

**LABORERS' AND RETIREMENT BOARD EMPLOYEES'
ANNUITY AND BENEFIT FUND OF CHICAGO**
ACTUARIAL VALUATION REPORT
FOR THE YEAR ENDING DECEMBER 31, 2015
APRIL 2016

April 19, 2016

The Retirement Board of the
Laborers' and Retirement Board Employees'
Annuity and Benefit Fund of Chicago
321 North Clark Street, Suite 1300
Chicago, IL 60654

Subject: Actuarial Certification

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago ("the Fund") as of December 31, 2015. An actuarial valuation of the Fund is performed annually. The actuarial valuation has been performed to measure the funding status of the Fund. It includes disclosure information required under Governmental Accounting Standards Board ("GASB") Statements Nos. 43 and 45. The assumptions and methods used were recommended by the actuary and approved by the Board. The assumptions and methods meet the parameters set for the disclosure presented in the financial section by GASB Statements Nos. 43 and 45. Disclosure information required under GASB Statements Nos. 67 and 68 is provided in a separate report. Due to the recent court ruling that found pension reform to be unconstitutional, this valuation does not reflect the provisions of Public Act 98-0641.

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; and
- Analysis of Financial Experience.

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

- Schedule of Funding Progress; and
- Schedule of Employer Contributions.

This valuation is based upon:

- a. **Data Relative to the Members of the Fund** – Data utilized for active members and persons receiving benefits from the Fund was provided by the Fund'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 Fund were provided by the Fund's staff. An actuarial value of assets was used in determining the Actuarial Determined Contribution ("ADC").
- c. Actuarial Method** – The actuarial method utilized by the Fund is the Entry-Age Normal Actuarial Cost Method. The objective of this method is to recognize the costs of Fund benefits over the entire career of each member as a level percentage of compensation. Any Unfunded Actuarial Accrued Liability ("UAAL") under this method is separately 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 actuarial valuation. The current actuarial assumptions were first adopted for use with the December 31, 2012, valuation report.
- e. Plan Provision** – The valuation is based on plan provisions in effect as of December 31, 2015.

The funding objective is to provide employer and employee contributions sufficient to provide the benefits of the Fund when due. The provision of State Law establishing the Fund provides for employer contributions to be 1.00 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 1:1 relationship. Employer contributions for the plan year cease when all actuarial accrued liabilities of the Fund are fully funded.

The most recent actuarial valuation of the Fund on the State reporting basis indicates that a ratio of 7.94 (rather than 1.00) is needed to adequately finance the Fund in Fiscal Year 2016 on an actuarial basis under a policy of contributing normal cost plus 30-year level dollar amortization of the unfunded liability. It should be noted that the statutory employer contributions have been less than the Actuarial Determined Contribution (ADC) for the past 10 years and are again expected to be less than the ADC for 2016. 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 and the Fund does not receive any additional contributions beyond what is prescribed, the funding ratio is projected to deteriorate until fund assets are depleted in 2026, at which point, additional funds will be required in order to pay retiree benefits. The current statutory funding policy does not comply with generally accepted actuarial standards for the funding of retirement systems. We recommend that an actuarially based 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 Fund as of the valuation date. Based on these items, we certify these results to be true and correct. Alex Rivera and Lance J. Weiss 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.

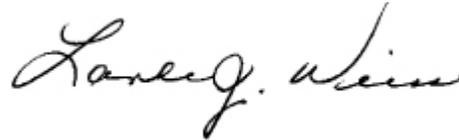
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April 19, 2015
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Respectfully submitted,

Gabriel, Roeder, Smith & Company



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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

	<u>December 31, 2014</u>	<u>December 31, 2015</u>	<u>% Change</u>
ACTUARIAL VALUES			
Actuarial Values			
Actuarial Liability	\$ 2,111,704,119	\$ 2,469,879,319	16.96 %
Assets - Actuarial Value	1,357,451,362	1,308,676,494	(3.59)%
Unfunded Liability (Surplus)	754,252,757	1,161,202,825	53.95 %
Funded Ratio	64.28%	52.99%	(17.56)%
Actuarial Determined Contribution (ADC) ¹	\$ 82,252,473	\$ 119,215,489	44.94 %
Market Values			
Actuarial Liability	\$ 2,111,704,119	\$ 2,469,879,319	16.96 %
Assets - Market Value	1,388,092,890	1,238,657,245	(10.77)%
Unfunded Liability	723,611,229	1,231,222,074	70.15 %
Funded Ratio	65.73%	50.15%	(23.71)%
Book Values			
Actuarial Liability	\$ 2,111,704,119	\$ 2,469,879,319	16.96 %
Assets - Book Value	1,207,953,753	1,131,664,961	(6.32)%
Unfunded Liability (Surplus)	903,750,366	1,338,214,358	48.07 %
Funded Ratio	57.20%	45.82%	(19.90)%

Actuarial Liability includes both pension and OPEB.

¹For fiscal year ending December 31, 2014, the Annual Required Contribution (ARC) under GASB Statements Nos. 25, 27 and 43 was determined based on a 30-year open level dollar amortization policy for pension benefits and a two-year closed level dollar amortization policy for OPEB benefits. The ARC is no longer applicable to the current accounting requirements for pension benefits found under GASB Statements Nos. 67 and 68. Thus, the Actuarial Determined Contribution (ADC) as defined by GASB Statements Nos. 67 and 68 is recognized for fiscal years on and after December 31, 2015. The ADC for fiscal year December 31, 2015 was determined based on a 30-year open level dollar amortization policy for pension benefits and includes the ARC under GASB Statement No. 43 for OPEB benefits, which was determined based on a one-year closed level dollar amortization policy.

SUMMARY OF ACTUARIAL VALUATION (CONT'D)

	<u>December 31, 2014</u>	<u>December 31, 2015</u>	<u>% Change</u>
Assets			
Market Value - Beginning of Year	\$1,457,672,608	\$1,388,092,890	(4.77)%
Income			
Investment Income	53,393,517	(22,318,476)	(141.80)%
Employer Contributions & Misc.	14,520,515	14,566,544	0.32 %
Employee Contributions	16,359,082	16,844,246	2.97 %
Subtotal	<u>84,273,114</u>	<u>9,092,314</u>	(89.21)%
Outgo (Refunds, Benefits & Expenses)	<u>153,852,832</u>	<u>158,527,959</u>	3.04 %
Net Change	<u>(69,579,718)</u>	<u>(149,435,645)</u>	(114.77)%
Market Value - End of Year	\$1,388,092,890	\$1,238,657,245	(10.77)%
Book Value - Beginning of Year	\$1,199,272,217	\$1,207,953,753	0.72 %
Income			
Investment Income	131,654,771	50,828,377	(61.39)%
Employer Contributions & Misc.	14,520,515	14,566,544	0.32 %
Employee Contributions	16,359,082	16,844,246	2.97 %
Subtotal	<u>162,534,368</u>	<u>82,239,167</u>	(49.40)%
Outgo (Refunds, Benefits & Expenses)	<u>153,852,832</u>	<u>158,527,959</u>	3.04 %
Net Change	<u>8,681,536</u>	<u>(76,288,793)</u>	(978.75)%
Book Value - End of Year	\$1,207,953,753	\$1,131,664,961	(6.32)%
Actuarial Value - Beginning of Year	\$1,354,260,531	\$1,357,451,362	0.24 %
Income			
Investment Income	126,164,066	78,342,301	(37.90)%
Employer Contributions & Misc.	14,520,515	14,566,544	0.32 %
Employee Contributions	16,359,082	16,844,246	2.97 %
Subtotal	<u>157,043,663</u>	<u>109,753,091</u>	(30.11)%
Outgo (Refunds, Benefits & Expense)	<u>153,852,832</u>	<u>158,527,959</u>	3.04 %
Net Change	<u>3,190,831</u>	<u>(48,774,868)</u>	(1628.59)%
Actuarial Value - End of Year	\$1,357,451,362	\$1,308,676,494	(3.59)%

SUMMARY OF ACTUARIAL VALUATION (CONT'D)

	<u>December 31, 2014</u>	<u>December 31, 2015</u>	<u>% Change</u>
Members			
Actives ¹	2,837	2,816	(0.74)%
Inactives	1,449	1,455	0.41 %
Retirees	2,690	2,665	(0.93)%
Survivors	1,156	1,122	(2.94)%
Reversionary Annuitants ²	26	27	3.85 %
Disabilities	216	239	10.65 %
Children	30	32	6.67 %
Payroll Data			
Valuation Payroll	\$ 202,673,014	\$ 204,772,903	1.04 %
Average Salary	\$ 71,439	\$ 72,718	1.79 %

¹Active participants include disabled employees.

²Includes 23 Reversionary Annuitants as of December 31, 2014, and 23 Reversionary Annuitants as of December 31, 2015, that are also Survivors.

DISCUSSION OF VALUATION RESULTS

This report sets forth the results of the actuarial valuation of the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago ("the Fund") as of December 31, 2015. The purposes of this actuarial valuation are:

1. To develop the minimum actuarially determined contribution for 2016;
2. To develop the Actuarial Determined Contribution ("ADC") under GASB Statements Nos. 67 and 68 and the Annual Required Contribution ("ARC") under GASB Statement No. 43;
3. To develop the annual OPEB cost under GASB Statement No. 45; and
4. To review the funding status of the Fund.

The results of the Fund's actuarial valuation for GASB Statements Nos. 67 and 68 financial reporting purposes is provided in a separate report.

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

For Fund 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 Fund

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 future benefit payments 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, because 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

DISCUSSION OF VALUATION RESULTS (CONT'D)

retires. The actuarial reserve (amount of assets needed now) is the present value of future benefits less the present 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 Actuarial Value of 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.

3. Actuarial Balance:

For the pension fund 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 fund 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 term Annual Required Contribution (“ARC”) is no longer in the GASB Statements. However, under GASB Statements Nos. 67 and 68, the Actuarial Determined Contribution (“ADC”) is defined as:

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with the Actuarial Standards of Practice based on the most recent measurement date available when the contribution for the reporting period was adopted.

The ADC is presented in the financial statements as Required Supplementary Information and is compared to the actual contributions to the Fund that are calculated under the current statutory funding policy. The ADC under GASB Statements Nos. 67 and 68 for the year ending December 31, 2016, is \$117.03 million, which is for pension benefits only. This amount is net of estimated employee contributions of \$17.73 million and is based on a 30-year open amortization period.

GASB Statement No. 43 requires the calculation of a separate Annual Required Contribution (ARC) for Other Postemployment Benefits (“OPEB”) beginning with the Fund’s 2006 Fiscal Year. The OPEB ARC for the Fiscal Year ending December 31, 2016, is \$2.18 million. As a result of P. A. 98-0043, the amortization period used to calculate the GASB Statement No. 43 ARC was changed from a 30-year open period to a three-year closed period as of December 31, 2013, because benefits will no longer be paid after December 31, 2016. As of December 31, 2015, the remaining amortization period used to calculate the GASB Statement No. 43 ARC is one year.

DISCUSSION OF VALUATION RESULTS (CONT'D)

Because of the requirements of GASB Statement No 43, there are some differences between the calculation of the ADC for pension benefits and the ARC for OPEB. These differences are summarized below.

	<u>Pension ADC</u>	<u>OPEB ARC</u>
Investment Return Assumption	7.50 percent per year	4.50 percent per year
Assets	5-year smoothed market	No assets (Pay-as-you-go)

GASB Statement No. 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.

Effective with Fiscal Year Ending December 31, 2014, GASB Statement No. 67 replaced GASB Statement No. 25 for pension plan financial reporting requirements. GASB Statement No. 68 replaced GASB Statement No. 27 for employer financial reporting effective with fiscal year ending December 31, 2015. The significant provisions of GASB Statements Nos. 67 and 68 include:

1. Recognizing the entire Net Pension Liability (similar to the Unfunded Actuarial Liability) on the balance sheet. The Net Pension Liability is comparable to the Net Pension Obligation which was recognized under GASB Statement No. 27.
2. Use of a Single Equivalent Discount Rate based on 7.50 percent for the projected benefits for all current members that can be paid from current assets and projected investment return, future employee contributions from current members and future employer contributions attributable to current members, and a municipal bond rate for the portion of the projected benefits after assets are depleted. The applicable municipal bond rate for fiscal year end 2015 is 3.57 percent.
3. Use of Market Value of Assets to calculate Net Pension Liability.
4. Elimination of the Annual Pension Cost and replacing it with the Pension Expense, which is determined under a much shorter amortization period than 30 years.

