

## MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ACTUARIAL VALUATION REPORT FOR THE YEAR ENDING DECEMBER 31, 2011 APRIL 2012



April 9, 2012

The Retirement Board of the Municipal Employees' Annuity and Benefit Fund of Chicago 321 N. Clark Street Suite 700 Chicago, Illinois 60654

Subject: Actuarial Valuation and Certification

#### **Board Members:**

At your request, we have performed an actuarial valuation for the Municipal Employees' Annuity and Benefit Fund of Chicago ("the Plan") as of December 31, 2011. An actuarial valuation of the Plan is performed annually. The valuation has been performed to measure the funding status of the Plan and determine the actuarially required contribution for 2012. It includes disclosure information required under Governmental Accounting Standards Board (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 GASB Statement No. 25 and GASB Statement No. 43.

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

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

We have also provided the following schedules for the financial sections of the report.

- Schedule of Funding Progress
- Schedule of Employer Contributions

This valuation is based upon:

a) Data Relative to the Members of the Plan – Data utilized for active members and persons receiving benefits from the Plan was provided by the Plan's staff. We have tested this data for reasonableness. However, we have not audited the data.

- **b) Asset Values** The values of assets of the Plan were provided by the Plan's staff. An actuarial value of assets was used to develop actuarial results for GASB Statement No. 25 and Statement No. 27.
- c) Actuarial Method The actuarial method utilized by the Plan is the Entry Age Normal Actuarial Cost Method. The objective of this method is to recognize the costs of Plan benefits over the entire career of each member as a level of percentage of compensation. Any Unfunded Actuarial Accrued Liability (UAAL) under this method is separately amortized. All actuarial gains and losses under this method are reflected in the UAAL.
- **d) Actuarial Assumptions** The same actuarial assumptions as last year were used for this valuation with the exception of the participation assumption for future retires receiving the healthcare subsidy from the Fund. The assumptions are set out in the following pages.

The funding objective is to provide employer and employee contributions sufficient to provide the benefits of the Plan when due. The provision of State Law establishing the Plan constrains employer contributions to be 1.25 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 1.25:1 relationship. This valuation of the Plan shows that a ratio of 5.37 is needed to adequately finance the Plan in fiscal year 2012 on an actuarially sound basis. It should be noted that the statutory employer contributions have been less than the Annual Required Contribution (ARC) for the past nine years and are again expected to be less than the ARC for 2012. In order for employer contributions to be increased, the State legislature would first need to amend the statute. Under the current funding policy, if all future assumptions are realized, the funding ratio is projected to deteriorate until assets are depleted within about 15 to 20 years. The current statutory funding policy does not comply with generally accepted actuarial standards for the funding of retirement systems. We recommend that an actuarially sound funding policy be adopted as soon as possible.

The valuation results set forth in this report are based on the data and actuarial techniques described above, and upon the provisions of the Plan as of the valuation date. Based on these items, we certify these results to be true and correct. One or more of the undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Gabriel, Roeder, Smith & Company

Sincerely, Alex Rivera

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## ADDITIONAL DISCLOSURES REQUIRED BY ACTUARIAL STANDARDS OF PRACTICE

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.

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

The signing actuaries are independent of the plan sponsor.

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### SUMMARY OF ACTUARIAL VALUATION

	De	ecember 31, 2010	De	ecember 31, 2011	Percent Change
ACTUARIAL VALUES		<u> </u>		/	
Actuarial Values					
Actuarial Liability	\$	12,052,229,876	\$	12,456,172,022	3.35 %
Assets - Actuarial Value		6,003,389,605		5,552,291,417	(7.51)%
Unfunded Liability (Surplus)		6,048,840,271		6,903,880,605	14.14 %
Funded Ratio		49.81%		44.57%	(10.51)%
Annual Required Contribution (ARC)	\$	634,559,144	\$	705,454,416	11.17 %
Market Values					
Actuarial Liability	\$	12,052,229,876	\$	12,456,172,022	3.35 %
Assets - Market Value		5,435,593,422		5,053,248,869	(7.03)%
Unfunded Liability (Surplus)		6,616,636,454		7,402,923,153	11.88 %
Funded Ratio		45.10%		40.57%	(10.05)%
Book Values					
Actuarial Liability	\$	12,052,229,876	\$	12,456,172,022	3.35 %
Assets - Book Value		4,927,631,310		4,874,683,099	(1.07)%
Unfunded Liability (Surplus)		7,124,598,566		7,581,488,923	6.41 %
Funded Ratio		40.89%		39.13%	(4.28)%

Actuarial Liability and Annual Required Contribution include both pension and OPEB.

### **SUMMARY OF ACTUARIAL VALUATION (CONT'D)**

	De	cember 31, 2010	De	cember 31, 2011	% Char
ssets					
Market Value - Beginning of Year	\$	5,166,224,494	\$	5,435,593,422	5.21
Income					
Investment Income		638,568,991		31,583,226	(95.05)
Employer Contributions		164,326,439		156,525,374	(4.75)
Employee Contributions		133,299,542		132,596,417	(0.53)
Subtotal		936,194,972		320,705,017	(65.74)
Outgo (Refunds, Benefits & Expenses)		666,826,044		703,049,570	5.43
Net Change		269,368,928		(382,344,553)	(241.94)
Market Value - End of Year	\$	5,435,593,422	\$	5,053,248,869	(7.03)
Book Value - Beginning of Year Income	\$	5,009,960,625	\$	4,927,631,310	(1.64)
Investment Income		286,870,748		360,979,568	25.83
Employer Contributions		164,326,439		156,525,374	(4.75)
Employee Contributions		133,299,542		132,596,417	(0.53)
Subtotal	-	584,496,729	-	650,101,359	11.22
Outgo (Refunds, Benefits & Expenses)		666,826,044		703,049,570	5.43
Net Change		(82,329,315)		(52,948,211)	35.69
Book Value - End of Year	\$	4,927,631,310	\$	4,874,683,099	(1.07)
Actuarial Value - Beginning of Year	\$	6,295,788,191	\$	6,003,389,605	(4.64)
Income					
Investment Income		76,801,477		(37,170,409)	(148.40)
Employer Contributions		164,326,439		156,525,374	(4.75)
Employee Contributions		133,299,542		132,596,417	(0.53)
Subtotal		374,427,458		251,951,382	(32.71)
Outgo (Refunds, Benefits & Expense)		666,826,044		703,049,570	5.43
Net Change		(292,398,586)		(451,098,188)	(54.28)
Actuarial Value - End of Year	\$	6,003,389,605	\$	5,552,291,417	(7.51)

### SUMMARY OF ACTUARIAL VALUATION (CONT'D)

	Dec	cember 31, 2010	Dec	cember 31, 2011	% Change
Members			,		
Actives <sup>1</sup>		30,726		31,976	4.07 %
Inactives		13,866		12,762	(7.96)%
Retirees		18,438		18,813	2.03 %
Deferreds		3		2	(33.33)%
Survivors		4,346		4,274	(1.66)%
Reversionary Annuitants <sup>2</sup>				129	NA
Disabilities		550		610	10.91 %
Children		173		164	(5.20)%
Payroll Data					
Valuation Payroll <sup>3</sup>	\$	1,541,388,065	\$	1,605,993,339	4.19 %
Average Salary		50,166		50,225	0.12 %

Active members include disabled employees.

<sup>2</sup> Prior to December 31, 2011, Reversionary Annuitants were included with Survivors

<sup>3</sup> Valuation payroll is based on pensionable pay for Tier 2 members.

#### **DISCUSSION OF VALUATION RESULTS**

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

- 1. To develop the minimum actuarially determined contribution for 2012.
- 2. To develop the annual required contribution (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 Plan.

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

For Plan and City financial reports, the funding status is measured using liabilities under the Entry Age Normal funding method and the Actuarial Value of Assets. The Actuarial Value of Assets is determined by annually spreading the difference between expected and actual investment earnings over a five-year period.

#### **Actuarial Obligations of the Plan**

The value of all future pension payments, calculated using the actuarial assumptions contained in this report, is the sum of payments to two major groups of beneficiaries – the retired lives and the active lives.

#### 1. Retired Lives:

For those currently receiving known benefits, i.e., current retirees, widows, widowers, and children, the value is determined based on estimated future longevity with the future benefit payment discounted to present time at the assumed investment earnings rate.

#### 2. Active Lives:

The value of future payments for active employees who will receive benefits in the future is estimated, since the amount of pension is only known at the actual time of retirement. This estimate is made using various assumptions as to future salary increases, probable retirement age, and probability of death, withdrawal, or disablement before retirement. For active employees, the goal is to have enough assets on hand at retirement to pay for all future benefits promised. To provide for an orderly accumulation of these required assets, an actuarial funding method is used.

Using the "Entry Age Normal" funding method, assets are allocated as a level amount (expressed as a percentage of salary) over the employee's working lifetime. These allocated costs are called "normal costs" and are sufficient, if set aside each year, to fully fund his or her benefits when and if he or she retires. The actuarial reserve (amount of assets needed now) is the present value of future benefits less the value of future normal costs to be paid.

The difference between the sum of actuarial reserves for active and retired lives ("the Actuarial Accrued Liability") and the present assets is called the "Unfunded Actuarial Accrued Liability." If assets exceed the liability, there is a surplus. The unfunded liability depends upon the benefits, the characteristics of the covered group of employees and retirees, the actuarial assumptions, and the actuarial funding method. The unfunded liability can be thought of as the amount of assets that will be needed in future years to provide for all future benefits payable when added to the future normal costs determined by the actuarial funding method.

For the pension plan to be in balance (funded ratio of 100 percent), the present value of all benefits payable in the future must equal the sum of present assets plus the present value of all future contributions. If a plan is 100 percent funded, it does not mean that no contributions are ever needed again. It simply means that the plan is where it should be at a particular point in time. The assets of the plan are sufficient to provide for future benefits payable based on service to the date of valuation. **Future contributions are still needed** to provide the "normal costs" for service after the date of the valuation in order to have sufficient assets at retirement to provide the future payments of the total projected benefit.

#### **Summary of Results**

The annual required contribution (ARC) under GASB #25 for the year ending December 31, 2012, is \$690.8 million, which is for pension benefits only. This amount is net of estimated employee contributions of \$139.5 million and is based on a 30-year amortization period.

GASB #43 requires the calculation of a separate ARC for Other Postemployment Benefits (OPEB) beginning with the Fund's 2006 fiscal year. The OPEB ARC for the fiscal year ending December 31, 2012, is \$14.6 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.

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

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 asset account exists to pay the health insurance supplement.

Beginning with the December 31, 2006, actuarial valuation, GASB #25 requires the use of a 30-year amortization period to determine the pension ARC.

The Total ARC for FY 2012 is \$705.5 million, which is \$547.9 million more than the statutory contribution (after the assumed 4 percent loss on the tax levy) of \$157.6 million. The difference between the ARC and the statutory contributions represents a "net pension obligation" (NPO) (and "net OPEB obligation" (NOO) for OPEB) as defined under GASB. The NPO and NOO are viewed as the accumulated value of contribution variances – where GASB defines contribution variances as the difference between the ARC and the statutory contribution. In lay terms, the NPO and NOO could be viewed as a "past due" on the annual required contributions.

As shown in Exhibit A-5 of this report, the NPO (accumulated missed contributions) has increased from less than \$0 as of December 31, 2006, to over \$1.4 billion as of December 31, 2011, and is projected to increase significantly in fiscal year 2012 (\$547.9 million) and in the future. A large and growing NPO may raise concerns in the capital markets and impact the cost of debt and borrowing for the City.

The Unfunded Actuarial Accrued Liability based on the Actuarial Value of Assets increased from \$6.049 billion to \$6.904 billion during the year, resulting in a decrease in the funding ratio from 49.8 percent to 44.6 percent. The increase in the Unfunded Actuarial Accrued Liability is mainly attributable to the recognition of deferred investment losses from 2007, 2008, and 2011, and a shortfall in contributions relative to the actuarially determined contribution requirement. A more thorough examination of these and other factors can be found in the Reconciliation of Unfunded Actuarial Accrued Liability (gain/loss analysis) in Table 2 and the Reconciliation of Funded Ratio in Table 2A.

Based on the Market Value of Assets, the Unfunded Actuarial Accrued Liability increased from \$6.617 billion to \$7.403 billion, and the funded ratio decreased from 45.1 percent to 40.6 percent.

#### **Plan Membership**

	December 31, 2010	December 31, 2011
Active Members <sup>1</sup>		
Number	30,726	31,976
Vested	17,531	17,938
Non-vested	13,195	14,038
Average Age	47.3	47.1
Average Service	12.2	12.1
Average Annual Salary	\$50,166	\$50,225
Inactive Members		
Number	13,866	12,762
Average Age	45.1	45.7
Average Service	4.6	4.1
Retirees		
Number	18,438	18,813
Average Age	72.8	72.7
Average Annual Benefit	\$31,046	\$32,269
Deferreds		
Number	3	2
Average Age	53.6	50.5
Average Annual Benefit	\$4,312	\$6,510
Surviving Spouses		
Number	4,346	4,274
Average Age	77.5	77.6
Average Annual Benefit	\$12,407	\$12,640
Reversionary Annuitants <sup>2</sup>		
Number		129
Average Age		80.8
Average Annual Benefit		\$4,428
Children	173	164
Total Members	67,552	68,120

<sup>&</sup>lt;sup>1</sup> Active members include disabled employees.

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

Total members receiving benefits under the Plan increased 1.8 percent during 2011, from 22,957 to 23,380, while the number of active members increased 4.1 percent from 30,726 to 31,976. Total expenditures for benefits increased from \$630 million in 2010 to \$664 million during 2011, or 5.4 percent.

<sup>&</sup>lt;sup>2</sup> Prior to December 31, 2011, Reversionary Annuitants were included with Survivors

#### **Changes in Provisions of the Plan**

The following Public Acts were passed in 2011 by the 97th General Assembly that made changes to the Fund Provisions.

P. A. 97-0530 (SB 1672), approved August 23, 2011

P. A. 97-0609 (SB 1831), approved August 26, 2011

P. A. 97-0504 (HB 1670), approved August 23, 2011

These changes do not directly impact the liabilities of the Fund as of the valuation date. A detailed description of the provisions in the Public Acts passed in 2011 can be found in the Historic Information section of this report.

#### **Discussion 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 run 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.

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.

The participation assumption for future retirees receiving the healthcare subsidy from the Fund was changed from 100 percent to 50 percent based upon the most recent valuation data. The remainder of the actuarial assumptions were first adopted for use with the December 31, 2010, valuation report.

#### **2011 Experience Analysis**

The Fund had an investment loss in 2011 of \$387 million relative to the 8.00 percent expected rate of return on a market value basis. The loss on an actuarial value basis relative to the 8.00 percent expected rate of return was \$501 million due to the deferred recognition of prior year investment gains and losses.

Individual salary increases varied among plan participants, but the overall increase was lower than anticipated by the actuarial assumptions, resulting in an experience gain of \$107 million. Service credit changes and purchases resulted in an experience loss of \$10 million.

Combined City and employee contributions were less than Normal Cost plus interest on the Unfunded Actuarial Accrued Liability, which resulted in an increase in the Unfunded Actuarial Accrued Liability of \$450 million. Contributions lower than Normal Cost plus interest have increased the Unfunded Actuarial Accrued Liability each year for the past ten years.

The healthcare subsidy participation assumption change decreased the Unfunded Actuarial Accrued Liability by \$59 million.

There was an additional loss of \$61 million from all other factors, including actual retirement, termination, disability, mortality experience, and data changes. This is about 0.5 percent of the December 31, 2011, liabilities, which is a reasonable variation.

Table 2 and 2A summarize the experience gains and losses for the year.

#### **Funding Analysis**

The charts on pages 11 though 14 summarize the various measures of benefit security (funded ratio) examined in this valuation and highlight the trends of the measures.

#### **Conclusion**

On a market value basis, the funded ratio has decreased from 45.1 percent in the last valuation to 40.6 percent in this valuation. This decrease is the result of returns on a Market Value of Assets basis which were lower than expected and continued contribution shortfalls. The funded ratio using the Actuarial Value of Assets is expected to decrease for the next few years toward the funded ratio using the Market Value of Assets, at which point the significant investment losses from 2008 and 2011 will be fully recognized.

When measured using the Actuarial Value of Assets, which smoothes gains and losses over a five-year period, the funding ratio decreased from 49.8 percent in 2010 to 44.6 percent in 2011. Future decreases in the funded ratio are expected to occur as a result of contributions that are insufficient to adequately finance the Plan. Under the current funding policy, if all future assumptions are realized, the funding ratio is projected to deteriorate until assets are depleted within about 15 to 20 years.

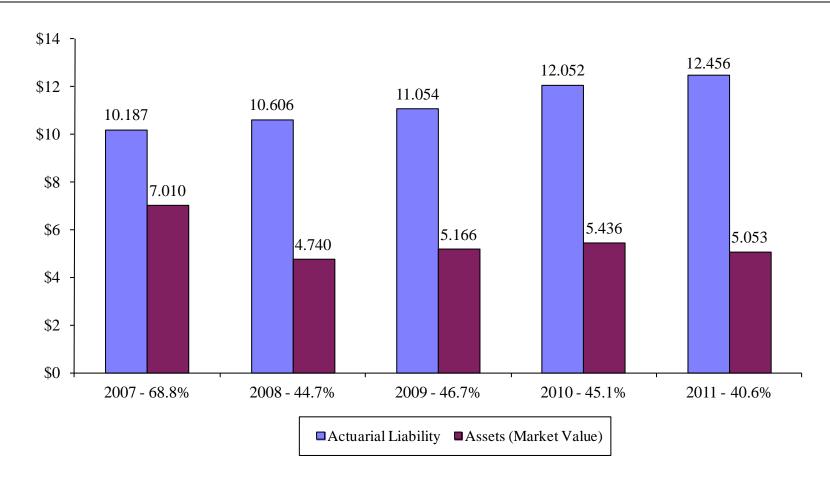
The Net Pension Obligation (NPO) has increased from less than \$0 as of December 31, 2006, to over \$1.4 billion as of December 31, 2011, and is projected to increase in the future due to contribution shortfalls compared with the Annual Required Contribution (ARC). A large and growing NPO may raise concerns in the capital markets and impact the cost of debt and borrowing for the City.

The current statutory funding policy impacts the ability to achieve higher returns over the long-term because it is projected that assets may need to be liquidated in order to pay annual benefits. This could result in a change in the asset allocation in the future to more liquid assets with a lower return. We recommend that the funding policy and assumed investment return be reviewed every year. If the funding policy is not strengthened within the next few years, the current investment return assumption may not continue to be supportable.

# COMPONENTS OF FUNDED RATIO BASED ON ACTUARIAL VALUE OF ASSETS (\$ IN BILLIONS)



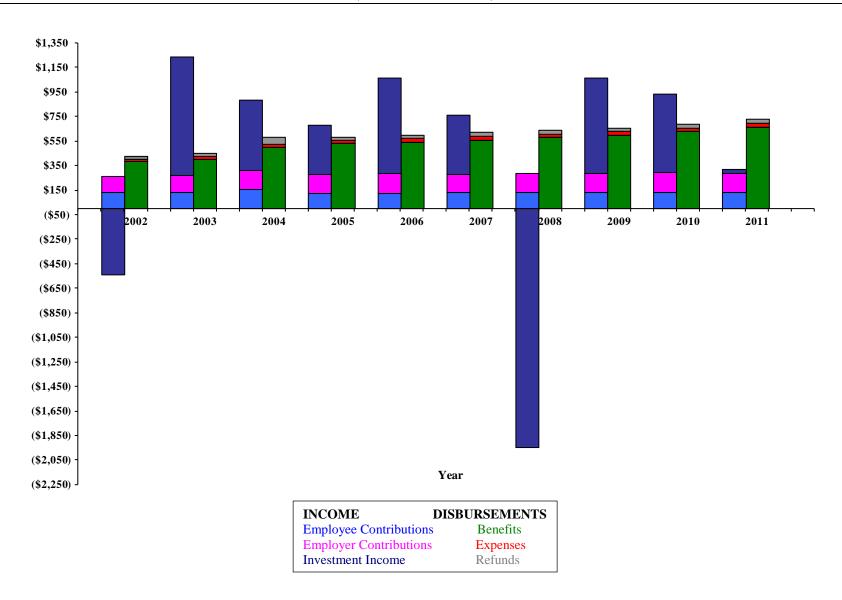
# COMPONENTS OF FUNDED RATIO BASED ON MARKET VALUE (\$ IN BILLIONS)



# COMPONENTS OF FUNDED RATIO BASED ON BOOK VALUE (\$ IN BILLIONS)



## SUMMARY OF INCOME AND DISBURSEMENTS (\$ IN MILLIONS)





### TABLE 1 **DEVELOPMENT OF ANNUAL REQUIRED CONTRIBUTION UNDER GASB #25 FOR 2012**

		2011	2012
(1) Normal Cost <sup>1</sup>	\$	237,451,437	\$ 243,538,511
(2) Actuarial Accrued Liability (AAL) <sup>1</sup>	\$ 1	11,828,665,658	\$ 12,292,930,124
(3) Unfunded AAL (UAAL)			
(a) Actuarial Value of Assets	\$	6,003,389,605	\$ 5,552,291,417
(b) UAAL [2-3(a)]	\$	5,825,276,053	\$ 6,740,638,707
(4) Amortization (30-Year Level \$) Payable at BOY	\$	479,115,112	\$ 554,401,515
(5) Minimum Actuarially Calculated Contribution			
(a) Interest Adjustment for Semi-monthly Payment	\$	29,122,470	\$ 32,429,625
(b) Total Minimum Contribution [1+4+5(a)]; but not less than zero	\$	745,689,019	\$ 830,369,651
(c) Total Minimum Contribution (Percent of Pay)		48.38%	51.70%
(6) Estimated Member Contributions	\$	133,933,452	\$ 139,547,098
(7) Annual Required Contribution (ARC)			
(a) Annual Required Contribution [5(b)-6]	\$	611,755,567	\$ 690,822,553
(b) Annual Required Contribution (Percent of Pay)		39.69%	43.02%
(8) Estimated City Contribution (after 4% loss) <sup>2</sup>	\$	144,994,854	\$ 148,095,728
(9) City Contribution Deficiency/(Excess)			
(a) in Dollars [(7(a)-8]	\$	466,760,713	\$ 542,726,825
(b) as a Percentage of Pay		30.28%	33.79%
(10) Combined City/Member Contributions Deficiency/(Excess)			
(a) in Dollars [5(b)-6-8]	\$	466,760,713	\$ 542,726,825
(b) as a Percentage of Pay		30.28%	33.79%

 $<sup>^{1}</sup>$  Excludes health insurance supplement.  $^{2}$  Total statutory required contribution less expected benefit payments for the health insurance supplement.

