) + (c) - (b) - (a)] (22,433,671)

3. Investment Gain/(Loss) for Year Ending 12/31/2011 [2(e) - 1(e)] \$ (107,325,087)

4. Actuarial Value of Assets as of 12/31/2011

- a) Market value of assets as of 12/31/2011 \$ 993,773,549
b) Deferred investment gains and (losses) for last 5 years

	Plan Year	Gain/(Loss)	Percent Deferred	Deferred Amount
i)	2007	\$ 40,320,913	0.00%	\$ 0
ii)	2008	(598,802,772)	20.00%	(119,760,554)
iii)	2009	138,273,497	40.00%	55,309,399
iv)	2010	70,571,520	60.00%	42,342,912
v)	2011	(107,325,087)	80.00%	(85,860,070)
vi)	Total	\$ (456,961,929)		\$ (107,968,313)

- c) Actuarial Value of Assets \$ 1,101,741,862

Note: Beginning with the December 31, 1998, valuation, the calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last 5 years at the rate of 20% per year.

APPENDIX 3

DATA REFLECTING PLAN MEMBERS

EXHIBIT A
SUMMARY OF CHANGES IN ACTIVE PARTICIPANTS
FOR FISCAL YEAR ENDING DECEMBER 31, 2011

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Number of Participants at Beginning of Fiscal Year ¹	4,737	311	5,048
Increases:			
Participants Added During Year	0	0	0
Participants Returning From Inactive or Disability Status	<u>0</u>	<u>0</u>	<u>0</u>
Totals	4,737	311	5,048
Decreases:			
Terminations During Year	<u>199</u>	<u>11</u>	<u>210</u>
Number of Participants at End of Fiscal Year	4,538	300	4,838
Total Inactive Participants			67
<u>Terminations:</u>			
Withdrawal (With Refunds) ²	3	0	3
Withdrawal (Without Refunds)	17	2	19
Ordinary Disability Benefit	1	0	1
Occupational Disease Disability Benefit	12	1	13
Duty Disability Benefit	16	1	17
Retirements	143	7	150
Deaths (Occupational)	0	0	0
Deaths (Non-occupational)	<u>7</u>	<u>0</u>	<u>7</u>
Totals	199	11	210

¹Includes one active member reclassified as female.

²This total differs from the total of 7 shown in Exhibit D due to the fact that only 3 of the refunds were paid to participants who were considered to be active as of December 31, 2010.

EXHIBIT B
SUMMARY OF CHANGES IN ANNUITANTS AND BENEFICIARIES
FOR FISCAL YEAR ENDING DECEMBER 31, 2011

	<u>Number at Beginning of Year</u>	<u>Additions During Year</u>	<u>Terminations During Year</u>	<u>Number at End of Year</u>
Service Retirement Annuities	2,577	197	109	2,665
Widow Annuities	1,261	62	70	1,253
Children's Annuities	83	9	7	85
Parent Annuities	1	0	0	1
Ordinary Disability Benefit (Non-Occupational)	4	1	1	4
Occupational Disease Disability Benefit	124	13	16	121
Duty Disability Benefit (Occupational)	259	18	28	249
Widows' Compensation Annuities (Service Connected Death)	100	2	2	100
Totals	<u>4,409</u>	<u>302</u>	<u>233</u>	<u>4,478</u>

EXHIBIT C
PART I – TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE MALE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2011

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24		7								7	494,148
25 to 29		494,148								205	14,275,686
30 to 34		198	7							280	20,423,592
35 to 39		13,692,942	582,744							649	51,306,930
40 to 44		206	58	16						767	62,275,608
45 to 49		14,318,556	4,748,364	1,356,672						1,009	90,549,012
50 to 54		112	226	228	83					949	91,857,450
55 to 59		7,824,120	17,736,846	18,681,630	7,064,334					582	59,075,052
60 to 64		18	279	334	120	16				89	8,751,612
65 and over		1,218,486	21,744,120	27,353,670	10,450,854	1,508,478				1	111,096
W/O DOB		1	155	161	203	385	104			0	0
		64,374	12,095,304	13,044,390	17,607,636	36,782,406	10,954,902				
		1	60	76	133	303	171	202	3		
		71,040	4,663,398	6,186,222	11,330,232	28,780,104	18,111,126	22,357,968	357,360		
			13	22	45	111	107	258	26		
			1,018,602	1,780,242	3,782,004	10,132,518	10,951,926	28,057,488	3,352,272		
		1	1	3	6	22	19	33	4		
		77,016	74,628	252,750	496,122	2,069,238	1,811,754	3,466,416	503,688		
						1					
						111,096					
Total Active	-	544	799	840	590	838	401	493	33	4,538	
Annual Salary¹	\$0	\$37,760,682	\$62,664,006	\$68,655,576	\$50,731,182	\$79,383,840	\$41,829,708	\$53,881,872	\$4,213,320		\$ 399,120,186

¹ The number of participants and annual salary listed includes information on active participants only. Hence, information on the 3 male ordinary disability participants, who continue to earn benefit service, is not included in this exhibit.

EXHIBIT C
PART II – TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE FEMALE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2011

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24										0	0
25 to 29		12								12	799,998
		799,998									
30 to 34		11	12	3						26	1,932,348
		750,642	937,878	243,828							
35 to 39		12	17	17						46	3,558,360
		835,332	1,334,496	1,388,532							
40 to 44		3	20	20	7	3				53	4,326,810
		199,662	1,563,570	1,663,398	624,522	275,658					
45 to 49			6	15	15	39	3			78	7,353,534
			463,962	1,293,648	1,374,024	3,924,438	297,462				
50 to 54			3	6	12	21	16	3		61	5,914,122
			227,610	570,654	1,055,202	1,968,624	1,704,948	387,084			
55 to 59			2	2	3	6	4	2	1	20	1,988,826
			149,256	171,318	254,682	555,306	468,642	261,936	127,686		
60 to 64					1	1		1		3	304,710
					86,508	103,704		114,498			
65 and over							1			1	86,460
							86,460				
W/O DOB										0	0
Total Active	-	38	60	63	38	70	24	6	1	300	
Annual Salary¹	\$0	\$2,585,634	\$4,676,772	\$5,331,378	\$3,394,938	\$6,827,730	\$2,557,512	\$763,518	\$127,686	\$ 26,265,168	

¹ The number of participants and annual salary listed includes information on active participants only. Hence, information on the 1 female ordinary disability participant, who continues to earn benefit service, is not included in this exhibit.

EXHIBIT C
PART III – TOTAL LIVES AND ANNUAL SALARIES OF ALL ACTIVE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2011

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24		7 494,148								7	494,148
25 to 29		210 14,492,940	7 582,744							217	15,075,684
30 to 34		217 15,069,198	70 5,686,242	19 1,600,500						306	22,355,940
35 to 39		124 8,659,452	243 19,071,342	245 20,070,162	83 7,064,334					695	54,865,290
40 to 44		21 1,418,148	299 23,307,690	354 29,017,068	127 11,075,376	19 1,784,136				820	66,602,418
45 to 49		1 64,374	161 12,559,266	176 14,338,038	218 18,981,660	424 40,706,844	107 11,252,364			1,087	97,902,546
50 to 54		1 71,040	63 4,891,008	82 6,756,876	145 12,385,434	324 30,748,728	187 19,816,074	205 22,745,052	3 357,360	1,010	97,771,572
55 to 59			15 1,167,858	24 1,951,560	48 4,036,686	117 10,687,824	111 11,420,568	260 28,319,424	27 3,479,958	602	61,063,878
60 to 64		1 77,016	1 74,628	3 252,750	7 582,630	23 2,172,942	19 1,811,754	34 3,580,914	4 503,688	92	9,056,322
65 and over						1 111,096	1 86,460			2	197,556
W/O DOB										0	0
Total Active	-	582	859	903	628	908	425	499	34	4,838	
Annual Salary¹	\$0	\$40,346,316	\$67,340,778	\$73,986,954	\$54,126,120	\$86,211,570	\$44,387,220	\$54,645,390	\$4,341,006		\$ 425,385,354

¹ The number of participants and annual salary listed includes information on active participants only. Hence, information on the 4 ordinary disability participants, who continue to earn benefit service, is not included in this exhibit.

EXHIBIT D - PART I
NUMBER OF REFUND PAYMENTS MADE
DURING YEAR TO MALE EMPLOYEES
FOR FISCAL YEAR ENDING DECEMBER 31, 2011 ¹

Age at Date of Refund	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and over	
Without Record							0
Under 20							0
20 to 24							0
25 to 29							0
30 to 34							0
35 to 39		1				1	2
40 to 44							0
45 to 49		1					1
50 to 54						2	2
55 to 59							0
60 & over							0
Totals	0	2	0	0	0	3	5

¹ Includes only the actual number of refunds paid or accrued during fiscal year reported.

**EXHIBIT D - PART II
NUMBER OF REFUND PAYMENTS MADE
DURING YEAR TO FEMALE EMPLOYEES
FOR FISCAL YEAR ENDING DECEMBER 31, 2011 ¹**

Age at Date of Refund	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and over	
Without Record							0
Under 20	1						1
20 to 24							0
25 to 29							0
30 to 34							0
35 to 39							0
40 to 44						1	1
45 to 49							0
50 to 54							0
55 to 59							0
60 & over							0
Totals	1	0	0	0	0	1	2

¹ Includes only the actual number of refunds paid or accrued during fiscal year reported.

EXHIBIT E
STATISTICS ON SERVICE RETIREMENT ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

AGE	MALE		FEMALE		TOTAL	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 50	2	\$ 12,595	0	\$ 0	2	\$ 12,595
50	7	360,894	1	53,514	8	414,408
51	6	237,067	0	0	6	237,067
52	8	490,752	2	62,835	10	553,587
53	29	1,571,687	2	101,317	31	1,673,004
54	25	1,501,388	0	0	25	1,501,388
55	44	2,720,053	3	183,999	47	2,904,052
56	35	2,301,907	5	258,997	40	2,560,904
57	67	4,845,699	5	262,631	72	5,108,330
58	77	5,303,094	1	62,417	78	5,365,511
59	59	3,754,346	3	159,584	62	3,913,930
60	78	5,538,927	1	5,700	79	5,544,627
61	64	4,467,188	3	177,859	67	4,645,047
62	75	5,181,416	0	0	75	5,181,416
63	75	5,046,269	0	0	75	5,046,269
64	101	7,226,843	3	203,888	104	7,430,731
65	109	7,832,469	1	47,924	110	7,880,393
66	76	5,260,118	0	0	76	5,260,118
67	74	4,907,477	2	93,344	76	5,000,821
68	98	6,741,480	1	58,994	99	6,800,474
69	136	9,667,246	2	100,285	138	9,767,531
70	118	8,026,122	0	0	118	8,026,122
71	123	7,725,242	0	0	123	7,725,242
72	72	4,709,947	1	82,582	73	4,792,529
73	71	4,397,144	0	0	71	4,397,144
74	56	3,362,969	1	51,617	57	3,414,586
75	99	6,142,082	0	0	99	6,142,082
76	73	4,555,868	0	0	73	4,555,868
77	67	4,516,221	0	0	67	4,516,221
78	72	4,269,623	0	0	72	4,269,623
79	73	4,445,915	0	0	73	4,445,915
80	99	5,471,109	0	0	99	5,471,109
81	88	4,571,995	0	0	88	4,571,995
82	70	3,391,057	0	0	70	3,391,057
83	52	2,508,693	0	0	52	2,508,693
84	58	2,572,690	0	0	58	2,572,690
85+	192	7,305,722	0	0	192	7,305,722
Totals	2,628	\$162,941,314	37	\$1,967,487	2,665	\$164,908,801

EXHIBIT F
STATISTICS ON WIDOW'S ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

Age	No. ¹	Annual Payments	Age	No. ¹	Annual Payments
Under 30	0	\$ 0	58	9	\$ 214,678
30	0	0	59	8	218,948
31	0	0	60	7	180,190
32	0	0	61	17	316,159
33	0	0	62	8	181,410
34	1	20,275	63	14	312,960
35	0	0	64	17	359,100
36	0	0	65	20	498,715
37	1	20,888	66	15	348,447
38	0	0	67	19	458,594
39	0	0	68	28	674,881
40	1	13,675	69	30	737,485
41	0	0	70	31	715,587
42	0	0	71	21	497,101
43	0	0	72	37	776,419
44	2	39,566	73	42	1,043,738
45	2	29,867	74	32	679,127
46	1	24,884	75	48	965,380
47	5	113,836	76	43	887,674
48	6	108,243	77	38	772,114
49	5	97,657	78	44	812,247
50	8	146,043	79	50	926,302
51	2	38,978	80	52	917,652
52	4	88,293	81	67	1,151,804
53	9	167,002	82	62	1,009,787
54	9	186,584	83	49	767,454
55	9	203,138	84	44	742,081
56	6	143,572	85+	323	4,642,890
57	7	184,758			
			Total	1,253	\$23,436,183

¹Excludes Parent Annuitants and Compensation Annuitants.