Due to the single equivalent discount rate and shorter amortization periods required under GASB Statements Nos. 67 and 68, the unfunded liabilities and pension expense will be much higher and more volatile than under the current standards. The measurements required under GASB Statements Nos. 67 and 68 are provided in a separate report.

The Unfunded Actuarial Accrued Liability based on the Actuarial Value of Assets increased from \$754.25 million to \$1,161.20 million during the year, resulting in a change in funding ratio from 64.3 percent to 53.0 percent. The increase in the Unfunded Actuarial Accrued Liability is mainly attributable to changes to the provisions of the Fund through the repealing of Public Act 98-0641, unfavorable investment return on the actuarial value of assets due to the recognition of investments losses in 2011, 2014 and 2015, and contributions less than Normal Cost plus interest on the

DISCUSSION OF VALUATION RESULTS (CONT'D)

Unfunded Actuarial Accrued Liability. 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 \$723.61 million to \$1,231.22 million, and the funded ratio decreased from 65.7 percent to 50.2 percent.

According to the 50-year projections provided in Table 4 of this report, the funded ratio is projected to decline from 53.0 percent in 2015 to 0.0 percent in 2027. An important and concerning fact to note is that the Fund is in a significant negative cash flow position. For example, in 2016, the sum of employee and employer contributions is projected at \$32,140,000 while benefit payments are projected at \$159,308,000. Given this negative cash flow situation and the funding policy, the ability to achieve higher returns over the long term is in jeopardy because assets may need to be liquidated in order to pay annual benefits. This could result in a change in the asset allocation to one comprised of a larger percentage of short term investments, and the Fund may no longer be able to support the current 7.50 percent investment return assumption.

DISCUSSION OF VALUATION RESULTS (CONT'D)

Plan Membership

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

	<u>December 31, 2014</u>	<u>December 31, 2015</u>
Active Members¹		
Number	2,837	2,816
Vested	2,051	2,081
Non-vested	786	735
Average Age	47.3	47.5
Average Service	15.5	15.6
Average Annual Salary	\$71,439	\$72,718
Inactive Members		
Number	1,449	1,455
Average Age	57.0	57.7
Average Service	2.2	2.2
Retirees		
Number	2,690	2,665
Average Age	69.8	69.9
Average Annual Benefit	\$45,968	\$47,474
Surviving Spouses		
Number	1,156	1,122
Average Age	77.5	77.6
Average Annual Benefit	\$14,020	\$14,618
Reversionary Annuitants²		
Number	26	27
Average Age	72.2	71.5
Average Annual Benefit	\$5,763	\$6,158
Children		
	30	32
Total Members	8,188	8,117

¹Active members include disabled employees.

²Includes 23 Reversionary Annuitants as of December 31, 2014, and 23 Reversionary Annuitants as of December 31, 2015, that are also Survivors.

Total participants receiving benefits under the Fund, including disability, surviving spouses, reversionary annuitants and children, decreased 0.80 percent during 2015, from 4,118 to 4,085, Total expenditures for benefits increased from \$148 million in 2014 to \$152 million during 2015, or 2.7 percent.

DISCUSSION OF VALUATION RESULTS (CONT'D)

Changes in Provisions of the Fund

The following Public Acts were passed in 2015 by the 99th General Assembly that made changes to the Fund Provisions.

P. A. 99-0462 (SB 1334), approved August 25, 2015

Public Act 99-0462 effective August 25, 2015, sets goals beginning January 1, 2016, that 20 percent of the total funds under management, and 20 percent of contracts for several services be awarded to minorities, females, and persons with disabilities.

On July 24, 2015, Public Act 98-0641 was ruled unconstitutional and void in its entirety by the circuit court. On March 24, 2016, the Illinois Supreme Court affirmed the circuit court's decision. Thus, this valuation does not reflect the provisions of Public Act 98-0641.

A detailed description of the provisions in the Public Act passed in 2015 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 term experience.

There are two general types of actuarial assumptions:

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

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 actuarial assumptions used for this report are based on the results of the experience study performed for the period January 1, 2004, through December 31, 2011.

DISCUSSION OF VALUATION RESULTS (CONT'D)

Experience Analysis

The Fund had an investment loss in 2015 of \$121.7 million relative to the 7.50 percent expected rate of return, on a market value of assets basis. The loss on an actuarial value of assets basis relative to the 7.50 percent expected rate of return was \$18.8 million due to the recognition of deferred investment gains from 2011, 2014 and 2015.

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 \$9.7 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 \$62.5 million. Contributions lower than Normal Cost plus interest have increased the Unfunded Actuarial Accrued Liability for the past 12 years.

The changes in the Fund provisions due to the repeal of Public Act 98-0641 increased the Unfunded Actuarial Accrued Liability by \$370.1 million, or 15.0 percent of the liabilities at December 31, 2015. There was an additional gain of \$34.7 million from all other factors, including actual retirement, termination, disability, mortality experience and data changes. This is about 1.40 percent of the liabilities at December 31, 2015, which is a reasonable variation.

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

Funding Analysis

The charts beginning on page 12 summarize the various measures of benefit security (funded ratio) examined in this valuation and highlight the trends of the measures.

Conclusion

When measured using the Actuarial Value of Assets, which smoothes gains and losses over a five-year period, the funding ratio decreased from 64.3 percent in 2014 to 53.0 percent in 2015. On a market value of assets basis the funded ratio decreased from 65.7 percent in 2014 to 50.2 percent in 2015. The funding ratio using the Actuarial Value of Assets is expected to decrease slightly toward the funding ratio using the market value of assets. There are deferred asset gains and losses that will be recognized in the Actuarial Value of Assets in the next four years. Contributions continue to be insufficient to adequately finance the plan, and will result in further decreases in the funding ratio. Under the current funding policy, if all future assumptions are realized, the funding ratio is projected to deteriorate until assets are depleted in 2026. Stated another way, the funded ratio decreases each year from 53.0 percent as of 2015 to 0.0 percent as of 2027.

The current statutory funding policy and the negative cashflow situation impact the ability to achieve higher returns over the long term because 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 to an appropriate level within the next year, the current investment return assumption will not be supportable for financial reporting purposes.

DISCUSSION OF VALUATION RESULTS (CONT'D)

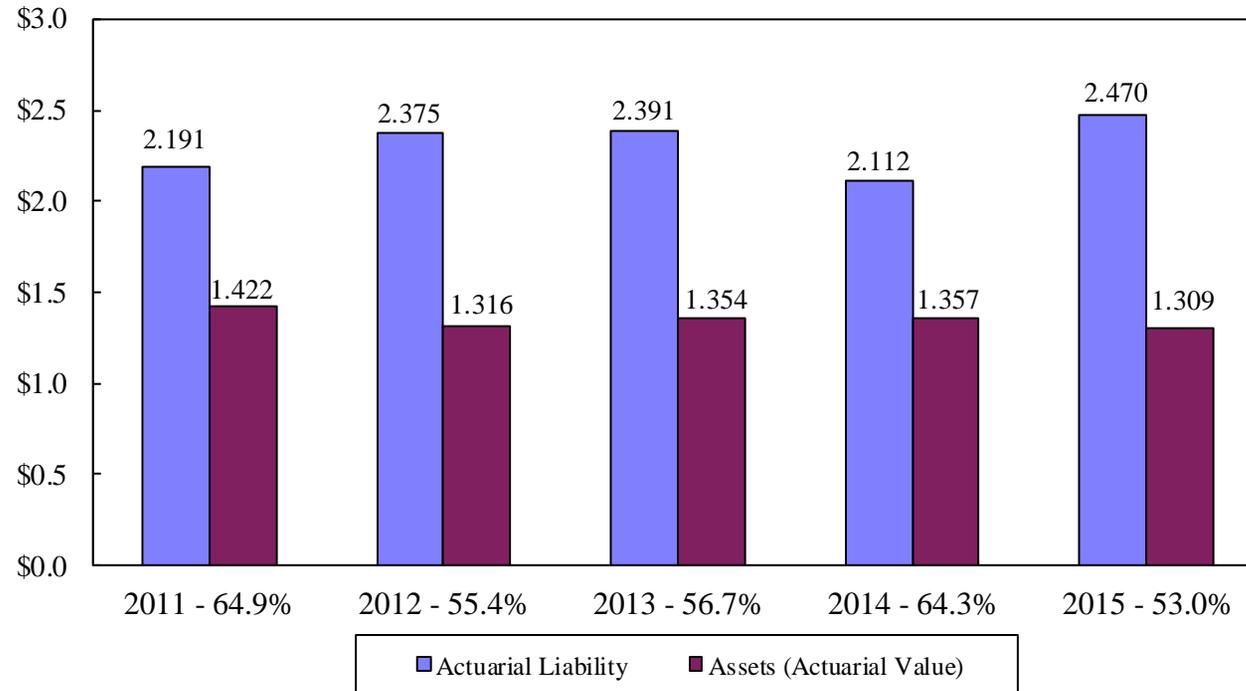
The statutory funding policy could be strengthened by changing to an Actuarial Determined Contribution (ADC) based funding approach with an appropriate amortization policy for each respective tiered benefit structure.

In 2014, the Society of Actuaries Blue Ribbon Panel on Public Pension Plan Funding and Conference of Consulting Actuaries Public Plans Community both issued reports on public plan funding. Some of the common elements in those reports are to:

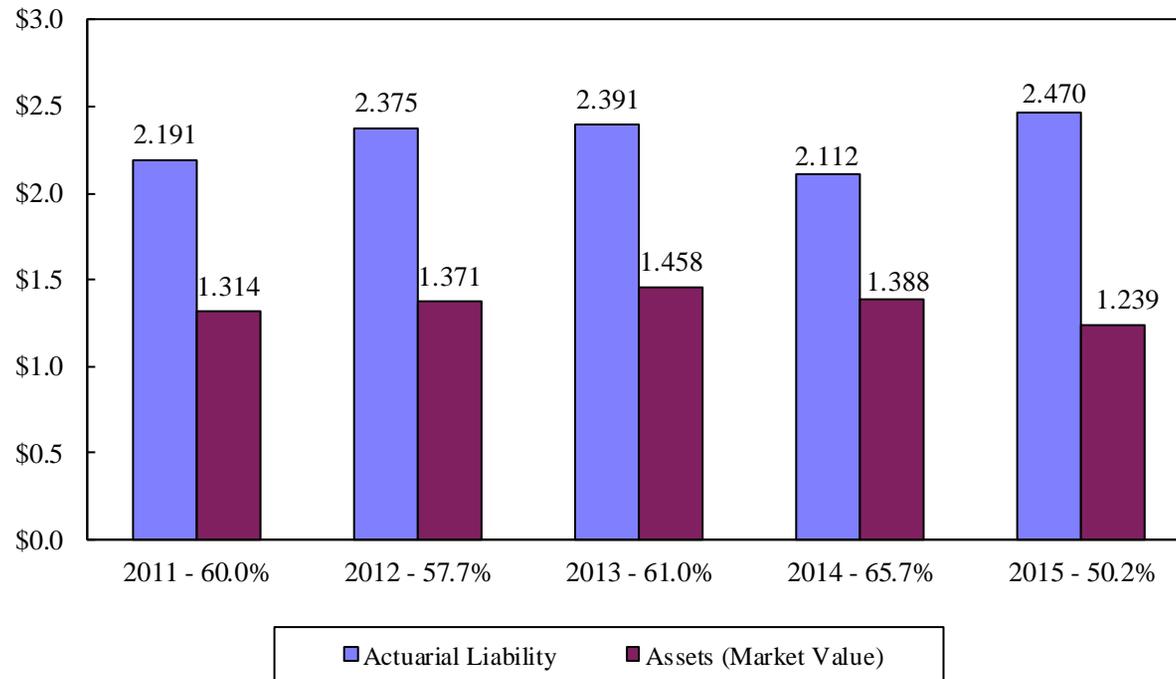
1. Establish a Funding Policy using Actuarial Determined Contributions.
2. Target 100 percent funded.
3. Shorten the amortization period to 15 to 20 years to avoid negative amortization of the unfunded actuarial accrued liability.

Finally, we strongly recommend that stress testing be performed and we will work with the Fund on developing specific stress testing scenarios.