# TABLE 1A DEVELOPMENT OF ANNUAL REQUIRED CONTRIBUTION UNDER GASB #43 For 2012

	 2011	2012
(1) Normal Cost <sup>1</sup>	\$ 9,154,612	\$ 4,711,272
(2) Actuarial Accrued Liability (AAL) <sup>1</sup>	\$ 223,564,218	\$ 163,241,898
(3) Unfunded AAL (UAAL)		
(a) Actuarial Value of Assets	\$ -	\$ -
(b) UAAL [2-3(a)]	\$ 223,564,218	\$ 163,241,898
(4) Amortization (30-Year Level \$) Payable at BOY	\$ 13,133,926	\$ 9,590,117
(5) Minimum Actuarially Calculated Contribution		
(a) Interest Adjustment for Semi-monthly Payment	\$ 515,039	\$ 330,474
(b) Total Minimum Contribution [1+4+5(a)]; but not less than zero	\$ 22,803,577	\$ 14,631,863
(c) Total Minimum Contribution (Percent of Pay)	1.48%	0.91%
(6) Estimated Member Contributions	\$ -	\$ -
(7) Annual Required Contribution (ARC)		
(a) Annual Required Contribution [5(b)-6]	\$ 22,803,577	\$ 14,631,863
(b) Annual Required Contribution (Percent of Pay)	1.48%	0.91%
(8) Estimated City Contribution <sup>2</sup>	\$ 9,849,146	\$ 9,506,272
(9) City Contribution Deficiency/(Excess)		
(a) in Dollars [(7(a)-8]	\$ 12,954,431	\$ 5,125,591
(b) as a Percentage of Pay	0.84%	0.32%
(10) Combined City/Member Contributions Deficiency/(Excess)		
(a) in Dollars [5(b)-6-8]	\$ 12,954,431	\$ 5,125,591
(b) as a Percentage of Pay	0.84%	0.32%

<sup>&</sup>lt;sup>1</sup> The normal cost and actuarial accrued liabilities for the health insurance supplement are based on a discount rate of 4.50 percent. Excludes pension liabilities.

<sup>&</sup>lt;sup>2</sup> Represents expected benefit payments for the health insurance supplement.

## TABLE 1B DEVELOPMENT OF CITY CONTRIBUTION REQUIREMENTS

	Fiscal Year 2012	Fiscal Year 2013
Preliminary Determination of City Contribution		
Applicable Members' Contribution, Two Years Prior	\$ 131,335,076	\$ 130,194,745
Statutory Contribution Multiple	1.25	1.25
Statutory City Contribution	164,168,800	162,743,400
Actuarial Liability at Valuation Date	12,052,229,876	12,456,172,022
Actuarial Value of Assets at Valuation Date	6,003,389,605	5,552,291,417
Funded Ratio	49.81%	44.57%

## TABLE 1C ACTIVE ACCRUED LIABILITY AND NORMAL COST BY TIER

	Tier 1 Members	Tier 2 Members	Total
(1) Count	29,905	2,071	31,976
(2) Payroll	\$1,532,164,047	\$ 73,829,292	\$ 1,605,993,339
(3) Average Payroll	\$ 51,234	\$ 35,649	\$ 50,225
(4) Actuarial Accrued Liability (AAL) <sup>1</sup>	\$5,302,578,923	\$ 3,400,378	\$ 5,305,979,301
(5) Total Normal Cost <sup>1</sup>	\$ 241,070,895	\$ 7,178,888	\$ 248,249,783
(6) Total Normal Cost as a Percent of Pay	15.7%	9.7%	15.5%
(7) Estimated Member Contributions	\$ 133,131,963	\$ 6,415,135	\$ 139,547,098
(8) Net Normal Cost <sup>1</sup>	\$ 107,938,932	\$ 763,753	\$ 108,702,685
(9) Net Normal Cost as a Percent of Pay	7.0%	1.0%	6.8%

<sup>&</sup>lt;sup>1</sup> The normal cost and liabilities for healthcare are based on a discount rate of 4.5%.

<sup>&</sup>lt;sup>2</sup> Members participating on or after January 1, 2011.

TABLE 2
RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

	2007	2008	2009	2010	2011
Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)					
Beginning of Year	\$3,183,173,857	\$3,296,152,269	\$3,936,346,961	\$4,758,504,409	\$6,048,840,271
(Gains) Losses During the Year Attributable to:					
Contributions Less Than (in Excess of) Normal Cost plus Interest	199,581,204	211,536,054	263,525,304	320,818,396	449,777,576
(Gain) Loss on Investment Return on the Actuarial Value of Assets	(190,572,574)	437,218,599	541,514,597	412,377,681	501,202,990
(Gain) Loss from Salary Changes	(7,181,683)	6,654,805	(2,224,555)	(60,823,939)	(107,481,719)
(Gain) Loss from Retirement, Termination, & Mortality	71,476,178	(25,452,703)	7,921,619	26,339,285	60,500,888
(Gain) Loss from Data Corrections	_	-	_	<u>-</u>	-
(Gain) Loss from Transfers	-	-	-	-	-
Change in Methodology	-	-	-	-	-
Non-ERI Service Credit Changes and Purchases	39,675,287	10,237,937	11,420,483	14,796,688	10,008,932
Change in Assumptions	-	-	-	576,827,751	(58,968,333)
Plan Amendments	-	-	-	_	-
Net Increase (Decrease) in UAAL	112,978,412	640,194,692	822,157,448	1,290,335,862	855,040,334
Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)					
End of Year	\$3,296,152,269	\$3,936,346,961	\$4,758,504,409	\$6,048,840,271	\$6,903,880,605

TABLE 2A
RECONCILIATION OF FUNDED RATIO

	2008	2009	2010	2011
Funded Ratio Beginning of Year	67.64%	62.89%	56.95%	49.81%
Expected Increase If All Assumptions Realized	1.31%	1.45%	1.65%	2.00%
Expected Funded Ratio	68.95%	64.34%	58.60%	51.81%
Gains (Losses) During the Year Attributable to:				
Contributions in Excess of (Less Than) Normal Cost plus Interest	-2.00%	-2.39%	-2.79%	-3.58%
Gain/(Loss) on Investment Return on the Smoothed Value of Assets	-4.12%	-4.91%	-3.58%	-4.00%
Gain/(Loss) from Salary Changes	-0.03%	0.01%	0.27%	0.39%
Gain/(Loss) from Retirement, Termination, & Mortality	0.15%	-0.04%	-0.12%	-0.22%
Gain/(Loss) from Data Corrections	0.00%	0.00%	0.00%	0.00%
Gain/(Loss) from Transfers	0.00%	0.00%	0.00%	0.00%
Change in Methodology	0.00%	0.00%	0.00%	0.00%
Non-ERI Service Credit Changes and Purchases	-0.06%	-0.06%	-0.06%	-0.04%
Change in Assumptions	0.00%	0.00%	-2.51%	0.21%
Plan Amendments	0.00%	0.00%	0.00%	0.00%
Total Gains (Losses) During the Year	-6.06%	-7.39%	-8.79%	-7.24%
Funded Ratio End of Year	62.89%	56.95%	49.81%	44.57%

# TABLE 3 SUMMARY OF BASIC ACTUARIAL VALUES

(1) Values for Active and Inactive Members	APV of Projected Benefits	2012 Normal Cost
<ul> <li>(a) Retirement</li> <li>(b) Termination - Vested</li> <li>(c) Termination - Non Vested</li> <li>(d) Death</li> <li>(e) Inactive Vested and Non-Vested</li> <li>(f) Health Insurance</li> <li>(g) Disability</li> <li>(h) Expenses of Administration</li> </ul>	\$ 6,708,147,992 387,039,294 71,873,358 94,779,245 330,740,507 120,752,611	\$ 170,461,199 24,876,866 24,482,498 4,297,660 - 4,711,272 12,044,950 7,375,338
Total for Actives and Inactives	\$ 7,713,333,007	\$ 248,249,783
(2) Values for Members in Payment Status	\$ 6,803,140,300	\$ -
(3) Grand Totals  Actuarial Present Value of Future Compensation	\$ 14,516,473,307	\$ 248,249,783 \$ 14,474,484,149

TABLE 4
ACTUARIAL ACCRUED LIABILITY PRIORITIZED SOLVENCY TEST

Valuation	(1) Active and Inactive	(2) Retirees	Act	(3) Active and Inactive Actuarial		Portion (%) of Present Value Covered				
Date	Member	and		lembers (ER		Value of	By Assets			
12/31	Contribution	Beneficiaries	<u>Fin</u>	anced Portion)		Assets	(1)	(2)	(3)	
2002 2	\$ 1,217,420,586	\$ 3,551,167,505	\$	2,808,512,286	\$	6,403,982,494	100.00%	100.00%	58.23%	
2003 2	1,285,968,607	3,740,757,718		2,961,910,231		6,384,098,957	100.00%	100.00%	45.83%	
2004 2	1,165,883,637	5,217,025,314		2,425,591,993		6,343,076,159	100.00%	99.24%	0.00%	
2005 1	1,252,060,754	5,325,007,461		2,673,143,602		6,332,378,676	100.00%	95.40%	0.00%	
2006	1,347,789,693	5,438,978,756		2,905,551,034		6,509,145,626	100.00%	94.90%	0.00%	
2007	1,437,604,071	5,572,797,922		3,176,213,194		6,890,462,918	100.00%	97.85%	0.00%	
2008	1,536,221,953	5,701,015,809		3,368,610,969		6,669,501,770	100.00%	90.04%	0.00%	
2009	1,610,503,053	5,874,606,230		3,569,183,317		6,295,788,191	100.00%	79.75%	0.00%	
2010 1	1,682,418,161	6,438,552,003		3,931,259,712		6,003,389,605	100.00%	67.11%	0.00%	
2011 1	1,724,683,910	6,803,140,300		3,928,347,812		5,552,291,417	100.00%	56.26%	0.00%	

<sup>&</sup>lt;sup>1</sup>Change in actuarial assumptions.

The prioritized solvency test is another means of checking a plan's progress under its funding program, based on the Actuarial Accrued Liability. In this test the plan's present assets (cash and investments) are compared with obligations in order of priority: (1) active and inactive member contributions on deposit; (2) the present value of future benefits to present retired lives; (3) the employer financed portion for present active and inactive members. In a plan that has been following an actuarially sound discipline of financing, the obligation for active and inactive member contributions on deposit (present value 1) and the present value of future benefits to present retired lives (present value 2) will be fully covered by present assets (except in rare circumstances). In addition, the Actuarial Accrued Liability for present active and inactive members (present value 3) will be partially covered by the remainder of present assets. Generally, if the plan has been following a system of amortizing the Unfunded Liability, the funded portion of present value (3) will increase over time.

Due to the inadequacy of the current statutory funding policy, Present Value 2 is no longer fully funded and Present Value 3 is completely unfunded.

<sup>&</sup>lt;sup>2</sup>Change in benefits.

TABLE 5
STATUTORY RESERVES AS OF DECEMBER 31, 2011

		New in 2011		C	ontinuing from 20	10			
	Annuity Payment Fund	Prior Service Fund	Total	Annuity Payment Fund	Prior Service Fund			Prior Service Fund	Total
Statutory Reserve <sup>1</sup>									
Retirees	\$159,076,641	\$ 434,464,406	\$ 593,541,047	\$1,111,950,424	\$4,414,303,485	\$5,526,253,909	\$1,271,027,065	\$4,848,767,891	\$6,119,794,956
Future Surviving Spouses	\$ 29,508,587	\$ 22,378,811	\$ 51,887,398	\$ 259,900,872	\$ 369,334,516	\$ 629,235,388	\$ 289,409,459	\$ 391,713,327	\$ 681,122,786
Spouses	\$ 18,260,210	\$ 14,827,828	\$ 33,088,038	\$ 154,635,832	\$ 158,198,203	\$ 312,834,035	\$ 172,896,042	\$ 173,026,031	\$ 345,922,073
Annual Benefits									
Retirees	\$ 14,373,801	\$ 24,822,867	\$ 39,196,668	\$ 139,214,892	\$ 428,666,076	\$ 567,880,968	\$ 153,588,693	\$ 453,488,943	\$ 607,077,636
Future Surviving Spouses	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spouses	\$ 2,107,130	\$ 2,023,846	\$ 4,130,976	\$ 23,675,757	\$ 26,787,327	\$ 50,463,084	\$ 25,782,887	\$ 28,811,173	\$ 54,594,060

<sup>&</sup>lt;sup>1</sup>As required by State statutes, calculated using the Combined Annuity Mortality Table with interest at 3.00 percent per annum, except for employees and spouses of employees who were participants on or before January 1, 1952, for whom the American Experience Table of Mortality with interest at 4.00 percent per annum is used.

## TABLE 6 STATE REPORTING DISCLOSURE

	2010	2011
APV of Credited Projected Benefits		
Payable to Retirees and Beneficiaries	\$ 6,438,552,003	\$ 6,803,140,300
Current Active and Inactive Employees:		
Accumulated Active and Inactive Employee Contributions	1,682,418,161	1,724,683,910
Payable to Vested and Non-Vested Employees	2,820,328,625	2,775,259,424
Total APV	\$ 10,941,298,789	\$ 11,303,083,634
Net Assets Available for Benefits, Actuarial Value	6,003,389,605	5,552,291,417
Unfunded AAL (AAL in excess of assets)	\$ 4,937,909,184	\$ 5,750,792,217
Percent Funded	54.87%	49.12%
Unfunded AAL as Percent of Payroll	320.35%	358.08%
Payroll	\$ 1,541,388,065	\$ 1,605,993,339

# TABLE 7 ACTUARIAL RESERVE LIABILITIES FOR THE FISCAL YEAR ENDING DECEMBER 31, 2011

Accrued Liabilities for Active and Inactive Participants <sup>1</sup>	\$ 5,653,031,722
Reserves For:	
Service Retirement Pension	\$ 5,925,333,596
Future Spouses of Current Retirees	417,594,245
Surviving Spouse Pension	370,806,273
Health Insurance Supplement	87,970,535
Child Annuitants	1,435,651
Total Accrued Liabilities	\$ 12,456,172,022
Unfunded Actuarial Liabilities	\$ 6,903,880,605
Actuarial Net Assets	\$ 5,552,291,417

<sup>&</sup>lt;sup>1</sup> Accrued liabilities for active participants includes retirement liability for members in ordinary or duty disabled status. Liability for disability benefits is recognized as a one-year term cost of 0.75 percent of pay added to the normal cost.



#### ASSETS OF THE PLAN

The book value of plan assets, net of accounts payable, decreased from \$4.93 billion as of December 31, 2010, to \$4.87 billion as of December 31, 2011, and the market value of plan assets decreased from \$5.44 billion as of December 31, 2010, to \$5.05 billion as of December 31, 2011. Table 8 details the development of asset values during 2011 and Table 9 shows the development of the actuarial value of assets as of December 31, 2011.

# TABLE 8 RECONCILIATION OF ASSET VALUES AS OF DECEMBER 31, 2011

	Market Value		Book Value
(1) Value of Assets as of 12/31/2010	\$	5,435,593,422	\$ 4,927,631,310
(2) Income for Plan Year:			
(a) Member Contributions	\$	132,596,417	\$ 132,596,417
(b) City Contributions & Miscellaneous		156,525,374	156,525,374
(c) Investment Income Net of Expenses		31,583,226	360,979,568
(d) Total Income	\$	320,705,017	\$ 650,101,359
(3) Disbursements for Plan Year:			
(a) Benefit Payments - Pension	\$	654,054,148	\$ 654,054,148
(b) Benefit Payments - Health Insurance Supplement		9,516,053	9,516,053
(c) Refunds and Rollovers		32,104,031	32,104,031
(d) Administration		7,375,338	7,375,338
(e) Total Disbursements	\$	703,049,570	\$ 703,049,570
(4) Value of Assets as of 12/31/2011	\$	5,053,248,869	\$ 4,874,683,099
(5) Estimated Rate of Return in 2011:			
(a) Gross (Investment Expense of \$25,721,614)		1.10 %	8.19 %
(b) Net of Investment Expense		0.60 %	7.65 %

#### TABLE 9 **DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS** AS OF DECEMBER 31, 2011

#### (1) Expected Return on Market Value of Assets for Prior Year

- (a) Market Value of Assets as of 12/31/2010
- (b) Actual Income and Disbursements in Prior Year Weighted for Timing

5,435,593,422

		Weight for	Weighted
Item	 Amount	Timing	 Amount
i) Member Contributions	\$ 132,596,417	50.0%	\$ 66,298,209
ii) City Contributions & Misc.	156,525,374	50.0%	78,262,687
iii) Benefit Payments	(663,570,201)	50.0%	(331,785,101)
iv) Refunds	(32,104,031)	50.0%	(16,052,016)
v) Administration	 (7,375,338)	50.0%	(3,687,669)
vi) Total	\$ (413,927,779)		\$ (206,963,890)

(c) Market Value of Assets Adj. for Actual Income and Disbursements [(a) + (b)(vi)]

5,228,629,532 8.00%

(d) Assumed Rate of Return on Plan Assets for the Year

418,290,363

#### (2) Actual Return on Market Value of Assets for Prior Year

- (a) Market Value of Assets as of 12/31/2010
- 5,435,593,422 (b) Income (less investment income) for Prior Plan Year 289,121,791
- (c) Disbursements Paid in Prior Year

(e) Expected Return [(c) \* (d)]

703,049,570

31,583,226

(d) Market Value of Assets as of 12/31/2011

5,053,248,869

(e) Actual Return [(d) + (c) - (b) - (a)](3) Investment Gain/(Loss) for Prior Year

(386,707,137)

#### (4) Actuarial Value of Assets as of 12/31/2011

- (a) Market Value of Assets as of 12/31/2011
- (b) Deferred Investment Gains and (Losses) for Last 5 Years

5,053,248,869

	Plan Year		Gain/(Loss)	Weight for Timing	 Deferred Amount
i)	2007	\$	(48,662,875)	0.00%	\$ -
ii)	2008		(2,495,444,480)	20.00%	(499,088,896)
iii)	2009		413,471,595	40.00%	165,388,638
iv)	2010		240,039,034	60.00%	144,023,420
v)	2011		(386,707,137)	80.00%	 (309,365,710)
vi)	Total	:	\$ (2,277,303,863)		\$ (499,042,548)

(c) Actuarial Value of Assets [(a) - (b) (vi)]

5,552,291,417

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 percent per year.



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

Active Participants <sup>1</sup>	Number at Beginning of Year <sup>2</sup>	New	Inactive to Active	Total Increases	Decreases	Number at End of Year
Males	12,376	934	211	1,145	693	12,828
Females	18,350	1,429	323	1,752	954	19,148
Active Total	30,726	2,363	534	2,897	1,647	31,976
Inactive Participants	Number at Beginning of Year	New	Active to Inactive	Total Increases	Decreases	Number at End of Year
Males	5,305	34	88	122	508	4,919
Females	8,561	50	138	188	906	7,843
Inactive Total	13,866	84	226	310	1,414	12,762
Total - Actives and Inactives	44,592					44,738

<sup>&</sup>lt;sup>1</sup>All employees receiving ordinary and duty disability benefits are included in the active count.

<sup>&</sup>lt;sup>2</sup>Includes one active member reclassified from male to female.

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

Annuitants and Beneficiaries	Number at Beginning of Year	Additions During Year	Terminations During Year	Number at End of Year
Employee Annuitants	18,438	1,149	774	18,813
Deferred Employee Annuitants	3	1	2	2
Surviving Spouse Annuitants <sup>1</sup>	4,338	241	305	4,274
Reversionary Annuitants <sup>2</sup>	135	6	12	129
Child Annuitants	173	25	34	164
Annuitant Total	23,087	1,422	1,127	23,382
Actives Receiving Disability	Number at Beginning of Year	Additions During Year	Terminations During Year	Number at End of Year
Ordinary Disability Beneficiaries	304	462	420	346
Duty Disability Beneficiaries	246	321	303	264
Disability Total	550	783	723	610
Total - Annuitants and Disabilities	23,637			23,992

<sup>&</sup>lt;sup>1</sup>Excludes eight surviving spouses reclassified as reversionary annuitants.

<sup>&</sup>lt;sup>2</sup>Includes 121 reversionary annuitants that are also surviving spouses.