EXHIBIT G
STATISTICS ON MISCELLANEOUS ANNUITIES
FOR FISCAL YEAR ENDING DECEMBER 31, 2011

	<u>No.</u>	<u>Annual Payments</u>
Children's Annuities	85	870,989
Widows' Compensation Annuities	100	6,551,354
Ordinary Disability Benefits	4	145,872
Occupational Disease Disability Benefits	121	7,177,321
Duty Disability Benefits	249	13,746,746
Parent Annuities	<u>1</u>	<u>13,433</u>
Totals	560	\$28,505,715

EXHIBIT H – PART I
MALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39					2	115,750							2	115,750
40 to 44			1	43,911	5	274,167	2	120,416					8	438,494
45 to 49			2	74,267	2	74,628	5	257,165	5	316,018	3	191,773	17	913,851
50 to 54			3	105,207	8	336,620	10	452,210	9	496,839	22	1,547,790	52	2,938,666
55 to 59			3	102,279	9	345,177	15	629,231	7	347,410	55	3,735,081	89	5,159,178
60 & over			1	35,520	4	158,607	6	238,038	7	344,551	22	1,468,510	40	2,245,226
Totals	0	\$ 0	10	\$ 361,184	30	\$ 1,304,949	38	\$ 1,697,060	28	\$ 1,504,818	102	\$ 6,943,154	208	\$ 11,811,165

EXHIBIT H – PART II
FEMALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39													0	0
40 to 44							1	57,620					1	57,620
45 to 49			2	76,641	1	49,587	2	97,812	4	231,789			9	455,829
50 to 54			1	33,852	2	89,877	3	154,308	3	174,584	1	76,971	10	529,592
55 to 59					5	199,038	7	295,064	1	60,379	1	56,601	14	611,082
60 & over			1	30,459	2	80,862	3	126,953			1	43,184	7	281,458
Totals	0	\$ 0	4	\$ 140,952	10	\$ 419,364	16	\$ 731,757	8	\$ 466,752	3	\$ 176,756	41	\$ 1,935,581

EXHIBIT I – PART I
MALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total		
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	
UNDER 30													0	\$ 0	
30 to 34													0	0	
35 to 39													0	0	
40 to 44													0	0	
45 to 49									1	44,109		2	68,021	3	112,130
50 to 54													0	0	
55 to 59													0	0	
60 & over													0	0	
Totals	0	\$ 0	0	\$ 0	0	\$ 0			1	\$ 44,109		2	\$ 68,021	3	\$ 112,130

EXHIBIT I – PART II
FEMALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34					1	33,742							1	33,742
35 to 39													0	0
40 to 44													0	0
45 to 49													0	0
50 to 54													0	0
55 to 59													0	0
60 & over													0	0
Totals	0	\$ 0	0	\$ 0	1	\$ 33,742			\$ 0	\$ 0	0	\$ 0	1	\$ 33,742

EXHIBIT J – PART I
MALE PARTICIPANTS RECEIVING OCCUPATIONAL DISEASE DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39													0	0
40 to 44													0	0
45 to 49							4	197,704	1	59,910	2	113,962	7	371,576
50 to 54							2	77,597	3	146,965	17	1,034,788	22	1,259,350
55 to 59							3	129,923	3	142,806	51	3,205,350	57	3,478,079
60 & over							1	40,229	2	96,093	25	1,514,110	28	1,650,432
Totals	0	\$ 0	0	\$ 0	0	\$ 0	10	\$ 445,453	9	\$ 445,774	95	\$ 5,868,210	114	\$ 6,759,437

EXHIBIT J – PART II
FEMALE PARTICIPANTS RECEIVING OCCUPATIONAL DISEASE DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2011

ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39													0	0
40 to 44							1	42,121					1	42,121
45 to 49													0	0
50 to 54											1	56,410	1	56,410
55 to 59											2	138,301	2	138,301
60 & over					1	42,041	1	42,580			1	96,431	3	181,052
Totals	0	\$ 0	0	\$ 0	1	\$ 42,041	2	\$ 84,701		\$ 0	4	\$ 291,142	7	\$ 417,884

EXHIBIT K
HISTORY OF AVERAGE ANNUAL SALARIES

Year End	Members in Service ¹	Current Year			Average		Actuarial Assumptions	CPI Chicago
		Increase	Salary	Increase	Salary	Increase		
1982	4,834	(1.0)%	134,633,208	10.3 %	27,851	11.4 %	6.0%	6.9 %
1983	5,294	9.5 %	162,697,584	20.8 %	30,732	10.3 %	6.0%	4.0 %
1984	5,147	(2.8)%	160,434,312	(1.4)%	31,170	1.4 %	6.0%	3.8 %
1985	5,047	(1.9)%	157,426,898	(1.9)%	31,192	0.1 %	6.0%	3.8 %
1986	5,103	1.1 %	176,451,816	12.1 %	34,578	10.9 %	6.0%	2.1 %
1987	5,183	1.6 %	186,840,432	5.9 %	36,049	4.3 %	6.0%	4.1 %
1988	5,233	1.0 %	188,093,568	0.7 %	35,944	(0.3)%	6.0%	3.9 %
1989	5,231	0.0 %	194,241,480	3.3 %	37,133	3.3 %	6.0%	5.0 %
1990	5,337	2.0 %	211,869,720	9.1 %	39,698	6.9 %	6.0%	5.4 %
1991	5,323	(0.3)%	227,649,000	7.4 %	42,767	7.7 %	6.0%	4.0 %
1992	5,204	(2.2)%	223,578,000	(1.8)%	42,963	0.5 %	6.0%	3.0 %
1993	5,124	(1.5)%	221,600,136	(0.9)%	43,247	0.7 %	6.0%	3.0 %
1993 ²	4,710	(8.1)%	202,080,072	(8.8)%	42,904	(0.8)%	6.0%	3.0 %
1994	4,753	0.9 %	226,703,496	12.2 %	47,697	11.2 %	6.0%	2.2 %
1995	4,678	(1.6)%	228,604,584	0.8 %	48,868	2.5 %	6.0%	3.2 %
1996	4,806	2.7 %	233,033,832	1.9 %	48,488	(0.8)%	6.0%	2.7 %
1997	4,856	1.0 %	234,726,936	0.7 %	48,338	(0.3)%	5.0%	2.7 %
1998	4,783	(1.5)%	262,248,978	11.7 %	54,829	13.4 %	5.0%	1.5 %
1999	4,855	1.5 %	271,335,540	3.5 %	55,888	1.9 %	5.0%	2.6 %
2000	4,878	0.5 %	275,106,756	1.4 %	56,397	0.9 %	5.0%	4.0 %
2001	4,930	1.1 %	277,964,912	1.0 %	56,382	0.0 %	5.0%	0.8 %
2002	4,910	(0.4)%	277,053,144	(0.3)%	56,426	0.1 %	5.0%	2.5 %
2003	4,909	0.0 %	335,170,501	21.0 %	68,277	21.0 %	5.0%	1.7 %
2004	4,856	(1.1)%	334,423,753	(0.2)%	68,868	0.9 %	5.0%	2.2 %
2005	4,999	2.9 %	341,252,492	2.0 %	68,264	(0.9)%	5.0%	3.6 %
2006	5,078	1.6 %	387,442,074	13.5 %	76,298	11.8 %	5.0%	0.7 %
2007	4,938	(2.8)%	388,881,954	0.4 %	78,753	3.2 %	5.0%	4.7 %
2008	5,037	2.0 %	396,181,778	1.9 %	78,654	(0.1)%	5.0%	(0.6)%
2009	5,137	2.0 %	400,912,173	1.2 %	78,044	(0.8)%	5.0%	2.5 %
2010	5,052	(1.7)%	400,404,320	(0.1)%	79,257	1.6 %	5.0%	1.2 %
2011 ³	4,842	(4.2)%	425,385,354	6.2 %	87,853	10.8 %	5.0%	2.1 %
Average Increase (Decrease) for the last 5 years:		(0.9)%		1.9 %		2.9 %		2.0 %

¹ Includes those members who were on disability through 1993.

² Restated without disabilities for comparison. Percent increases (decreases) are based on change from with disabilities in 1993 to without disabilities in 1994.

³ Average annual increase in average salary 1982-2011, is about 3.9% compounded. The average annual increase in the Chicago CPI for the same period is about 3.0% compounded.

EXHIBIT L
NEW ANNUITIES GRANTED DURING 2011

	Annuitants	Widows/ Widowers of Deceased Employees²	Widows/ Widowers of Deceased Annuitants	Compensation Widows/ Widowers³
Number retired/deceased	197	4	58	2
Average age attained [Employee]	58.5	52.3	78.7	42.5
Average length of service	29.4	19.9	50.8	11.7
Average spouse age	55.9	50.8	74.2	42.8
Average annual salary [4 out of 10]	\$ 98,859	N/A	N/A	N/A
Average annual final salary	\$ 101,775	N/A	N/A	N/A
Total annual annuity	\$ 13,965,894	105,526	1,544,086	130,292
Average annual annuity	\$ 70,893	26,381	26,622	65,146
Total statutory liability	\$ 249,149,281	1,770,275	13,133,261	4,027,510
Average liability	\$ 1,264,717	442,569	226,436	2013755
Total investment [Employee-paid for tax purposes]	\$ 25,375,416	N/A	N/A	N/A
Average investment ¹	\$ 128,809	N/A	N/A	N/A
Liability/cost	9.82	N/A	N/A	N/A
Liability/final pay	12.43	N/A	N/A	N/A

¹ Based on previously taxed contributions.

² Not including compensation or supplemental.

³ Does not include transfers from supplemental widows.