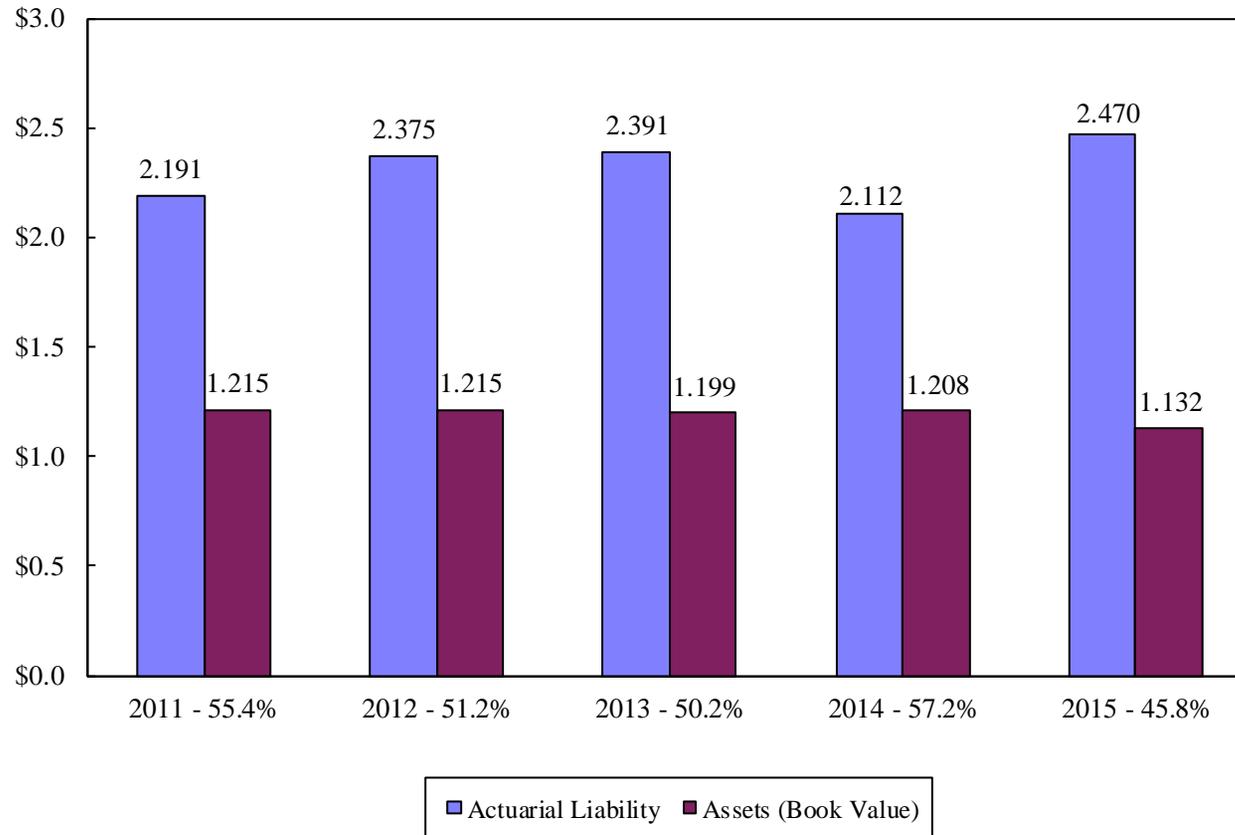
**COMPONENTS OF FUNDING RATIO
BASED ON ACTUARIAL VALUE
(\$ IN BILLIONS)**



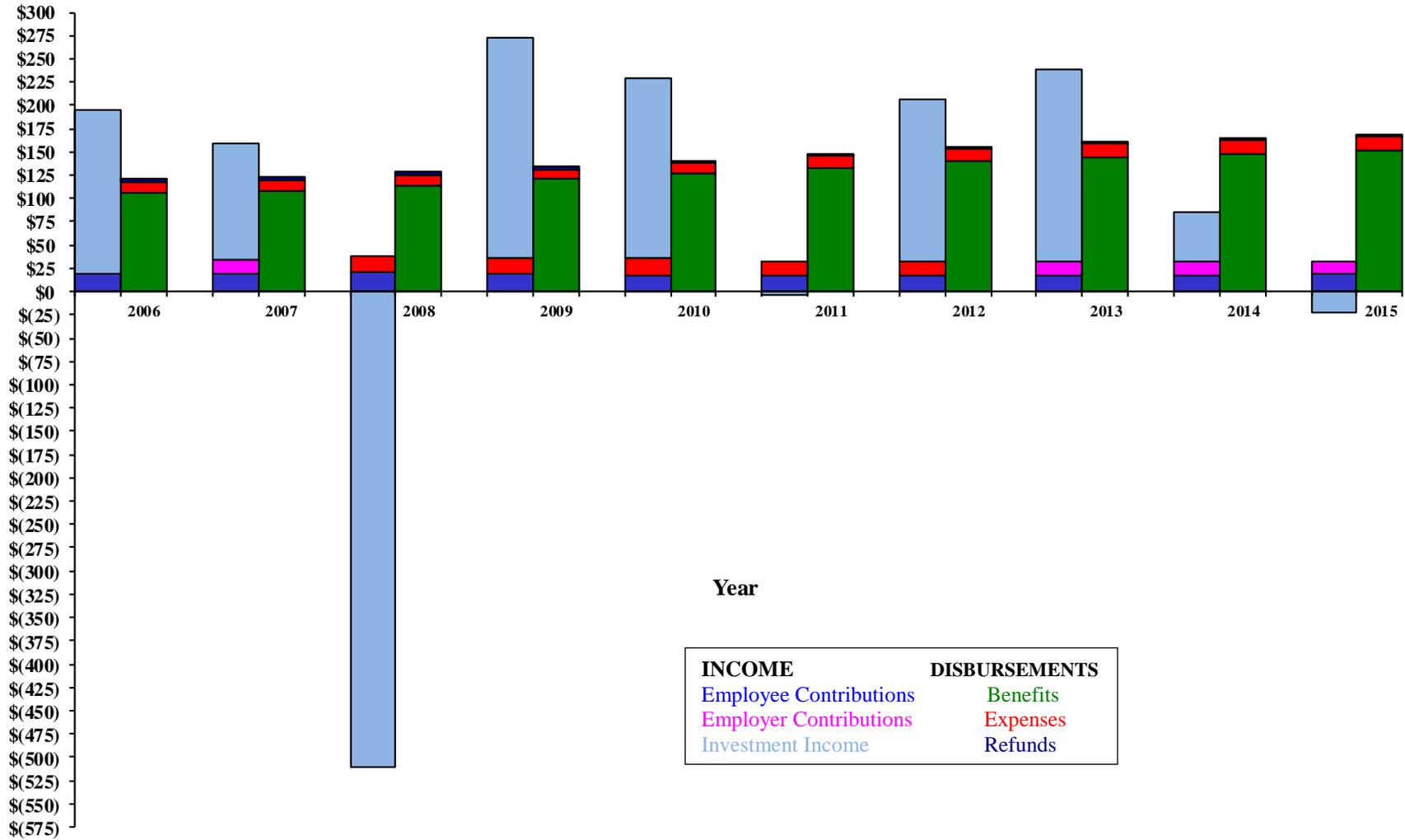
**COMPONENTS OF FUNDING RATIO
BASED ON MARKET VALUE
(\$ IN BILLIONS)**



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



SUMMARY OF INCOME AND DISBURSEMENTS (\$ IN MILLIONS)



ACTUARIAL COMPUTATIONS

TABLE 1
DEVELOPMENT OF ACTUARIAL DETERMINED CONTRIBUTION
UNDER GASB STATEMENTS NOS. 67 AND 68 FOR 2016

	<u>2015</u>	<u>2016</u>
(1) Normal Cost ¹	\$ 35,766,149	\$ 38,515,810
(2) Actuarial Accrued Liability (AAL) ¹	2,107,110,741	2,467,746,239
(3) Unfunded AAL (UAAL)		
(a) Actuarial Value of Assets	1,357,451,362	1,308,676,494
(b) UAAL [2-3(a)]	749,659,379	1,159,069,745
(4) Amortization (30-Year Level \$) Payable at BOY	59,046,127	91,292,900
(5) Minimum Actuarially Calculated Contribution		
(a) Interest Adjustment for Semi-monthly Payment	3,617,993	4,953,440
(b) Total Minimum Contribution [1+4+5(a); but not less than zero]	98,430,269	134,762,150
(c) Total Minimum Contribution (Percent of Pay)	48.57%	65.81%
(6) Estimated Member Contributions	18,579,434	17,729,050
(7) Actuarial Determined Contribution (ADC)		
(a) Actuarial Determined Contribution [5(b)-6]	\$ 79,850,835	\$ 117,033,100
(b) Actuarial Determined Contribution (Percent of Pay)	39.40%	57.15%
(8) Estimated City Contribution ^{2, 3}	12,081,591	12,305,327
(9) City Contribution Deficiency/(Excess)		
(a) in Dollars [(7(a)-8)]	67,769,244	104,727,773
(b) as a Percentage of Pay	33.44 %	51.14 %
(10) Combined City/Member Contributions Deficiency/(Excess)		
(a) in Dollars [5(b)-6-8]	\$ 67,769,244	\$ 104,727,773
(b) as a Percentage of Pay	33.44 %	51.14 %

¹ Excludes health insurance supplement.

² Total statutory required contribution less expected benefit payments for the health insurance supplement.

³ Estimated City Contribution in 2015 and 2016 includes four percent tax levy loss, and was determined based on the funding policy in effect prior to Public Act 98-0641.

TABLE 1A
DEVELOPMENT OF ANNUAL REQUIRED CONTRIBUTION
UNDER GASB STATEMENT NO. 43 FOR 2016

	<u>2015</u>	<u>2016</u>
(1) Normal Cost ¹	\$ 168	\$ 18
(2) Actuarial Accrued Liability (AAL) ¹	4,593,378	2,133,080
(3) Unfunded AAL (UAAL)		
(a) Actuarial Value of Assets	-	-
(b) UAAL [2-3(a)]	4,593,378	2,133,080
(4) Amortization (Level \$) Payable at BOY ³	2,347,227	2,133,080
(5) Minimum Actuarially Calculated Contribution		
(a) Interest Adjustment for Semi-monthly Payment	54,243	49,291
(b) Total Minimum Contribution [1+4+5(a)]; but not less than zero	2,401,638	2,182,389
(c) Total Minimum Contribution (Percent of Pay)	1.18%	1.07%
(6) Estimated Member Contributions	-	-
(7) Annual Required Contribution (ARC)		
(a) Annual Required Contribution [5(b)-6]	\$ 2,401,638	\$ 2,182,389
(b) Annual Required Contribution (Percent of Pay)	1.18%	1.07%
(8) Estimated City Contribution ²	2,329,833	2,112,913
(9) City Contribution Deficiency/(Excess)		
(a) in Dollars [(7(a))-8]	71,805	69,476
(b) as a Percentage of Pay	0.04%	0.03%
(10) Combined City/Member Contributions Deficiency/(Excess)		
(a) in Dollars [5(b)-6-8]	\$ 71,805	\$ 69,476
(b) as a Percentage of Pay	0.04%	0.03%

¹ 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.

² Represents expected benefit payments for the health insurance supplement.

³ For fiscal year 2015, the amortization period is two years and for fiscal year 2016, the amortization period is one year.

TABLE 1B
DEVELOPMENT OF CITY CONTRIBUTION REQUIREMENTS

	<u>Fiscal Year 2016</u>	<u>Fiscal Year 2017</u>	<u>Projected Fiscal Year 2018</u>	<u>Projected Fiscal Year 2019</u>	<u>Projected Fiscal Year 2020</u>	<u>Projected Fiscal Year 2021</u>
Preliminary Determination of City Contribution						
Applicable Members' Contribution, Two Years Prior	\$ 15,018,953	\$ 15,257,665	\$ 16,381,642	\$ 16,702,512	\$ 17,142,513	\$ 17,622,246
Statutory Contribution Multiple	1.00	1.00	1.00	1.00	1.00	1.00
Statutory City Contribution	15,019,000	15,257,700	16,381,600	16,702,500	17,142,500	17,622,200
GASB Statements Nos. 67 and 68 ADC and GASB Statement No. 43 ARC						
Actuarial Liability at Valuation Date	119,215,489	124,868,244	134,476,276	146,487,532	158,248,456	168,700,349
Actuarial Value of Assets at Valuation Date	2,469,879,319	2,527,143,389	2,583,237,144	2,636,778,503	2,687,606,183	2,735,178,636
Funded Ratio	52.99%	50.15%	46.58%	41.98%	37.62%	33.91%

The Statutory City Contributions for fiscal years on and after 2016 are based on the funding policy in effect prior to Public Act 98-0641.