# 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

		35 &				ice	Years of Serv	eted	Compl						A 44-: J
Total		Over	30-34	25-29	20-24		15-19		10-14	5-9	1-4		Under 1		Attained Age
(2)((9)	ø	-	-	-	-		-		-	-	194.556	ď	18	¢.	Under 20
626,68	\$	-	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$ 184,556	Э	442,132	\$	
34	ф	-	-	-	-		-		-	27	198	œ.	121	Ф	20-24
9,658,90	\$	-	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 587,400	\$ 5,758,501	\$	3,313,006	\$	
22.002.60	ф	-	-	-	-		-		16	217	489	œ.	148	Ф	25-29
33,883,69	\$	-	\$ -	\$ -	\$ -	\$	-	\$	440,673	\$ 9,394,945	\$	\$	4,851,866	\$	
1,13	Φ.	-	-	-	-		14		187	383	443	Φ.	107	Φ.	30-34
56,542,02	\$	-	\$ -	\$ -	\$ -	\$	835,720	\$	10,571,642	\$ 19,384,652	\$ 21,337,003	\$	4,413,011	\$	
1,29	Φ.	-	-	-	11		131		360	369	354	Φ.	65	Φ.	35-39
76,310,93	\$	-	\$ -	\$ -	\$ 608,768	\$	9,161,279	\$	23,201,130	\$ 22,474,136	\$ 18,278,396	\$		\$	
1,74		-	-	8	150		308		451	398	349	_	77		40-44
109,991,48	\$	-	\$ -	\$ 645,326	\$ 11,039,580	\$	22,551,485	\$	30,373,297	\$ 24,687,693	\$ 17,707,875	\$	2,986,227	\$	
2,03		-	10	163	380		376		432	370	254	_	47		45-49
134,636,59	\$	-	\$ 908,872	\$ 12,317,367	\$ 28,164,793	\$	27,246,868	\$	29,032,135	\$ 22,141,781	\$ 12,921,036	\$	1,903,744	\$	
2,21		6	91	392	403		360		404	311	223		29		50-54
152,466,43	\$	588,370	\$ 7,393,473	\$ 30,761,803	\$ 29,777,306	\$	27,054,594	\$	27,531,294	\$ 17,762,717	\$ 10,396,324	\$	1,200,553	\$	
1,73		22	141	271	341		295		292	211	150		16		55-59
120,385,21	\$	1,915,546	\$ 11,004,427	\$ 21,096,382	\$ 25,744,326	\$	21,139,831	\$	19,932,536	\$ 11,494,968	\$ 7,341,141	\$	716,058	\$	
94		19	42	154	181		143		176	150	73		11		60-64
64,164,73	\$	1,491,342	\$ 2,966,008	\$ 11,487,236	\$ 13,273,734	\$	10,323,799	\$	11,545,068	\$ 9,160,456	\$ 3,416,011	\$	501,083	\$	
29		10	20	33	48		66		58	39	16		2		65-69
19,436,34	\$	708,432	\$ 1,548,905	\$ 2,393,138	\$ 3,725,542	\$	4,737,904	\$	3,717,364	\$ 1,874,242	\$ 689,065	\$	41,752	\$	
19		13	9	25	21		30		31	41	18		2		70 & Over
10,146,48	\$	1,052,592	\$ 649,274	\$ 1,570,777	\$ 1,381,511	\$	2,189,697	\$	1,481,532	\$ 1,248,008	\$ 527,503	\$	45,593	\$	
		-	-	-	-		-		-	-	-		-		w/o DOB
	\$	-	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$	
12,82		70	313	1,046	1,535		1,723		2,407	2,516	2,575		643		Total
788,249,54	\$		\$ 24,470,959	\$ 80,272,029	\$ ,	\$	125,241,177	\$	157,826,671	\$ 140,210,998	\$ 117,753,617	\$	23,002,255	\$	

# 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

									ice	Years of Serv	e te d	Compl								
		35 &																		Attained
Total		Over		30-34		25-29		20-24		15-19		10-14		5-9		1-4		Under 1		Age
2		-		-		-		-		-		-		-		3		26		Under 20
691,37	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	46,840	\$	644,535	\$	
510		-		-		-		-		-		-		25		269		222		20-24
13,798,02	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	581,608	\$	7,242,503	\$	5,973,913	\$	
1,20		-		-		-		-		-		40		260		683		222		25-29
40,793,13	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,152,050	\$	8,338,620	\$	23,660,658	\$	7,641,803	\$	
1,53		-		-		-		-		38		252		520		583		138		30-34
65,826,32	\$	_	\$	-	\$	-	\$	-	\$	1,812,737	\$	11,203,491	\$	23,190,839	\$	24,355,942	\$	5,263,312	\$	
1,87		_		-		-		20		185		543		545		460		121		35-39
84,731,58	\$	_	\$	-	\$	-	\$	1,184,506	\$	9,737,665	\$	26,226,548	\$	24,347,535	\$	18,918,786	\$	4,316,547	\$	
2,34		_		_		9		208		408		679		532		404		102		40-44
108,860,44	\$	_	\$	_	\$	745,089	\$	12,454,445	\$	23,166,089	\$	31,913,599	\$	21,206,295	\$	15,547,061	\$	3,827,867	\$	
3,04		_	·	17	·	149		424		518		868		590		401		80		45-49
136,078,40	\$	_	\$	1,282,923	\$	10,289,718	\$	24,000,260	\$	25,815,259	\$		\$	21,822,876	\$	13,673,796	\$	2,603,005	\$	
3,279		1	Ψ	82	Ψ	272	Ψ	606	Ψ	598	Ψ	825	Ψ	552	Ψ	280		63		50-54
144,294,52	\$	88,140	\$		\$	17,116,461	\$		\$	26,795,629	\$	32,309,190	\$		\$	10,099,932	\$		\$	505.
2,68		20	Ψ	97	Ψ	259	Ψ	478	Ψ	530	Ψ	637	Ψ	428	Ψ	209		26		55-59
114,553,74	\$	1,294,283	\$	6,549,233	\$	14,250,259	Φ.	23,065,609	\$	23,313,395	\$	24,602,712	•	13,700,625	\$	6,897,236	\$	880,388	\$	33-37
1,70		35	φ	76	Ψ	14,230,239	Ψ	351	φ	363	Ψ	341	Ψ	259	Ψ	107		11		60-64
72,493,92	\$	2,222,619	\$	3,884,005	\$	8,765,608	¢.	16,247,832	•	16,202,366	\$	13,361,284	•	8,278,451	\$	3,309,927	\$	221,834	\$	00-04
630	Ψ	19	Ф	3,884,003	Ф	74	Ф	130	Ф	10,202,300	Ф	103	Ф	87	Ф	36	Ψ.	7	Ψ	65.60
24,773,620	\$		¢.		ø		¢.		e	5,277,734	e		¢.	2,004,700	\$	1,030,909	\$	274,298	\$	65-69
	Ψ	903,335	<b>3</b>	2,231,453	\$	3,518,821	Ъ	5,790,156	\$		\$		<b>3</b>	· · ·	<b>3</b>		Ψ		Ψ	70 % 0
30: 10,848,68'	\$	40	¢.	33	¢.	34	Ф	48	Φ.	46	•	48	œ.	37	¢.	14 328,534	\$	2 51,787	\$	70 & Over
10,070,00	φ	1,600,810	\$	1,700,095	\$	1,426,149	<b>3</b>	1,779,639	\$	1,758,577	\$	1,379,778	<b>3</b>	823,318	\$	520,554	Ψ	51,767	φ	/ DOD
	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	w/o DOB
19,14		115		354		963		2,265		2,811		4,336		3,835		3,449		1,020		Total
817,743,79	\$	6,109,187	\$	21,169,072	\$	56,112,105	\$	116,718,029	\$	133,879,451	\$	182,481,442	\$	142,619,047	\$	125,112,124	\$	33,543,334	\$	

# 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

					ice	l Years of Servi	e te d	Compl					
	35 &												Attained
Total	Over	30-34	25-29	20-24		15-19		10-14	5-9	1-4		Under 1	Age
5	-	-	-	-		-		-	-	11		44	Under 20
1,318,06	\$ -	\$ -	\$ -	\$ -	\$	_	\$	-	\$ -	\$ 231,396	\$	1,086,667	\$
86	-	-	-	-		-		-	52	467		343	20-24
23,456,93	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 1,169,008	\$ 13,001,004	\$	9,286,919	\$
2,07	-	-	-	-		-		56	477	1,172		370	25-29
74,676,82	\$ -	\$ -	\$ -	\$ -	\$	-	\$	1,592,723	\$ 17,733,565	\$ 42,856,864	\$	12,493,669	\$
2,66	-	-	-	-		52		439	903	1,026		245	30-34
122,368,34	\$ -	\$ -	\$ -	\$ -	\$	2,648,457	\$	21,775,133	\$ 42,575,491	\$ 45,692,945	\$	9,676,323	\$
3,16	-	-	-	31		316		903	914	814		186	35-39
161,042,52	\$ -	\$ -	\$ -	\$ 1,793,274	\$	18,898,944	\$	49,427,678	\$ 46,821,671	\$ 37,197,182	\$	6,903,777	\$
4,08	-	-	17	358		716		1,130	930	753		179	40-44
218,851,92	\$ -	\$ -	\$ 1,390,415	\$ 23,494,025	\$	45,717,574	\$	62,286,896	\$ 45,893,988	\$ 33,254,936	\$	6,814,094	\$
5,07	-	27	312	804		894		1,300	960	655		127	45-49
270,715,00	\$ -	\$ 2,191,795	\$ 22,607,085	\$ 52,165,053	\$	53,062,127	\$	65,622,705	\$ 43,964,657	\$ 26,594,832	\$	4,506,749	\$
5,49	7	173	664	1,009		958		1,229	863	503		92	50-54
296,760,95	\$ 676,510	\$ 12,914,836	\$ 47,878,264	\$ 61,972,888	\$	53,850,223	\$	59,840,484	\$ 36,086,897	\$ 20,496,256	\$	3,044,598	\$
4,42	42	238	530	819		825		929	639	359		42	55-59
234,938,95	\$ 3,209,829	\$ 17,553,660	\$ 35,346,641	\$ 48,809,935	\$	44,453,226	\$	44,535,248	\$ 25,195,593	\$ 14,238,377	\$	1,596,446	\$
2,65	54	118	320	532		506		517	409	180		22	60-64
136,658,66	\$ 3,713,961	\$ 6,850,013	\$ 20,252,844	\$ 29,521,566	\$	26,526,165	\$	24,906,352	\$ 17,438,907	\$ 6,725,938	\$	722,917	\$
92	29	69	107	178		191		161	126	52		9	65-69
44,209,97	\$ 1,611,767	\$ 3,780,358	\$ 5,911,959	\$ 9,515,698	\$	10,015,638	\$	7,459,584	\$ 3,878,942	\$ 1,719,974	\$	316,050	\$
49	53	42	59	69		76		79	78	32		4	70 & Over
20,995,17	\$ 2,653,402	\$ 2,349,369	\$ 2,996,926	\$ 3,161,150	\$	3,948,274	\$	2,861,310	\$ 2,071,326	\$ 856,037	\$	97,380	\$
	-	-	-	-		-		-	-	-		-	w/o DOB
	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$
31,97	185	667	2,009	3,800		4,534		6,743	6,351	6,024		1,663	Total
1,605,993,33	\$ 11,865,469	\$ 45,640,031	\$ 136,384,134	\$ 230,433,589	\$	259,120,628	\$	340,308,113	\$ 282,830,045	\$ 242,865,741	4	56,545,589	\$ 

EXHIBIT C
PART IV – TOTAL LIVES AND ANNUAL SALARIES OF BOARD OF EDUCATION
PLAN MEMBERS CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2011

				Compl	eted	Years of Serv	ice					
Attained											35 &	
Age	Under 1	1-4	5-9	10-14		15-19		20-24	25-29	30-34	Over	Total
Under 20	\$ 41 1,039,379	\$ 11 231,396	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$ -	\$ 52 1,270,775
20-24	\$ 278 7,912,243	\$ 392 10,975,342	\$ 20 579,570	\$ -	\$	-	\$	-	\$ -	\$ -	\$ -	\$ 690 19,467,155
25-29	\$ 304 10,147,133	\$ 965 33,551,234	\$ 310 10,968,930	\$ 14 454,948	\$	-	\$	-	\$ -	\$ -	\$ -	\$ 1,593 55,122,245
30-34	\$ 181 6,803,917	\$ 749 30,370,913	\$ 580 24,541,855	\$ 229 9,954,570	\$	2 68,060	\$	-	\$ -	\$ -	\$ -	\$ 1,741 71,739,315
35-39	\$ 137 4,658,041	\$ 572 22,500,171	\$ 524 21,869,894	\$ 391 15,289,570	\$	100 4,192,180	\$	6 343,164	\$ -	\$ -	\$ -	\$ 1,730 68,853,020
40-44	\$ 129 4,621,985	\$ 503 18,704,346	\$ 546 21,206,904	\$ 519 19,245,243	\$	238 10,645,561	\$	123 6,184,448	\$ 8 643,115	\$ -	\$ -	\$ 2,066 81,251,602
45-49	\$ 93 3,070,687	\$ 466 15,269,831	\$ 569 20,201,358	\$ 679 24,142,438	\$	364 14,843,397	\$	276 13,238,502	133 8,416,011	\$ 2 120,971	\$ -	\$ 2,582 99,303,195
50-54	\$ 70 2,193,961	\$ 311 10,054,398	\$ 542 17,387,773	\$ 660 21,833,280	\$	452 18,119,046	\$	426 18,703,488	\$ 249 14,360,849	\$ 36 2,569,145	\$ 1 89,926	\$ 2,747 105,311,866
55-59	\$ 35 1,212,653	\$ 240 7,731,129	\$ 410 12,883,863	514 17,477,047	\$	380 14,709,591	\$	359 14,886,875	203 10,228,905	\$ 57 3,705,859	\$ 24 1,922,499	\$ 2,222 84,758,421
60-64	\$ 14 330,958	\$ 124 3,918,875	\$ 236 7,133,186	260 8,337,607	\$	235 8,914,124	\$	255 10,487,647	132 5,787,043	\$ 44 1,912,710	\$ 21 1,342,212	\$ 1,321 48,164,362
65-69	\$ 8 209,250	\$ 37 1,089,714	\$ 80 2,055,869	71 2,256,750		93 3,599,599		83 3,071,095	55 2,231,053	\$ 24 1,120,369	\$ 7 346,498	458 15,980,197
70 & Over	\$ 3 78,494	\$ 21 492,948	\$ 47 1,043,807	30 829,893		16 533,020		26 921,079	30 1,012,939	\$ 9 419,024	\$ 18 897,294	\$ 200 6,228,498
w/o DOB	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -
Total	\$ 1,293 42,278,701	\$ 4,391 154,890,297	\$ 3,864 139,873,009	\$ 3,367 119,821,346	\$	1,880 75,624,578	\$	1,554 67,836,298	\$ 810 42,679,915	\$ 172 9,848,078	\$ 71 4,598,429	\$ 17,402 657,450,651

EXHIBIT C
PART V – TOTAL LIVES AND ANNUAL SALARIES OF CITY PLAN MEMBERS CLASSIFIED BY
AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2011

						ice	l Years of Servi	e te d	Compl				
	35 &												Attained
Total	Over	30-34	25-29		20-24		15-19		10-14	5-9	1-4	Under 1	Age
	-	-	-		-		-		-	-	-	3	Under 20
47,2	\$ -	\$ -	\$ -	\$	-	\$	-	\$	-	\$ -	\$ -	\$ 47,288	\$
1	-	-	-		-		-		-	32	71	61	20-24
3,928,3	\$ -	\$ -	\$ -	\$	-	\$	-	\$	-	\$ 589,438	\$ 1,970,191	\$ 1,368,686	\$
4	-	-	-		-		-		42	166	205	65	25-29
19,425,3	\$ -	\$ -	\$ -	\$	-	\$	-	\$	1,137,775	\$ 6,726,783	\$ 9,215,842	\$ 2,344,976	\$
9	-	-	-		-		50		209	319	273	64	30-34
50,237,9	\$ -	\$ -	\$ -	\$	-	\$	2,580,397	\$	11,773,190	\$ 17,831,045	\$ 15,180,924	\$ 2,872,406	\$
1,4	_	-	-		25		214		509	389	242	49	35-39
91,714,9	\$ _	\$ -	\$ -	\$	1,450,110	\$	14,548,124	\$	33,947,222	\$ 24,826,777	\$ 14,697,011	\$ 2,245,736	\$
2,0	_	_	9		232		477		609	382	250	50	40-44
136,787,3	\$ _	\$ _	\$ 747,300	\$	16,996,968	\$	35,012,037	\$	42,861,733	\$ 24,426,657	\$ 14,550,590	\$ 2,192,109	\$
2,4	_	25	178		526		529		618	386	189	34	45-49
170,370,1	\$ _	\$ 2,070,824	\$ 14,135,419	\$	38,710,068	\$	38,143,730	\$	41,216,477	\$ 23,332,610	\$ 11,325,001	\$ 1,436,062	\$
2,7	6	137	413		579		506		562	317	192	22	50-54
189,996,4	\$ 586,584	\$ 10,345,691	\$ 33,307,364	\$	42,825,865	\$	35,731,177	\$	37,461,190	\$ 18,446,132	\$ 10,441,858	\$ 850,637	\$
2,1	17	180	324		459		445		414	228	118	7	55-59
149,435,7	\$ 1,216,820	\$ 13,742,403	\$ 24,785,944	\$	33,865,995	\$	29,743,635	\$	26,950,051	\$ 12,268,466	\$ 6,478,597	\$ 383,793	\$
1,3	32	74	187		276		270		256	173	56	8	60-64
87,942,4	\$ 2,261,312	\$ 4,937,303	\$	\$	18,893,754	\$		\$	16,480,746	\$ 10,305,721	\$ 2,807,063	\$ 391,959	\$
4	22	45	52		94		98		89	46	15	1	65-69
28,112,7	\$ 1,265,269	\$ 2,659,989	\$ 3,680,906	\$	6,382,854	\$	6,416,039	\$	5,147,561	\$ 1,823,073	\$ 630,260	\$ 106,800	\$
2	35	33	28	-	43	•	60		49	30	11	1	70 & Over
14,601,7	\$ 1,756,108	\$ 1,930,345	\$ 1,950,680	\$	2,240,071	\$		\$	2,031,417	\$ 895,930	\$ 363,089	\$ 18,886	\$
	_	-	-		-		-, -,		-	-	_	_	w/o DOB
	\$ -	\$ 	\$ -	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$
14,4	112	494	1,191		2,234		2,649		3,357	2,468	1,622	365	Total
942,600,6	\$ 7,086,093	\$ 35,686,555	\$ 92,926,414	\$	161,365,685	\$	183,136,185	\$	219,007,362	\$ 141,472,632	\$ 87,660,426	\$ 14,259,338	\$ 

EXHIBIT D
AGE AND SERVICE DISTRIBUTION FOR INACTIVES
AS OF DECEMBER 31, 2011

Attained				Yea	rs of Ser	vice				
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Under 20	9	_	_	_	-	-	-	-	_	9
20-24	137	148	1	-	-	-	-	-	-	286
25-29	393	665	39	2	-	-	-	-	<del>-</del> .	1,099
30-34	398	1,060	131	16	-	=	=	=	=	1,605
35-39	334	919	237	69	2	=	=	=	=	1,561
40-44	529	920	260	129	38	3	=	=	=	1,879
45-49	281	786	255	163	84	26	8	-	_	1,603
50-54	213	707	285	205	137	85	22	-	_	1,654
55-59	169	571	262	198	121	33	15	-	_	1,369
60-64	125	378	161	96	42	24	5	-	1	832
65-69	60	174	69	34	10	14	4	2	_	367
70 & Over	53	195	97	35	17	16	13	7	3	436
w/o DOB	33	19	10	_	-	_	-	-	_	62
Cotal	2,734	6,542	1,807	947	451	201	67	9	4	12,762
verage Age										45.72
verage Service										4.11

For inactives without a birth date on record, we assumed an average age of 45.7.