EXHIBIT M
RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Years	ANNUITANTS						DISABILITY			Widow/ Widower	Total
	Employee	Disability Pensioner	Spouse	Supplemental Widow(er)	Child	Parent	Ordinary	Duty	Occup.	Comp.	
1982	1,784	4	1,231	78	142	3	15	184	198	43	3,682
1983	1,786	3	1,241	84	122	2	12	187	196	42	3,675
1984	1,813	3	1,228	79	129	2	6	199	198	44	3,701
1985	1,884	2	1,224	77	129	2	6	211	191	49	3,775
1986	2,025	1	1,233	75	126	2	5	226	158	56	3,907
1987	2,080	1	1,236	87	121	2	7	233	143	46	3,956
1988	2,180	1	1,245	83	115	2	9	216	117	43	4,011
1989	2,235	1	1,237	68	108	1	8	235	122	55	4,070
1990	2,242	0	1,248	67	106	1	11	253	133	51	4,112
1991	2,226	0	1,264	65	121	1	14	267	143	49	4,150
1992	2,261	0	1,277	68	113	1	11	286	147	40	4,204
1993	2,257	0	1,291	69	114	1	10	274	140	35	4,191
1994	2,207	0	1,316	66	114	2	6	284	142	36	4,173
1995	2,248	0	1,332	62	110	1	8	297	144	40	4,242
1996	2,257	0	1,328	61	110	1	8	292	169	44	4,270
1997	2,235	0	1,348	60	111	1	11	296	194	46	4,302
1998	2,251	0	1,360	56	125	2	8	295	197	49	4,343
1999	2,351	0	1,450	56	139	2	5	295	203	49	4,550
2000	2,538	0	1,440	51	132	2	6	257	139	49	4,614
2001 ¹	2,422	0	1,330	0	116	2	2	262	147	89	4,370
2002	2,411	0	1,330	0	121	1	2	257	144	85	4,351
2003	2,412	0	1,322	0	119	1	3	249	121	82	4,309
2004	2,441	0	1,352	0	114	1	7	244	113	81	4,353
2005	2,442	0	1,330	0	111	1	7	254	107	105	4,357
2006	2,459	0	1,322	0	110	1	6	257	113	114	4,382
2007	2,488	0	1,300	0	105	1	4	266	114	113	4,391
2008	2,471	0	1,306	0	98	1	4	269	124	108	4,381
2009	2,556	0	1,292	0	89	1	4	262	121	107	4,432
2010	2,577	0	1,261	0	83	1	4	259	124	100	4,409
2011	2,665	0	1,253	0	85	1	4	249	121	100	4,478

¹ In 2001 all Supplemental Widows were moved into the Compensation Widows Group.

EXHIBIT N
AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Years Ended	Average Annual Benefit	Average Current Age of Retirees	Average Annual Benefit at Retirement Current Year	Average Age at Retirement Current Year	Average Years of Service at Retirement Current Year
1982	\$ 11,083	67	\$ 15,862	59.0	28.3
1983	11,749	68	19,351	60.8	30.2
1984	13,012	68	21,401	59.4	30.5
1985	14,243	68	22,897	59.1	30.4
1986	15,635	68	24,826	58.6	29.8
1987	16,833	68	26,342	59.1	30.4
1988	18,476	68	28,166	61.4	31.1
1989	19,732	68	29,967	60.4	31.1
1990	20,853	68	30,038	60.3	30.9
1991	21,942	69	30,983	60.0	31.4
1992	23,503	69	32,758	59.9	31.3
1993	25,031	69	34,267	61.6	31.7
1994	26,262	70	34,391	59.8	31.2
1995	27,935	70	38,872	60.3	32.1
1996	29,304	70	40,406	60.4	32.0
1997	30,787	70	41,543	59.8	31.6
1998	32,503	71	43,905	60.1	32.1
1999	34,067	71	44,001	60.4	31.4
2000	36,458	71	48,534	63.5	34.2
2001	38,048	71	45,768	60.2	30.9
2002	40,052	71	45,346	59.7	30.8
2003	42,131	71	50,943	60.2	31.7
2004	45,675	71	59,608	60.0	32.1
2005	47,917	71	59,117	59.2	31.4
2006	50,171	71	61,172	57.7	30.1
2007	52,446	71	64,076	58.1	30.0
2008	54,492	71	61,577	57.4	29.6
2009	57,023	71	67,310	57.8	30.3
2010	59,133	71	67,386	59.0	29.7
2011	61,879	71	70,893	58.5	29.4

EXHIBIT O – PART I
HISTORY OF ANNUITIES 1982-2011
EMPLOYEE ANNUITANTS (MALE AND FEMALE)

Year End	Number of Annuitants	Total Annuities	Average Annuities
1982	1,788	\$ 19,816,065	\$ 11,083
1983	1,789	21,018,158	11,749
1984	1,816	23,648,174	13,022
1985	1,886	26,863,056	14,243
1986	2,026	31,676,856	15,635
1987	2,081	35,030,176	16,833
1988	2,181	40,296,025	18,476
1989	2,235	44,101,893	19,732
1990	2,242	46,752,084	20,853
1991	2,226	48,843,715	21,942
1992	2,261	53,140,074	23,503
1993	2,257	56,495,862	25,031
1994	2,207	57,960,522	26,262
1995	2,248	62,797,419	27,935
1996	2,257	66,139,690	29,304
1997	2,235	68,808,890	30,787
1998	2,251	73,163,601	32,503
1999	2,351	80,090,897	34,067
2000	2,538	92,529,624	36,458
2001	2,422	92,152,832	38,048
2002	2,411	96,565,842	40,052
2003	2,412	101,620,962	42,131
2004	2,441	111,491,737	45,675
2005	2,442	117,014,053	47,917
2006	2,459	123,371,713	50,171
2007	2,488	130,485,435	52,446
2008	2,471	134,649,295	54,492
2009	2,556	145,751,375	57,023
2010	2,577	152,385,721	59,133
2011	2,665	164,908,801	61,879

EXHIBIT O – PART II
HISTORY OF ANNUITIES 1982-2011
WIDOW/WIDOWER ANNUITANTS
(INCLUDING PARENT BUT NOT COMPENSATION ANNUITANTS)

Year End	Number of Annuitants	Total Annuities	Average Annuities
1982	1,312	\$ 5,007,540	\$ 3,817
1983	1,327	5,220,709	3,934
1984	1,309	5,203,409	3,975
1985	1,303	5,328,940	4,090
1986	1,310	5,843,911	4,461
1987	1,325	6,273,158	4,734
1988	1,330	6,617,019	4,975
1989	1,319	7,743,932	5,871
1990	1,316	8,031,199	6,103
1991	1,330	9,316,132	7,005
1992	1,346	10,774,709	8,005
1993	1,361	12,121,722	8,906
1994	1,384	13,680,765	9,885
1995	1,395	14,495,633	10,391
1996	1,389	14,709,232	10,590
1997	1,409	15,397,832	10,928
1998	1,418	15,969,975	11,262
1999	1,508	18,136,173	12,027
2000	1,493	18,352,906	12,293
2001	1,332	16,516,021	12,399
2002	1,331	17,006,519	12,777
2003	1,323	17,490,584	13,220
2004	1,353	19,297,527	14,263
2005	1,331	20,481,794	15,388
2006	1,323	21,123,202	15,966
2007	1,301	21,290,764	16,365
2008	1,307	22,164,269	16,958
2009	1,293	22,652,897	17,520
2010	1,262	22,832,364	18,092
2011	1,254	23,449,616	18,700

EXHIBIT P
HISTORY OF RETIREES AND BENEFICIARIES
ADDED TO AND REMOVED FROM BENEFIT PAYROLL

Yr.	Added to Payroll		Removed from Payroll		Payroll End of Year		Average Annual Benefits	Increase to Avg. Benefits
	No.	Annual Benefits.	No.	Annual Benefits	No.	Annual Benefits		
Employee Annuitants (Male and Female)								
1997	98	\$5,578,537	120	\$2,909,337	2,235	\$68,808,890	\$30,787	5.1%
1998	122	5,356,352	106	2,446,381	2,251	73,163,601	32,503	5.6
1999	118	5,192,157	18	245,975	2,351	80,090,897	34,067	4.8
2000	265	12,861,578	78	2,413,778	2,538	92,529,624	36,458	7.0
2001	114	5,171,784	230	5,548,576	2,422	92,152,832	38,048	4.4
2002	107	4,851,988	118	438,978	2,411	96,565,842	40,052	5.3
2003	134	6,826,357	133	1,771,237	2,412	101,620,962	42,131	5.2
2004	147	14,053,559	118	4,182,784	2,441	111,491,737	45,675	8.4
2005	126	10,248,119	125	4,725,803	2,442	117,014,053	47,917	4.9
2006	123	10,689,546	106	4,331,886	2,459	123,371,713	50,171	4.7
2007	126	11,168,192	97	4,054,470	2,488	130,485,435	52,446	4.5
2008	109	9,696,869	126	5,533,009	2,471	134,649,295	54,492	3.9
2009	185	15,610,755	100	4,508,675	2,556	145,751,375	57,023	4.6
2010	117	11,242,038	96	4,607,692	2,577	152,385,721	59,133	3.7
2011	197	18,074,820	109	5,551,740	2,665	164,908,801	61,879	4.6
Widow/Widower Annuitants (Not Including Compensation)								
1997	91	\$1,314,596	71	\$625,996	1,409	\$15,397,832	\$10,928	3.2%
1998	86	1,188,236	73	778,838	1,418	15,969,975	11,262	3.1
1999	90	1,268,687	0	0	1,508	18,136,173	12,027	6.8
2000	70	1,204,364	85	987,631	1,493	18,352,906	12,293	2.2
2001	127	1,865,460	288	3,702,345	1,332	16,516,021	12,399	0.9
2002	73	1,316,617	74	826,119	1,331	17,006,519	12,777	3.0
2003	87	1,475,058	95	990,993	1,323	17,490,584	13,220	3.5
2004	92	2,595,350	62	788,407	1,353	19,297,527	14,263	7.9
2005	94	2,596,899	116	1,412,632	1,331	20,481,794	15,388	7.9
2006	84	1,964,568	92	1,323,160	1,323	21,123,202	15,966	3.8
2007 ¹	59	1,341,091	81	1,173,529	1,301	21,290,764	16,365	2.5
2008 ¹	77	1,796,751	71	923,246	1,307	22,164,269	16,958	3.6
2009 ¹	66	1,605,852	80	1,117,224	1,293	22,652,897	17,520	3.3
2010 ¹	55	1,404,275	86	1,224,808	1,262	22,832,364	18,092	3.3
2011 ¹	62	1,661,849	70	1,044,597	1,254	23,449,616	18,700	3.4

¹ Including Parent Annuitants but not Compensation Annuitants.

EXHIBIT Q
NUMBER OF RETIREES AND BENEFICIARIES RECEIVING HEALTHCARE
BENEFITS BY STATUS

Year	Number of		
	Employee	Beneficiary ¹	Total
2007	2,152	1,006	3,158
2008	2,133	1,017	3,150
2009	2,159	1,031	3,190
2010	2,148	1,006	3,154
2011	2,149	1,004	3,153

¹ Includes children.