TABLE 1C
ACTIVE ACCRUED LIABILITY AND NORMAL COST BY TIER

	<u>Tier 1 Members</u>	<u>Tier 2 Members ²</u>	<u>Total</u>
(1) Count	2,284	532	2,816
(2) Payroll	\$ 173,547,780	\$ 31,225,123	\$ 204,772,903
(3) Average Payroll	\$ 75,984	\$ 58,694	\$ 72,718
(4) Actuarial Accrued Liability (AAL) ¹	\$ 850,841,965	\$ 7,215,949	\$ 858,057,914
(5) Normal Cost ¹	\$ 34,307,799	\$ 4,208,029	\$ 38,515,828
(6) Normal Cost as a Percent of Pay	19.8%	13.5%	18.8%
(7) Member Contributions as a Percent of Pay	8.5%	8.5%	8.5%
(8) Net Employer Normal Cost as a Percent of Pay	11.3%	5.0%	10.3%

¹ The normal cost and liabilities for healthcare are based on a discount rate of 4.5% and were determined based on the provisions of P. A. 98-0043.

² Members who began participating on or after January 1, 2011.

TABLE 2
RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
(GAIN/LOSS ANALYSIS)

	2011	2012	2013	2014	2015
Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)					
Beginning of Year	\$541,982,320	\$768,767,413	\$1,058,929,034	\$1,036,312,597	\$754,252,757
(Gains) Losses During the Year Attributable to:					
Contributions Less Than (in Excess of) Normal Cost plus Interest	44,792,683	63,344,488	90,011,595	87,798,075	62,450,347
(Gain) Loss on Investment Return on the Actuarial Value of Assets	115,961,584	99,757,018	(64,848,168)	(29,122,655)	18,785,834
(Gain) Loss from Salary Changes	(17,752,499)	(11,246,150)	(12,859,999)	(10,377,473)	(9,689,519)
(Gain) Loss from Retirement, Termination, & Mortality	18,062,145	7,410,741	(4,749,315)	(12,446,485)	(34,916,630)
(Gain) Loss from Data Corrections and Unexpected Service Changes	964,087	505,176	182,938	(30,347)	239,035
Change in Methodology	-	-	-	-	-
Change in Assumptions	64,757,093	130,390,348	-	-	-
Plan Amendments	-	-	(30,353,488)	(317,880,955)	370,081,001
Net Increase (Decrease) in UAAL	226,785,092	290,161,621	(22,616,437)	(282,059,840)	406,950,068
Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)					
End of Year	\$768,767,413	\$1,058,929,034	\$1,036,312,597	\$754,252,757	\$1,161,202,825

TABLE 2A
RECONCILIATION OF FUNDED RATIO

	2011	2012	2013	2014	2015
Funded Ratio Beginning of Year	73.83%	64.92%	55.41%	56.65%	64.28%
Expected Increase if All Assumptions Realized	0.67%	0.88%	1.16%	1.09%	0.54%
Expected Funded Ratio	74.50%	65.80%	56.57%	57.74%	64.82%
Gains (Losses) During the Year Attributable to:					
Contributions in Excess of (Less Than) Normal Cost plus Interest	-2.11%	-2.82%	-3.69%	-3.58%	-2.91%
Gain (Loss) on Investment Return on the Smoothed Value of Assets	-5.46%	-4.44%	2.66%	1.19%	-0.88%
Gain (Loss) from Salary Changes	0.57%	0.30%	0.29%	0.24%	0.28%
Gain (Loss) from Retirement, Termination, & Mortality	-0.58%	-0.20%	0.11%	0.28%	1.02%
Gain (Loss) from Data Corrections	-0.03%	-0.01%	0.00%	0.00%	-0.01%
Change in Methodology	0.00%	0.00%	0.00%	0.00%	0.00%
Change in Assumptions	-1.97%	-3.22%	0.00%	0.00%	0.00%
Plan Amendments	0.00%	0.00%	0.71%	8.41%	-9.33%
Total Gains (Losses) During the Year	-9.58%	-10.39%	0.08%	6.54%	-11.83%
Funded Ratio End of Year	64.92%	55.41%	56.65%	64.28%	52.99%

TABLE 3
SUMMARY OF BASIC ACTUARIAL VALUES

	APV of Projected Benefits	2016 Normal Cost
(1) Values for Active and Inactive Members		
(a) Retirement	\$ 1,018,947,288	\$ 23,913,024
(b) Termination - Vested	42,611,276	3,174,154
(c) Termination - Non-Vested	5,128,751	1,833,134
(d) Death	14,327,761	657,124
(e) Inactive Vested and Non-Vested	23,224,162	-
(f) Health Insurance	157,161	18
(g) Disability	-	5,119,323
(h) Expenses of Administration	-	3,819,051
Total for Active and Inactive Members	\$ 1,104,396,399	\$ 38,515,828
(2) Values for Members in Payment Status	\$ 1,588,566,637	\$ -
(3) Grand Totals	\$ 2,692,963,036	\$ 38,515,828
Actuarial Present Value of Future Compensation		\$ 1,666,169,567

TABLE 4 50-YEAR PROJECTIONS

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago Actuarial Valuation Projection Results as of December 31, 2015 Based on the Provisions in Effect as of December 31, 2015 (\$ in Thousands)																			
PYE 12/31	Present Value of Benefits	Actuarial Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Liability	Funded Ratio	Capped Payroll	Actuarial Determined Contribution	ADC as % of Pay ¹	Statutory Contribution (City Multiple) ²	Statutory Contribution (Additional)	Total Statutory Contribution ²	Statutory Contribution % of Pay ¹	Total Normal Cost	Total Employee Contribution	Applicable Employee Contribution	Administrative Benefits	Administrative Expenses	Contribution Multiple
2015	\$ 2,692,963	\$ 2,469,879	\$ 1,238,657	\$ 1,308,676	\$ 1,161,203	52.99%	\$ 204,773	\$ 82,252	40.17%	\$ 14,567	\$ -	\$ 14,567	7.11%	\$ 35,766	\$ 16,844	\$ 15,258	\$ 154,684	\$ 3,844	1.00
2016	2,751,060	2,527,143	1,195,601	1,267,401	1,259,742	50.15%	208,784	119,216	57.10%	14,411	-	14,411	6.90%	38,516	17,729	16,382	159,308	3,960	1.00
2017	2,807,114	2,583,237	1,144,166	1,203,145	1,380,092	46.58%	214,284	124,868	58.27%	14,418	-	14,418	6.73%	38,468	18,076	16,703	164,509	4,078	1.00
2018	2,861,228	2,636,779	1,082,595	1,106,944	1,529,835	41.98%	220,281	134,476	61.05%	14,647	-	14,647	6.65%	38,702	18,553	17,143	171,149	4,201	1.00
2019	2,913,152	2,687,606	1,011,037	1,011,037	1,676,569	37.62%	226,767	146,488	64.60%	15,726	-	15,726	6.93%	38,978	19,072	17,622	177,799	4,327	1.00
2020	2,962,570	2,735,179	927,611	927,611	1,807,568	33.91%	233,651	158,248	67.73%	16,034	-	16,034	6.86%	39,290	19,633	18,141	184,809	4,457	1.00
2021	3,008,847	2,779,505	831,821	831,821	1,947,684	29.93%	241,215	168,700	69.94%	16,457	-	16,457	6.82%	39,614	20,229	18,692	191,584	4,590	1.00
2022	3,051,866	2,820,434	722,840	722,840	2,097,594	25.63%	249,289	179,929	72.18%	16,917	-	16,917	6.79%	40,025	20,884	19,297	198,355	4,728	1.00
2023	3,091,958	2,857,647	599,642	599,642	2,258,005	20.98%	257,495	191,971	74.55%	17,415	-	17,415	6.76%	40,490	21,583	19,943	205,240	4,870	1.00
2024	3,128,062	2,890,584	460,962	460,962	2,429,622	15.95%	266,176	204,821	76.95%	17,944	-	17,944	6.74%	40,917	22,294	20,599	212,352	5,016	1.00
2025	3,159,632	2,918,750	305,506	305,506	2,613,244	10.47%	275,262	218,600	79.42%	18,525	-	18,525	6.73%	41,396	23,045	21,294	219,683	5,166	1.00
2026	3,187,843	2,942,978	133,245	133,245	2,809,733	4.53%	284,481	233,364	82.03%	19,145	-	19,145	6.73%	41,912	23,832	22,021	225,898	5,321	1.00
2027	3,211,339	2,962,258	-	-	2,962,258	0.00%	293,916	249,158	84.77%	19,775	55,713	75,488	25.68%	42,419	24,630	22,758	232,789	5,481	3.70
2028	3,229,984	2,976,469	-	-	2,976,469	0.00%	303,447	261,364	86.13%	20,442	199,215	219,657	72.39%	42,950	25,447	23,513	239,458	5,646	10.35
2029	3,243,842	2,985,525	-	-	2,985,525	0.00%	312,819	262,267	83.84%	21,140	204,257	225,397	72.05%	43,495	26,272	24,276	245,854	5,815	10.27
2030	3,252,246	2,989,355	-	-	2,989,355	0.00%	322,286	262,743	81.52%	21,848	208,980	230,828	71.62%	44,022	27,084	25,025	251,922	5,989	10.18
2031	3,255,771	2,988,610	-	-	2,988,610	0.00%	331,883	262,841	79.20%	22,573	212,728	235,301	70.90%	44,604	27,903	25,783	257,036	6,169	10.05
2032	3,255,144	2,983,785	-	-	2,983,785	0.00%	341,537	262,621	76.89%	23,304	215,718	239,022	69.98%	45,252	28,734	26,550	261,403	6,354	9.88
2033	3,250,650	2,975,413	-	-	2,975,413	0.00%	351,349	262,098	74.60%	24,024	217,942	241,966	68.87%	45,933	29,570	27,323	264,991	6,545	9.71
2034	3,242,924	2,964,369	-	-	2,964,369	0.00%	361,089	261,316	72.37%	24,751	219,087	243,838	67.53%	46,657	30,419	28,108	267,516	6,741	9.50
2035	3,233,035	2,951,306	-	-	2,951,306	0.00%	369,902	260,349	70.38%	25,488	219,433	244,921	66.21%	47,408	31,263	28,887	269,241	6,943	9.26
2036	3,221,538	2,936,814	-	-	2,936,814	0.00%	378,371	259,236	68.51%	26,230	219,079	245,309	64.83%	48,099	32,026	29,592	270,183	7,152	9.02
2037	3,209,023	2,921,459	-	-	2,921,459	0.00%	386,702	258,043	66.73%	26,983	218,101	245,084	63.38%	48,798	32,759	30,269	270,477	7,366	8.76
2038	3,196,289	2,905,748	-	-	2,905,748	0.00%	394,883	256,817	65.04%	27,731	216,615	244,346	61.88%	49,522	33,480	30,936	270,239	7,587	8.50
2039	3,183,474	2,890,180	-	-	2,890,180	0.00%	403,209	255,564	63.38%	28,408	214,694	243,102	60.29%	50,234	34,189	31,590	269,476	7,815	8.25

¹ Contribution rate is shown as a percentage of capped payroll.

² Actual employer contributions equal to the statutory contribution including a 4.00 percent loss on the tax levy.