## EXHIBIT E STATISTICS ON EMPLOYEE ANNUITIES CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

		Male			Femal	le
_			Annual			Annual
Age	No.		Payments	No.		Payments
Under 50	1	\$	1,584	5	\$	48,576
50-54	187		10,112,652	106		5,019,108
55-59	789		40,616,124	626		23,719,140
60-64	1,268		58,797,588	1,538		46,326,432
65-69	1,298		54,925,404	2,043		54,031,944
70-74	1,257		48,367,932	2,232		56,280,276
75-79	1,092		41,279,376	1,786		42,439,080
80-84	891		35,589,300	1,443		32,280,840
85-89	578		21,259,944	887		18,164,592
90-94	213		6,907,236	434		8,110,764
95-99	38		998,136	89		1,592,592
100 & over	3		70,200	9		138,816
Totals	7,615	\$	318,925,476	11,198	\$	288,152,160

## EXHIBIT F PART I - STATISTICS ON SURVIVING SPOUSE ANNUITIES CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

		Male	F	'emale
_		Annual		Annual
Age	No.	Payments	No.	<b>Payments</b>
Under 30	=	\$ -	=	\$ -
30-34	-	-	-	-
35-39	1	9,600	4	30,000
40-44	3	34,116	17	207,216
45-49	8	76,800	41	484,488
50-54	21	257,808	83	1,021,548
55-59	38	421,296	158	2,092,260
60-64	46	546,384	219	3,080,520
65-69	93	994,860	316	4,392,720
70-74	97	1,068,516	380	5,368,764
75-79	126	1,394,616	547	7,782,732
80-84	137	1,516,116	684	8,982,804
85-89	109	1,136,244	623	7,583,892
90-94	52	516,120	353	3,839,304
95-99	10	100,008	93	940,152
100 & over	_	<u>-</u>	15	144,000
Totals	741	\$ 8,072,484	3,533	\$ 45,950,400

EXHIBIT F
PART II - STATISTICS ON REVERSIONARY ANNUITANTS
CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

	]	Male	Female					
_		Annual	Annual					
Age	No.	<b>Payments</b>	No.	<b>Payments</b>				
Under 30	-	\$ -	1	\$ 2,616				
30-34	-	-	1	2,784				
35-39	-	-	-	-				
40-44	-	-	1	1,848				
45-49	-	-	-	-				
50-54	1	744	4	10,596				
55-59	-	-	3	10,812				
60-64	1	3,216	2	13,968				
65-69	-	-	3	31,860				
70-74	1	4,440	12	66,156				
75-79	-	-	17	105,216				
80-84	-	-	26	112,104				
85-89	-	-	32	140,808				
90-94	-	-	16	45,588				
95-99	-	-	8	18,420				
100 & over		<u> </u>		-				
Totals	3	\$ 8,400	126	\$ 562,776				

EXHIBIT G
PART I - HEALTH INSURANCE COVERAGE – ALL PLAN MEMBERS
CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

Age	Single Coverage	Family Coverage	Total Covered			% Covered Annuitants	
		I	Employee An	nuitants			
30-39	-	-	-	-	-	0.00%	
40-49	2	-	2	4	6	33.33%	
50-59	571	377	948	760	1,708	55.50%	
60-69	1,815	978	2,793	3,354	6,147	45.44%	
70-79	1,953	868	2,821	3,546	6,367	44.31%	
80-89	1,530	550	2,080	1,719	3,799	54.75%	
90 & Over	400	53	453	333	786	57.63%	
Total	6,271	2,826	9,097	9,716	18,813	48.35%	
		S	Spouse Annui	itants			
Under 30	-	-	-	-	-	0.00%	
30-39	-	<del>-</del>	<del>-</del>	5	5	0.00%	
40-49	9	5	14	55	69	20.29%	
50-59	57	16	73	227	300	24.33%	
60-69	197	11	208	466	674	30.86%	
70-79	444	2	446	704	1,150	38.78%	
80-89	738	3	741	812	1,553	47.71%	
90 & Over	245	1	246	277	523	47.04%	
Total	1,690	38	1,728	2,546	4,274	40.43%	

EXHIBIT G
PART II - HEALTH INSURANCE COVERAGE – CITY PLAN MEMBERS
CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

Age	Single Coverage	Family Coverage	Total Covered	Total Not Covered	Total Annuitants	% Covered Annuitants
		1	Employee An	nuitants		
30-39	-	-	-	-	-	0.00%
40-49	2	-	2	2	4	50.00%
50-59	555	375	930	348	1,278	72.77%
60-69	1,649	938	2,587	1,052	3,639	71.09%
70-79	1,619	804	2,423	771	3,194	75.86%
80-89	1,055	464	1,519	415	1,934	78.54%
90 & Over	247	42	289_	118	407	71.01%
Total	5,127	2,623	7,750	2,706	10,456	74.12%
			Spouse Annui	itants		
Under 30	-	-	-	-	-	0.00%
30-39	-	-	-	1	1	0.00%
40-49	9	5	14	30	44	31.82%
50-59	56	16	72	126	198	36.36%
60-69	190	11	201	216	417	48.20%
70-79	418	2	420	280	700	60.00%
80-89	631	3	634	356	990	64.04%
90 & Over	203		203	152	355	57.18%
Total	1,507	37	1,544	1,161	2,705	57.08%

## EXHIBIT G PART III - HEALTH INSURANCE COVERAGE – BOARD OF EDUCATION MEMBERS

#### CLASSIFIED BY AGE AS OF DECEMBER 31, 2011

Age	Single Coverage	Family Coverage	Total Covered	Total Not Covered	Total Annuitants	% Covered Annuitants
		I	Employee An	nuitants		
30-39	-	-	-	-	-	0.00%
40-49	-	-	-	2	2	0.00%
50-59	14	1	15	412	427	3.51%
60-69	163	38	201	2,302	2,503	8.03%
70-79	333	62	395	2,775	3,170	12.46%
80-89	474	85	559	1,304	1,863	30.01%
90 & Over	153	11	164	215	379	43.27%
Total	1,137	197	1,334	7,010	8,344	15.99%
		S	Spouse Annui	itants		
Under 30	-	-	-	-	-	0.00%
30-39	-	-	-	4	4	0.00%
40-49	-	-	-	25	25	0.00%
50-59	1	-	1	101	102	0.98%
60-69	6	-	6	250	256	2.34%
70-79	26	-	26	424	450	5.78%
80-89	106	-	106	456	562	18.86%
90 & Over	42	1	43	125	168	25.60%
Total	181	1	182	1,385	1,567	11.61%

## EXHIBIT H HISTORY OF ACTIVE PARTICIPATING MEMBER VALUATION DATA

							Actuarial	
Year	Members	Percent	Annual	Percent	Average	Percent	Salary	CPI
Ended	in Service	Increase	Salaries	Increase	Salary	Increase	Assumption	Chicago 1
2002	35,522	(3.15)%	\$1,377,909,441	0.21 %	\$38,790	3.47 %	5.00 %	2.50 %
2003	35,384	(0.39)%	1,395,513,060	1.28 %	39,439	1.67 %	5.00 %	1.70 %
2004	33,267	(5.98)%	1,303,127,528	(6.62)%	39,172	(0.68)%	5.00 %	2.20 %
2005	33,743	1.43 %	1,407,323,058	8.00 %	41,707	6.47 %	4.50 %	3.59 %
2006	33,429	(0.93)%	1,475,877,378	4.87 %	44,150	5.86 %	4.50 %	0.71 %
2007	34,885	4.36 %	1,564,458,835	6.00 %	44,846	1.58 %	4.50 %	4.73 %
2008	32,563	(6.66)%	1,543,976,553	(1.31)%	47,415	5.73 %	4.50 %	(0.58)%
2009	31,586	(3.00)%	1,551,973,348	0.52 %	49,135	3.63 %	4.50 %	2.54 %
2010	30,726	(2.72)%	1,541,388,065	(0.68)%	50,166	2.10 %	4.50 %	1.23 %
2011	31,976	4.07 %	1,605,993,339	4.19 %	50,225	0.12 %	4.50 %	2.06 %
Average	Increase							
(Decreas	e) for the							
Last five	years	(0.88)%		1.70 %		2.61 %	4.50 %	1.98 %

 $<sup>^{1}</sup>$  CPI-Chicago as of the valuation date.

### EXHIBIT I NEW ANNUITIES GRANTED DURING 2011

	Male Annuitants	Female Annuitants	Surviving Spouses of Deceased Employees	Surviving Spouses of Deceased Annuitants
Number Retired / Deceased 1,2,3,4	443	692	32	208
Average Age Attained	60.6	63.1	54.8	75.5
Average Length of Service	27.0	23.5	18.9	N/A
Average Annual Salary (4 out of 10)	\$ 78,038	\$ 57,115	N/A	N/A
Total Annual Annuity	\$ 20,186,484	\$ 18,985,884	\$ 531,540	\$ 3,589,836
Average Annual Annuity	\$ 45,568	\$ 27,436	\$ 16,611	\$ 17,259
Total Actuarial Liability	\$ 275,848,296	\$ 249,003,610	\$ 5,778,689	\$ 26,431,941
Average Liability	\$ 622,682	\$ 359,832	\$ 180,584	\$ 127,077

<sup>&</sup>lt;sup>1</sup>Does not include 11 employee annuitants, four widow annuitants, and six reversionary annuitants no longer on annuity at the end of 2011.

<sup>&</sup>lt;sup>2</sup>Includes one new deferred employee annuitant.

<sup>&</sup>lt;sup>3</sup>Does not include two employee annuitants who were deferred employee annuitants last year.

<sup>&</sup>lt;sup>4</sup>Does not include one employee annuitant and one surviving spouse whose annuities were reinstated.

## EXHIBIT J NEW RECIPROCAL ANNUITIES GRANTED DURING 2011

		Red	cipro	ocal
	_	Male Annuitants		Female Annuitants
Number Retired		71		101
Average Age Attained		60.6		62.3
Average Municipal Service		12.9		9.2
Average Total Service		27.8		27.3
Average Annual Salary Last Fund [4 out of 10]	\$	92,045	\$	80,262
Total Annual Annuity	\$	2,015,724	\$	1,903,476
Average Annual Annuity	\$	28,390	\$	18,846
Total Liability (8.00% RP2000)	\$	27,591,433	\$	25,036,854
Average Liability	\$	388,612	\$	247,890

## EXHIBIT K HISTORY OF AVERAGE PENSION BENEFIT PAYMENTS TO NEW RETIREES

							Years	of Se	ervice				
Retire	ment Effective Dates		10-14		15-19		20-24		25-29	3	30 & Over		Total
	A MAID CADE		NT/A		<b>N</b> T/A		NT / A		NT / A		NT / A	Ф	2.025
2002	Average Monthly Benefit at Retirement		N/A		N/A		N/A		N/A		N/A		2,025
2002	Average Final Average Salary		N/A		N/A		N/A		N/A		N/A	\$	3,406
	Number of Active Recipients		N/A		N/A		N/A		N/A		N/A		910
	Average Monthly Benefit at Retirement	\$	921	\$	1,391	\$	1,813	\$	2,550	\$	3,532	\$	2,419
2003	Average Final Average Salary		N/A		N/A		N/A		N/A		N/A	\$	3,406
	Number of Active Recipients		135		107		98		133		318		791
	Average Monthly Benefit at Retirement	\$	911	\$	1,631	\$	2,237	\$	2,776	\$	3,767	\$	3,005
2004	Average Final Average Salary		N/A		N/A		N/A		N/A		N/A		N/A
	Number of Active Recipients		137		210		473		583		1,408		2,811
	Average Monthly Benefit at Retirement	\$	1,067	\$	1,250	\$	1,578	\$	2,177	\$	3,269	\$	2,394
2005	Average Final Average Salary	\$	2,955	\$	2,799	\$	3,110	\$	3,298	\$	4,095	\$	3,565
	Number of Active Recipients		56		54		51		65		219		445
	Average Monthly Benefit at Retirement	\$	1.141	\$	1,286	\$	1,577	\$	2,416	\$	3.610	\$	2,451
2006	Average Final Average Salary	\$	3,471	\$	2,927	\$	3,076	\$	3,716	\$	4,555	\$	3,804
	Number of Active Recipients	_	53	-	60	-	95	-	73	-	194	-	475
	Average Monthly Benefit at Retirement	\$	1.198	\$	1,381	\$	2.029	\$	2,658	\$	3.919	\$	2,800
2007	Average Final Average Salary	\$	3,548	\$	3,075	\$	,	\$	2,811	\$	4,939	\$	4,242
2007	Number of Active Recipients	Ψ	54	Ψ	69	Ψ	94	Ψ	70	Ψ	229	Ψ	516
	1	ф	1 202	Ф	1 (20	Ф	2.021	Ф	0.765	Ф	4.120	Ф	2.047
2000	Average Monthly Benefit at Retirement	\$	1,293	\$	1,630	\$	2,031	\$	2,765	\$	4,129	\$	2,847
2008	Average Final Average Salary	\$	3,980	\$	3,565	\$	3,981	\$	4,199	\$	5,285	\$	4,491
	Number of Active Recipients		60		65		106		63		206		500
	Average Monthly Benefit at Retirement	\$	1,407	\$	1,790	\$	2,275	\$	3,255	\$	4,082	\$	2,969
2009	Average Final Average Salary	\$	4,664	\$	4,148	\$	4,406	\$	5,005	\$	5,209	\$	4,794
	Number of Active Recipients		57		75		153		92		231		608
	Average Monthly Benefit at Retirement	\$	1.334	\$	1.835	\$	2.215	\$	3.208	\$	4,354	\$	3,129
2010	Average Final Average Salary	\$	4,418	\$	4,311	\$	4,278	\$	4,945	\$	5,590	\$	4,933
2010	Number of Active Recipients	Ψ	60	Ψ	77	Ψ	169	Ψ	132	Ψ	287	Ψ	725
	rumber of reduce recipients		00		, ,		10)		132		207		723
	Average Monthly Benefit at Retirement	\$	1,350	\$	1,981	\$	2,432	\$	3,459	\$	4,696	\$	3,361
2011	Average Final Average Salary	\$	4,261	\$	4,506	\$	4,661	\$	5,265	\$	6,046	\$	5,257
	Number of Active Recipients		66		88		193		185		311		843

This schedule excludes reciprocal annuities, money purchase annuities and minimum annuities beginning in 2003. N/A – not available

## EXHIBIT L HISTORY OF RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Year	Annuitants				Disal	oility	Compensation	Reciprocal	
Ended	Employee	Spouse	Child	Reversionary	Ordinary	Duty	Annuitants	Employee	Spouse
2002	13,725	4,132	212		260	129	$2^{-1}$	1,821	385
2003	13,909	4,118	210		323	190	$2^{-1}$	1,944	383
2004	16,109	4,087	201		294	132	$2^{-1}$	2,144	385
2005	16,027	4,094	204		304	158	$2^{-1}$	2,194	373
2006	15,926	4,075	193		330	193	$2^{-1}$	2,257	376
2007	15,899	4,042	178		304	209	$2^{-1}$	2,299	368
2008	15,804	4,018	174		266	192	$2^{-1}$	2,369	360
2009	15,838	4,008	167		306	220	2 1	2,407	356
2010	15,961	3,982	173		304	246	2 1	2,477	364
2011	16,230	3,910	164	129 2	346	264	2 1	2,583	364

<sup>&</sup>lt;sup>1</sup>Compensation annuitants also included with spouse annuitants.

<sup>&</sup>lt;sup>2</sup>Prior to December 31, 2011, Reversionary Annuitants were included with Survivors.

## EXHIBIT M HISTORY OF AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Year Ended	Average Annual Benefit	Average Current Age of Retirees	Average Benefit at Retirement Current Year	Average Age at Retirement Current Year	Average Years Service at Retirement Current Year
2002	\$ 21,211	73.1	\$ 23,407	63.2	22.03
2003	22,176	72.6	25,832	61.9	25.32
2004	25,451	71.0	35,222	59.6	27.94
2005	26,178	71.8	22,753	63.5	24.44
2006	27,028	72.1	23,757	63.1	24.05
2007	27,960	72.4	26,910	63.1	24.60
2008	28,928	72.6	27,750	62.4	24.30
2009	29,960	72.8	29,843	62.9	23.90
2010	31,046	72.8	31,290	62.2	24.25
2011	32,269	72.7	34,513	62.1	24.86

## EXHIBIT N HISTORY OF ANNUITIES 2002-2011

E	Employee Annuitants	(Male and Female)				
Year End	Number of Annuitants	Total Annuities		verage nnuities		
2002	15,546	\$ 329,741,436	\$	21,211		
2003	15,853	351,551,454		22,176		
2004	18,253	464,549,712		25,451		
2005	18,221	476,988,948		26,178		
2006	18,183	491,452,740		27,028		
2007	18,198	508,815,996		27,960		
2008	18,173	525,707,352		28,928		
2009	18,245	546,628,095		29,960		
2010	18,438	572,425,992		31,046		
2011	18,813	607,077,636		32,269		
Sur	viving Spouse and R	eversionary Annuitie	es			
Year End	Number of Annuitants	Total Annuities		verage nnuities		
2002	4,517	\$ 48,058,286	\$	10,639		
2003	4,501	48,796,907		10,841		
2004	4,472	49,294,488		11,023		
2005	4,467	50,078,232		11,211		
2006	4,451	50,672,592		11,385		
2007	4,410	51,107,748		11,589		
2008	4,378	51,954,588		11,867		
2009	4,364	52,884,192	12,118			
2010	4,346	53,920,752		12,407		

## EXHIBIT O HISTORY OF RETIREES AND BENEFICIARIES ADDED TO PAYROLLS 2002-2011

	Add	ed to Payroll	Remov	ed from Payroll	Payrol	l End of Year		erage mual	Increase in Average
Year	No.	Ann. Benefits <sup>1</sup>	No.	Ann. Benefits	No.	Ann. Benefits	Ве	nefit	Benefit
			Employe	ee Annuitants (M	ale and Fo	emale)			
2002	910	\$ 20,996,020	726	\$4,089,101	15,546	\$329,741,436	\$ 2	21,211	4.16%
2003	1,002	25,806,766	695	3,996,748	15,853	351,551,454	2	22,176	4.55%
$2004^{-2}$	3,133	127,180,562	733	14,182,304	18,253	464,549,712	2	25,451	14.77%
2005	698	27,479,544	730	15,040,308	18,221	476,988,948	2	26,178	2.86%
2006	713	30,424,920	751	15,961,128	18,183	491,452,740	2	27,028	3.25%
2007	769	34,450,704	754	17,087,448	18,198	508,815,996	2	27,960	3.45%
2008	743	34,658,424	768	17,767,068	18,173	525,707,352	2	28,928	3.46%
2009	840	39,821,463	768	18,900,720	18,245	546,628,095	2	29,960	3.57%
2010	1,008	46,836,109	815	21,038,211	18,438	572,425,992	-	31,046	3.62%
2011	1,149	55,405,692	774	20,754,048	18,813	607,077,636	3	32,269	7.71%
	S	Surviving Spouse	and Rev	ersionary Annui	ties (Not I	Including Compe	ensati	on)	
2002	294	\$ 3,671,626	302	\$2,833,880	4,517	\$48,058,286	\$	10,639	1.95%
2003	284	3,704,694	300	2,966,073	4,501	48,796,907		10,841	1.90%
2004	273	3,456,012	302	2,958,431	4,472	49,294,488		11,023	1.68%
2005	255	3,408,036	260	2,624,292	4,467	50,078,232		11,211	1.70%
2006	265	3,498,720	281	2,904,360	4,451	50,672,592		11,385	1.55%
2007	247	3,464,400	288	3,029,244	4,410	51,107,748		11,589	1.79%
2008	260	3,989,592	260	3,142,752	4,378	51,954,588		11,867	2.40%
2009	266	3,869,064	280	2,939,460	4,364	52,884,192		12,118	2.12%
2010	269	4,329,156	287	3,292,596	4,346	53,920,752		12,407	2.38%
2011 3	362	4,152,804	305	3,479,496	4,403	54,594,060		12,399	2.32%

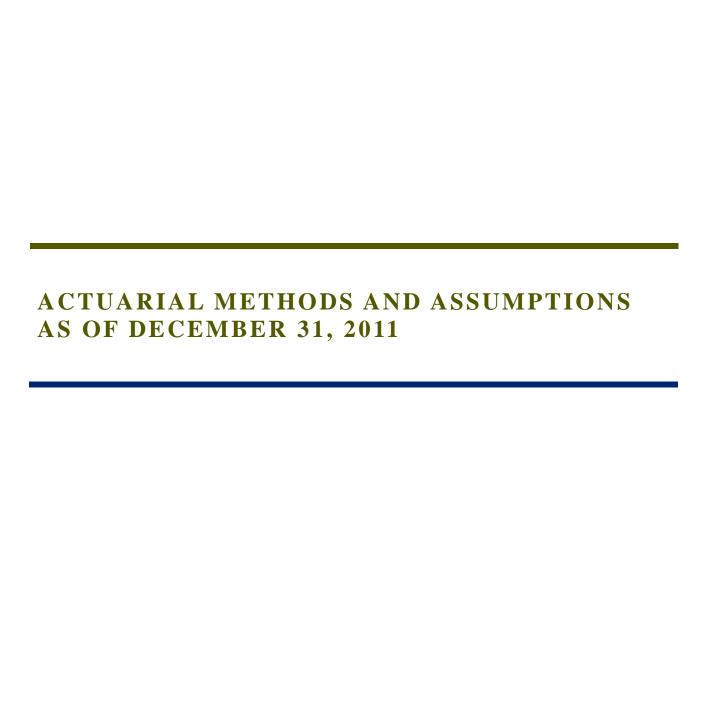
<sup>&</sup>lt;sup>1</sup>Annual benefits added to payroll include post-retirement increase amounts starting in 2004.

<sup>&</sup>lt;sup>2</sup>Early retirement incentive offered to employees.

<sup>&</sup>lt;sup>3</sup>Number added in 2011 includes 121 reversionary annuitants that are also surviving spouses.

## EXHIBIT P SCHEDULE OF RETIRED MEMBERS BY AMOUNT AND TYPE OF BENEFIT AS OF DECEMBER 31, 2011

Amount of Monthly Benefit	Number of Employee Annuitants	Number of Spouse Annuitants	Number of Reversionary Annuitants	Number of Child Annuitants	Total Number of Annuitants
Deferred	2	-	-	-	2
\$1-\$250	335	81	39	164	619
251 - 500	393	67	56	-	516
501 - 750	302	77	24	_	403
751 - 1,000	969	2,698	8	_	3,675
1,001 - 1,250	1,680	350	2	-	2,032
1,251 - 1,500	2,724	303	_	_	3,027
1,501 - 1,750	1,007	238	_	_	1,245
1,751 - 2,000	1,118	171	_	_	1,289
2,001 - 2,250	1,036	104	_	_	1,140
2,251 - 2,500	977	79	_	_	1,056
2,501 - 2,750	812	54	_	_	866
2,751 - 3,000	691	28	_	_	719
3,001 - 3,250	663	12	_	_	675
3,251 - 3,500	647	6	_	_	653
3,501 - 3,750	610	3	_	_	613
3,751 - 4,000	551	2	_	_	553
4,001 - 4,250	550	-	-	-	550
4,251 - 4,500	559	-	-	_	559
4,501 - 4,750	472	1	-	_	473
4,751 - 5,000	406	-	-	-	406
Over \$5,000	2,311	-	-	-	2,311
Totals	18,815	4,274	129	164	23,382



### ACTUARIAL METHODS AND ASSUMPTIONS AS OF DECEMBER 31, 2011

#### **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 principal Actuarial Cost Method used in this valuation is the Entry Age Normal Actuarial Cost Method. Under this Method, a Normal Cost is developed by spreading the actuarial value of benefits expected to be received by each active participant over the total working lifetime of that participant, from hire to termination, as a level percentage of pay.

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.

Experience gains (losses) decrease (increase) the UAAL and thus are amortized as part of the UAAL.