APPENDIX 4

ACTUARIAL METHODS AND ASSUMPTIONS AS OF
DECEMBER 31, 2011

ACTUARIAL METHODS AND ASSUMPTIONS AS OF DECEMBER 31, 2011

I. ACTUARIAL COST METHOD

An Actuarial Cost Method is a set of techniques used by the actuary to develop contribution levels under a retirement plan. The Actuarial Cost Method used in this valuation for all purposes is the Entry Age Actuarial Cost Method. Under this Method, a Normal Cost is developed by amortizing the actuarial value of benefits expected to be received by each active participant (as a level percentage of pay) over the total working lifetime of that participant, from hire to termination.

To the extent that current assets and future Normal Costs do not support participants' expected future benefits, an Unfunded Actuarial Accrued liability ("UAAL") develops. The UAAL is generally amortized over a defined period of time (e.g. 30 years) The total contribution developed under this method is the sum of the Normal Cost and the payment toward the UAAL.

II. CURRENT ACTUARIAL ASSUMPTIONS

The current actuarial assumptions were adopted and became effective for the December 31, 2011 valuation, and were based on an experience study for the period January 1, 2003, to December 31, 2010.

A. *Demographic Assumptions*

Mortality:	RP-2000 Combined Healthy Mortality Table, sex distinct. The mortality table used is a static table and provides an estimated margin of 15 percent for future mortality improvements.
Disabled Mortality:	RP-2000 Combined Healthy Mortality Table, sex distinct, set forward six years.
Pre-Retirement Mortality	Pre-retirement mortality is 80 percent of the post-retirement rates.
Rates of Disability:	Rate at which members are assumed to become disabled under the provisions of the Fund. The rates assumed are as follows:

<u>Attained Age</u>	<u>Rates</u>
20-24	0.0008
25-29	0.0010
30-34	0.0020
35-39	0.0020
40-44	0.0028
45-49	0.0054
50-54	0.0140
55-59	0.0265
60-63	0.0300

Of the participants who become disabled, 50 percent are assumed to be duty disability, 45 percent are assumed to be occupational disease disability, and 5 percent are assumed to be ordinary disability.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

Rate of Retirement: The tables below shows the assumed rates of retirement.
For members hired before January 1, 2011:

Attained Age	Firefighters Rates	Paramedic Rates
50	0.02	0.03
51	0.03	0.03
52	0.03	0.04
53	0.04	0.05
54	0.04	0.06
55	0.05	0.07
56	0.06	0.07
57	0.07	0.07
58	0.07	0.07
59	0.07	0.07
60	0.25	0.20
61	0.30	0.20
62	0.45	0.30
63	1.00	0.30
64		0.40
65		1.00

For members hired on or after January 1, 2011:

Attained Age	Firefighters Rates	Paramedic Rates
50	0.01	0.01
51	0.01	0.01
52	0.01	0.01
53	0.01	0.01
54	0.01	0.01
55	0.07	0.07
56	0.07	0.07
57	0.07	0.07
58	0.07	0.07
59	0.07	0.07
60	0.25	0.20
61	0.30	0.20
62	0.45	0.30
63	1.00	0.30
64		0.40
65		1.00

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

Rate of Termination: The following sample rates exemplify the table:

<u>Years of Service</u>	<u>Rate</u>
1	0.020
5	0.006
10	0.006
15	0.005
20	0.005
25	0.005
30	0.000

B. Economic Assumptions

Investment Return Rate: 8.00 percent per annum for pensions and 4.50 percent for OPEB.
OPEB rate effective as of December 31, 2005.

General Inflation: 3.00 percent per annum

Future Salary Increases: Assumed rates of individual salary increase at 4.25 percent per
year, plus an additional percentage based on the following
service scale:

<u>Years of Service</u>	<u>Rates</u>
0	21.25%
1	5.25%
2	5.25%
3	5.00%
4	5.00%
5-9	0.00%
10	3.50%
11-14	0.00%
15	3.50%
16-19	0.00%
20	4.00%
21-24	0.00%
25	3.20%
26-29	0.00%
30	1.50%
Over 30	0.00%

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

Asset Value: For State reporting, the actuarial value of assets is smoothed by using a five-year average market value.

For GASB #25 and #27, the actuarial value of assets is smoothed by using a five-year average market value.

C. Other Assumptions

Marital Status: It is assumed that 85 percent of members have an eligible spouse. The male spouse is assumed to be four years older than the female spouse. No assumption is made about other dependents.

Group Health Insurance: It is assumed for valuation purposes that the current health insurance supplement will continue for life for all employee annuitants (and their future widows). The amount of the Fund-paid health insurance after June 30, 2008 is \$95.00 per month for each annuitant (employees and widows) not qualified to receive Medicare benefits and \$65.00 if qualified. It is assumed that all annuitants age 65 and over will be eligible for Medicare and all annuitants less than age 65 will not be eligible for Medicare. Future widows of retirees are assumed to be eligible for Medicare at age 65, as well as widow annuitants that are currently receiving a health insurance supplement.

Only retirees, beneficiaries and children who the Fund has indicated have Fund paid insurance are valued with this benefit.

Required Ultimate Multiple: The actuarial requirements (adjusted for tax levy loss) less expected employee contributions divided by the actual employee contributions made in the second prior year.

Loss in Tax Levy: 4 percent overall loss on tax levy is assumed.

APPENDIX 5

SUMMARY OF PROVISIONS OF THE FUND AS OF
DECEMBER 31, 2011

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011**

PARTICIPANTS

Person employed by the City of Chicago in its fire service as firefighter, fire paramedic, fire engineer, marine engineer, or fire pilot, whose duty it is to participate in the work of controlling and extinguishing fire at the location of any such fire, whether or not he is assigned to fire service other than the actual extinguishing of fire.

SERVICE

In computing service, the following periods shall be counted:

All periods of active service, vacation, leave of absence with whole or part pay, military service, periods of disability for which he receives disability benefit, and leave of absence without pay to perform the duties of a member of the General Assembly prior to January 9, 1997. It is computed on a day to day basis. Employees may purchase the 1980-strike time and periods of suspension less than one year. Employees may purchase, with 4 percent interest, periods of employment of the Chicago Fire Department from 1970 until the employee entered this fund.

RETIREMENT ANNUITY

Eligibility

For participants that first became members before January 1, 2011, attainment of age 50 with at least 10 years of service.

For participants that first became members on or after January 1, 2011, attainment of age 55 with at least 10 years of service. Participants may retire at attainment of age 50 with 10 years of service with a reduced benefit.

Mandatory

Retirement is mandatory for a participant who has attained age 63, except for emergency medical technicians.

Accumulation Annuity

At age 50 or more, with 10 or more years of service, the employee is entitled to an annuity based on the sums accumulated for age and service annuity plus 1/10 of the sum accumulated from the contributions by the City for the age and service annuity for each completed year of service after the first 10 years. At age 50 or more with 20 or more years or at age 63, the employee is entitled to an annuity based on all sums accumulated to his or her credit. The maximum is 75 percent of highest salary.

Minimum Formula Annuity

If the employee has 20 or more years of service (the annuity will begin no earlier than age 50), he or she is entitled to the following annuity: 50 percent plus 2.5 percent of the final average salary for each year or fraction of service over twenty years. Maximum is 75 percent of the final average salary.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

Retirement at Age 63 with Less than 20 Years Service¹

An employee who reaches compulsory retirement age with less than 20 years but greater than 10 years of service shall be entitled to a minimum annuity equal to 30 percent of final average salary for the first 10 years of service plus an additional 2 percent for each year in excess of 10, not to exceed 50 percent of final average salary.

Minimum Annuity

The minimum monthly annuity is \$1,050 if the firefighter retired at age 50 or over with at least 20 years of service.

For participants that first became members on or after January 1, 2011, the member is entitled to an annuity based on an accrual rate of 2.5 percent of the final average salary for each fraction of service. Maximum is 75 percent of the final average salary. Final average salary is calculated using salary from the eight highest consecutive years within the last 10 years of service prior to retirement. Pensionable salary is limited to \$106,800 in 2011, increased by the lesser of 3 percent and one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12-month period ending with the September preceding the November 1, which is the date that the new amount will be calculated and made available to the pension funds.

For participants that first became members on or after January 1, 2011, who retire after age 50 but before age 55 is attained, the member is entitled to an annuity based on an accrual rate of 2.5 percent of the final average salary for each fraction of service, reduced by one half of one percent per month for retirement prior to age 55, subject to a maximum benefit of 75 percent.

Automatic Increase in Annuity

If an employee qualifies for a minimum formula annuity, 1.5 percent of the original annuity, starting on the first of the month one year after retirement or the first of the month following attainment of age 60 (age 55 if born before January 1, 1955, effective January 16, 2004), whichever is later, with a maximum of 30 percent (20 years). Such increases shall be 3 percent for firefighters born before January 1, 1955, (effective January 16, 2004), and such firefighters shall not be subject to the 30 percent maximum increase.

For participants that first became members on or after January 1, 2011, increases are equal to the lesser of 3.00 percent and 50 percent of CPI-U of the original benefit, commencing at age 60.

WIDOW/WIDOWER ANNUITY

Payable until remarriage if widow/widower remarries before age 60, except Compensation and Supplemental Annuities. If the annuity is suspended because the widow/widower remarries before age 60, annuity payments will be resumed if the subsequent marriage ends. Any widow/widower's annuity, which was suspended on account of remarriage prior to December 31, 1989, will be resumed, if subsequent marriage ends, the later of July 14, 1995, or when the marriage ended. Beginning January 16, 2004, widows retain their rights to benefits after remarriage at any age.

¹ Between January 1994 and December 2000, benefits have been administered as if there were no compulsory retirement age. Beginning December 2000 benefits have been administered as if age 63 is the compulsory retirement age for non-EMT participants and there is no compulsory retirement age for EMT participants.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

Benefits are not available to a widow of a fireman who received a refund of contributions for widow's benefits, unless the refund is repaid with 4 percent interest per year.

Death in Service (Non-Duty)

- (1) If the firefighter dies with at least 1.5 years of service, 30 percent of the salary attached to the rank of a first class firefighter in the classified career service at the time of the firefighter's death; or,
- (2) 50 percent of the annuity the deceased firefighter would have received if he had retired just prior to the date of death; or,
- (3) Money purchase based on the total salary deductions and City contributions for age and service annuity and widow/widower's annuity.
- (4) The widow of an active fireman with 10 or more years of service will receive no less than 50 percent of the benefit that the active fireman would have received had they attained age 50 and 20 years of service.

Death In Service (Duty Related)

Compensation Annuity²

The annuity paid to the spouse equals 75 percent of the firefighter's salary attached to his civil service position at the time of his death. This amount increases as the salary of the position increases. This benefit is payable until the year in which the firefighter would have reached the compulsory retirement age.

Death In Service (Duty Disability)

Compensation Annuity

The annuity paid to the spouse of a member who dies in receipt of duty disability benefits equals 75 percent of the firefighter's salary attached to his civil service position at the time of his death. This amount increases as the salary of the position increases.

Death after Retirement

- (1) If the firefighter dies after retirement, the annuity is 50 percent of the retirement annuity that the deceased firefighter was receiving at the time of his or her death; or,
- (2) money purchase based on the sums accumulated for the spouse annuity plus 10 percent of the accumulated City contributions for each year of service from 10 to 20 years, and full accumulated City contributions after 20 years of service.

Maximum Annuity

No maximum dollar amount.

Minimum Annuity

The minimum monthly annuity for any widow/widower is \$1,000.