TABLE 4 (CONT'D) 50-YEAR PROJECTIONS

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago Actuarial Valuation Projection Results as of December 31, 2015 Based on the Provisions in Effect as of December 31, 2015 (\$ in Thousands)																				
PYE 12/31	Present Value of Benefits	Actuarial Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Liability	Funded Ratio	Capped Payroll	Actuarial Determined Contribution	ADC as % of Pay ¹	Statutory Contribution (City Multiple) ²	Statutory Contribution (Additional)	Total Statutory Contribution ²	Statutory Contribution % of Pay ¹	Total Normal Cost	Total Employee Contribution	Applicable Employee Contribution	Benefits	Administrative Expenses	Active Members	Contribution Multiple
2040	\$ 3,171,520	\$ 2,875,650	\$ -	\$ -	\$ 2,875,650	0.00%	\$ 411,645	\$ 254,371	61.79%	\$ 29,059	\$ 211,994	\$ 241,053	58.56%	\$ 51,005	\$ 34,909	\$ 32,256	\$ 267,914	\$ 8,049	2,816	8.00
2041	3,161,345	2,863,036	-	-	2,863,036	0.00%	420,239	253,313	60.28%	29,698	208,584	238,282	56.70%	51,834	35,640	32,931	265,631	8,291	2,816	7.74
2042	3,153,691	2,853,001	-	-	2,853,001	0.00%	428,903	252,444	58.86%	30,327	204,718	235,045	54.80%	52,707	36,384	33,619	262,889	8,539	2,816	7.48
2043	3,149,187	2,846,181	-	-	2,846,181	0.00%	437,767	251,819	57.52%	30,966	200,447	231,413	52.86%	53,618	37,134	34,312	259,751	8,796	2,816	7.21
2044	3,148,472	2,843,140	-	-	2,843,140	0.00%	446,768	251,481	56.29%	31,614	195,879	227,493	50.92%	54,569	37,901	35,021	256,335	9,059	2,816	6.95
2045	3,151,950	2,844,206	-	-	2,844,206	0.00%	455,833	251,471	55.17%	32,274	191,274	223,548	49.04%	55,550	38,681	35,741	252,898	9,331	2,816	6.69
2046	3,159,858	2,849,704	-	-	2,849,704	0.00%	465,129	251,816	54.14%	32,939	186,669	219,608	47.21%	56,554	39,466	36,466	249,462	9,611	2,816	6.44
2047	3,172,660	2,859,913	-	-	2,859,913	0.00%	474,608	252,550	53.21%	33,620	182,126	215,746	45.46%	57,604	40,270	37,210	246,117	9,900	2,816	6.20
2048	3,190,408	2,875,015	-	-	2,875,015	0.00%	484,298	253,689	52.38%	34,311	177,756	212,067	43.79%	58,687	41,091	37,968	242,962	10,196	2,816	5.97
2049	3,213,285	2,895,195	-	-	2,895,195	0.00%	494,216	255,245	51.65%	35,008	173,574	208,582	42.20%	59,805	41,930	38,743	240,010	10,502	2,816	5.76
2050	3,241,553	2,920,384	-	-	2,920,384	0.00%	504,352	257,240	51.00%	35,722	169,831	205,553	40.76%	60,964	42,789	39,537	237,525	10,817	2,816	5.56
2051	3,275,251	2,950,025	-	-	2,950,025	0.00%	514,657	259,667	50.45%	36,449	166,998	203,447	39.53%	62,163	43,666	40,348	235,972	11,142	2,816	5.40
2052	3,312,977	2,983,609	-	-	2,983,609	0.00%	525,138	262,496	49.99%	37,194	164,998	202,192	38.50%	63,413	44,559	41,172	235,275	11,476	2,816	5.26
2053	3,354,767	3,020,919	-	-	3,020,919	0.00%	535,740	265,654	49.59%	37,955	163,483	201,438	37.60%	64,684	45,466	42,011	235,084	11,821	2,816	5.13
2054	3,400,114	3,061,799	-	-	3,061,799	0.00%	546,178	269,135	49.28%	38,734	162,388	201,122	36.82%	65,982	46,384	42,859	235,331	12,175	2,816	5.02
2055	3,448,523	3,106,228	-	-	3,106,228	0.00%	555,852	272,881	49.09%	39,525	161,533	201,058	36.17%	67,241	47,288	43,694	235,805	12,540	2,816	4.92
2056	3,501,065	3,153,711	-	-	3,153,711	0.00%	565,210	276,934	49.00%	40,330	161,413	201,743	35.69%	68,452	48,125	44,468	236,952	12,917	2,816	4.84
2057	3,556,273	3,203,486	-	-	3,203,486	0.00%	574,507	281,265	48.96%	41,144	162,271	203,415	35.41%	69,664	48,935	45,216	239,046	13,304	2,816	4.78
2058	3,613,519	3,255,208	-	-	3,255,208	0.00%	583,807	285,806	48.96%	41,946	163,662	205,608	35.22%	70,893	49,740	45,960	241,645	13,703	2,816	4.74
2059	3,672,694	3,308,636	-	-	3,308,636	0.00%	593,167	290,526	48.98%	42,689	165,502	208,191	35.10%	72,142	50,545	46,704	244,622	14,114	2,816	4.72
2060	3,733,466	3,363,452	-	-	3,363,452	0.00%	602,535	295,403	49.03%	43,408	167,818	211,226	35.06%	73,412	51,356	47,453	248,044	14,538	2,816	4.71
2061	3,795,512	3,419,419	-	-	3,419,419	0.00%	612,012	300,421	49.09%	44,122	170,492	214,614	35.07%	74,709	52,167	48,202	251,807	14,974	2,816	4.71
2062	3,858,615	3,476,348	-	-	3,476,348	0.00%	621,517	305,546	49.16%	44,836	173,445	218,281	35.12%	76,028	52,987	48,960	255,845	15,423	2,816	4.71
2063	3,922,595	3,534,014	-	-	3,534,014	0.00%	631,104	310,774	49.24%	45,555	176,704	222,259	35.22%	77,372	53,810	49,721	260,184	15,886	2,816	4.72
2064	3,987,204	3,592,225	-	-	3,592,225	0.00%	640,800	316,081	49.33%	46,274	180,220	226,494	35.35%	78,742	54,640	50,488	264,773	16,362	2,816	4.74

¹ Contribution rate is shown as a percentage of capped payroll.

² Actual employer contributions equal to the statutory contribution including a 4.00 percent loss on the tax levy.

TABLE 5
ACTUARIAL ACCRUED LIABILITY PRIORITIZED
SOLVENCY TEST

Valuation Date 12/31	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets		
	Active and Inactive Member Contributions	Retirees and Beneficiaries	Active and Inactive Members (ER Financed Portion)		(1)	(2)	(3)
2006	\$ 237,321,146	\$ 1,046,426,600	\$ 525,488,397	\$ 1,664,058,080	100.00%	100.00%	72.37%
2007	247,854,869	1,074,580,007	527,271,642	1,757,710,948	100.00%	100.00%	82.55%
2008	254,588,537	1,129,920,171	572,879,125	1,698,427,008	100.00%	100.00%	54.80%
2009	254,604,734	1,203,586,162	559,296,180	1,601,351,633	100.00%	100.00%	25.60%
2010	254,138,112	1,281,511,698	535,736,023	1,529,403,512	100.00%	99.51%	0.00%
2011 ²	251,243,991	1,403,258,511	536,679,260	1,422,414,349	100.00%	83.46%	0.00%
2012 ²	253,449,161	1,519,775,727	601,617,743	1,315,913,597	100.00%	69.91%	0.00%
2013 ¹	258,837,708	1,537,553,531	594,181,889	1,354,260,531	100.00%	71.24%	0.00%
2014 ¹	264,822,986	1,364,252,443	482,628,690	1,357,451,362	100.00%	80.09%	0.00%
2015 ¹	272,689,815	1,588,566,637	608,622,867	1,308,676,494	100.00%	65.22%	0.00%

¹ Change in benefits.

² Change in actuarial assumptions.

The prioritized solvency test is another means of checking a system'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; and (3) the employer financed portion for present active and inactive members. In a system that has been following the 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) is covered by the remainder of present assets. Generally, if the system 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 funding, the current assets are only sufficient to cover active and inactive member contributions and 65 percent of retiree liabilities. The present value of employer financed benefits for active and inactive members is completely unfunded.

TABLE 6
STATUTORY RESERVES AS OF DECEMBER 31, 2015

	New in 2015			Continuing from 2014			Total		
	Annuity Payment Fund	Prior Service Fund	Total	Annuity Payment Fund	Prior Service Fund	Total	Annuity Payment Fund	Prior Service Fund	Total
Statutory Reserve ¹									
Retirees	\$ 19,475,424	\$ 47,309,012	\$ 66,784,436	\$ 284,314,198	\$ 1,136,088,691	\$ 1,420,402,889	\$ 303,789,622	\$ 1,183,397,703	\$ 1,487,187,325
Future Surviving Spouses	\$ 4,463,592	\$ 3,258,796	\$ 7,722,388	\$ 78,030,177	\$ 104,941,933	\$ 182,972,110	\$ 82,493,769	\$ 108,200,729	\$ 190,694,498
Spouses ²	\$ 4,974,665	\$ 3,930,477	\$ 8,905,142	\$ 56,430,674	\$ 44,926,088	\$ 101,356,762	\$ 61,405,339	\$ 48,856,565	\$ 110,261,904
Annual Benefits									
Retirees	\$ 1,684,828	\$ 2,543,072	\$ 4,227,900	\$ 30,986,908	\$ 91,303,268	\$ 122,290,176	\$ 32,671,736	\$ 93,846,340	\$ 126,518,076
Future Surviving Spouses	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spouses ²	\$ 599,870	\$ 493,834	\$ 1,093,704	\$ 8,029,750	\$ 7,443,916	\$ 15,473,666	\$ 8,629,620	\$ 7,937,750	\$ 16,567,370

¹As 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.

²Surviving spouses also include reversionary annuitants.

TABLE 7
STATE REPORTING DISCLOSURE

	<u>2014</u>	<u>2015</u>
APV of Credited Projected Benefits		
Payable to Retirees and Beneficiaries	\$ 1,364,252,443	\$ 1,588,566,637
Current Active and Inactive Employees:		
Accumulated Employee Contributions	264,822,986	272,689,815
Payable to Vested and Non-Vested Employees	318,150,049	416,898,052
Total APV	<u>\$ 1,947,225,478</u>	<u>\$ 2,278,154,504</u>
Net Assets Available for Benefits, Actuarial Value	<u>\$ 1,357,451,362</u>	<u>\$ 1,308,676,494</u>
Unfunded AAL (AAL in excess of assets)	\$ 589,774,116	\$ 969,478,010
Percent Funded	69.71 %	57.44 %
Unfunded AAL as Percent of Payroll	291.00%	473.44%
Payroll	\$ 202,673,014	\$ 204,772,903

TABLE 8
ACTUARIAL RESERVE LIABILITIES
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015

Accrued Liabilities for Active and Inactive Participants ¹	\$ 881,312,682
Reserves For:	
Service Retirement Pension	\$ 1,317,274,212
Future Widows of Current Retirees	142,771,658
Surviving Spouse Pension	126,233,277
Health Insurance Supplement	1,975,984
Children Annuitants	311,506

Total Accrued Liabilities	\$ 2,469,879,319
Unfunded Actuarial Liabilities (Surplus)	1,161,202,825
Actuarial Net Assets	\$ 1,308,676,494

¹ *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 2.50 percent of pay added to the normal cost.*

ASSETS OF THE PLAN

ASSETS OF THE PLAN

The book value of plan assets, net of accounts payable, decreased from \$1.21 billion as of December 31, 2014, to \$1.13 as of December 31, 2015, and the market value of plan assets decreased from \$1.39 billion as of December 31, 2014, to \$1.24 billion as of December 31, 2015. Table 9 details the development of asset values during 2015 and Table 10 shows the development of the actuarial value of assets as of December 31, 2015.