#### **CURRENT ACTUARIAL ASSUMPTIONS**

#### **Demographic Assumptions**

Post-Retirement Mortality: RP2000 Mortality Table, sex distinct, projected to the year 2010. The mortality table used is a static table and provides an estimated margin of 9 percent for future mortality improvements. (Adopted 2010)

Pre-Retirement Mortality: Post-Retirement mortality with a multiplier of 0.85 for males and 0.70 for females. (Adopted 2010)

Disability: Disability cost valued as a term cost of 0.75 percent of payroll. (Adopted 2005)

#### **RATE OF RETIREMENT – TIER 1 MEMBERS:**

Age and Service-Based Rates of Retirement

Service	50 - 54	55 - 59	60 - 64	65-66	67	68-69	70-79	80+
10-11		0%	12%	30%	30%	15%	45%	100%
12-19		0%	10%	15%	10%	10%	45%	100%
20-24		6%	10%	15%	10%	10%	45%	100%
25-29		12%	12%	20%	20%	20%	45%	100%
30	25%	20%	20%	20%	20%	20%	45%	100%
31-32	20%	20%	20%	20%	20%	20%	45%	100%
33-34	30%	30%	30%	30%	30%	30%	45%	100%
35-39	30%	30%	30%	45%	45%	45%	45%	100%
40+	100%	100%	100%	100%	100%	100%	100%	100%

Rates of retirement adopted 2010.

#### **RATE OF RETIREMENT – TIER 2 MEMBERS:**

Age-Based Rate	s of Retirement
----------------	-----------------

Age	Rate
62	30.00%
63	34.00
64	38.00
65	42.00
66	46.00
67	50.00
68	75.00
69	90.00
70 +	100.00

#### **RATE OF TERMINATION:**

Service Beg. of		Service Beg. of	
Year	Rate	Year	Rate
0	15.00%	16	2.80%
1	15.00%	17	2.50%
2	12.00%	18	2.30%
3	9.00%	19	2.10%
4	8.00%	20	1.90%
5	7.00%	21	1.80%
6	6.50%	22	1.70%
7	5.25%	23	1.60%
8	5.00%	24	1.50%
9	4.75%	25	1.40%
10	4.25%	26	1.30%
11	4.00%	27	1.20%
12	4.00%	28	1.10%
13	3.60%	29	1.00%
14	3.30%	30	0.90%
15	3.00%		

Rates of termination adopted 2010.

#### **Economic Assumptions**

Investment Return Rate and Discount Rate:

8.00 percent per annum (net of investment expense) for pensions and 4.50 percent per annum for OPEB. The 8.00 percent assumption contains a 3.00 percent inflation assumption and a 5.00 percent real rate of return assumption for pension. Pension investment return and discount rate adopted 1999 and OPEB discount rate adopted 2005.

Future Salary Increases:

The following illustrative annual rates of salary increases were used:

Service	Salary Scale		
1	8.25%		
2	7.75%		
3	7.25%		
4-5	6.75%		
6	6.50%		
7	6.00%		
8	5.50%		
9	5.25%		
10-25	5.00%		
26+	4.50%		

Adopted 2010.

Payroll Growth: Total payroll is assumed to increase by 4.00% each year. Adopted 2010.

Asset Value: The Actuarial Value of Assets is smoothed by using a five-year phase-in

of each year's unexpected investment gains and losses. Adopted 1999.

Other Assumptions

Actuarial Cost Method: Entry age normal cost method, under which the normal cost as a

percentage of pay for each employee remains level from entry age to retirement, and the accrued liability represents the fund which would now be on hand if all past normal costs had actually been paid, and all

current assumptions had been realized.

Amortization Method: 30-Year Level Dollar amortization of the unfunded liability

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. Adopted 1999.

Benefit Service: Exact fractional years of service are used to determine the amount of

benefit payable.

Decrement Timing: All decrements are assumed to occur mid-year.

Decrement Relativity: Decrement rates are used directly from the experience study, without

adjustment for multiple decrement table effects.

Decrement Operation: Turnover decrements do not operate after member reaches retirement

eligibility for a minimum annuity formula benefit.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest

birthday and service on the date the decrement is assumed to occur.

Pay Increase Timing: Middle of (fiscal) year.

Reciprocal Service: No assumption for reciprocal service.

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: 4.00 percent overall loss on tax levy is assumed.

Group Health Insurance: It is assumed for valuation purposes that the health insurance supplement

in effect as of June 30, 2013, will continue for life for all employee annuitants (and their future surviving spouses). The amount of the Plan paid health insurance from July 1, 2008, until June 30, 2013, is \$95.00 per month for each annuitant (employees and surviving spouses) not qualified to receive Medicare benefits, and \$65.00 if qualified. It is assumed that all annuitants age 65 and older will be eligible for Medicare and all annuitants less than age 65 will not be eligible for Medicare. Future surviving spouses of retirees, age 65 and older, are assumed to be eligible for Medicare, as well as surviving spouse annuitants that are

currently receiving a health insurance supplement.

It is assumed that 50 percent of future retirees will elect to receive the

health insurance supplement at retirement. (Adopted 2011)

#### THREE METHODS OF FINANCING UNFUNDED LIABILITY

Normal Cost

Plus Interest Method:

This is the method of valuation that was used in reports prior to 1997. It is intended to continue the current provisions of the Article governing the Plan in full force and effect on a permanent basis and in the amount required each year to keep the unfunded liability from increasing if all assumptions are realized.

The normal cost plus interest only method of funding is that recommended by the former Illinois Public Employees' Pension Laws Commission.

Normal Cost Plus 30-Year Amortization Method:

GASB #25 and #43 require a 30-year amortization of the unfunded liability. We have calculated the cost of amortizing the existing unfunded liability.

Both of these cost methods, the normal cost plus interest method and the normal cost plus 30-year amortization method, express the past service costs as a level annual dollar amount. It assumes that there will be a stable membership with a growing payroll. Consequently, as the total payroll increases in the future, the level annual dollar amount becomes a decreasing percent of the total payroll.

Under both methods, level dollar amounts represent a greater percent of payroll initially and a decreasing percent of payroll as future payrolls increase.

#### THREE METHODS OF FINANCING UNFUNDED LIABILITY (CONT'D)

Level Annual Percent of Payroll Method:

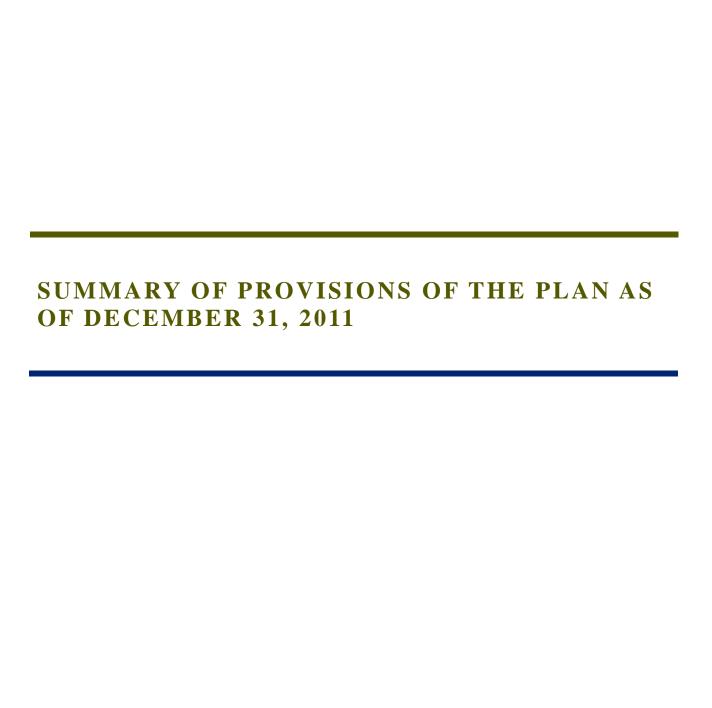
An alternative method for funding that is commonly used for public employee pension plans is a method that sets the funding standard cost objective as a level annual percent of payroll rather than as a level annual dollar amount. This method will result in increasingly greater dollar amounts each year as payrolls increase.

This constant percent of payroll method is permitted under GASB #25 and GASB #43. Note that if this amount is recomputed each year with the same "open" amortization period, the unfunded liability will never be fully amortized.

For the Retirement Board's guidance, we have estimated the financial effects of these different amortization methods. The costs under these funding methods are contingent upon all actuarial assumptions being met and continued active membership at the same level. These three methods meet the requirements set forth in Illinois Compiled Statutes, Chapter 40, and Section 5/1A-102. The results are given in the following table:

Actuarial Assets with Various Amortization Methods	Required 2012 Tax Levy	Required Multiple	Unfunded Liability Will	Portion Applicable to Unfunded Liability
1. Normal Cost Plus Interest Only	N/A	4.91	Remain Constant	\$506,336,126
2. Normal Cost Plus 30-Year Level Dollar Amortization	N/A	5.37	Decrease	\$563,991,632
<ol><li>Normal Cost Plus 30-Year Level % of Payroll</li></ol>	N/A	3.77	Increase	\$374,222,425
4. Present Law	\$164,168,800	1.25		

In determining funding policy, it is essential to provide a margin of safety for unfavorable operating experience such as salaries in excess of anticipated salaries, decreasing age of retirement, increasing longevity, and declining plan membership.



### SUMMARY OF PROVISIONS OF THE PLAN AS OF DECEMBER 31, 2011

#### **PLAN DESCRIPTION**

Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance or any person employed by the Municipal Employees' Annuity and Benefit Fund of Chicago (Plan) who is not participating in any other pension plan or retirement system is covered by the Plan which is a defined benefit single employer pension plan with a defined contribution minimum. Although this is a single employer plan, the defined benefits, as well as the employer and employee contribution levels, are mandated in Illinois Compiled Statutes (Chapter 40, Pensions, and Article 5/8) and may be amended only by the Illinois legislature. The City of Chicago accounts for the plan as a pension trust fund. The payroll for employees covered by the Municipal Plan for the year ended December 31, 2011, was \$1,605,993,339 and includes City of Chicago payroll and Board of Education payroll. At December 31, 2011, the Municipal Plan membership consisted of:

Retiree, surviving spouse, and child annuitants currently receiving benefits	23,380
Terminated inactive employees entitled to benefits or a refund of contributions but not yet receiving them	12,762
Current employees (includes 610 disabilities)	
Vested	17,938
Non-vested	14,038
Total	31,976

The Municipal Plan provides retirement benefits as well as death and disability benefits. Employees age 55 or more with at least 10 years of service are entitled to receive a money purchase annuity with partial city contributions if under age 60 with less than 20 years of service. Employees age 55 or more with at least 20 years of service or age 50 or more with at least 30 years of service are entitled to receive a minimum formula annuity of 2.40 percent per year of service times the final average salary (highest average annual salary for any four consecutive years within the last 10 years of service immediately preceding the date of retirement). If the employee retires prior to age 60, the annuity shall be reduced by ¼ of one percent for each month the employee is under age 60 if the employee has less than 25 years of service. The annuity is not reduced if the employee is age 50 with at least 30 years of service. The original annuity is limited to 80 percent of the highest average annual salary. Beginning January 1, 1999, there is a 10-year deferred vested benefit payable at age 60. Employees who withdraw from service at age 60 or over with at least 10 years of service are entitled to a minimum of \$850 per month.

The monthly annuity is increased by 3.00 percent in January of the year of the first payment date following the later of age 60 or the first anniversary of retirement, and by 3.00 percent annually thereafter; except that for an employee retiring prior to age 60 the first increase will occur not later than January of the year of the first payment date following the later of (1) the third anniversary of retirement or (2) the attainment of age 53.

Participants that first became members on or after January 1, 2011, are subject to different retirement eligibility conditions and benefit provisions as described on the following pages.

### SUMMARY OF PROVISIONS OF THE PLAN AS OF DECEMBER 31, 2011 (CONT'D)

#### PLAN DESCRIPTION (CONT'D)

Covered employees are required to contribute 8.50 percent of their salary to the Municipal Plan. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with interest (3.00 percent or 4.00 percent depending on when an employee became a participant).

The City of Chicago is required by state statutes to contribute the remaining amounts necessary to finance the requirements of the Plan. It is required to levy a tax at a rate not more than an amount equal to the total amount of contributions by the employees to the Plan made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 1.25 annually. The total amount of contributions by the employees shall not include contributions for service credit purchases under Section 8-138.4 for purposes of establishing the tax levy amount.

Participants that first became members on or after January 1, 2011, are subject to a cap on pensionable salary upon which contributions are made as described on the following pages.

#### **DEFINITIONS**

These terms are defined in Article 1A of the Illinois Pension Code Regulation of Public Pensions.

- "Accrued liability" means the actuarial present value of future benefit payments and appropriate administrative expenses under a plan, reduced by the actuarial present value of all future normal costs (including any participant contributions) with respect to the participant included in the actuarial valuation of the plan.
- "Actuarial present value" means the single amount, as of a given valuation date, that results from applying actuarial assumptions to an amount or series of amounts payable or receivable at various times.
- "Actuarial value of assets" means the value assigned by the actuary to the assets of a plan for the purposes of an actuarial valuation.
- "Beneficiary" means a person eligible for or receiving benefits from the pension plan.
- "Credited projected benefit" means that portion of a participant's projected benefit based on an allocation taking into account service to date determined in accordance with the terms of the plan based on anticipated future compensation.
- "Current value" means the fair market value when available; otherwise, the fair value as determined in good faith by a trustee, assuming an orderly liquidation at the time of the determination.
- "Normal cost" means that part of the actuarial present value of all future benefit payments and appropriate administrative expenses assigned to the current year under the actuarial valuation method used by the plan (excluding any amortization of the unfunded accrued liability).
- "Participant" means a participating member or deferred pensioner or annuitant of the pension plan, or a beneficiary thereof.

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

"Pension plan" or "Plan" means the Municipal Employees' Annuity and Benefit Fund of Chicago established under Article 8 of the Illinois Pension Code.

"Plan year" means the calendar year for which the records of a given plan are kept.

"Projected benefits" means benefit amounts which are expected to be paid at various future times under a particular set of actuarial assumptions, taking into account, as applicable, the effect of advancement in age and past and anticipated future compensation and service credits.

"Supplemental annual cost" means that a portion of the unfunded accrued liability is assigned to the current year under one of the following bases:

- 1. interest only on the unfunded accrued liability;
- 2. the level annual amount required to amortize the unfunded accrued liability over a period not exceeding 30 years (40 years for pension unfunded accrued liability prior to 2007);
- 3. the amount required for the current year to amortize the unfunded accrued liability over a period not exceeding 30 years as a level percentage of payroll (40 years for pension unfunded accrued liability prior to 2007).

"Total annual cost" means the sum of the normal cost plus the supplemental annual cost.

"Unfunded accrued liability" means the excess of the accrued liability over the actuarial value of the assets of a plan.

"Vested pension benefit" means an interest obtained by a participant or beneficiary in that part of an immediate or deferred benefit under a plan which arises from the participant's service and is not conditional upon the participant's continued service for an employer any of whose employees are covered under the plan, and which has been forfeited under the terms of the plan.

#### **MEMBERS**

Persons appointed under civil service who are employed by the City and Board of Education of Chicago (other than teachers); persons employed by the Retirement Board; temporary and non-career service employees who have a total of at least one year of service and have four consecutive months of service immediately prior to filing written application with the Retirement Board; aldermen and other officials of the City and the Board of Education of Chicago who shall, while in office, file written application with the Retirement Board. Beginning January 1, 1984, temporary and non-career service employees will automatically be members. Aldermen and other officials of the City and the Board of Education of Chicago will still file written application with the Retirement Board. Current and former employees of the Chicago Housing Authority and the Public Building Commission who have service in the Plan or who reinstate service in this Plan, may elect to participate in this Plan with respect to their employment with the Chicago Housing Authority or the Public Building Commission under certain conditions.

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

#### **SERVICE**

For all purposes except minimum annuity and ordinary disability credit, service in four months in any calendar year constitutes one year of service credit.

For minimum annuity, one half-year credit is given for one complete month of service and a full year credit is given for one complete month of service plus service in at least five other months. For Ordinary Disability credit, the exact number of days, months and years is used.

#### RETIREMENT ANNUITY

# Money Purchase Formula

Maximum is 60 percent of highest salary. Applies in cases where an employee is age 55 or older and has a minimum of 10 years of service. If employee is age 55 to 60 with service less than 20 years, the annuity is based on all employee deductions plus  $1/10^{th}$  of the City contributions for each year over 10. In the case of withdrawal before age 55 and application after age 55, the annuity is based on employee deductions plus  $1/10^{th}$  of the City contributions for each year over 10, with interest to date of application or age 55, whichever is later. The age factor for age 55 is used.

The annuity is based on all employee deductions and City contributions in cases where the employee is (a) age 55 to 60 with 20 or more years of service; (b) age 60 or older; or (c) resigning at the time of disability credit expiration.

Participants that first became members on or after January 1, 2011, are eligible for benefits under the money purchase formula upon attainment of eligibility for retirement benefits at age 62 with 10 years of service.

# Minimum Annuity Formula

Maximum is 80 percent of final average salary.

An employee age 60 or older with at least 10 years of service, or an employee age 55 or older with at least 20 years of service, or an employee age 50 or older with at least 30 years of service, is entitled to an annuity equal to 2.40 percent for each year of service of the final average salary during the four highest consecutive years within the last 10 years of service prior to retirement. If the employee withdraws from service before age 60 with less than 20 years of service, he can begin to receive an annuity no earlier than age 60. For an employee who is eligible to begin receiving an annuity before age 60, the annuity is discounted 0.25 percent for each month the employee is younger than age 60 unless he has at least 25 years of service.

The employee will receive a minimum annuity of \$850 per month if the employee withdraws at age 60 or older with at least 10 years of service.

Participants that first became members on or after January 1, 2011, are first eligible for an unreduced annuity benefit upon attainment of age 67 with 10 years of service. Members are first eligible to begin receiving a reduced annuity benefit upon attainment of age 62 with 10 years of service. The annuity is discounted 0.50 percent for each full month the employee is younger than age 67. 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.

### Reversionary Annuity

An employee may elect to reduce his or her annuity by an amount less than or equal to \$400 to provide a reversionary annuity for a spouse, parent, child, brother, or sister, to begin upon the employee's death. The election must be made before retirement and have been in effect one year prior to death. The one-year requirement is waived if the beneficiary is the employee's spouse. The death of the employee before retirement voids this election. The reversionary annuity for a spouse when added to the spouse's annuity cannot exceed 100 percent of the employee's reduced annuity. If the employee resigns after June 30, 1983, the 3.00 percent automatic annual increase in the annuity will be computed on the original, not the reduced, annuity; if the beneficiary dies before the employee annuitant, the full annuity is restored for annuities granted after June 30, 1983. The amount of the monthly reversionary annuity is determined by multiplying the amount of the monthly reduction in the employee's annuity by a factor based on the age of the employee and the difference between the ages of the employee and the reversionary annuitant at the starting date of the employee's annuity.

## Reciprocal Annuity

Under reciprocal retirement, an employee can receive an annuity based on combined service credits in two or more governmental units in Illinois to whose pension funds he or she has contributed.

### Automatic Increase in Annuity

An employee annuitant is entitled to receive an increase of 3.00 percent of the currently payable annuity. This increase begins in January of the year of the first payment date following the earlier of:

- 1.) the later of the third anniversary of retirement and age 53, and
- 2.) the later of the first anniversary of retirement and age 60.

Increases apply only to life annuities.

An employee annuitant that first became a member on or after January 1, 2011, that is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to 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 increase. The increase is based on the amount of the originally granted benefit (simple). This increase begins on January 1 of the year of the first payment date following the later of:

- 1.) attainment of age 67, and
- 2.) the first anniversary of the annuity start date.

## Elected City Officer's Optional Plan

An alternative plan for elected officials of 3.00 percent of the Final Salary for the first eight years, 4.00 percent for the next four years and 5.00 percent thereafter, subject to the maximum 80 percent, is available. The elected official must contribute an additional 3.00 percent of salary to receive these benefits. This plan also includes alternative widow and disability benefit formulas. This plan became effective upon approval from the IRS on September 17, 1991.

#### **SPOUSE ANNUITY**

The surviving spouse annuity is the greater of the annuity under the money purchase formula or the minimum annuity formula. Surviving spouses who remarry on or after September 4, 2000, will not have their annuities terminated.

### Money Purchase Formula

When an employee retires, the spouses' annuity is fixed, based on employee deductions and City pay credits made for spouses' annuity purposes and a joint life age factor. (If the employee is a female, these are deductions accumulated since October 1974).

If the employee dies in service, the spouse's annuity is based on all sums accumulated to their credit.

For 3.00 percent annuities fixed on or after August 1, 1983, the "Combined Annuity Mortality Table" shall continue to be used; however, surviving spouse's single life annuities and reversionary annuities shall be computed using the best factor (the factor producing the highest annuity), without regard to gender.

## Spouses' Minimum Annuity Formula

If the employee retires or dies in service and is at least age 55 with 20 or more years of service, or is at least age 50 with 30 or more years of service, the spouse's annuity is equal to half the amount of annuity the employee was entitled to receive at the time of retirement or death in service. This annuity must then be discounted 0.25 percent for each month the spouse is under age 55 (or age 50 if the employee had at least 25 years of service) at the time the employee retires or dies in service.

If the employee dies while receiving a retirement annuity, the spouse is eligible for an annuity of one-half of the employee's annuity at death. This annuity is discounted for his/her age under 55 at the time of the employee's death, unless the employee had at least 25 years of service and withdrew from service on or after June 27, 1997, in which case the spouse annuity would be discounted for spouse age under 50 at the time of the employee's death.