² Between January 1994 and December 2000, benefits have been administered as if there were no compulsory retirement age. Beginning December 2000 benefits have been administered as if age 63 is the compulsory retirement age for non-EMT participants and there is no compulsory retirement age for EMT participants.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

For participants that first became members on or after January 1, 2011, widow benefits are equal to 66-2/3 percent of the firemen's earned annuity at the date of death. Automatic increases to the annuity are equal to the lesser of 3.00 percent and 50 percent of CPI-U, commencing when the survivor reaches age 60, and applied to the original granted retirement annuity.

CHILD ANNUITY

Upon the death of the firefighter, unmarried children less than age 18 (except where child is so physically or mentally handicapped as to be unable to support himself) are eligible to receive an annuity. The amount of annuity payable for a child is 10 percent of the current annual maximum salary of a first class firefighter while a widow/widower survives; 15 percent when no widow/widower survives.

FAMILY MAXIMUM

The total annuities for widow/widower and children cannot exceed 60 percent for non-duty death, or 100 percent for duty death, of the current maximum annual salary of a first class firefighter.

PARENT ANNUITY

Parent's annuity is provided for each surviving parent of a firefighter who dies prior to separation from service, or while out of service with at least 20 years; provided there is no widow/widower or child and that the deceased firefighter was contributing to their support. The benefit is an amount equal to 18 percent of the current annual salary attached to the classified position held by the firefighter at the time of death.

DISABILITIES

Duty Disability Benefit³

Injury incurred in the performance of duty. The amount of the benefit is 75 percent of salary at the time the disability is allowed payable to employee's compulsory retirement age plus \$30 per month for each unmarried child less than age 18 (except where the child is so physically or mentally handicapped as to be unable to support him/herself), but the total amount of child benefits shall not exceed 25 percent of salary. Effective January 1, 1994, the minimum benefit, if the employee has been on disability at least 10 years, is 50 percent of current salary at the rank held by the employee when he was removed from the Department payroll. Salary deductions are contributed by the City. There are no age or service requirements for retirement on money purchase annuity and receiving full contributions.

Occupational Disease Disability³

A firefighter who has 10 or more years of service and is unable to perform his or her duties by reason of heart disease, tuberculosis, or any disease of the lungs or respiratory tract, resulting solely from his or her service as a firefighter. Occupational disease also includes disabling cancer of the type which may be caused by exposure to heat, radiation or a known carcinogen as defined by the International Agency for Research on Cancer. The amount of the benefit is 65 percent of salary at the time of the employee's removal from the Department payroll payable to compulsory retirement

³ Between January 1994 and December 2000, benefits have been administered as if there were no compulsory retirement age. Beginning December 2000 benefits have been administered as if age 63 is the compulsory retirement age for non-EMT participants and there is no compulsory retirement age for EMT participants.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

age plus \$30 a month for each unmarried child less than age 18 (except where the child is so physically or mentally handicapped as to be unable to support him/ herself), but the total amount of child's benefits shall not exceed 25 percent of salary. Effective January 1, 1994 the minimum benefit, if the employee has been on disability at least 10 years, is 50 percent of current salary at the rank held by the employee when he or she was removed from Department payroll. Salary deductions are contributed by the City. There are no age or service requirements for retirement on money purchase annuity and receiving full contributions.

Ordinary Disability Benefit

Cause other than the performance of an act of duty, payable after 30 days for a period equal to 50 percent of total service (not including any previous O.D. time), but not to exceed 5 years. The disability benefit is 50 percent of salary at time of disability less pension deductions. When the disabled firefighter becomes eligible for the minimum formula annuity, the disability benefit shall cease, and he or she shall thereafter receive an annuity; however, there are no age or service requirements to retire on money purchase from disability prior to qualification for the minimum formula annuity if the disability then terminates.

DEATH BENEFIT

In active service, on an authorized leave of absence, if death occurs within 60 days of receipt of salary, receiving duty or ordinary disability benefit, occurring within 60 days of termination of such benefit, or occurring on retirement while in receipt of annuity and separation was effective after age 50 and application was made within 60 days from separation; payable to written beneficiaries or, if none, to estate.

<u>Age</u>	<u>Death in Service After July 1, 1983</u>	<u>Death After Retirement After July 1, 1983</u>
49 and under	\$12,000	\$6,000
50	11,600	6,000
51	11,200	6,000
52	10,800	6,000
53	10,400	6,000
54	10,000	6,000
55	9,600	6,000
56	9,200	6,000
57	8,800	6,000
58	8,400	6,000
59	8,000	6,000
60	7,600	6,000
61	7,200	6,000
62	6,800	6,000
63	6,400	6,000
64 and over	6,000	6,000

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

GROUP HEALTH HOSPITAL AND SURGICAL INSURANCE PREMIUMS

The pension fund shall provide payments in the amount of \$95 per month for non-Medicare eligible city annuitants and \$65 per month for Medicare eligible city annuitants from July 1, 2008, through June 30, 2013.

REFUNDS

To Firefighters

Of entire amount (excluding ordinary disability pension deductions) with interest at 4 percent if entered before June 30, 1953, and 3 percent otherwise, before age 50, or before age 57 and less than 10 years service. A firefighter who receives a refund and who subsequently reenters the service shall not receive, nor his or her widow/widower or parents, any annuity benefit or pension unless the refund is repaid with 4 percent interest. Repayment must be made within two years after reentry.

FOR WIDOW/WIDOWER ANNUITY

If the Firefighter is not married when he retires on annuity, he or she will receive a refund of all his or her contributions, with interest, for spouse's annuity.

REFUNDS OF REMAINING AMOUNTS

If amounts contributed by a Firefighter (with interest) are not paid out to him or her, in the form of a refund or annuity, or his or her widow/widower in the form of annuity, the remaining amounts (with interest) shall be paid out to his or her heirs, or to administrator of estate, for burial expense. If there are children under age 18, amount necessary to pay children annuities will not be refunded. There will be no refund paid to a widow/widower whose annuity is suspended because of remarriage.

DEDUCTIONS AND CONTRIBUTIONS

	Deductions	City Contributions¹
Employee	7.125%	8.500%
Spouse	1.500%	2.000%
Ordinary Disability	0.125%	0.000%
Annuity Increase	<u>0.375%</u>	<u>0.000%</u>
	9.125%	10.500%

¹ *Credited to participant's Accumulation Annuity and Widow's Annuity accounts*

The city shall levy a tax annually at a rate on the dollar of the assessed valuation of all taxable property that will produce an amount not to exceed the total amount of contributions by the firefighters to the Fund made in the calendar year two years prior multiplied by 2.26 for 1982 and each year thereafter, plus \$142,000 for the Ordinary Death Benefit.

DEATH BENEFIT

Employees contribute \$2.50 per month at the same time and with the same frequency as other deductions (with each payment of salary).

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2011 (CONT'D)**

TAX SHELTER OF EMPLOYEE SALARY DEDUCTIONS

Beginning January 1, 1982, employee contributions were designated for income tax purposes to be made by the employer. The W-2 salary is therefore reduced by the amount of contribution. For pension purposes the salary remains unchanged. Income tax will be paid when a refund or annuity is received. For the purpose of benefits, refunds or financing, these contributions will be treated as employee contributions.

COMPULSORY RETIREMENT AGE

Effective January 1, 1994, the federal law (ADEA) allowing compulsory retirement at age 63 lapsed. As such, duty disability and occupational disease disability benefits and widow/widower compensation benefits may be "open ended", i.e., without limiting age.

Effective December 2000 the City of Chicago enacted a compulsory retirement age of 63 for non-EMT participants. As such, all disability benefits for non-EMT participants cease at age 63 and become payable as retiree benefits.

COMPENSATION WIDOWS

Beginning January 1, 2001, mandatory retirement will have no impact on Widow benefits. Therefore, effective with the December 31, 2001, valuation, all Supplemental Widows have been re-classified as Compensation Widows. The classification of Supplemental Widows has been discontinued.

APPENDIX 6

LEGISLATIVE CHANGES 1968 THROUGH 2011

LEGISLATIVE CHANGES 1968 THROUGH 2011

1968 to 1979 Sessions

- Compensation widow/widower annuities changed from \$300 to 75 percent of salary;
- Supplemental widow/widower annuities became 40 percent of salary;
- 5-year average salary became 4 years;
- Minimum employee annuities increased from \$200 in stages;
- Minimum widow/widower annuities increased from \$100 in stages;
- Children's annuities changed from \$40/\$60 to 10%/15% of salary of first class firefighter;
- Parent annuities increased to 18 percent of salary of first class firefighter;
- Lump sum benefits were increases; and
- The deduction from salary increased from 1 percent to 1.5 percent of salary for the spouse annuity.

1979 Session

SB 854

Recall of elective members of the Board of Trustees.

HB 291

Authorizes investment in Time Deposits of Certificate of Deposit.

HB 2012

Employer may pick up, under IRS Code Section 414(h), the employee contributions for all compensation earned after December 31, 1980, by a reduction in the cash salary, an offset to a future salary increase, or by a combination of both.

1980 Session

Transfer of credit to the General Assembly System.

HB 3635

Reversed all changes made by HB 2012 and put the pick up section as a new paragraph. They are treated as employee contributions for all purposes including refunds and determination of the tax levy.

1981 Session

SB 21

Actuarial Reporting Standards.

SB 851

Authorizes investments in conventional mortgage pass-through securities.

SB 879

Financial statement required by Department of Insurance within 6 months and actuarial statement within 9 months. \$100 penalty per day if late.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

HB 291

Increase minimum survivor's annuity from \$200 to \$250.

Spring 1982 Session

SB 740

3 percent post-retirement increase for employees born before January 1, 1930. All increases begin at age 60 instead of age 63 effective July 1, 1982.

SB 1127

Group health hospital and surgical insurance premium \$55 for annuitant not qualified to receive Medicare; \$21 if annuitant is qualified, effective January 1, 1983.

SB 1579

Expanded fiduciary standards, prohibited transactions, civil action may be brought by Attorney General or by a participant. List of permitted investments moved to general section of the statute.

HB 2361

Election by mail ballot.

Spring 1983 Session

SB 22

Delegation of investment authority restrictions.

SB 1147

Minimum reporting and actuarial information for 1984.

HB 366, SB 288

Changes fiduciary standards: party in interest definition; reasonable care of co-fiduciary; eliminates civil action.

HB 377

Cancer as occupational disability.

HB 380

Paramedics as members July 1, 1983.

HB 455

Bill of Rights.

HB 483

Temporary position defined.

HB 514

10 percent prudent person investment category.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

HB 755

Change in lump sum death benefit: \$6,000 if retired, \$12,000 if active and under age 50, reduced by \$400 each year age 50 or older.

HB 758

Vote by mail.

50/20 2 percent minimum annuity formula (52/22 in 1984; 51/21 in 1985; 50/20 in 1986 and after).

30 percent salary of first class firefighter; widow/widower of active employee with 1.5 years of service effective June 30, 1984.

50 percent of retirement pension being paid (includes increases); widow/widower of retiree effective June 30, 1984.

City Ordinance

Change in lump sum death benefit: \$6,000 if retired, \$12,000 if active and under age 50, reduced by \$400 each year age 50 or older.

Changes compulsory retirement from 63 to 70.

1984 Session

Direct deposit.

Illinois Public Employees' Pension Laws Commission abolished.

1985 Session

HB 164

Occupational disability benefits from 50 percent to 65 percent of salary for new disabilities.