TABLE 9
RECONCILIATION OF ASSET VALUES
AS OF DECEMBER 31, 2015

	<u>Market Value</u>	<u>Book Value</u>
(1) Value of Assets as of 12/31/2014	\$ 1,388,092,890	\$ 1,207,953,753
(2) Income for Plan Year:		
(a) Member Contributions	\$ 16,844,246	\$ 16,844,246
(b) City Contributions & Miscellaneous	14,566,544	14,566,544
(c) Investment Income Net of Expenses	(22,750,522)	50,396,331
(d) Income from Securities Lending	432,046	432,046
(e) Total Income	<u>\$ 9,092,314</u>	<u>\$ 82,239,167</u>
(3) Disbursements for Plan Year:		
(a) Benefit Payments - Pension	\$ 150,013,189	\$ 150,013,189
(b) Benefit Payments - Health Insurance Supplement	2,154,073	2,154,073
(c) Refunds and Rollovers	2,516,351	2,516,351
(d) Administration and OPEB Expenses	3,844,346	3,844,346
(e) Total Disbursements	<u>\$ 158,527,959</u>	<u>\$ 158,527,959</u>
(4) Value of Assets as of 12/31/2015	\$ 1,238,657,245	\$ 1,131,664,961
(5) Estimated Rate of Return in 2015:		
(a) Gross (Investment Expense of \$9,980,397)	(0.93)%	5.31%
(b) Net of Investment Expense	(1.69)%	4.44%

TABLE 10
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
AS OF DECEMBER 31, 2015

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago
DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Year Ending December 31	2015	2016	2017	2018	2019
Beginning of Year:					
(1) Market Value of Assets	\$ 1,388,092,890				
(2) Actuarial Value of Assets	1,357,451,362				
End of Year:					
(3) Market Value of Assets	1,238,657,245				
(4) Contributions and Disbursements					
(4a) City Contributions & Misc.	14,566,544				
(4b) Member Contributions	16,844,246				
(4c) Benefit Payouts & Refunds	(154,683,613)				
(4d) Administrative and OPEB Expenses	(3,844,346)				
(4e) Net of Contributions and Disbursements	(127,117,169)				
(5) Total Investment Income					
=(3)-(1)-(4e)	(22,318,476)				
(6) Projected Rate of Return	7.50%				
(7) Projected Investment Income					
=(1)x(6)+[(1+(6)] ⁵ -1)x(4e)	99,426,250				
(8) Investment Income in Excess of Projected Income	(121,744,726)				
(9) Excess Investment Income Recognized					
This Year (5-year recognition)					
(9a) From This Year	(24,348,945)				
(9b) From One Year Ago	(10,280,760)	\$ (24,348,945)			
(9c) From Two Years Ago	21,808,279	(10,280,760)	\$ (24,348,945)		
(9d) From Three Years Ago	14,602,250	21,808,279	(10,280,760)	\$ (24,348,945)	
(9e) From Four Years Ago	(22,864,773)	14,602,252	21,808,281	(10,280,760)	\$ (24,348,946)
(9f) Total Recognized Investment Gain	(21,083,949)	1,780,826	(12,821,424)	(34,629,705)	(24,348,946)
(10) Change in Actuarial Value of Assets					
=(4e)+(7)+(9f)	(48,774,868)				
End of Year:					
(3) Market Value of Assets	\$ 1,238,657,245				
(11) Actuarial Value of Assets					
=(2)+(10)	\$ 1,308,676,494				

PLAN MEMBER DATA

EXHIBIT A
SUMMARY OF CHANGES IN ACTIVE AND INACTIVE PARTICIPANTS
FOR THE YEAR ENDING DECEMBER 31, 2015

Active Participants ¹	Number at Beginning of Year²	New	Inactive to Active	Total Increases	Decreases	Number at End of Year
Males	2,309	85	8	93	131	2,271
Females	528	36	11	47	30	545
Active Total	2,837	121	19	140	161	2,816
Inactive Participants	Number at Beginning of Year	New	Active to Inactive	Total Increases	Decreases	Number at End of Year
Males	1,285	5	50	55	43	1,297
Females	164	-	10	10	16	158
Inactive Total	1,449	5	60	65	59	1,455
Total - Actives and Inactives	4,286	126	79	205	220	4,271

¹All employees receiving ordinary and duty disability benefits are included in the active count.

²Includes one active member reclassified as female.

EXHIBIT B
SUMMARY OF CHANGES IN ANNUITANTS AND BENEFICIARIES
FOR THE YEAR ENDING DECEMBER 31, 2015

Annuitants and Beneficiaries	Number at Beginning of Year	Additions During Year	Terminations During Year	Number at End of Year
Employee Annuitants	2,690	92	117	2,665
Surviving Spouse Annuitants	1,156	42	76	1,122
Reversionary Annuitants ¹	26	3	2	27
Child Annuitants	30	7	5	32
Annuitant Totals	3,902	144	200	3,846
Actives Receiving Disability				
Ordinary Disability Benefit	53	81	83	51
Duty Disability Benefit	163	218	193	188
Disability Totals	216	299	276	239
Totals	4,118	443	476	4,085

¹ Includes 23 Reversionary Annuitants as of December 31, 2014, and 23 Reversionary Annuitants as of December 31, 2015, that are also Survivors.

EXHIBIT C
PART I – TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE MALE PARTICIPANTS CLASSIFIED BY
AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2015

Attained Age	Completed Years of Service									Total	
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Under 20	-	-	-	-	-	-	-	-	-	-	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20-24	3	41	-	-	-	-	-	-	-	-	44
	\$ 124,080	\$ 2,437,530	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,561,610
25-29	5	96	5	3	-	-	-	-	-	-	109
	\$ 227,578	\$ 5,429,444	\$ 406,698	\$ 226,304	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,290,024
30-34	2	87	19	24	8	-	-	-	-	-	140
	\$ 98,580	\$ 5,250,025	\$ 1,415,072	\$ 1,859,128	\$ 645,112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,267,917
35-39	4	71	17	48	84	8	-	-	-	-	232
	\$ 168,064	\$ 4,672,558	\$ 1,243,584	\$ 3,522,022	\$ 6,476,771	\$ 677,976	\$ -	\$ -	\$ -	\$ -	\$ 16,760,975
40-44	-	49	16	31	137	59	6	-	-	-	298
	\$ -	\$ 3,218,907	\$ 1,095,744	\$ 2,308,496	\$ 10,303,942	\$ 4,729,286	\$ 482,706	\$ -	\$ -	\$ -	\$ 22,139,081
45-49	2	46	13	53	139	102	49	1	-	-	405
	\$ 101,758	\$ 3,068,570	\$ 954,846	\$ 3,912,339	\$ 10,557,362	\$ 8,234,795	\$ 3,987,326	\$ 100,173	\$ -	\$ -	\$ 30,917,169
50-54	2	23	7	38	117	92	96	34	11	-	420
	\$ 92,872	\$ 1,429,513	\$ 503,298	\$ 2,782,906	\$ 8,600,739	\$ 7,259,094	\$ 7,848,498	\$ 2,776,911	\$ 1,020,408	\$ -	\$ 32,314,239
55-59	-	27	10	37	107	69	55	33	32	-	370
	\$ -	\$ 1,816,344	\$ 714,931	\$ 2,612,354	\$ 7,904,509	\$ 5,489,231	\$ 4,438,025	\$ 2,832,172	\$ 2,718,209	\$ -	\$ 28,525,775
60-64	-	3	3	18	46	46	29	12	9	-	166
	\$ -	\$ 171,687	\$ 235,456	\$ 1,293,199	\$ 3,308,531	\$ 3,579,954	\$ 2,141,638	\$ 1,057,527	\$ 681,240	\$ -	\$ 12,469,232
65-69	-	2	1	6	18	12	6	2	11	-	58
	\$ -	\$ 125,486	\$ 72,384	\$ 477,791	\$ 1,300,586	\$ 917,196	\$ 455,998	\$ 163,072	\$ 978,818	\$ -	\$ 4,491,331
70 & Over	-	-	-	2	9	7	3	3	5	-	29
	\$ -	\$ -	\$ -	\$ 105,306	\$ 618,243	\$ 543,338	\$ 218,108	\$ 232,398	\$ 393,842	\$ -	\$ 2,111,235
Total	18	445	91	260	665	395	244	85	68	2,271	
	\$ 812,932	\$ 27,620,064	\$ 6,642,013	\$ 19,099,845	\$ 49,715,795	\$ 31,430,870	\$ 19,572,299	\$ 7,162,253	\$ 5,792,517	\$ 2,271	\$ 167,848,588

EXHIBIT C

PART II – TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE FEMALE PARTICIPANTS CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2015

Attained Age	Completed Years of Service									35 & Over	Total
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Under 20	-	-	-	-	-	-	-	-	-	-	-
	\$	-	\$	-	\$	-	\$	-	\$	-	\$
20-24	2	11	-	-	-	-	-	-	-	-	13
	\$	97,844	\$	499,681	\$	-	\$	-	\$	-	\$
25-29	-	27	1	2	-	-	-	-	-	-	30
	\$	-	\$	1,357,670	\$	42,000	\$	153,920	\$	-	\$
30-34	3	22	10	9	-	-	-	-	-	-	44
	\$	150,892	\$	1,083,732	\$	746,097	\$	668,346	\$	-	\$
35-39	1	18	8	18	26	-	-	-	-	-	71
	\$	48,156	\$	1,031,951	\$	597,376	\$	1,423,358	\$	1,841,188	\$
40-44	1	15	11	13	36	11	1	-	-	-	88
	\$	40,560	\$	737,585	\$	777,360	\$	919,791	\$	2,636,334	\$
45-49	1	10	8	15	39	5	12	-	-	-	90
	\$	40,560	\$	486,330	\$	575,460	\$	1,116,688	\$	2,779,955	\$
50-54	-	12	9	14	33	12	17	2	-	-	99
	\$	-	\$	592,169	\$	593,904	\$	1,006,658	\$	2,323,469	\$
55-59	2	4	3	11	24	11	8	3	-	-	66
	\$	54,136	\$	262,022	\$	212,718	\$	801,070	\$	1,651,875	\$
60-64	-	1	1	4	12	5	6	1	-	-	30
	\$	-	\$	81,536	\$	72,384	\$	286,728	\$	890,864	\$
65-69	-	-	-	1	6	-	2	1	-	-	10
	\$	-	\$	-	\$	72,384	\$	422,816	\$	-	\$
70 & Over	-	-	-	-	3	-	1	-	-	-	4
	\$	-	\$	-	\$	-	\$	199,208	\$	-	\$
Total	10	120	51	87	179	44	47	7	-	-	545
	\$	432,148	\$	6,132,676	\$	3,617,299	\$	6,448,943	\$	12,745,709	\$
	\$	3,338,829	\$	3,666,496	\$	542,215	\$	-	\$	-	\$
	\$	-	\$	-	\$	266,552	\$	-	\$	-	\$
	\$	-	\$	-	\$	-	\$	-	\$	-	\$

EXHIBIT C
PART III – TOTAL LIVES AND ANNUAL SALARIES OF ALL ACTIVE PARTICIPANTS CLASSIFIED BY
AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2015

Attained Age	Completed Years of Service										Total	
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Ower			
Under 20	-	-	-	-	-	-	-	-	-	-	-	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20-24	5	52	-	-	-	-	-	-	-	-	-	57
	\$ 221,924	\$ 2,937,211	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,159,135
25-29	5	123	6	5	-	-	-	-	-	-	-	139
	\$ 227,578	\$ 6,787,114	\$ 448,698	\$ 380,224	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,843,614
30-34	5	109	29	33	8	-	-	-	-	-	-	184
	\$ 249,472	\$ 6,333,757	\$ 2,161,169	\$ 2,527,474	\$ 645,112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,916,984
35-39	5	89	25	66	110	8	-	-	-	-	-	303
	\$ 216,220	\$ 5,704,509	\$ 1,840,960	\$ 4,945,380	\$ 8,317,959	\$ 677,976	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,703,004
40-44	1	64	27	44	173	70	7	-	-	-	-	386
	\$ 40,560	\$ 3,956,492	\$ 1,873,104	\$ 3,228,287	\$ 12,940,276	\$ 5,497,829	\$ 548,086	\$ -	\$ -	\$ -	\$ -	\$ 28,084,634
45-49	3	56	21	68	178	107	61	1	-	-	-	495
	\$ 142,318	\$ 3,554,900	\$ 1,530,306	\$ 5,029,027	\$ 13,337,317	\$ 8,654,047	\$ 4,911,828	\$ 100,173	\$ -	\$ -	\$ -	\$ 37,259,916
50-54	2	35	16	52	150	104	113	36	11	-	-	519
	\$ 92,872	\$ 2,021,682	\$ 1,097,202	\$ 3,789,564	\$ 10,924,208	\$ 8,203,754	\$ 9,228,793	\$ 2,942,295	\$ 1,020,408	\$ -	\$ -	\$ 39,320,778
55-59	2	31	13	48	131	80	63	36	32	-	-	436
	\$ 54,136	\$ 2,078,366	\$ 927,649	\$ 3,413,424	\$ 9,556,384	\$ 6,312,469	\$ 5,020,315	\$ 3,093,233	\$ 2,718,209	\$ -	\$ -	\$ 33,174,185
60-64	-	4	4	22	58	51	35	13	9	-	-	196
	\$ -	\$ 253,223	\$ 307,840	\$ 1,579,927	\$ 4,199,395	\$ 3,963,090	\$ 2,613,963	\$ 1,100,913	\$ 681,240	\$ -	\$ -	\$ 14,699,591
65-69	-	2	1	7	24	12	8	3	11	-	-	68
	\$ -	\$ 125,486	\$ 72,384	\$ 550,175	\$ 1,723,402	\$ 917,196	\$ 630,358	\$ 235,456	\$ 978,818	\$ -	\$ -	\$ 5,233,275
70 & Over	-	-	-	2	12	7	4	3	5	-	-	33
	\$ -	\$ -	\$ -	\$ 105,306	\$ 817,451	\$ 543,338	\$ 285,452	\$ 232,398	\$ 393,842	\$ -	\$ -	\$ 2,377,787
Total	28	565	142	347	844	439	291	92	68	5	33	2,816
	\$ 1,245,080	\$ 33,752,740	\$ 10,259,312	\$ 25,548,788	\$ 62,461,504	\$ 34,769,699	\$ 23,238,795	\$ 7,704,468	\$ 5,792,517	\$ 393,842	\$ 393,842	\$ 204,772,903