If the employee dies in service on or after January 1, 2002, with at least 10 years of service, the spouse is entitled to an annuity of half of the minimum formula annuity earned and accrued to the credit of the employee at the date of death. For the purposes of this benefit, the minimum formula annuity earned and accrued to the credit of the employee is equal to 2.40 percent for each year of service of the highest average annual salary for any four consecutive years within the last 10 years of service immediately preceding the date of death, up to a maximum of 80 percent of the highest average annual salary. This annuity is not reduced due to the age of the employee or spouse. The spouse is eligible for this annuity only if the marriage was in effect for 10 full years or more.

The spouse will receive a minimum annuity of \$800 per month if the employee retires with at least 10 years of service or dies in service with at least five years of service.

For participants that first became members on or after January 1, 2011, the annuity payable to the surviving spouse is equal to 66 2/3 percent of the participant's earned retirement annuity at the date of death without a reduction due to age.

## Automatic Increase in Annuity

The widow or survivor of a participant that first became a member on or after January 1, 2011, shall receive an annual increase equal to 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 date of the increase. The increase is based on the amount of the originally granted survivor's benefit (simple). This annual increase begins on January 1 following the commencement of the widow's or survivor's annuity if the deceased member died while receiving an annuity benefit and on January 1 following the first anniversary of the commencement of the annuity otherwise.

# Child's Annuity

A child's annuity is provided for an unmarried child of a deceased employee who is under the age of 18, if the child was born before the withdrawal from service. The annuity is \$220 per month while the spouse of the deceased employee is alive and \$250 per month if the spouse is deceased.

#### FAMILY MAXIMUM

Non-Duty Death: 60 percent of final monthly salary. Duty Death: 70 percent of final monthly salary.

#### **DISABILITIES**

## **Duty Disability Benefits**

Any employee who becomes disabled as the result of an injury incurred in the performance of any act of duty has a right to receive a duty disability benefit in the amount of 75 percent of salary at date of injury, plus \$10 a month for each unmarried child less than age 18. Child's duty disability benefit is limited to 15 percent of the employee's salary as of the date of injury. Duty disability benefits begin one day after the later of the last day worked or the last day paid.

If the disability has resulted from any mental disorder, physical defect or disease which existed at the time such injury was sustained, the duty disability benefit shall be 50 percent of salary at date of injury. Disablement because of heart attacks, strokes, or any disablement due to heart disease shall not be considered the result of an accident suffered in the performance of duty. However, the employee will receive service credit and the City will contribute salary deductions for annuity purposes if the employee is receiving Workers' Compensation.

A duty disability benefit is payable to age 65 if the disability benefits begin before age 60. For an employee who begins disability on or after age 60, disability benefits will continue for five years. A duty disability benefit which continues for more than five years and which starts before the employee's age 60, will be increased by 10 percent on January 1<sup>st</sup> of the sixth year.

The City contributes salary deductions for annuity purposes for the duty disability benefit. Such amounts contributed by the City after December 31, 1981, while the employee is receiving duty disability benefits, are not refundable to the employee and will be used for annuity purposes only.

### **Ordinary Disability Benefits**

This benefit is granted for disability incurred other than in performance of an act of duty and is 50 percent of salary as of the last day worked. The first payment shall be made one month after the disablement occurs provided the employee is not then in receipt of salary. Length of time on disability is limited to a maximum of 25 percent of the employee's total service or five years, whichever occurs first.

The Plan contributes salary deductions for annuity purposes for the ordinary disability benefit. Such amounts contributed by the Plan after December 31, 2000, while the employee is receiving ordinary disability benefits, are not refundable to the employee and will be used for annuity purposes only.

#### 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 (defined in section 160.1 of Article 11 of the Illinois Pension Code as persons receiving an age and service annuity, a widow's annuity, a child's annuity, or a minimum annuity as a direct result of previous employment by the City of Chicago) and \$65 per month for Medicare eligible city annuitants from July 1, 2008, through June 30, 2013.

The city health care plans referred to above and the pension fund's payments to the city for such plans 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.

Should the Board of Education continue to sponsor a retiree health plan, the pension fund is authorized to provide payments to the Board of Education, on behalf of each eligible annuitant who chooses to participate in the Board of Education retiree health benefit plan, in the amount of \$95 per month for non-Medicare eligible participants and \$65 per month for Medicare eligible participants from July 1, 2008, through June 30, 2013.

The Board of Education health benefit plan referred to above and the pension fund's payments to the Board of Education for such plan 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.

### **REFUNDS**

### To Employees

An employee who resigns before age 55, or before age 60 with less than 10 years of service is entitled to all salary deductions accumulated with interest to date of resignation, plus the 0.50 percent deducted for annuity increase purposes without interest.

### To Estate

Amounts contributed by an employee, excluding the 0.50 percent deductions for annuity increase, that have not been paid out as annuity, are refundable to his or her estate, with interest either to the date of retirement or death, if the employee died in service.

## Refund in Lieu of Annuity

If the annuity of an employee or spouse is less than \$800 a month, the employee or spouse may elect to receive a refund, as above, in lieu of an annuity.

## Spouses' Annuity Contributions

If unmarried at the time of retirement, the employee is entitled to a refund, with interest, of contributions made for the spouse's annuity.

## **Disability Deductions**

The employee's pension deductions paid by the city while the employee is receiving duty disability benefits are no longer refunded to the employee if the duty disability was granted after December 31, 1981, or if the ordinary disability was granted after December 31, 2000. These deductions are now used only for annuity purposes.

#### **DEDUCTIONS AND CONTRIBUTIONS**

Covered employees are required to contribute 8.50 percent of their salary to the Plan.

For participants that first became members on or after January 1, 2011, pensionable salary, upon which member contributions are made, 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.

The City shall annually levy a tax which, when added to the amounts deducted from the salaries of the employees, or otherwise contributed by them, will be sufficient for the requirements of the Plan. The tax will produce an amount that does not exceed the amount of contributions by the employees to the Plan made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 1.25 for the year 1999 and each year thereafter. The total amount of contributions by the employees shall not include contributions for service credit purchases under Section 8-138.4 for purposes of establishing the tax levy amount.

When the balance of the prior service reserve equals its liabilities (including in addition to all other liabilities, the present value of all annuities, present and prospective, according to the applicable mortality tables and rates of interest), the City shall cease to contribute the amounts to provide prior service annuities and other annuities and benefits.

### TAX SHELTER OF EMPLOYEE SALARY DEDUCTIONS

Beginning January 1, 1982, the City employee salary deductions were designated for income tax purposes as made by the employer. The W-2 salary is therefore reduced by the amount of contributions. For pension purposes gross wages remain unchanged. Income tax will be paid when a refund or annuity is granted. For the purposes of benefits, refunds, or financing, these contributions are treated as employee contributions. Beginning September 20, 1981, the Board of Education paid contributions in the amount of 7.00 percent of the employee's salary. The 1985 amendments contained a provision whereby the amount of pick-up, if any, is included in the pensionable salary for contributions and benefits. Such provision was retroactive to September 20, 1981.

Beginning May 28, 2000, the remainder of contributions due for Board of Education employee salary deductions was designated for income tax purposes to be made by the employer and treated in the same manner as City employee salary deductions. Effective January 16, 2004, the Fund may allow the employee to designate any optional contribution amounts that he has elected to pay to the Fund as employer contributions for income tax purposes. The contributions shall be made by the employer through a reduction in payroll to the employee and the election to have the employer make the optional contributions is irrevocable. For the purposes of benefits, refunds, or financing, these contributions are treated as employee contributions.



#### 1979 Session

#### SB 964

• Disability benefit for chronic alcoholism, pregnancy, or childbirth.

#### HB 1023

• Reciprocal Act: changes proportionate pension credits under the "alternative formula."

#### HB 2012

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

#### 1980 Session

#### 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.

## **Spring 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 six months and actuarial statement within nine months; \$100 penalty per day if late.

#### HB 212

• Eliminates refund of City contributions made while an employee is receiving duty disability benefits.

### HB 213

\$200 refund in lieu of annuity

#### HB 215

Authorizes securities lending.

## **Spring 1982 Session**

#### SB 1147

• Minimum reporting and actuarial information for 1984.

#### SB 1180

Board of Education may incur an obligation to "pick up" employee contributions. These
contributions may be paid by a special Pension Contribution Liability Tax. If levied, no
payment is required until actual collection of the tax.

#### SB 1452

Provides that an active member of the General Assembly who was employed by the City of Chicago by temporary appointment or in an exempt position, and could have elected to participate in the Plan but did not so elect, may establish credit for such service by making the required contribution.

#### 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 740

• Pension credit may be established for services rendered for a transportation system operated by a public utility prior to the establishment of the CTA.

#### HB 2286

• Allows persons who withdrew from service or became eligible for survivors' benefits in 1981 and who receive a monthly annuity between \$100 and \$200 to elect a refund in lieu of annuity.

#### **Spring 1983 Session**

#### **SB22**

Delegation of investment authority restrictions.

#### HB 380

 Maximum survivor annuity from \$400 to \$500; 10 percent increase in duty disability benefit January 1 of the sixth year.

#### HB 514

• 10.00 percent prudent person investment category.

#### HB 637

• Allows an active member of the General Assembly to establish credit in this plan for time for which he or she could have elected to participate with interest at 6.00 percent and to transfer credits to the Park Fund.

### HB 1144

- Revises provision allowing a person who withdrew from service or began receiving a widow's annuity in 1981 to elect to receive a refund in lieu of annuity by extending the deadline for election by one year to March 1, 1984, and by raising the amount subject to refund to \$250 per month.
- 3.00 percent post-retirement annuity increase for those who qualify.
- Mandatory coverage for all employees in temporary positions.
- Reversionary annuity revisions table of factors.
- Credit for Executive Director of Chicago Land Clearance Commission or Chicago Dwellings Association or for service as administrator of Illinois – Indiana Bi-State Commission – if certain contributions are made before April 1, 1984.

### Federal Law and Regulation or Supreme Court Decision

- For an employee under the age of 70 who commences disability on or after attainment of age 60 in service, the ordinary disability benefit payments shall not exceed in the aggregate throughout the employee's service a period equal to 1.4 of the total service rendered prior to the date of the disability but no more than five years or age 70, whichever is earlier. The duty disability payments shall be payable for a period of five years or age 70, whichever occurs first.
- For 3.00 percent annuities fixed on or after August 1, 1983, the "Combined Annuity Mortality Table" shall continue to be used; however, widows' single life annuities and reversionary annuities shall be computed using the best factor (the factor producing the highest annuity, not depending upon sex).

#### 1984 Session

Illinois Public Employees' Pension Laws Commission abolished.

### 1985 Session

### HB 561

- 1.80, 2.00, 2.20, 2.40 percent benefit accrual rate for those born before January 1, 1936, and retiring after July 18, 1985.
- Reduction in age discount factor (employee and widow) from 0.50 percent to 0.25 percent for employees born before January 1, 1936, and retiring after July 18, 1985.
- Health insurance supplement up to \$25 per month if the employee is age 65 or older with at least 15 years of service (for each employee annuitant in receipt of annuity and for each employee who retires on annuity in the future).
- Disability provisions extended to age 70 in certain cases.
- Unisex money purchase factors for widows/widowers.
- Membership provisions extended to age 70.
- Board of Education employee contribution "pick up" included in the definition of salary for contribution and benefit purposes (retroactive).

#### 1986 Session

#### HB 2630

- Beginning for retirement or death in service on or after January 23, 1987, the spouse dollar cap is eliminated.
- Beginning for retirement on or after January 1, 1987, the first annuity increase will begin on the first annuity payment date following the first anniversary of retirement or age 60 if later.

#### 1987 Session

- 1.80, 2.00, 2.20, 2.40 percent benefit accrual rates for those born on or after January 1, 1936, and retiring on or after January 1, 1988.
- Reduction in an age discount factor (employee and widow) from 0.50 percent to 0.25 percent for employees born on or after January 1, 1936, and retiring or dying in service on or after January 1, 1988. No discount for employee age less than 60 if employee has at least 35 years of service.

- Minimum employee annuity of \$250 and minimum spouse of \$200 under certain conditions.
- Elimination of cap on maximum widow's annuity for spouses of certain retired employees with repayment of any "excess spouse" refund.
- Change amount of children's benefits to \$120 or \$150, effective January 1, 1988.
- Provides for certain "Good Government" initiatives.

#### 1988 Session

No legislative changes.

#### 1989 Session

#### SB 95

• Signed August 23, 1989. Changed the amount of plan 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. Widows will now be supplemented and employee annuitants will no longer be required to meet the age 65 and 15 years of service requirements. The City will be required to pay 50 percent of the aggregated 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 1997 for the retired group.

- Federal law or regulation. Provided for Age Discriminatory provisions as required by Federal law or regulation. Provided for Age Discrimination changes effective January 1, 1988, to eliminate age 65 requirements for marriage in service and children's benefits, provided contributions after age 65 for spouse benefits, provided employee accumulation annuities be computed after age 70, provided employee and spouse accumulation annuities not be "fixed" at age 65, provided no age 70 restriction on disability benefits, provided for active members over age 65 that their accounts be "unfixed" and accumulate interest until the date of withdrawal, and provided that there be no age 70 membership limitation and removed the permitted "no spouse" refund at age 65.
- Allow for local labor officials on a leave of absence from the Plan to contribute for their service as a local labor official.

#### 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.

- Signed January 14, 1991. Beginning for withdrawals on or after January 1, 1991, annuity payments will be made as of the first day of the calendar month during the annuity payment period.
- 2.20 percent benefit accrual rate for employees retiring on or after July 1, 1990.
- No discount for employee age less than 60 if employee has at least 30 years of service and retires on or after July 1, 1990.
- Minimum employee annuity of \$350 and minimum spouse of \$300 under certain conditions.
- Spouses and widows of employees retiring or dying in service on or after July 1, 1990, with 20 or more years of service at age 55 or over will be eligible for half of the employee's annuity discounted 0.25 percent for each month the spouse or widow is less than 55.
- Retroactive eligibility for 35 years no discount and spouse and widow annuities computed as half of employee annuity.
- Refund in lieu of \$300 annuity.
- Disability benefit retroactive one year from application; duty disability deductions in lieu for heart attack or stroke.
- An alternative plan for elected officials of 3.00 percent of salary for the first eight years, 4.00 percent for the next four years and 5.00 percent thereafter, subject to a maximum of 80 percent, is available. The elected official must contribute an additional 3.00 percent of salary to receive these benefits. This plan also includes alternative widow and disability benefit formulas. This plan will become effective upon approval from the IRS.
- Collateral for securities lending expanded.
- Fractional payment for refund repayment and temporary service authorized. Credit established by fractional payment shall be earliest service for which credit may be established.

#### 1991 Session

#### HB 971

Signed November 19, 1991. Eligibility for the alternative plan for elected officials was extended to persons who hold office as a City officer on April 30, 1991, until 30 days after the date the plan takes effect, notwithstanding the ending of his term of office prior to that effective date.

#### 1992 Session

#### SB 1650

- Signed January 25, 1993.
- Transfer provisions for County elected officers and judges.
- Early Retirement Incentive was created for withdrawals from December 31, 1992, to June 30, 1993.
  - Requires a total of 20 years of service (with at least 10 in this plan, five in a Reciprocal plan and up to five purchased under ERI).
  - Requires age 55 or older.
  - Requires an election form to be filed before June 1, 1993.
  - Retired under this Article.
  - Provides for elimination of the age discount for employees 55-60.
  - Provides for 80 percent maximum final average salary compared to the present 75 percent.
  - Provides for an optional purchase of up to five years of service credit for 4.25 percent of the November 1, 1992, salary.
  - Provides for a 24-month option to pay for ERI service.
  - Provides for a tax levy derived from ERI contributions.

#### 1993 Session

No legislative changes.

#### 1994 Session

No legislative changes.

#### 1995 Session

#### SB 114

- Approved July 14, 1995.
- 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 Members before 1996.
- The Plan 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 three-year compensation no longer applies.
  - Excess benefit plans are permitted to provide Members 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 15

- Approved June 27, 1997.
- For withdrawals from service occurring on or after July 1, 1990, an alternate method of calculating salary using the annual equivalent of average salary instead of the salary rate applicable for the greatest part of the year is allowed.
- Annuities effective on or after January 1, 1998, will be payable on the first day of the calendar month.
- The prudent person rule for investing is allowed.
- An eligible employee is allowed to contribute for all periods of temporary service while still in City service, for up to 90 days after withdrawal from City service, or while in reciprocal service.
- The Board is allowed to adopt rules prescribing the manner of repaying refunds and purchasing any optional credit including accepting rollovers for payments.
- The City is allowed to use deposits from any legal source (including borrowing) in lieu of all or part of the tax levy on or after June 27, 1997.

- Approved June 27, 1997. For withdrawals from service occurring on or after June 27, 1997, an employee (or surviving spouse) age 50 or over with at least 30 years of service is eligible to receive an annuity based on the minimum annuity formula.
- For withdrawals from service occurring on or after June 27, 1997, an employee under age 60, with at least 25 years of service, is not subject to an age discount.
- The surviving spouse of a retiree dying on or after June 27, 1997, while receiving an annuity is eligible for one-half of the employee's annuity at death, discounted for spouse's age under 55 at the time of employee's death.
- Beginning June 27, 1997, employees already receiving annuity will receive a minimum annuity of \$550 for life (reciprocal annuitants must have at least five years of Municipal service). Any future employee annuitant withdrawing from service after attainment of age 60 with 10 or more years of service would qualify for this minimum.
- Beginning June 27, 1997, widow(er)s already receiving annuity will receive a minimum annuity of \$500 for life (reciprocal annuitants must have at least five years of Municipal service). For future spouses of retirees, 10 years of service is required. For spouses of employees dying in service in the future, five years of service is required.

- Beginning June 27, 1997, the child's annuity will be increased to \$220 per month if the spouse of the deceased employee parent survives or \$250 per month if no such spouse survives.
- Coverage in the City group health insurance is extended through June 30, 2002, with some modification in the plans offered. Pension plan supplement remains \$45 and \$75 for Medicare eligible and non-Medicare eligible annuitants respectively.
- Spouses of employees dying in service after age 50 on or after June 27, 1997, will be eligible to receive 50 percent of the annuity that the employee would have received. This annuity will be reduced by 0.25 percent per month for each month that the spouse is below the age of 55.
- Spouses of employees dying after retirement on or after June 27, 1997, will be eligible to receive 50 percent of the employee's annuity at death. This annuity will be reduced by 0.25 percent per month for each month that the spouse is below the age of 55.

- Approved August 22, 1997.
- Beginning August 22, 1997, for surviving spouses of employees who retired or died in service before January 23, 1987, the previous \$300, \$400, or \$500 maximum spouse annuity limitation is removed. If an excess spouse refund was paid, it must be repaid with interest.
- Service paid under Section 8-230 can be counted for ordinary disability purposes for periods of disability on or after August 22, 1997.
- Early Retirement Incentive was created for withdrawals from December 31, 1997, to June 30, 1998.
  - Requires an election form to be filed before June 1, 1998.
  - Requires a member to be a current contributor on November 1, 1997, and have not previously retired under this Article.
  - Provides for elimination of the age discount for employees age 55 to 60.
  - Provides for 80 percent maximum final average salary compared to the present 75 percent.
  - Provides for an optional purchase of up to five years of service credit for 4.25 percent of the November 1, 1997, salary.
  - Provides for a 24-month option to pay for ERI service.
  - Provides for a tax levy derived from ERI contributions.

#### 1998 Session

- Approved August 14, 1998.
- Beginning January 1, 1999, the automatic increase for employee annuitants changed to 3.00 percent compounded for all past, current, and future annuitants regardless of the effective date of the annuity. Term annuities are not eligible for the increase.
- Employees withdrawing after January 1, 1999, will be eligible for the minimum formula upon attainment of age 60 if they have at least 10 years of service.
- Beginning January 1, 1999, employees already receiving an annuity as of August 14, 1998, will receive a minimum annuity of \$850 for life (reciprocal annuitants must have at least five years of Municipal service). Any future employee annuitant withdrawing from service after August 14, 1998, after attainment of age 60 with 10 or more years of service would qualify for this minimum.
- Beginning January 1, 1999, widow(er)s already receiving annuity as of August 14, 1998, will receive a minimum of \$800 for life (reciprocal annuitants must have at least five years of Municipal service). For future spouses of retirees dying after August 14, 1998, 10 years of service is required. For spouses of employees dying in service after August 14, 1998, five years of service is required.
- The conditions of the reversionary option were changed as follows:
  - The nullification of reversionary payment due to employee dying was reduced to 365 days after written designation was filed with the board and now applies only to parents, children, and siblings (not spouses).
  - Employees may reduce their monthly annuity by as much as \$400.
  - The increased annuity for spouse may now be as much as 100 percent of the reduced employee annuity.
- Spouses and widows that are eligible for the "50 percent employee amount" will no longer have this amount reduced for under age 55 if the employee dies on or after January 1, 1998, and withdrew from service on or after June 27, 1997, and the employee retired after age 55 with at least 25 years of service or after age 50 with at least 30 years of service. The age discount will only apply if the spouse is under age 50.
- The child of an annuitant who withdraws after January 1, 1998, having attained age 50 with at least 30 years of service is eligible for a child annuity upon the death of the annuitant.
- The required employer multiple has been set at 1.25 for 1999 and beyond.

- Money deposited under 5/8-173(f) may be used by the plan for any of the purposes for which the proceeds of the tax levied by the city under this section may be used.
- An employee or former employee may pay and receive credit for all periods of full-time employment by the Public Building Commission as long as they are not receiving credit for the same service from another retirement system. Employee must pay employee and employer contributions based on the salary received from the Public Building Commission for employment. Repayment must be made before annuity begins.
- Annuitants may authorize a portion of their annuity to be withheld for payment of dues to the labor organization by which they were represented. A minimum of 25 annuitants must choose an organization for it to be included in this plan.

#### HB 1612

• Effective July 1, 1999, Qualified Illinois Domestic Relations Orders were recognized.

#### 1999 Session

No Changes.