Survivors' annuity for death in service 50 percent of the firefighter's annuity as if the deceased firefighter had retired just prior to the date of death.

Removes alcoholism and venereal disease prohibition against paying ordinary disability.

Removes adoption before age 50 requirement for child's benefit.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

1986 Session

HB 2630

Removes the age 18 limitation for handicapped children of duty and occupational disease disability recipients.

Provides for waiver of annual physical examination for disability recipients if firefighter is permanently disabled and unable to ever return to service.

1987 Session

None.

1988 Session—City Ordinance

Compulsory retirement changed to age 63.

1989 Session

HB 332

\$325 minimum widow/widower annuity effective January 1, 1988.

SB 95

Changed the amount of fund paid health insurance “supplement” from January 1, 1988, until December 31, 1992, to \$65 per month for each annuitant not qualified to receive Medicare benefits (and \$35 if qualified) and from January 1, 1993, until December 31, 1997, the amounts are \$75 and \$45, respectively. Widow/widowers will now be eligible for supplement. The City will be required to pay 50 percent of the aggregate cost of health care claims for the retired group under all health care plans offered by the City. A procedure was established for the City to determine, with the help of an independent actuary, the aggregate cost of claims and premiums for each calendar year from 1989 through 1998 for the retired group.

\$475 minimum employee annuity effective January 1, 1990.

Compensation and Supplemental annuitants may remarry after 1989 without loss of benefits.

Employee refunds must be repaid at 4 percent before the later of 2 years after the date of reentry or January 1, 1992.

3 percent postretirement increase beginning January 1, 1990, for employees born after December 31, 1929, and before January 1, 1940.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

Employee may purchase periods of suspension (not to exceed a total of 1 year of service) and 1980 strike time (not to exceed 23 days). Paramedic who transferred from the pension fund established under Article 8 of this Code to this Fund by operation of Public Act 83-780 may purchase Article 8 service at 4 percent annual compound interest rate prior to January 1, 1992, if the employee received a refund from the Article 8 fund.

1990 Session

SB 136

Amends Chapter 120, Paragraph 671 of the Revenue Act to provide for a separate listing on the tax bill of the dollar amount of tax due from the person assessed, which is allocable to a tax levied under the Illinois Pension Code, or any other tax levied by a municipality or township for public pension or retirement purposes. Effective January 1, 1990.

SB 1951

Signed January 14, 1991. Service credit will be given for any periods prior to January 14, 1993 that an active firefighter who is a member of the General Assembly is absent to perform his legislative duties. No payment is required for this service credit. The current salary of the rank would be used for average salary for annuity purposes.

Any firefighter who had service as a paramedic in the Municipal Fund and received a refund of contributions could receive credit for the service in the Fire Fund by making written application to the Board by January 1, 1992, and paying for the service.

Beginning December 31, 1990, any firefighter with at least 20 years of service may withdraw from the service at any age and receive an annuity calculated under Section 6-128 beginning at age 50 if under that age at withdrawal.

Beginning January 1, 1990, the minimum widow/widower annuity is \$400 per month for all those receiving a widow/widower annuity on January 14, 1991 and for future widow/widowers of employees who retired at age 50 or over with at least 20 years of service.

If a widow/widower remarries after December 31, 1989, after attaining age 60, the annuity will continue without interruption. If the annuity is suspended because of remarriage before attaining age 60, annuity payments will be resumed if the subsequent marriage ends.

If any widow/widower receives a widow/widower annuity from the Fire Fund and after December 31, 1989, marries a firefighter in the Fund, his/her first widow/widower annuity will be canceled if she accepts any payment of a second widow/widower's annuity after he dies.

Beginning January 14, 1991, any city officer can transfer his Fire service to the Municipal Fund.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

1991 Session

None.

1992 Session

HB 969

Approved March 26, 1992. Beginning January 1992, the minimum retirement annuity (requires retirement at age 50 or over with at least 20 years of service) was increased to \$650 per month and the minimum widow/widower annuity was increased to \$500 for those receiving annuity and those who will be eligible in the future (requires retirement or death in service at age 50 or over with at least 20 years of service).

SB 1650

Approved January 25, 1993.

The minimum retirement annuity (requires retirement at age 50 with at least 20 years of service) was increased to \$750 per month on January 1, 1993, and \$850 per month on January 1, 1994.

The minimum widow/widower annuity (requires retirement or death in service at age 50 or over with at least 20 years of service) was increased to \$600 per month on January 1, 1993, and \$700 per month on January 1, 1994, for those eligible present and future widow/widowers.

Service credit will be given for any periods in General Assembly prior to January 9, 1997 (instead of January 14, 1993).

The annuitant may waive all or any portion of his annuity.

1993 Session

SB 358

Approved January 10, 1994. Beginning January 1, 1994, minimum Duty and Occupational Disease Disabilities have been established, if the employee has been on the disability for 10 years: 50 percent of current salary of rank at removal from Department payroll.

ADEA

Effective January 1, 1994, the federal law (ADEA) allowing compulsory retirement at age 63 lapsed. As such, duty disability and occupational disease disability benefits and widow/widower compensation benefits may be "open ended", i.e., without limiting age.

1994 Session

None.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

1995 Session

SB 114

Approved July 14, 1995.

The minimum widow/widower annuity was increased to \$700 per month for anyone entitled to receive a widow/widower annuity.

A widow/widower's annuity that was previously terminated because of remarriage before December 31, 1989, will be resumed upon proper application if the subsequent marriage has ended.

Employees have until 2 years after the date of reentry or January 1, 2000, to repay a refund.

For employee annuitants born before January 1, 1945, the 3 percent postretirement increase begins at age 55.

The provisions relating to purchase of credit for certain periods of service as a paramedic or other fire department employee were changed.

The City is authorized to substitute funds obtained from borrowings and other sources for a portion of its authorized tax levy for pension purposes.

The amount of earnings that may be taken into account by any retirement system is limited to the maximum dollar limitation specified in Section 401(a)(17) of the Internal Revenue Code, except for persons who became participants before 1996.

The Fund is authorized to make certain involuntary distributions required by Section 401(a)(9) of the Internal Revenue Code.

SB 424

Approved July 7, 1995.

The Pension Laws Commission was created as a legislative support services agency.

1996 Session

SBJPA

On August 20, 1996 the Small Business Job Protection Act was signed by President Clinton.

Treatment of governmental plans under Code Section 415:

Rule limiting annual benefit to 100 percent of the average of the highest 3-year compensation no longer applies.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

Excess benefit plans are permitted to provide participants with benefits in excess of the Code Section 415 limits.

Early retirement reduction does not apply to certain survivor and disability benefits.

The definition of compensation now includes elective deferrals.

Taxation of distributions:

\$5,000 death benefit exclusion was repealed for deaths after August 20, 1996.

Five-year averaging for lump sum distributions was repealed effective January 1, 2000.

Annuity payments will be taxed according to a simplified general rule, which uses investment and age as of annuity starting date for annuities, which start on or after November 19, 1996.

1997 Session

HB 313

Signed June 27, 1997.

Coverage in the City group health insurance is extended through June 30, 2002, with some modification in plans offered. Pension fund supplement remains \$45 and \$75 for Medicare eligible and non-Medicare eligible annuitants respectively.

1998 Union Contract Cost of Living Increases

The following salary increases are scheduled:

1.5 percent effective July 1, 1995.

1.5 percent effective January 1, 1996.

1.5 percent effective July 1, 1996.

3.5 percent effective January 1, 1997.

3.75 percent effective January 1, 1998.

2.25 percent effective January 1, 1999.

1998 Session

The minimum widow/widower annuity (requires retirement or death in service at age fifty or over with at least twenty years of service) was increased to \$800 per month on January 1, 1999, for those eligible present and future widow/widowers.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

1999 Session

None.

2000 Session

In 2000 the City of Chicago enacted mandatory retirement for all firefighters, except for emergency medical technicians, upon attainment of age 63.

2001 Session

None.

2002 Session

HB 5168

Effective June 28, 2002

The pension fund subsidy for retiree health insurance was extended through June 30, 2003 (other than child annuitants). The subsidy is \$75 per month if the annuitant is not eligible for Medicare and \$45 per month if the annuitant is eligible for Medicare.

2003 Session

SB 1701

Effective July 1, 2003.

The healthcare benefits were increased to \$85 per month for non-Medicare eligible participants and \$55 per month for Medicare eligible participants for the period from July 1, 2003, through June 30, 2008. Thereafter, the benefits are increased from \$85 to \$95 and \$55 to \$65 for the period July 1, 2008, to June 30, 2013.

The healthcare benefits referred to above are not and shall not be construed to be pension or retirement benefits for the purposes of Section 5 of Article XIII of the Illinois Constitution of 1970.

2004 Session

PA 93-0654

Effective January 16, 2004

Changes to the definition of salary used for benefit calculation

- For members born before 1955, who hold an exempt position above career service rank, salary means the actual salary attached to the exempt rank position.
- Salary as an ambulance commander shall be included. Employee contributions must be made retroactively before January 1, 2006. Beneficiaries may also make the contributions.
- Additional compensation for being licensed as an EMT shall be included.
- Duty availability pay shall be included. Employee contributions must be made retroactively before January 1, 2006. Beneficiaries may also make the contributions.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

PA 93-0654(continued)

An employee who reaches the compulsory retirement age with greater than 10 years of service, but less than 20 is now entitled to an annuity of 30 percent of average salary for the first 10 years of service plus an additional two percent for each year in excess of 10, not to exceed 50 percent.

The minimum annuity formula accrual rate for service after 20 years was increased from 2.0 percent to 2.5 percent with total benefits limited to 75 percent of final average pay.

The minimum benefit for retirements at age 50 with 20 years of service was increased to \$950 per month during 2004 and \$1,050 per month thereafter.

The minimum widow annuity was increased to \$900 per month during 2004 and \$1,000 per month thereafter.

The widow of an active fireman with 10 or more years of service will receive no less than 50 percent of the benefit the active firemen would have received had he attained age 50 and 20 years of service.

A widow who was married to a deceased fireman before the fireman began to receive a retirement annuity and for at least one year preceding the fireman's death is entitled to a widow's benefit. Any refunded contributions must be repaid with four percent interest.

A widow's benefit will continue following remarriage. Those annuities previously terminated will resume.

Members born prior to January 1, 1955, are entitled to a three percent simple COLA commencing at the later of age 55 or the first anniversary of retirement. Members born on or after January 1, 1955, are entitled to a 1.5 percent COLA commencing at the later of age 60 or the first anniversary of retirement limited to 30 percent. Previously the cutoff date was January 1, 1945.

Former city contributions for paramedics will be transferred to this fund with 11 percent interest and credited to the individual fireman if he or she pays for prior service as a paramedic in full.

Bertucci court opinion

Effective June 29, 2004

For members who die while receiving duty disability payments, the widow's benefit is now 75 percent of the member's salary attached to his civil service position. The benefit increases as the salary attached to this position increases. Previously the widow's benefit was 50 percent of the member's benefit.