EXHIBIT D
PART I – AGE AND SERVICE DISTRIBUTION FOR INACTIVES – MALES
AS OF DECEMBER 31, 2015

(Males Only)

Attained Age	Years of Service									Total
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
Under 20	-	-	-	-	-	-	-	-	-	0
20-24	5	1	-	-	-	-	-	-	-	6
25-29	5	10	-	-	-	-	-	-	-	15
30-34	12	16	-	-	-	-	-	-	-	28
35-39	22	19	7	6	5	-	-	-	-	59
40-44	38	31	5	5	1	1	-	-	-	81
45-49	44	20	9	4	6	1	-	-	-	84
50-54	165	35	4	5	6	7	6	-	-	228
55-59	218	59	7	3	6	1	1	-	-	295
60-64	133	54	5	3	3	1	-	-	-	199
65-69	62	27	9	4	-	-	-	1	-	103
70 & Over	102	67	7	6	7	2	5	1	-	197
w/o DOB	1	1	-	-	-	-	-	-	-	2
Total	807	340	53	36	34	13	12	2	0	1,297
Average Age										58.55
Average Service										2.15

For inactives without a birthdate on record, we assumed an average age of 57.73.

EXHIBIT D
PART II – AGE AND SERVICE DISTRIBUTION FOR INACTIVES – FEMALES
AS OF DECEMBER 31, 2015

(Females Only)

Attained Age	Years of Service									Total
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
Under 20	-	-	-	-	-	-	-	-	-	0
20-24	1	1	-	-	-	-	-	-	-	2
25-29	4	2	-	-	-	-	-	-	-	6
30-34	2	2	1	-	-	-	-	-	-	5
35-39	13	17	-	-	-	-	-	-	-	30
40-44	12	14	-	2	-	-	-	-	-	28
45-49	7	7	1	1	-	1	-	-	-	17
50-54	10	5	1	2	2	-	-	-	-	20
55-59	11	1	2	4	-	1	-	-	-	19
60-64	9	2	-	-	-	-	-	-	-	11
65-69	1	2	-	-	-	-	-	-	-	3
70 & Over	6	3	5	2	1	-	-	-	-	17
w/o DOB	-	-	-	-	-	-	-	-	-	0
Total	76	56	10	11	3	2	0	0	0	158
Average Age										51.04
Average Service										2.63

For inactives without a birthdate on record, we assumed an average age of 57.73.

EXHIBIT D
PART III – AGE AND SERVICE DISTRIBUTION FOR INACTIVES – TOTAL
AS OF DECEMBER 31, 2015

(Males and Females Combined)

Attained Age	Years of Service									Total
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
Under 20	-	-	-	-	-	-	-	-	-	0
20-24	6	2	-	-	-	-	-	-	-	8
25-29	9	12	-	-	-	-	-	-	-	21
30-34	14	18	1	-	-	-	-	-	-	33
35-39	35	36	7	6	5	-	-	-	-	89
40-44	50	45	5	7	1	1	-	-	-	109
45-49	51	27	10	5	6	2	-	-	-	101
50-54	175	40	5	7	8	7	6	-	-	248
55-59	229	60	9	7	6	2	1	-	-	314
60-64	142	56	5	3	3	1	-	-	-	210
65-69	63	29	9	4	-	-	-	1	-	106
70 & Over	108	70	12	8	8	2	5	1	-	214
w/o DOB	1	1	-	-	-	-	-	-	-	2
Total	883	396	63	47	37	15	12	2	0	1,455
Average Age										57.73
Average Service										2.21

For inactives without a birthdate on record, we assumed an average age of 57.73.

EXHIBIT E
STATISTICS ON EMPLOYEE ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2015

Age	Male		Female	
	No.	Annual Payments	No.	Annual Payments
Under 50	2	\$ 7,476	-	\$ -
50-54	75	4,709,376	4	249,168
55-59	356	20,222,064	20	875,700
60-64	509	27,286,536	31	1,019,412
65-69	462	22,911,048	32	1,103,832
70-74	365	17,190,468	22	510,864
75-79	300	13,823,100	18	510,708
80-84	190	7,518,768	22	653,340
85-89	109	4,155,456	29	618,480
90-94	52	1,777,680	29	528,072
95-99	13	425,436	17	306,192
100 & over	-	-	8	114,900
Totals	2,433	\$ 120,027,408	232	\$ 6,490,668
Average Age	69.23		77.45	

EXHIBIT F
PART I – STATISTICS ON SURVIVING SPOUSE ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2015

Age	Male		Female	
	No.	Annual Payments	No.	Annual Payments
Under 30	-	\$ -	-	\$ -
30-34	-	-	1	9,600
35-39	-	-	-	-
40-44	1	14,232	5	63,948
45-49	-	-	7	112,164
50-54	2	17,184	32	505,932
55-59	2	20,700	53	831,720
60-64	3	22,536	87	1,559,856
65-69	1	10,068	91	1,434,552
70-74	-	-	138	2,296,392
75-79	1	9,600	169	2,646,324
80-84	1	9,600	179	2,642,736
85-89	4	40,404	184	2,404,464
90-94	5	57,084	111	1,251,048
95-99	2	20,076	37	363,288
100 & over	-	-	6	57,600
Totals	22	\$ 221,484	1,100	\$ 16,179,624
Average Age	76.76		77.54	

EXHIBIT F
PART II – STATISTICS ON REVERSIONARY ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2015

Age	Male		Female	
	No.	Annual Payments	No.	Annual Payments
Under 30	-	\$ -	-	\$ -
30-34	-	-	-	-
35-39	1	774	-	-
40-44	-	-	-	-
45-49	-	-	-	-
50-54	1	601	-	-
55-59	1	1,500	-	-
60-64	-	-	4	42,923
65-69	-	-	4	14,802
70-74	1	8,976	6	52,140
75-79	-	-	2	11,208
80-84	-	-	2	10,440
85 & Over	-	-	5	22,898
Totals	4	\$ 11,851	23	\$ 154,411
Average Age	53.65		74.59	

EXHIBIT F
PART III – STATISTICS ON CHILDREN ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2015

Age	Male		Female	
	No.	Annual Payments	No.	Annual Payments
Under 6	-	\$ -	1	\$ 3,000
6	-	-	-	-
7	1	3,000	-	-
8	-	-	1	3,000
9	1	3,000	-	-
10	1	2,640	-	-
11	3	8,280	-	-
12	1	3,000	1	2,640
13	3	8,280	2	5,280
14	1	3,000	-	-
15	3	8,280	5	13,560
16	5	13,560	2	6,000
17	-	-	1	2,640
Totals	19	\$ 53,040	13	\$ 36,120
Average Age	13.59		13.87	

EXHIBIT G
PART I – NUMBER OF REFUND PAYMENTS MADE DURING 2015
TO MALE EMPLOYEES

Age at Date of Valuation	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and Over	
Under 20	-	-	-	-	-	-	-
20 to 24	-	1	-	-	-	-	1
25 to 29	-	-	1	1	-	-	2
30 to 34	-	1	1	1	1	-	4
35 to 39	-	-	1	1	-	5	7
40 to 44	-	-	-	-	-	6	6
45 to 49	-	1	-	1	-	4	6
50 to 54	-	-	-	-	-	2	2
55 to 59	-	-	-	-	-	-	-
60 & Over	-	-	-	-	-	-	-
Totals	-	3	3	4	1	17	28

PART II – NUMBER OF REFUND PAYMENTS MADE DURING 2015
TO FEMALE EMPLOYEES

Age at Date of Valuation	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and Over	
Under 20	-	-	-	-	-	-	-
20 to 24	-	-	-	-	-	-	-
25 to 29	-	-	-	-	-	-	-
30 to 34	-	-	-	-	1	-	1
35 to 39	-	-	-	-	-	1	1
40 to 44	-	1	-	-	1	-	2
45 to 49	-	-	-	-	-	1	1
50 to 54	-	-	-	-	-	-	-
55 to 59	-	-	-	-	-	-	-
60 & Over	-	-	-	1	-	-	1
Totals	-	1	-	1	2	2	6

Includes those who took a refund from both active and inactive status.

EXHIBIT H
HEALTH INSURANCE COVERAGE
CLASSIFIED BY AGE AS OF DECEMBER 31, 2015

<u>Age</u>	<u>Single Coverage</u>	<u>Family Coverage</u>	<u>Total Covered</u>	<u>Total Not Covered</u>	<u>Total Annuitants</u>	<u>% Covered Annuitants</u>
Employee Annuitants						
30-39	-	-	-	-	-	0.00%
40-49	-	-	-	2	2	0.00%
50-59	142	94	236	219	455	51.87%
60-69	376	305	681	353	1,034	65.86%
70-79	246	275	521	184	705	73.90%
80-89	162	88	250	100	350	71.43%
90 & Over	60	14	74	45	119	62.18%
Total	986	776	1,762	903	2,665	66.12%
Spouse Annuitants						
30-39	-	-	-	1	1	0.00%
40-49	-	2	2	11	13	15.38%
50-59	13	3	16	73	89	17.98%
60-69	60	1	61	121	182	33.52%
70-79	172	1	173	135	308	56.17%
80-89	233	2	235	133	368	63.86%
90 & Over	92	-	92	69	161	57.14%
Total	570	9	579	543	1,122	51.60%

EXHIBIT I
PART I – MALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2015

Service:	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
Attained	Annual		Annual		Annual		Annual		Annual		Annual		Annual	
Age	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments
Under 30	-	\$ -	1	\$ 57,720	-	\$ -	-	\$ -	-	\$ -	-	\$ -	1	\$ 57,720
30 to 34	-	-	-	-	1	32,274	1	61,152	-	-	-	-	2	93,426
35 to 39	-	-	2	120,432	-	-	5	278,928	8	437,814	1	69,186	16	906,360
40 to 44	-	-	1	53,352	-	-	1	54,912	1	59,436	4	237,697	7	405,397
45 to 49	-	-	-	-	-	-	6	325,712	4	206,669	10	620,528	20	1,152,909
50 to 54	-	-	-	-	1	59,280	3	171,288	15	817,035	27	1,510,049	46	2,557,652
55 to 59	-	-	3	167,825	1	47,908	2	90,480	9	471,806	12	674,296	27	1,452,315
60 & Over	-	-	-	-	1	54,288	-	-	8	422,604	10	514,894	19	991,786
Totals	-	\$ -	7	\$ 399,329	4	\$ 193,750	18	\$ 982,472	45	\$ 2,415,364	64	\$ 3,626,650	138	\$ 7,617,565

PART II – FEMALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2015

Service:	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
Attained	Annual		Annual		Annual		Annual		Annual		Annual		Annual	
Age	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments	No.	Payments
Under 30	-	\$ -	1	\$ 31,387	-	\$ -	-	\$ -	-	\$ -	-	\$ -	1	\$ 31,387
30 to 34	-	-	-	-	1	54,288	1	53,227	-	-	-	-	2	107,515
35 to 39	-	-	1	42,806	-	-	1	53,227	2	104,785	-	-	4	200,818
40 to 44	-	-	2	91,681	2	89,029	4	201,848	4	201,552	-	-	12	584,110
45 to 49	-	-	1	30,420	1	57,720	1	47,861	5	267,867	-	-	8	403,868
50 to 54	-	-	-	-	1	27,066	3	154,799	4	221,223	-	-	8	403,088
55 to 59	-	-	-	-	-	-	2	111,384	4	214,016	3	152,443	9	477,843
60 & Over	-	-	-	-	-	-	1	52,182	3	162,942	2	110,760	6	325,884
Totals	-	\$ -	5	\$ 196,294	5	\$ 228,103	13	\$ 674,528	22	\$ 1,172,385	5	\$ 263,203	50	\$ 2,534,513

Benefit payments are annual amount before Workers' Compensation offset.