#### 2000 Session

- Approved July 6, 2000.
- An employee or widow whose annuity would amount to less than \$800 per month may elect to receive a refund in lieu of annuity. Formerly, only employees and widows whose annuity would be less than \$300 per month could choose a refund.
- The reversionary annuity tables have been extended down to age 50 from age 55 to comply with the change in the law allowing retirement at age 50 with 30 years of service.
- The Board is allowed to pay an annuity (if the person qualifies) directly to a Medicare approved, State certified nursing home or to a publicly owned and operated nursing home, hospital, or mental institution. Each person must qualify under the provisions of this amendment.
- Annuities of widows who remarry on or after the date 60 days after the effective date of this amendment would not be terminated upon remarriage.
- For annuities effective before January 1, 1998, all annuity payments will be made on the first day of the calendar month, for the entire month without proration.

#### 2001 Session

#### **EGTRRA**

- On June 7, 2001, the Economic Growth and Tax Relief Reconciliation Act of 2001 was signed by President Bush.
- Beginning January 1, 2002, payments for eligible optional service credits may be made with funds rolled over from a 457 deferred compensation plan or a 403(b) tax deferred annuity plan (if allowed by the 457 or 403(b) plan).

#### 2002 Session

#### SB 314

- Effective July 1, 2002.
- The accrual rate for the minimum formula annuity is changed from 2.20 percent to 2.40 percent of final average salary and the maximum annuity is changed from 75 percent to 80 percent of final average salary for employees withdrawing from service on or after January 1, 2002.
- The 3.00 percent post-retirement automatic increase will now begin no later than three years after retirement for an eligible retiree (An eligible retiree is an employee annuitant, not a widow or widower annuitant, originally granted a lifetime annuity). For eligible retirees less than age 60 on the first anniversary of retirement, the 3.00 percent increase will begin at the earlier of age 60, and the latest of the following dates:
  - The third anniversary of retirement
  - The attainment of age 53; or
  - January 1, 2002

For eligible retirees age 60 or older on the first anniversary of retirement, the 3.00 percent increase will begin on the first anniversary of retirement.

- Effective June 28, 2002.
- For the eligible spouse of an employee who dies in service on or after August 28, 2002, with at least 10 years of service, the annuity is no less than 50 percent of the minimum formula annuity the employee would have been entitled to based on service and salary to the date of death without regard to age eligibility requirements. This is equal to 2.40 percent of final average salary for each year of service. The employee and the spouse must have been married for ten years.

- For children of employees who die in service on or after June 28, 2002, there is no service requirement for eligibility for children's annuity.
- The definition of "child" now includes any child adopted before employee withdraws from service and at least one year prior to the date any benefit for the child accrues. Previously the adoption also had to take place before the employee attained age 55.
- For ordinary disability benefits paid on or after January 1, 2001, the ordinary disability benefit is 50 percent of the employee's salary at the date of disability with the amounts ordinarily contributed by the employee for annuity purposes contributed by the Plan. These contributions are not refundable.
- The pension plan subsidy for retiree health insurance was extended through June 30, 2003. For annuitants (older than child annuitants) taking the employer-provided plan, 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.
- Current and former Chicago Housing Authority employees who have service in this Plan or who reinstate service in this Plan may elect to participate in this Plan with respect to their employment with the Chicago Housing Authority under certain conditions. Contributions can be made for past service as well as current service.
- Current and former Public Building Commission employees who have service in this Plan or who reinstate service in this Plan may elect to participate in this Plan with respect to their employment with the Public Building Commission under certain conditions. Contributions can be made for past service as well as current service.
- An employee with 10 years of service in this Plan may establish service credit for up to seven years of full-time employment by the Illinois Housing Development Authority.
- The City Clerk and City Treasurer may elect to establish alternative credits in the Aldermanic Plan.
- Chicago aldermen may receive an annuity at age 55 with 10 years of service or age 60 with eight years of service.
- An alderman in service on June 1, 1995, can make payments for prior service up to 30 days after the effective date, even though he might be out of service or retired.
- A member of the Plan who has service in Police Fund may apply to Police to transfer his credits and service to Municipal under certain conditions. This must be done within 90 days of the effective date. Employee and employer contributions will be transferred.

#### 2003 Session

#### SB 1701

• Effective July 1, 2003.

- The healthcare benefits were extended and 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 extended and 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

- Effective January 16, 2004.
- Early Retirement Incentive was created for withdrawals from January 31, 2004, to February 29, 2004 (or to May 31, 2004, for those deemed critical employees).
  - Requires an election form to be filed before January 31, 2004.
  - Requires a member to be a current contributor who has not previously retired under this Article and satisfy one of the following:
    - Active as of October 15, 2003
    - Returned to active from approved leave of absence prior to December 15, 2003
    - Receiving ordinary or duty disability benefits as of October 15, 2003
    - Restored to service by January 31, 2004, after having been involuntarily laid off
  - Requires that employees that re-enter service forfeit their right to receive benefits and will have their benefits recalculated at the time of retirement excluding the benefits provided under the ERI.
  - Requires that the participant is age 50 with ten years of creditable service in this Fund and have 70 combined years of age and service, with service in one or more systems under the Reciprocal Act (excluding service purchased under the ERI).
  - Provides for elimination of the age discount for employees younger than age 60.
  - Provides for an optional purchase of up to five years of service credit for 4.25 percent of the monthly salary rate in effect October 15, 2003.
  - Provides for a 24-month option to pay for ERI service.
  - Provides for the exclusion of ERI contributions from the base from which the tax levy is derived.

- Allows Board members to continue until the end of their terms without forfeiting the benefits provided by the early retirement incentive.
- Provides for a lump sum benefit option of 100 percent of salary at retirement and an actuarially reduced monthly annuity for those employees who were eligible for the maximum benefit (excluding purchased service under the ERI)
- Automatic increases in annuities will now take effect in the January of each year in which they are to be provided.
- An employee who previously withdrew contributions from the Fund, may have his rights under the Fund restored after repaying the withdrawn contributions with interest after completing the required amount of service after the date of refund. The required service is:
  - 90 days of service under this Fund or
  - Two years of service under any participating Fund under the Reciprocal Act.
- Municipality credits earned in this Fund shall be transferred to the Firemen's Annuity and Benefit Fund of Chicago with 11.00 percent interest compounded annually to the date of the transfer for former paramedics who are now covered under the Firemen's Annuity and Benefit Fund.
- Employees may elect to have their optional contributions "picked-up" by the employer, to be treated as employer contributions for tax purposes. The employee election is irrevocable.
- For the eligible spouse of an employee who died in service on or after January 1, 2002, and before August 28, 2002, with at least 10 years of service, the annuity is no less than 50 percent of the minimum formula annuity the employee would have been entitled to based on service and salary to date of death without regard to age eligibility requirements. This minimum formula annuity is equal to 2.40 percent of final average salary for each year of service. The employee and spouse must have been married for ten years.

#### 2005 Session

- 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 under Section 1-110.5 of the pension code that they have not loaned to, invested in, or otherwise transferred any of the pension fund assets to a forbidden entity.

#### SB 253

- Approved August 4, 2005.
- Provides, that to qualify as an "emerging investment manager", the maximum value of an investment portfolio that a manager manages is \$2,000,000,000 (was \$400,000,000).

#### SB 1446

- Approved August 22, 2005.
- Provides for various changes in provisions and procedures concerning Qualified Illinois Domestic Relations Orders. Allows for alternate payee's benefit to be based on a percentage of employee's benefit. Effective July 1, 2006.

#### HB 227

- Approved August 22, 2005
- Provides a benefit to a spouse married to the employee after retirement under certain conditions.

#### 2006 Session

No Changes

#### 2007 Session

#### HB 49

- Approved August 17, 2007.
- Provides that, beginning on the effective date, legally adopted children shall be entitled to the same benefits as other children, and no child's or survivor's benefit shall be disallowed because the child is an adopted child.

- Approved August 28, 2007.
- Provides that, in order for an Illinois finance entity to be eligible for investment or deposit of retirement system or pension fund assets, the Illinois finance entity must annually certify that it complies with the requirements of the High Risk Home Loan Act and the rules adopted pursuant to that Act that are applicable to that Illinois finance entity. Requires the retirement system or pension fund to divest its assets with the Illinois finance entity if the certification is not made. Provides that these certification requirements are severable. Makes changes in the severability provisions applicable to the amendatory Act.

#### SB 1380

- Approved August 28, 2007.
- Amends the Illinois Municipal Retirement Fund (IMRF) and Chicago Municipal Articles of the Illinois Pension Code. Allows a sheriff's law enforcement employee under the IMRF Article to transfer service credit under the Chicago Municipal Article to the IMRF.

#### 2008 Session

No Changes.

#### 2009 Session

#### SB 2520

- Approved February 17, 2009.
- Provides that, before any action is taken by the Board on an application for a duty disability benefit or a widow's compensation or supplemental benefit, the employee or widow shall file a claim with the employer to establish that the disability or death occurred while the employee was acting within the scope of and in the course of his or her duties. Provides an offset of disability benefits for any amounts provided to the employee or surviving spouse as temporary total disability payments, permanent disability payments, a lump sum settlement award, or other payment under the Workers' Compensation Act or the Workers' Occupational Diseases Act. Makes other changes concerning disability benefits.

#### HB 2557

- Approved August 25, 2009.
- Provides that it is the public policy of the State to encourage pension funds to promote the economy of Illinois through the use of economic opportunity investments within the bounds of financial and fiduciary prudence. Provides that the pension funds submit a report to the Governor and General Assembly by September 1 of each year identifying the economic opportunity investments made by the Fund, the primary location of the business or project, the percentage of the Fund's assets in economic opportunity investments, and the actions the Fund has taken to increase the use of economic opportunity investments.
- Requires the Fund to instruct the 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 the total proceeds in every transaction are the most favorable under the circumstances.

#### SB 364

Approved April 3, 2009.

- Requires Board members to file a verified written statement of economic interest annually with the office of the Clerk of Cook County.
- Requires the Board to adopt a policy that sets quantifiable utilization goals for the management of assets in specific asset classes for emerging investment managers. Goals shall be separated by minority ownership, female ownership, and person with a disability ownership.
- Requires that if at least one emerging firm(s) meet criteria of search process, at least one shall be invited to present to the Board for final consideration.
- Requires the Board to adopt a policy that sets forth goals for increasing the racial, ethnic and gender diversity of its fiduciaries, including its consultants and senior staff.
- Requires the Board to adopt a policy that sets forth goals for utilization of WMDBE firms for all contracts and services, based on the percentage of total dollar amount of all contracts let.
- Requires the Board to adopt a policy that sets forth goals for increasing the utilization of minority broker-dealers.
- Requires an annual report to the Governor and General Assembly on the utilization of "emerging firms" as defined by Article 1 of the Pension Code.
- Requires the Board to award all contracts for investment services using a competitive process that is substantially similar to the process required for the procurement of professional services under Article 35 of the Illinois Procurement Code. Requires the Board to adopt a procurement policy which will be posted on the Fund's website and filed with the Illinois Procurement Policy Board.
- Provides that a person may not act as a consultant or investment adviser unless that person is registered as an investment adviser or bank under the federal Investment Advisers Act of 1940.
- Requires investment contracts between the Retirement Board and investment service providers to include certain required information.
- Provides consultant contracts cannot exceed five years in duration; however, incumbent consultant may compete for new contract.
- Requires investment consultants and advisers to disclose all direct and indirect fees, commissions, penalties, and other compensation paid by or on behalf of the investment consultant or adviser in connection with the services provided.
- Requires that a description of every contract let for investment services be posted on the website, including name of entity awarded the contract, amount of contract, total fees paid, and disclosure describing the factors that contributed to the selection.

- Requires the Fund to maintain a website that shall include standard investment reporting, a copy of relevant Board policies, a listing of investment consultants and managers, a notification of any requests for investment services, and the names and e-mail addresses of Board members, Fund directors, and senior staff.
- Requires Board members to attend at least eight hours of ethics training per year and requires each Board to annually certify its member's compliance and submit an annual certification to the Division of Insurance of the Department of Financial and Professional Regulation.
- Prohibits any Fund trustee or employee or their spouses or immediate family living with them to intentionally solicit or accept any gift from any prohibited source as prescribed in Article 10 of the State Officials and Employees Ethics Act, including educational materials and missions and travel expenses for discussing Fund business.
- Provides that any person who knowingly makes any false statement or falsifies or permits
  falsifying any record of the pension fund in an attempt to defraud is guilty of a Class 3
  felony.
- Provides that no person or entity shall retain a person or entity to influence the outcome of an investment decision or the procurement of investment advice to a pension fund for compensation, contingent upon the decision of the Board.
- Requires approval for travel or education mission expense of a Trustee by a majority of the Board prior to mission.

#### SB 1440

- Approved August 18, 2009.
- Provides that the Fund may, and to the extent required by federal law shall, allow an employee to roll over a refund, lump-sum benefit, or other non-periodic distribution (including the non-taxable portion) directly to any entity that is designated in writing by the person, is qualified under federal law to accept the distribution, and has agreed to accept the distribution.

- Approved August 25, 2009.
- Provides the Municipal fund will send city contributions to the Fire fund for a fireman who
  was employed by the Chicago Fire Department and participated in the Municipal fund,
  terminated that service, and received a refund, if the employee establishes the service under
  the Fire fund.

#### 2010 Session

- Approved April 14, 2010.
- Establishes a new tier of benefits for participants that first become members on or after the effective date of January 1, 2011.
  - Final average compensation is based on the average of the highest consecutive eight years within the last ten years of service.
  - Establishes a cap on final average salary of \$106,800, as automatically increased by the lesser of 3 percent or one-half of the annual increase in the Consumer Price Index-U during the preceding 12-months.
  - Increases eligibility for a retirement annuity:
    - Age 67 with 10 years of service for an unreduced benefit.
    - Age 62 with 10 years of service for a reduced benefit. Reduction is one-half percent for each full month that retirement precedes age 67.
  - Changes provisions for automatic increases in annuity:
    - Increases begin in the year following the later of the first anniversary of the annuity start date and attainment of age 67.
    - Increases are equal to the lesser of 3 percent or one-half of the annual increase in the Consumer Price Index-U during the preceding 12-months.
    - Increases are based on the amount of the originally granted benefit (not compounded).
  - Changes benefits provided to surviving spouses:
    - Surviving spouse annuity is equal to 66 2/3 percent of the participant's earned retirement annuity at the date of death.
    - Provides an automatic increase in annuity:
      - Increases begin on January 1 in the year following the commencement of the survivor's annuity if the deceased member died while receiving a retirement annuity and January 1 following the first anniversary of commencement otherwise.
      - o Increases are equal to the lesser of 3 percent or one-half of the annual increase in the Consumer Price Index-U during the preceding 12-months.

- o Increases are based on the amount of the originally granted benefit (not compounded).
- Establishes that members that are receiving a retirement annuity and accept a full-time position under the same Article or another Article established under the Illinois Compiled Statutes, would have their benefits suspended during employment. Their benefits would be recalculated, if applicable, upon termination of employment.

#### SB 550

- Approved December 30, 2010.
- Amends certain provisions established in SB1946 that apply to participants that first become members on or after January 1, 2011:
  - Establishes the period for calculating the annual unadjusted percentage increase in the Consumer Price Index-U as the 12-month period ending with September for purposes of capping salary and calculating the automatic increase in annuity percentage.
  - Establishes that the salary cap of \$106,800 applies for all purposes under the Code, including the calculation of benefits and employee contributions.
  - Establishes that the survivor's annuity is calculated with no reduction due to age.
  - Establishes that members who withdraw before age 62, or with less than 10 years of service, regardless of age, are entitled to all salary deductions for retirement annuity and spouse annuity accumulated with interest to date of resignation, plus the 0.50 percent deducted for annuity increase purposes without interest.
  - Establishes that increases in annuity for employee annuitants commence on January 1.

#### 2011 Session

- Approved 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.

#### SB 1831

- Approved 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.
  - 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.

- 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.

EXHIBIT Q
HISTORY OF RECOMMENDED EMPLOYER MULTIPLES AND TAXES LEVIED

	Statutory Multiple 1.69 1.69	Normal Cost Plus Interest 1.95	Normal Cost Plus 30-Year Amortization 5	Plus 30-Year % of Salary Amortization <sup>5</sup>	Tax Levy				
Year of Report  1984  1985  1.2	Multiple  1.69 1.69	Plus Interest	Amortization 5	•	Levy				
1984 1985 <sup>1,2</sup>	1.69 1.69	1.95		Amortization 5					Total Tax
1985 <sup>1,2</sup>	1.69				Year	_	City	Park	 Levy
1703			2.04	1.46	1984	\$	71,736,000	\$ 54,000	\$ 71,790,000
1986 <sup>1,2</sup>		1.98	2.08	1.48	1985		73,215,000	50,000	73,265,000
	1.69	1.77	1.84	1.34	1986		81,059,000	45,000	81,104,000
1987 <sup>1,2</sup>	1.69	1.83	1.90	1.40	1987		90,799,000	45,000	90,844,000
1988	1.69	1.80	1.87	1.39	1988		97,051,000	39,000	97,090,000
1989 1,2	1.69	1.44	1.49	1.08	1989		101,532,000	37,000	101,569,000
1990 1,2	1.69	1.75	1.80	1.31	1990		107,000,000	30,000	107,030,000
1991 <sup>2</sup>	1.69	1.65	1.70	1.24	1991		114,530,000	26,000	114,556,000
1992	1.69	1.70	1.75	1.29	1992		123,173,000	27,000	123,200,000
1993 <sup>2</sup>	1.69	1.90	1.96	1.44	1993		137,373,000	27,000	137,400,000
1994	1.69	1.78	1.84	1.32	1994		139,618,000	24,000	139,642,000
1995	1.69	1.81	1.87	1.38	1995		162,433,000	13,000	162,446,000
1996	1.69	1.71	1.75	1.34	1996		156,985,000	5,700	156,990,700
1997 1,2,3	1.69	1.16	1.19	0.92	1997		159,874,300	10,000	159,884,300
1998 1,2	1.25	1.73	1.77	1.38	1998		159,083,000	5,900	159,088,900
1999 <sup>1,4</sup>	1.25	0.87	0.89	0.68	1999		122,717,400	4,600	122,722,000
2000	1.25	0.80	0.81	0.67	2000		142,421,600	2,400	142,424,000
2001	1.25	0.80	0.82	0.65	2001		135,624,600	0	135,624,600
2002 2	1.25	1.32	1.35	0.97	2002		136,980,000	0	136,980,000
2003 2	1.25	1.51	1.56	1.08	2003		146,613,000	0	146,613,000
2004 2	1.25	2.16	2.23	1.50	2004		158,865,000	0	158,865,000
2005 1	1.25	2.45	2.55	1.71	2005		159,780,300	0	159,780,300
2006	1.25	2.78	3.02	2.12	2006		159,566,900	0	159,566,900
2007	1.25	2.74	2.97	2.09	2007		152,183,300	0	152,183,300
2008	1.25	3.06	3.33	2.31	2008		161,599,900	0	161,599,900
2009	1.25	3.44	3.76	2.56	2009		163,672,100	0	163,672,100
2010 1	1.25	4.51	4.92	3.48	2010		168,681,500	0	168,681,500
2011 1	1.25	4.91	5.37	3.77	2011		161,296,200	0	161,296,200

<sup>&</sup>lt;sup>1</sup>Change in actuarial assumptions.

<sup>&</sup>lt;sup>2</sup>Change in benefits.

<sup>&</sup>lt;sup>3</sup>Change in asset valuation method to GASB.

<sup>&</sup>lt;sup>4</sup>Change in actuary.

<sup>&</sup>lt;sup>5</sup>40-year amortization for years prior to 2006. 30-year amortization for 2006 and after.

# EXHIBIT R ANNUAL REQUIRED CONTRIBUTIONS OF EMPLOYER AND TREND INFORMATION

Year	Annual Required Contribution (ARC) of the Employer <sup>1</sup>	Required Statutory Basis <sup>2</sup>	Actual <sup>3</sup>	Percent of ARC Contributed	
2002	\$ 92,711,870	\$ 131,500,800	\$ 130,966,381	141.26%	
2003	158,614,805	140,748,480	141,882,893	89.45%	
2004	198,199,001	152,510,400	153,919,476	77.66%	
2005	285,291,350	153,389,000	155,067,116	54.35%	
2006	325,913,986	153,184,000	157,062,769	48.19%	
2007	366,410,212	146,096,000	148,137,050	40.43%	
2008	384,169,836	155,136,000	155,832,612	40.56%	
2009	436,475,587	157,125,216	157,697,608	36.13%	
2010	506,902,840	161,934,240	164,302,004	32.41%	
2011	634,559,144	154,844,352	156,525,374	24.67%	

<sup>&</sup>lt;sup>1</sup> Under Normal Cost plus Level-Dollar Amortization. Amortization period of 30 years beginning in 2007 and 40 years prior to 2007. Negative ARC values are set to zero, as no contribution is then required.

ARC and contributions include pension and OPEB.

	Assets Available for	Unfunded Actuarial Accrued	Employer Contribution as a
	Benefits as a % of Actuarial	Liability (Surplus) as a % of	% of Covered Payroll
Year	Accrued Liability	<b>Covered Payroll End of Year</b>	Beginning of Year
2002	84.52%	85.14 %	9.52%
2003	79.91%	114.98 %	10.30%
2004	72.01%	189.19 %	11.03%
2005	68.46%	207.33 %	11.90%
2006	67.16%	215.68 %	11.16%
2007	67.64%	210.69 %	10.04%
2008	62.89%	254.95 %	9.96%
2009	56.95%	306.61 %	10.21%
2010	49.81%	392.43 %	10.59%
2011	44.57%	429.88 %	10.15%

Actuarial accrued liabilities and contributions include pension and OPEB.

<sup>&</sup>lt;sup>2</sup> Tax levy after 4.00 percent loss.