PA 93-0917 (HB 378)

Effective August 12, 2004

Changes the widow eligibility conditions by expanding widow benefits that were previously limited by marriage conditions after withdrawal or disability. Benefits cannot be reinstated or granted earlier than January 16, 2004.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

PA 93-0917(continued)

A fireman who accumulated service under the Municipal Employees' Annuity and Benefit Fund of Chicago, who terminated and received a refund, may purchase such service credit until January 1, 2005. Those firemen that retired after January 16, 2004, but before the effective date of this act may still purchase service before January 1, 2005, and have their benefit recalculated. Employer contributions with interest, for such service, will be transferred from the Municipal Employees' Annuity and Benefit Fund to the Firemen's Annuity and Benefit Fund.

2005 Session

SB 23

Approved June 27, 2005

Prohibits the investment or deposit from the retirement system or pension fund to certain entities doing business in or with the government of the Republic of the Sudan. Fund managing companies must certify that, as required under Section 1-110.5 of the pension code, they have not loaned to, invested in, or otherwise transferred any of the pension fund assets to a forbidden entity.

2006 Session

None.

2007 Session

PA 95-0279

Beginning January 1, 2008, removes restriction that a child be born or legally adopted before withdrawal from service for a child's annuity. Removes restriction requiring that adoption proceedings must have been initiated one year prior to the fireman's death.

2008 Session

None.

2009 Session

PA 95-1036

Effective February 17, 2009

Allows a terminally ill fireman to apply for disability while still an active member.

PA 96-0006

Effective April 3, 2009

The Illinois Governmental Ethics Act.

PA 96-260

Effective August 11, 2009

A fireman may purchase up to 24 months of service credit attributed to service in the armed forces of the United States prior to employment as a firefighter by making contributions to the Fund equal

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

to (i) employee contributions during the period served, (ii) employer normal costs during the period served, and (iii) compound interest at the actuarially assumed rate from date of membership in the Fund until date of payment.

PA 96-727

Effective August 25, 2009

Extends the repayment of refund for reinstated service to January 1, 2011, with interest calculated at the actuarially assumed rate.

Allows a fireman to transfer eligible service with the Article 8 Fund – the Municipal Employees' Annuity and Benefit Fund of Chicago. The fireman is required to pay to the Fund an amount equal to (i) employee contributions during the period served, (ii) employer normal costs during the period served, and (iii) compound interest at the actuarially assumed rate from date of membership in the Fund until date of payment. This amount is offset by contributions transferred from the Article 8 Fund. Written application must be made by January 1, 2010.

Allows a fireman who was an employee of the Chicago Fire Department but did not participate in the pension fund to establish this service with the Fund. The fireman is required to pay to the Fund an amount equal to (i) employee contributions during the period served, (ii) employer normal costs during the period served, and (iii) compound interest at the actuarially assumed rate from date of membership in the Fund until date of payment. Written application must be made by January 1, 2010.

Allows a fireman to transfer up to 10 years of eligible service with an Article 4 Fund – “Downstate Fund”. The fireman is required to pay to the Fund an amount such that the transfer results in no additional unfunded actuarial accrued liability for the Fund based on the assumptions and methods used in the most recent actuarial valuation. Contributions transferred from the Downstate Fund are used to offset the required payment from the fireman.

Allows the Fund to recover damages from a third party responsible for the death or disability payable from the Fund.

PA 96-753

Effective August 25, 2009.

Encourages the public pension funds, and any State entity investing on behalf of the public pension funds, to promote the economy of Illinois through the use of economic opportunity investments.

Instructs the fund's investment advisors to utilize investment strategies designed to ensure that all securities transactions are executed in such a manner that the total explicit and implicit costs and total proceeds in every transaction are the most favorable under the circumstances.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

2010 Session

PA 96-1466

Effective August 20, 2010.

Members entering the Fund after on or after January 1, 2011 shall not be given service credit in this Fund for any period of time in which the member was in receipt of retirement benefits from any annuity and benefit funds in operation in the city.

PA 96-1495 (HB 3538)

Effective January 1, 2011.

Changes the financing for the Fund. Assets are marked to market at March 30, 2011. For fiscal years after March 30, 2011, actuarial value of assets is used based on five-year smoothing. The City levies a new tax starting in FY2015. Each year, employer contributions combined with member contributions and other fund revenue must be equal to the amount that is sufficient to produce 90% funding by the end of fiscal year 2040. The projections are based on an open group projection and level percent of pay financing and actuarial liabilities are based on the projected unit credit cost method. If the City does not make the statutorily required contributions, then the State, starting in FY 2016, could withhold State grants to the City, and directly deposit the withheld funds into the FABF. The withheld funds are limited to 33 percent of total State grants to the City in FY 2016, 67 percent in FY 2017, and 100 percent on and after FY 2018.

Changes benefits for members hired on or after January 1, 2011. For these employees the minimum retirement eligibility is at age 55 with 10 years of service with the annuity based on an accrual rate of 2.5 percent, subject to a maximum of 75 percent. Employees may retire at age 50 with 10 years of service with the annuity based on accrual rate of 2.5 percent, reduced by one half of one percent per month for retirement prior to age 55, subject to a maximum of 75 percent. The final average salary is based on 96 consecutive months within the last 120 months. Annual salary is capped at \$106,800, indexed annually at the lesser of 3.0 percent and fifty percent of CPI-U. COLA is equal to the lesser of 3.0 percent and 50 percent of CPI-U, commencing at age 60, with no 30% cap, applied to the original granted retirement annuity. Widow benefits are 66-2/3 percent of the firemen's earned annuity at the date of death. Widow COLA is equal to the lesser of 3.0 percent and 50 percent of CPI-U, commencing when the survivor reached age 60, and applied to the original granted retirement annuity.

2011 Session

P.A. 97-530 (SB 1672)

Effective August 23, 2011

Requires all pension funds and retirement systems subject to the Code to comply with the federal Heroes Earnings Assistance and Relief Tax Act of 2008.

P.A. 97-609 (SB 1831)

Effective August 26, 2011

Applies to those members hired on or after January 1, 2012.

Provides that if a new hire is receiving a retirement annuity or pension and accepts a contractual position to provide services to a governmental entity from which he or she has retired, then that person's annuity or pension will be suspended during that contractual service.

LEGISLATIVE CHANGES 1968 THROUGH 2011 (CONT'D)

Makes it a Class A misdemeanor for a pensioner who is seeking contractual employment to fail to notify certain persons about his or her retirement status before accepting an employment contract.

P.A. 97-504 (HB 1670)

Approved August 23, 2011

Amends the Open Meetings Act.

Requires each elected or appointed member of a public body subject to this Act who is such a member on the effective date of the amendatory Act to successfully complete the electronic training curriculum developed and administered by the Public Access Counselor.

Requires those members to complete the training not later than one year after the effective date of the amendatory Act.

Requires each elected or appointed member of a public body subject to the Act who becomes such a member after the effective date of the amendatory Act to successfully complete the electronic training curriculum developed and administered by the Public Access Counselor.

Requires those members to complete the training not later than the 90th day after the date the member either (i) takes the oath of office, if the member is required to take an oath of office to assume the person's duties as a member of the public body or (ii) otherwise assumes responsibilities as a member of the public body, if the member is not required to take an oath of office to assume the person's duties as a member of the governmental body.

Requires each member who successfully completes the curriculum to file a copy of the certificate of completion with the public body.

Provides that the failure of one or more members of a public body to complete the training required by this Section does not affect the validity of an action taken by the public body.

Provides that an elected or appointed member of a public body subject to this Act who has successfully completed the required training and filed a copy of the certificate of completion with the public body is not required to subsequently complete that training.

APPENDIX 7

ADDITIONAL EXHIBITS – GASB DISCLOSURES

EXHIBIT A-1
GASB NOS. 25, 27, 43 AND 45 DISCLOSURES

In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) has issued Statement No. 25 – Financial Reporting for Defined Benefit Pension Plans and Statement No. 27 – Accounting for Pensions by State and Local Governmental Employers. Under GASB #25 and #27, systems select one actuarial method from several acceptable alternatives, and report all information on this one basis. GASB has issued Statement No. 43 – Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans and Statement No. 45 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. GASB #43 and #45 pertain to postretirement benefits other than pensions and are similar to GASB #25 and #27.

This report includes the following exhibits with information required to be reported under GASB #25, #27, #43 and #45.

Exhibit A-2: Schedule of Funding Progress for GASB #25

This exhibit shows a 6-year history of funding progress. The funding progress is a comparison of Actuarial Value of Assets with the Actuarial Accrued Liability (AAL), and a comparison of the unfunded AAL (UAAL) with compensation.

Exhibit A-3: Schedule of Employer Contributions for GASB #25

This exhibit shows the Annual Required Contribution (ARC) as computed under GASB #25 and the percent of this amount actually received. This exhibit includes a 16-year history.

Exhibits A-4: Supplementary Information for GASB #25 and #27

This exhibit has certain information required in the notes to the Fund financial reports.

Exhibit A-5: Annual Pension Cost and Contributions Made for GASB #27

This exhibit shows the components of annual pension cost (ARC, interest on the Net Pension Obligation (NPO), and the adjustment to the ARC), increase or decrease in the NPO, and the NPO at the end of the year. The exhibit also includes the dollar amount of contributions made.

Exhibit A-6: Pension Cost Summary for GASB #27

This exhibit shows a 15-year summary of annual pension cost, percentage of annual pension cost contributed that year and NPO at the end of the year.

Exhibit A-7: Development of Net Pension Obligation (NPO) at January 1, 1997 for GASB #27

This exhibit documents the calculation of the pension liability at transition in accordance with GASB #27.

EXHIBIT A-1
GASB NOS. 25, 27, 43 AND 45 DISCLOSURES (CONT'D)

Exhibit A-8: Schedule of Funding Progress for GASB #43

This exhibit shows a six-year history of funding progress. The funding progress is a comparison of Actuarial Value of Assets with the Actuarial Accrued Liability (AAL), and a comparison of the unfunded AAL (UAAL) with compensation.

Exhibit A-9: Schedule of Employer Contributions for GASB #43

This exhibit shows the Annual Required Contribution (ARC) as computed under GASB #43 and the percent of this amount actually received. This exhibit includes a six-year history.

Exhibit A-10: Supplementary Information for GASB #43 and #45

This exhibit has certain information required in the notes to the Fund and City financial reports.

Exhibit A-11: History of Annual OPEB Cost and Contributions Made for GASB #45

This exhibit shows a summary of annual OPEB cost, percentage of annual OPEB cost contributed that year and NOO at the end of the year.

Exhibit A-12: OPEB Cost Summary for GASB #45

This exhibit shows the components of annual OPEB cost (ARC, interest on the Net OPEB Obligation (NOO), and the adjustment to the ARC), increase or decrease in the NOO, and the NOO at the end of the year for year 2011. The exhibit also includes the dollar amount of City contributions made to pay current year health insurance supplement benefits.

EXHIBIT A-2
SCHEDULE OF FUNDING PROGRESS
FOR GASB #25

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age ¹ (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/2011	\$ 1,101,741,862	\$ 3,851,918,889	\$ 2,750,177,027	28.60 %	\$ 425,385,354	646.51 %
12/31/2010	1,198,113,789	3,655,025,957	2,456,912,168	32.78 %	400,404,320	613.61
12/31/2009	1,269,231,178	3,428,838,267	2,159,607,089	37.02	400,912,173	538.67
12/31/2008	1,335,695,474	3,311,268,993	1,975,573,519	40.34	396,181,778	498.65
12/31/2007	1,374,960,353	3,215,874,182	1,840,913,829	42.76	389,124,547	473.09
12/31/2006	1,264,497,434	3,088,124,064	1,823,626,630	40.95	387,442,074	470.68

¹ Actuarial accrued liability excludes OPEB benefits on and after December 31, 2006.