<sup>&</sup>lt;sup>3</sup> Net tax levy plus miscellaneous. Includes prior year adjustments for taxes beginning in 1991.



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

# **GASB:** Financial Accounting Information

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. GASB released an exposure draft of proposed amendments to statements #25 and #27. However, because these amendments are not yet final, the information presented in this report is based on the current GASB #25 and #27 requirements. This information is presented in draft form for review. Please let us know if there are any changes so that we may maintain consistency with the financial statements.

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

This exhibit shows a history of funding progress under GASB. 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 payroll.

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

This exhibit shows the Annual Required Contribution (ARC) as computed under GASB #25.

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

This exhibit has certain information required in the notes to the Plan and City 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 City contributions made.

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

This exhibit shows a 10-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

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

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

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

This exhibit shows a history of funding progress under GASB #43. 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 payroll.

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

This exhibit shows the Annual Required Contribution (ARC) as computed under GASB #43.

#### Exhibit A-10: Annual OPEB Cost and Contributions Made 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. The exhibit also includes the dollar amount of City contributions made to pay current year health insurance supplement benefits.

### Exhibit A-11: OPEB Cost Summary 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: Supplementary Information for GASB #43 and #45

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

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

Actuarial Valuation Date			Value of Liability (AAL) Assets Entry Age				Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a) / c]
2002	\$	6,403,982,494	\$	7,577,100,377	\$	1,173,117,883	84.52%	\$ 1,377,909,441	85.14%
2003		6,384,098,957		7,988,636,556		1,604,537,599	79.91%	1,395,513,060	114.98%
2004		6,343,076,159		8,808,500,944		2,465,424,785	72.01%	1,303,127,528	189.19%
$2005^{-1}$		6,332,378,676		9,250,211,817		2,917,833,141	68.46%	1,407,323,058	207.33%
$2006^{2}$		6,509,145,626		9,476,118,446		2,966,972,820	68.69%	1,475,877,378	201.03%
2007		6,890,462,918		9,968,746,844		3,078,283,926	69.12%	1,564,458,835	196.76%
2008		6,669,501,770		10,383,157,695		3,713,655,925	64.23%	1,543,976,553	240.53%
2009		6,295,788,191		10,830,119,369		4,534,331,178	58.13%	1,551,973,348	292.17%
2010		6,003,389,605		11,828,665,658		5,825,276,053	50.75%	1,541,388,065	377.92%
2011		5,552,291,417		12,292,930,124		6,740,638,707	45.17%	1,605,993,339	419.72%

<sup>&</sup>lt;sup>1</sup> OPEB liabilities are discounted at a rate of 4.50 percent beginning in 2005. <sup>2</sup> OPEB liabilities excluded beginning in 2006.

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

	2006	2007 3	2008 3	2009 <sup>3</sup>	2010 <sup>3</sup>	2011 <sup>3</sup>
1. Contribution Multiplier	1.25	1.25	1.25	1.25	1.25	1.25
2. Payroll (beginning of year)	\$ 1,407,323,058	\$ 1,475,877,378	\$ 1,564,458,835	\$ 1,543,976,553	\$ 1,551,973,348	\$ 1,541,388,065
3. City of Chicago Contribution, Net of Reserve						
for Loss in Tax Collection	\$ 157,062,769	\$ 139,606,140	\$ 146,803,250	\$ 148,046,490	\$ 154,752,320	\$ 147,009,321
4. City of Chicago Contribution as a Percent of	11.16%	9.46%	9.38%	9.59%	9.97%	9.54%
Covered Payroll						
5. Employee Contributions	\$ 129,466,091	\$ 132,442,200	\$ 137,748,907	\$ 130,980,605	\$ 133,299,542	\$ 132,596,417
Employee Contributions as a Percent of     Covered Payroll	9.20%	8.97%	8.80%	8.48%	8.59%	8.60%
7. Current Year Normal Cost	\$ 198,624,045	\$ 208,928,908	\$ 223,760,036	\$ 220,838,788	\$ 221,696,647	\$ 237,451,437
8. Normal Cost as a Percent of Covered Payroll	14.11%	14.16%	14.30%	14.30%	14.28%	15.41%
9. Level Dollar Amortization of the						
Unfunded Liability 1	\$ 210,312,269	\$ 244,026,463	\$ 253,181,537	\$ 305,439,374	\$ 372,937,964	\$ 479,115,112
Level Dollar Amortization as a Percent     of Covered Payroll	14.94%	16.53%	16.18%	19.78%	24.03%	31.08%
11. Interest Adjustment for Semi-Monthly Payment	\$ 16,619,859	\$ 18,408,868	\$ 19,383,708	\$ 21,388,830	\$ 24,166,951	\$ 29,122,470
12. Actuarially Determined Contribution (ADC) <sup>2</sup>						
(NC + level dollar amort. + interest adjustment)	\$ 425,556,173	\$ 471,364,239	\$ 496,325,281	\$ 547,666,992	\$ 618,801,562	\$ 745,689,019
13. ADC as a Percent of Covered Payroll	30.24%	31.94%	31.73%	35.47%	39.87%	48.38%
14. Annual Required Contribution (ARC) <sup>2</sup>						
(ADC - estimated employee contributions)	\$ 303,271,824	\$ 343,123,106	\$ 360,387,176	\$ 413,508,622	\$ 483,948,339	\$ 611,755,567
15. ARC as a Percent of Covered Payroll	21.55%	23.25%	23.04%	26.78%	31.18%	39.69%

<sup>&</sup>lt;sup>1</sup> Amortization period of 30 years beginning in 2007 and 40 years prior to 2007.

In the year 2011, the City contributed \$147,009,321 to fund pension benefits. In 2011, the employee contributions were \$132,596,417, or 8.60 percent of beginning of-year payroll. City contributions were \$464,746,246 less than the GASB #25 ARC.

<sup>&</sup>lt;sup>2</sup>ADC and ARC amounts cannot be less than zero.

<sup>&</sup>lt;sup>3</sup>ARC excludes amounts attributable to health insurance supplement beginning in 2006 and City contributions exclude amount attributable to health insurance supplement beginning in 2007.

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

The information presented in this required supplementary schedule was determined as part of the actuarial valuations at the dates indicated. Additional information for the latest actuarial valuation is as follows:

Valuation Date	December 31, 2011
Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	5-year smoothed market
Amortization Method	Level dollar open
Remaining Amortization Period	30 years
Actuarial Assumptions:	
Pension Investment Rate of Return <sup>1</sup>	8.00 percent per year
Projected Base Salary Increases <sup>1</sup>	4.50 percent per year
<sup>1</sup> Includes Inflation at:	3.00 percent per year
Post Retirement Benefit Increases	3.00 percent per year beginning at the earlier of
	1) the later of the 1st of January of the year
	after retirement and age 60
	2) the later of the 1st of January of the year
	after the second anniversary of retirement
	and age 53
	-

#### **Actuarial Accrued Liability (AAL)**

	2010 <sup>2</sup>	2011 <sup>2</sup>
Payable to Retirees and Beneficiaries	\$ 6,350,610,234	\$ 6,715,169,765
Current Employees:		
Accumulated Employee Contributions Including		
Statutory Interest	1,682,418,161	1,724,683,910
Payable to Vested and Non-Vested Employees (not split)	 3,795,637,263	 3,853,076,449
Total Actuarial Accrued Liability	\$ 11,828,665,658	\$ 12,292,930,124
Net Plan Actuarial Assets	 6,003,389,605	 5,552,291,417
Unfunded AAL (assets in excess of AAL)	\$ 5,825,276,053	\$ 6,740,638,707
Percent Funded	50.75%	45.17%
Unfunded AAL as Percent of Payroll	377.92%	419.72%
Payroll	\$ 1,541,388,065	\$ 1,605,993,339

<sup>&</sup>lt;sup>2</sup> Excludes liability for health insurance supplement.

EXHIBIT A-5
HISTORY OF ANNUAL PENSION COST AND CONTRIBUTIONS
MADE FOR GASB #27 FROM 2008 - 2011

Year Ending December 31:	2008	2009	2010	2011
Contribution Rates				
Plan Members:	8.5%	8.5%	8.5%	8.5%
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: 1	1.25	1.25	1.25	1.25
Annual Pension Cost				
Annual Required Contribution (ARC)	\$ 360,387,176	\$ 413,508,622	\$ 483,948,339	\$ 611,755,567
Interest on NPO	16,166,183	33,216,561	54,378,874	80,592,332
Adjustment to ARC	(16,620,376)	 (34,149,790)	(55,906,664)	(82,856,597)
Annual Pension Cost	\$ 359,932,983	\$ 412,575,393	\$ 482,420,549	\$ 609,491,302
Employer Contributions	\$ 146,803,250	\$ 148,046,490	\$ 154,752,320	\$ 147,009,321
Net Pension Obligations (NPO)				
NPO at Beginning of Year	\$ 202,077,284	\$ 415,207,017	\$ 679,735,920	\$ 1,007,404,149
Increase/(Decrease) in NPO	213,129,733	264,528,903	327,668,229	 462,481,981
NPO at End of Year	\$ 415,207,017	\$ 679,735,920	\$ 1,007,404,149	\$ 1,469,886,130

<sup>&</sup>lt;sup>1</sup> The proceeds from the tax levy less health insurance supplement benefit payments are contributed to fund the pension benefits.

## EXHIBIT A-5 (CONT'D) HISTORY OF ANNUAL PENSION COST AND CONTRIBUTIONS MADE FOR GASB #27 FROM 2003 - 2007

Year Ending December 31:	2003	2004	2005	2006	2007
Contribution Rates					
Plan Members:	8.5%	8.5%	8.5%	8.5%	8.5%
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: 1	1.25	1.25	1.25	1.25	1.25
Annual Pension Cost					
Annual Required Contribution (ARC)	\$ 158,614,805	\$ 198,199,001	\$ 285,291,350	\$ 325,913,986	\$ 343,123,106
Interest on NPO	(28,702,083)	(27,431,029)	(23,953,176)	(13,591,568)	(115,434)
Adjustment to ARC	 27,858,348	26,624,658	23,249,042	13,192,027	118,677
Annual Pension Cost	\$ 157,771,070	\$ 197,392,630	\$ 284,587,216	\$ 325,514,445	\$ 343,126,349
Employer Contributions	\$ 141,882,893	\$ 153,919,476	\$ 155,067,116	\$ 157,062,769	\$ 139,606,140
Net Pension Obligations (NPO)					
NPO at Beginning of Year	\$ (358,776,033)	\$ (342,887,856)	\$ (299,414,701)	\$ (169,894,601)	\$ (1,442,925)
Increase/(Decrease) in NPO	15,888,177	43,473,155	129,520,100	168,451,676	203,520,209
NPO at End of Year	\$ (342,887,856)	\$ (299,414,701)	\$ (169,894,601)	\$ (1,442,925)	\$ 202,077,284

<sup>&</sup>lt;sup>1</sup> The proceeds from the tax levy less health insurance supplement benefit payments are contributed to fund the pension benefits.

# EXHIBIT A-5 (CONT'D) HISTORY OF ANNUAL PENSION COST AND CONTRIBUTIONS MADE FOR GASB #27 FROM 1997 - 2002

Year Ending December 31:	1997	1998	1999	2000	2001	2002
Contribution Rates						
Plan Members:	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
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:	1.69	1.25	1.25	1.25	1.25	1.25
Annual Pension Cost						
Annual Required Contribution (ARC)	\$ 100,278,969	\$ 108,174,346 \$	157,514,076	\$ 93,016,467	\$ 83,526,133	\$ 92,711,870
Interest on NPO	(11,923,863)	(16,832,011)	(20,863,197)	(18,001,235)	(21,697,440)	(25,581,562)
Adjustment to ARC	 12,024,406	16,832,011	20,249,897	18,954,128	21,059,616	24,829,559
Annual Pension Cost	\$ 100,379,512	\$ 108,174,346 \$	156,900,776	\$ 93,969,360	\$ 82,888,309	\$ 91,959,867
Employer Contributions	\$ 156,832,216	\$ 158,564,165 \$	121,126,249	\$ 140,171,920	\$ 131,439,834	\$ 130,966,381
Net Pension Obligations (NPO)						
NPO at Beginning of Year	\$ (149,048,289)	\$ (210,400,142) \$	(260,789,961)	\$ (225,015,434)	\$ (271,217,994)	\$ (319,769,519)
Increase/(Decrease) in NPO	(61,351,853)	(50,389,819)	35,774,527	(46,202,560)	(48,551,525)	(39,006,514)
NPO at End of Year	\$ (210,400,142)	\$ (260,789,961) \$	(225,015,434)	\$ (271,217,994)	\$ (319,769,519)	\$ (358,776,033)

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

Year Ended December 31	Annual Pension Cost	% of Annual Pension Cost Contributed	Net Pension Obligation
2002	\$ 91,959,867	142.42%	\$ (358,776,033)
2003	157,771,070	89.93%	(342,887,856)
2004	197,392,630	77.98%	(299,414,701)
2005	284,587,216	54.49%	(169,894,601)
2006	325,514,445	48.25%	(1,442,925)
2007	343,126,349	40.69%	202,077,284
2008	359,932,983	40.79%	415,207,017
2009	412,575,393	35.88%	679,735,920
2010	482,420,549	32.08%	1,007,404,149
2011	609,491,302	24.12%	1,469,886,130

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

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 Cont	ribut	ion (ADC)									
Normal Cost	\$	88,977,737	\$ 97,968,692	\$ 102,508,633	\$ 97,096,679	\$ 112,142,424 \$	118,648,314 \$	127,216,909 \$	128,073,255	\$ 130,280,273	\$ 139,953,
40 Year Amortization		64,525,862	63,861,328	64,292,258	55,269,863	76,643,717	73,815,385	73,466,733	77,661,767	88,576,205	75,832,2
Total ADC	\$	153,503,599	\$ 161,830,020	\$ 166,800,891	\$ 152,366,542	\$ 188,786,141 \$	192,463,699 \$	200,683,642 \$	205,735,022	\$ 218,856,478	\$ 215,785,
Interest on NPO		-	439,828	855,310	947,637	(946,630)	(1,271,063)	(2,131,133)	(5,214,560)	(6,759,558)	(9,388,9)
Adjustment to ADC		-	(448,998)	(862,522)	(955,628)	954,612	1,281,780	2,149,103	5,258,530	6,816,555	9,468,0
Annual Pension Cost	\$	153,503,599	\$ 161,820,849	\$ 166,793,679	\$ 152,358,552	\$ 188,794,123 \$	192,474,417 \$	200,701,611 \$	205,778,991	\$ 218,913,475	\$ 215,865
Contributions for Year											
Employer Contributions	\$	86,928,550	\$ 92,913,800	\$ 97,196,000	\$ 102,422,150	\$ 110,807,484 \$	119,851,582 \$	133,957,499 \$	137,076,271	\$ 159,275,835	\$ 152,556,
Employee Contributions		60,710,680	64,080,041	68,443,590	73,614,748	82,042,041	83,373,713	105,286,953	88,015,188	92,504,531	94,995,
Total Contributions	\$	147,639,230	\$ 156,993,841	\$ 165,639,590	\$ 176,036,898	\$ 192,849,525 \$	203,225,295 \$	239,244,452 \$	225,091,459	\$ 251,780,366	\$ 247,551,
Net Pension Obligations (NF	PO)										
NPO at Beginning of Year	\$	-	\$ 5,864,369	\$ 10,691,377	\$ 11,845,466	\$ (11,832,880) \$	(15,888,282) \$	(26,639,160) \$	(65,182,001)	\$ (84,494,469)	\$ (117,361
Annual Pension Cost		153,503,599	161,820,849	166,793,679	152,358,552	188,794,123	192,474,417	200,701,611	205,778,991	218,913,475	215,865
Total Contributions		(147,639,230)	(156,993,841)	(165,639,590)	(176,036,898)	(192,849,525)	(203,225,295)	(239,244,452)	(225,091,459)	(251,780,366)	(247,551,
NPO at End of Year	\$	5,864,369	\$ 10,691,377	\$ 11,845,466	\$ (11,832,880)	\$ (15,888,282) \$	(26,639,160) \$	(65,182,001) \$	(84,494,469)	\$ (117,361,360)	\$ (149,048,

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

Actuarial Valuation Date	Actuarial Value of Assets (a)		 uarial Accrued ability (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]	
2006	\$		-	\$ 216,201,037	\$ 216,201,037	0.00%	\$1,475,877,378	14.65%
2007			-	217,868,343	217,868,343	0.00%	1,564,458,835	13.93%
2008			-	222,691,036	222,691,036	0.00%	1,543,976,553	14.42%
2009			-	224,173,231	224,173,231	0.00%	1,551,973,348	14.44%
2010			-	223,564,218	223,564,218	0.00%	1,541,388,065	14.50%
2011			-	163,241,898	163,241,898	0.00%	1,605,993,339	10.16%

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

	2007	2008	2009	2010	2011
Payroll (beginning of year)	\$1,475,877,378	\$1,564,458,835	\$1,543,976,553	\$1,551,973,348	\$1,541,388,065
2. Current Year Normal Cost	10,059,792	10,446,202	9,365,607	9,266,349	9,154,612
3. Normal Cost as a Percent of Covered Payroll	0.68%	0.67%	0.61%	0.60%	0.59%
4. 30-Year Level Dollar Amortization of the					
Unfunded Liability	12,701,354	12,799,305	13,082,628	13,169,704	13,133,926
5. 30-Year Level Dollar Amortization as a Percent	0.86%	0.82%	0.85%	0.85%	0.85%
of Covered Payroll					
6. Interest Adjustment for Semi-Monthly Payment	525,960	537,153	518,730	518,448	515,039
7. Actuarially Determined Contribution (ADC)					
(NC + 30-year level dollar + interest adjustment)	23,287,106	23,782,660	22,966,965	22,954,501	22,803,577
8. ADC as a Percent of Covered Payroll	1.58%	1.52%	1.49%	1.48%	1.48%
9. Annual Required Contribution (ARC)					
(ADC - estimated employee contributions)	23,287,106	23,782,660	22,966,965	22,954,501	22,803,577
10. ARC as a Percent of Covered Payroll	1.58%	1.52%	1.49%	1.48%	1.48%
11. City of Chicago Contribution	8,530,910	9,029,362	9,651,118	9,549,684	9,516,053
12. City of Chicago Contribution as a Percent of					
Covered Payroll	0.58%	0.58%	0.63%	0.62%	0.62%
13. Percentage of ARC Contributed	36.63%	37.97%	42.02%	41.60%	41.73%

## EXHIBIT A-10 HISTORY OF ANNUAL OPEB COST AND CONTRIBUTIONS MADE FOR GASB #45 FROM 2007

Year Ending December 31:	2007	2008	2009	2010	2011
Annual OPEB Cost					
Annual Required Contribution (ARC)	\$ 23,287,106	\$ 23,782,660	\$ 22,966,965	\$ 22,954,501	\$ 22,803,577
Interest on NOO	-	664,029	1,318,798	1,899,881	2,476,978
Adjustment to ARC	 	 (866,895)	(1,721,702)	 (2,480,311)	(3,233,716)
Annual OPEB Cost	\$ 23,287,106	\$ 23,579,794	\$ 22,564,061	\$ 22,374,071	\$ 22,046,839
Employer Contributions	\$ 8,530,910	\$ 9,029,362	\$ 9,651,118	\$ 9,549,684	\$ 9,516,053
Net OPEB Obligations (NOO)					
NOO at Beginning of Year	\$ -	\$ 14,756,196	\$ 29,306,628	\$ 42,219,571	\$ 55,043,958
Increase/(Decrease) in NOO	 14,756,196	 14,550,432	 12,912,943	12,824,387	12,530,786
NOO at End of Year	\$ 14,756,196	\$ 29,306,628	\$ 42,219,571	\$ 55,043,958	\$ 67,574,744

## EXHIBIT A-11 OPEB COST SUMMARY FOR GASB #45

Year Ended December 31	Annual OPEB Cost		% of Annual OPEB Cost Contributed	Net OPEB Obligation	
2007	\$	23,287,106	36.63%	\$	14,756,196
2008		23,579,794	38.29%		29,306,628
2009		22,564,061	42.77%		42,219,571
2010		22,374,071	42.68%		55,043,958
2011		22,046,839	43.16%		67,574,744

### EXHIBIT A-12 SUPPLEMENTARY INFORMATION FOR GASB #43 AND #45

Valuation Date December 31, 2011 Actuarial Cost Method Entry Age Normal Actuarial Value of Assets No Assets (Pay-as-you-go) Level dollar; Open Amortization Method Remaining Amortization Period 30 years Actuarial Assumptions: OPEB Investment Rate of Return <sup>1</sup> 4.5% Projected Base Salary Increases <sup>1</sup> 4.5% per year <sup>1</sup> Includes Inflation at: 3.0% per year  $0\%^{2}$ Healthcare Cost Trend Rate

### **Actuarial Accrued Liability (AAL)**

	December 31, 2010 <sup>3</sup>		December 31, 2011 <sup>3</sup>	
Payable to Retirees and Beneficiaries	\$	87,941,769	\$	87,970,535
Current Employees:				
Accumulated Employee Contributions				
Including Statutory Interest		-		-
Payable to Vested and Non-Vested				
Employees (not split)		135,622,449		75,271,363
Total Actuarial Accrued Liability	\$	223,564,218	\$	163,241,898
Net Plan Actuarial Assets				<u>-</u> _
Unfunded AAL (assets in excess of AAL)	\$	223,564,218	\$	163,241,898
Percent Funded		0.00 %		0.00 %
Unfunded AAL as Percent of Payroll		14.50 %		10.16 %
Payroll	\$	1,541,388,065	\$	1,605,993,339

<sup>&</sup>lt;sup>2</sup> Trend not applicable - Fixed dollar subsidy.

<sup>&</sup>lt;sup>3</sup> Actuarial Accrued Liability for OPEB.