EXHIBIT A-3
SCHEDULE OF EMPLOYER CONTRIBUTIONS
FOR GASB #25

For Year Ending December 31	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2012	\$271,505,718	TBD	TBD
2011	250,056,273	\$ 82,869,839	33.14%
2010	218,388,037	80,947,311	37.07%
2009	203,866,919	89,211,671	43.76%
2008	189,940,561	81,257,754	42.78%
2007	188,201,379	72,022,810	38.27%
2006 ¹	160,246,525	76,763,308	47.90%
2005	161,696,388	90,128,915	55.74%
2004	134,762,334	55,532,454	41.21%
2003	111,079,054	60,234,206	54.23%
2002	105,106,367	59,452,787	56.56%
2001	104,014,168	60,399,909	58.07%
2000	90,530,458	65,928,675	72.82%
1999	87,959,556	53,410,352	60.72%
1998	78,020,603	48,397,527	62.03%
1997	86,981,231	54,921,536	63.14%

¹ Starting with fiscal year 2006, GASB #25 disclosure includes pension benefits only. The retiree healthcare supplement is recognized under GASB #43 disclosure. For fiscal year 2012, the pension GASB #25 ARC is \$271,505,718 and the OPEB GASB #43 ARC is \$4,275,669.

EXHIBIT A-4
SUPPLEMENTARY INFORMATION FOR
GASB #25 AND #27

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 actuarial valuation follows:

Valuation date	December 31, 2011
Actuarial Cost Method	Entry Age
Actuarial Value of Assets	5-year smoothed market
Amortization Method	Level dollar
Remaining Amortization Period	30 years
Actuarial Assumptions:	
Pension Investment Rate of Return	8.0%
OPEB Investment Rate of Return	4.5%
Projected Salary Increases	4.0% per year, plus an additional percentage related to service and promotion
Post-retirement Increases	1.5% simple interest for 20 years for members born in or after 1955 3% simple interest for life for members born before 1955

Actuarial Accrued Liability (AAL)

	2010 ¹	2011 ¹
Payable to Retirees and Beneficiaries	\$ 2,041,511,324	\$ 2,234,050,634
Current Employees:		
Accumulated Employee Contributions Including Statutory Interest	614,377,840	637,938,254
Payable to Vested and Non-Vested Employees	999,136,793	979,930,001
Total Actuarial Accrued Liability	\$ 3,655,025,957	\$ 3,851,918,889
Net Plan Actuarial Assets	1,198,113,789	1,101,741,862
Unfunded AAL (assets in excess of AAL)	\$ 2,456,912,168	\$ 2,750,177,027
Percent Funded	32.78%	28.60%
Unfunded AAL as Percent of Payroll	613.61%	646.51%
Payroll	\$ 400,404,320	\$ 425,385,354

¹Excludes liabilities for retiree healthcare subsidy.

EXHIBIT A-5
ANNUAL PENSION COST AND CONTRIBUTIONS
MADE FOR GASB #27

Contribution rates	
City	Proceeds from a tax levy not more than an amount equal to the total amount of contributions by the employees to the Fund made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 2.26.
Plan members	9.125%
Annual Pension Cost FY 2011	
Annual Required Contribution (ARC)	\$ 250,056,273
Interest on Net Pension Obligation	107,674,201
Adjustment to ARC	<u>(110,699,340)</u>
Total	\$ 247,031,134
Contributions Made FY 2011	\$ 82,869,839
Net Pension Obligation (NPO) FYE 2011	
NPO, Beginning of Year	\$ 1,345,927,517
Increase/(Decrease) in NPO	<u>164,161,295</u>
NPO, End of Year	\$ 1,510,088,812

**EXHIBIT A-6
PENSION COST SUMMARY
FOR GASB #27**

Year Ended December 31	Annual Pension Cost	% of Annual Pension Cost Contributed	Net Pension Obligation
2011	\$247,031,134	33.55%	\$1,510,088,812
2010	215,665,695	37.53%	1,345,927,517
2009	201,396,727	44.30%	1,211,209,132
2008	187,709,633	43.29%	1,099,024,077
2007	186,227,139	38.67%	992,572,198
2006	166,575,057	47.41%	878,367,869
2005	163,383,756	55.16%	790,764,195
2004	136,259,855	40.75%	717,509,354
2003	112,453,771	53.56%	636,781,953
2002	106,370,746	55.89%	584,562,388
2001	105,173,254	57.43%	537,644,429
2000	91,629,104	71.95%	492,871,084
1999	88,974,566	60.03%	467,170,655
1998	78,963,730	61.29%	431,606,441
1997	86,732,136	63.37%	401,040,238

EXHIBIT A-7
DEVELOPMENT OF NET PENSION OBLIGATION (NPO) AT JANUARY 1, 1997 FOR GASB #27

Year Ending December 31:	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Assumptions and Method										
Interest Rate	7.5%	7.5%	7.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Amortization Period (years)	40	40	40	40	40	40	40	40	40	40
Cost Method	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN
Annual Pension Cost										
Actuarially Determined Contribution (ADC)										
Normal Cost	\$44,023,556	\$44,652,516	\$45,746,453	\$43,184,329	\$47,236,555	\$51,515,900	\$52,304,610	\$53,235,963	\$48,144,514	\$49,878,875
40 Year Amortization	39,898,154	39,352,208	40,223,713	42,067,968	46,890,387	51,539,966	50,994,199	50,104,234	58,739,960	60,136,652
Total ADC	\$83,921,710	\$84,004,724	\$85,970,166	\$85,252,297	\$94,126,942	\$103,055,866	\$103,298,809	\$103,340,197	\$106,884,474	\$110,015,527
Interest on NPO	-	2,769,886	5,550,082	8,059,065	10,439,561	13,342,202	16,836,891	20,063,899	23,224,933	26,163,631
Adjustment to ADC	-	(2,827,639)	(5,596,880)	(8,127,020)	(10,527,588)	(13,454,705)	(16,978,861)	(20,233,079)	(23,420,768)	(26,384,245)
Annual Pension Cost	\$83,921,710	\$83,946,971	\$85,923,368	\$85,184,342	\$94,038,915	\$102,943,363	\$103,156,839	\$103,171,017	\$106,688,639	\$109,794,913
Contributions for Year										
Employer Contributions	\$29,562,500	\$34,339,139	\$37,016,865	\$36,478,751	\$36,504,134	\$38,448,497	\$42,036,863	\$42,727,953	\$41,616,542	\$43,527,172
Employee Contributions	17,427,400	17,163,621	17,544,210	18,949,395	21,251,755	20,811,264	20,782,382	20,930,122	28,338,382	24,045,799
Total Contributions	\$46,989,900	\$51,502,760	\$54,561,075	\$55,428,146	\$57,755,889	\$59,259,761	\$62,819,245	\$63,658,075	\$69,954,924	\$67,572,971
Net Pension Obligations (NPO)										
NPO at Beginning of Year	\$0	\$36,931,810	\$69,376,021	\$100,738,313	\$130,494,509	\$166,777,535	\$210,461,137	\$250,798,731	\$290,311,673	\$327,045,388
Annual Pension Cost	83,921,710	83,946,971	85,923,368	85,184,342	94,038,915	102,943,363	103,156,839	103,171,017	106,688,639	109,794,913
Total Contributions	(46,989,900)	(51,502,760)	(54,561,075)	(55,428,146)	(57,755,889)	(59,259,761)	(62,819,245)	(63,658,075)	(69,954,924)	(67,572,971)
NPO at End of Year	\$36,931,810	\$69,376,021	\$100,738,313	\$130,494,509	\$166,777,535	\$210,461,137	\$250,798,731	\$290,311,673	\$327,045,388	\$369,267,330

**EXHIBIT A-8
SCHEDULE OF FUNDING PROGRESS
FOR GASB #43**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/2011	\$ 0	\$ 46,980,335	\$ 46,980,335	0.00 %	\$ 425,385,354	11.04 %
12/31/2010	0	48,221,878	48,221,878	0.00 %	400,404,320	12.04
12/31/2009	0	47,932,528	47,932,528	0.00 %	400,912,173	11.96
12/31/2008	0	47,309,338	47,309,338	0.00 %	396,181,778	11.94
12/31/2007	0	47,096,707	47,096,707	0.00 %	389,124,547	12.10
12/31/2006	0	45,017,463	45,017,463	0.00 %	387,442,074	11.62

EXHIBIT A-9
SCHEDULE OF EMPLOYER CONTRIBUTIONS
FOR GASB #43

For Year Ending December 31	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2012	\$ 4,275,669	TBD	TBD
2010	4,469,292	\$ 2,628,163	58.80%
2010	4,427,729	2,644,290	59.72%
2009	4,370,229	2,645,135	60.53%
2008	4,307,852	2,486,950	57.73%
2007	4,176,767	2,248,156	53.83%

EXHIBIT A-10
SUPPLEMENTARY INFORMATION FOR
GASB #43 AND GASB #45

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 actuarial valuation follows:

Valuation date	December 31, 2011
Actuarial Cost Method	Entry Age
Actuarial Value of Assets	No assets (Pay-as-you-go)
Amortization Method	Level dollar
Remaining Amortization Period	30 years
Actuarial Assumptions:	
Healthcare Investment Rate of Return	4.5%
OPEB Investment Rate of Return	4.5%
Projected Salary Increases	4.0% per year, plus an additional percentage related to service and promotion
Healthcare Cost Trend Rate	0.0% ¹

Actuarial Accrued Liability (AAL)

	2010	2011
Payable to Retirees and Beneficiaries	\$ 28,021,716	\$ 27,505,262
Current Employees:		
Accumulated Employee Contributions Including Statutory Interest	-	-
Payable to Vested and Non-Vested Employees	20,200,162	19,475,073
Total Actuarial Accrued Liability	\$ 48,221,878	\$ 46,980,335
Net Plan Actuarial Assets	-	-
Unfunded AAL (assets in excess of AAL)	\$ 48,221,878	\$ 46,980,335
Percent Funded	0.00%	0.00%
Unfunded AAL as Percent of Payroll	12.04%	11.04%
Payroll	\$ 400,404,320	\$ 425,385,354

¹ Trend not applicable - fixed dollar subsidy.

EXHIBIT A-11
HISTORY OF ANNUAL OPEB COST AND CONTRIBUTIONS
MADE FOR GASB #45

Year Ended December 31	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation
2011	\$ 4,371,598	60.12%	\$ 8,849,587
2010	4,353,533	60.74%	7,106,152
2009	4,319,046	61.24%	5,396,909
2008	4,281,337	58.09%	3,722,998

EXHIBIT A-12
OPEB COST SUMMARY FOR GASB #45

Contribution Rates	
City	Pay-as-you-go
Plan Members	None
 Annual OPEB Cost for 2011	
Annual Required Contribution (ARC)	\$ 4,469,292
Interest on Net OPEB Obligation	319,777
Adjustment to ARC	<u>(417,471)</u>
Total	\$ 4,371,598
 Contributions Made in 2011	 \$ 2,628,163
 Net OPEB Obligation (NOO):	
NOO at 12/31/2010	\$ 7,106,152
Increase/(Decrease) in NOO	<u>1,743,435</u>
NOO at 12/31/2011	\$ 8,849,587