EXHIBIT I (CONT'D)
PART III – MALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2015

Service:	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
Attained Age	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
Under 30	-	\$ -	1	\$ 20,925	-	\$ -	-	\$ -	-	\$ -	-	\$ -	1	\$ 20,925
30 to 34	-	-	-	-	-	-	-	-	1	38,480	-	-	1	38,480
35 to 39	-	-	-	-	-	-	2	76,253	-	-	-	-	2	76,253
40 to 44	-	-	-	-	-	-	-	-	1	36,192	-	-	1	36,192
45 to 49	-	-	-	-	-	-	-	-	-	-	4	148,179	4	148,179
50 to 54	-	-	-	-	-	-	1	36,192	1	35,485	4	125,195	6	196,872
55 to 59	-	-	-	-	-	-	-	-	5	186,004	3	104,073	8	290,077
60 & Over	-	-	-	-	-	-	3	122,897	3	121,784	6	226,981	12	471,662
Totals	-	\$ -	1	\$ 20,925	-	\$ -	6	\$ 235,342	11	\$ 417,945	17	\$ 604,428	35	\$ 1,278,640

PART IV – FEMALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2015

Service:	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
Attained Age	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
Under 30	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
30 to 34	-	-	-	-	1	39,520	-	-	-	-	-	-	1	39,520
35 to 39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	-	-	-	1	36,192	-	-	-	-	1	36,192
45 to 49	-	-	-	-	-	-	2	72,093	1	35,485	1	35,485	4	143,063
50 to 54	-	-	-	-	-	-	-	-	1	21,975	1	38,480	2	60,455
55 to 59	-	-	-	-	-	-	1	38,480	1	38,480	-	-	2	76,960
60 & Over	-	-	-	-	1	36,192	-	-	4	134,181	1	38,480	6	208,853
Totals	-	\$ -	-	\$ -	2	\$ 75,712	4	\$ 146,765	7	\$ 230,121	3	\$ 112,445	16	\$ 565,043

EXHIBIT J
HISTORY OF AVERAGE ANNUAL SALARIES

Year Ended	Members in Service	Percent Increase	Annual Salaries	Percent Increase	Average Salary	Percent Increase	Actuarial Salary Assumption	CPI Chicago ¹
2006	3,215	2.36 %	\$ 193,176,272	5.67 %	\$ 60,086	3.24 %	4.50 %	0.71 %
2007	3,138	(2.40)%	192,847,482	(0.17)%	61,456	2.28 %	4.50 %	4.73 %
2008	3,325	5.96 %	216,744,211	12.39 %	65,186	6.07 %	4.50 %	(0.58)%
2009	3,124	(6.05)%	208,626,493	(3.75)%	66,782	2.45 %	4.50 %	2.54 %
2010	2,956	(5.38)%	199,863,410	(4.20)%	67,613	1.24 %	4.50 %	1.23 %
2011	2,852	(3.52)%	195,238,332	(2.31)%	68,457	1.25 %	4.50 %	2.06 %
2012	2,865	0.46 %	198,789,741	1.82 %	69,386	1.36 %	4.50 %	1.68 %
2013	2,844	(0.73)%	200,351,820	0.79 %	70,447	1.53 %	3.75 %	0.51 %
2014	2,837	(0.25)%	202,673,014	1.16 %	71,439	1.41 %	3.75 %	1.48 %
2015	2,816	(0.74)%	204,772,903	1.04 %	72,718	1.79 %	3.75 %	0.00 %
Average Increase (Decrease) for the Last Five Years		(0.97)%		0.49 %		1.47 %	4.05 %	1.14 %

¹ CPI-Chicago as of the valuation date.

EXHIBIT K
PART I – NEW ANNUITIES GRANTED DURING 2015

	Male Annuitants	Female Annuitants	Spouse of Deceased Employees	Spouse of Deceased Annuitants
Number Retired/Deceased ¹	72	19	4	36
Average Age Attained	60.9	59.6	61.6	72.4
Average Length of Service	28.9	24.9	24.1	N/A
Total Annual Final Salary	\$ 5,530,850	\$ 1,467,549	\$ 291,949	N/A
Average Annual Final Salary	\$ 76,817	\$ 77,239	\$ 72,987	N/A
Total Annual Annuity	\$ 3,375,984	\$ 851,916	\$ 96,168	\$ 971,316
Average Annual Annuity	\$ 46,889	\$ 44,838	\$ 24,042	\$ 26,981
Total Actuarial Liability	\$ 46,931,777	\$ 12,970,881	\$ 869,524	\$ 8,583,730
Average Actuarial Liability	\$ 651,830	\$ 682,678	\$ 217,381	\$ 238,437
Total Contributed by EE ²	\$ 6,640,538	\$ 1,630,142	\$ 392,477	N/A
Average Contribution	\$ 92,230	\$ 85,797	\$ 98,119	N/A
Liability/Contributions	7.07	7.96	2.22	N/A
Liability/Final Pay	8.49	8.84	2.98	N/A
Expected Future Lifetime (yrs.)	20.47	26.56	26.19	16.80
Payback Period (yrs.)	1.9670	1.9135	4.0811	N/A
Replacement Ratio ³	61.04 %	58.05 %	32.94 %	N/A

¹ Does not include one new retiree and two new survivors who were no longer on annuity at the end of the year.

² Includes "Pickup."

³ Ratio of average annual annuity to average annual final salary.

EXHIBIT K
PART II – ANALYSIS OF INITIAL RETIREMENT BENEFITS FOR EMPLOYEES

	Years of Credited Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+		
2010										
Avg Monthly Annuity	\$ 497	\$ 794	\$ 1,293	\$ 1,819	\$ 2,684	\$ 3,995	\$ 4,865	\$ 5,895	\$ 4,002	
Avg Monthly FAS	\$ 6,094	\$ 5,592	\$ 4,409	\$ 5,153	\$ 5,499	\$ 6,089	\$ 6,347	\$ 7,369	\$ 6,113	
Number of Retirees	4	4	7	14	18	19	81	16	163	
2011										
Avg Monthly Annuity	\$ 355	\$ -	\$ 1,701	\$ 1,941	\$ 2,790	\$ 3,665	\$ 5,013	\$ 5,411	\$ 4,107	
Avg Monthly FAS	\$ 7,085	\$ -	\$ 5,923	\$ 5,048	\$ 5,397	\$ 5,734	\$ 6,609	\$ 6,772	\$ 6,326	
Number of Retirees	8	-	12	6	13	22	86	16	163	
2012										
Avg Monthly Annuity	\$ 258	\$ 636	\$ 1,256	\$ 2,512	\$ 2,705	\$ 3,833	\$ 5,013	\$ 5,730	\$ 3,824	
Avg Monthly FAS	\$ 4,613	\$ 5,519	\$ 4,895	\$ 5,716	\$ 5,258	\$ 6,004	\$ 6,580	\$ 7,162	\$ 6,085	
Number of Retirees	4	6	9	9	22	17	54	15	136	
2013										
Avg Monthly Annuity	\$ 364	\$ 745	\$ 1,653	\$ 2,517	\$ 2,710	\$ 3,726	\$ 4,853	\$ 4,566	\$ 3,575	
Avg Monthly FAS	\$ 7,849	\$ 6,176	\$ 5,380	\$ 5,962	\$ 5,312	\$ 5,701	\$ 6,339	\$ 5,711	\$ 5,895	
Number of Retirees	3	3	9	9	19	20	34	15	112	
2014										
Avg Monthly Annuity	\$ 314	\$ 635	\$ 1,067	\$ 2,557	\$ 3,065	\$ 3,612	\$ 5,469	\$ 5,568	\$ 3,991	
Avg Monthly FAS	\$ 5,938	\$ 5,293	\$ 3,384	\$ 6,374	\$ 5,876	\$ 5,545	\$ 7,051	\$ 6,866	\$ 6,313	
Number of Retirees	5	1	2	9	21	19	38	7	102	
2015										
Avg Monthly Annuity	\$ 324	\$ 1,003	\$ 1,041	\$ 2,204	\$ 2,859	\$ 3,895	\$ 5,363	\$ 4,471	\$ 3,830	
Avg Monthly FAS	\$ 7,853	\$ 6,679	\$ 3,770	\$ 5,643	\$ 5,699	\$ 6,033	\$ 6,841	\$ 6,227	\$ 5,838	
Number of Retirees	2	5	1	9	15	21	30	9	92	

EXHIBIT L
NEW RECIPROCAL ANNUITIES GRANTED DURING 2015

	Reciprocal	
	Male Annuitants	Female Annuitants
Number Retired	8	1
Average Age Attained	60.0	66.8
Number with Spouses	5	0
Average Spouse Age	53.9	N/A
Percentage with Spouse	62.50%	0.00%
Total Annual Annuity	\$ 111,672	\$ 30,984
Average Annual Annuity	\$ 13,959	\$ 30,984
Total Liability (7.5% RP 2000)	\$ 1,622,791	\$ 402,408
Average Liability	\$ 202,849	\$ 402,408

EXHIBIT M
HISTORY OF RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Years	Annuitants				Disability		Compensation	Reciprocal	
	Employee	Spouse	Child	Reversionary ³	Ordinary	Duty	Annuitants ²	Employee	Spouse
2006 ¹	2,432	1,265	52		42	129	1	251	70
2007 ¹	2,388	1,254	45		58	118	1	256	62
2008 ¹	2,380	1,236	47		61	145	1	266	62
2009	2,413	1,210	41		62	188	1	270	62
2010	2,429	1,197	39		44	184	1	273	58
2011 ¹	2,438	1,158	38		54	190	1	283	63
2012	2,448	1,122	35	22	60	195	1	289	60
2013	2,433	1,102	38	24	50	174	1	294	63
2014	2,394	1,092	30	26	53	163	1	296	64
2015	2,362	1,059	32	27	51	188	1	303	63

¹ Includes one Reversionary Annuitant included as a Spouse Annuitant that is not a Spouse Annuitant.

² Compensation Annuitant is also included as a Spouse Annuitant.

³ Prior to December 31, 2012, Reversionary Annuitants were included with Spouse Annuitants.

EXHIBIT N
HISTORY OF AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Year Ended	Average Annual Benefit	Average Current Age of Retirees	Average Annual Benefit at Retirement Current Year	Average Age at Retirement Current Year	Average Years Service at Retirement Current Year
2006	\$31,664	70.9	\$38,015	56.6	28.87
2007	33,242	70.9	42,234	57.0	29.82
2008	35,037	70.7	44,496	56.3	30.11
2009	36,868	70.3	44,581	57.8	29.29
2010	38,962	70.0	48,489	58.2	29.09
2011	41,056	69.6	49,135	58.0	29.54
2012	42,688	69.6	46,231	58.6	28.16
2013	44,264	69.8	42,895	60.5	27.94
2014	45,968	69.8	47,940	60.5	27.89
2015	47,474	69.9	46,460	60.6	28.09

EXHIBIT O
SURVIVING SPOUSES RECEIVING BENEFITS AS OF DECEMBER 31, 2015
BY AGE AND YEARS IN PAY STATUS

Attained Age	Number of Years in Pay Status						Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Over	
Under 30	-	-	-	-	-	-	-
30 to 34	-	1	-	-	-	-	1
35 to 39	-	1	-	-	-	-	1
40 to 44	1	3	1	-	1	-	6
45 to 49	1	1	2	2	-	1	7
50 to 54	1	11	11	8	2	2	35
55 to 59	1	14	15	13	7	6	56
60 to 64	5	31	19	24	9	6	94
65 to 69	6	23	17	21	17	12	96
70 to 74	11	22	35	32	11	34	145
75 to 79	3	28	42	30	29	40	172
80 to 84	6	27	40	30	24	55	182
85 & Over	5	36	40	58	53	162	354
Totals	40	198	222	218	153	318	1,149

Includes 23 Reversionary Annuitants that are also Spouse Annuitants.

EXHIBIT P
HISTORY OF ANNUITIES 2006 – 2015

Employee Annuitants (Male and Female)			
Year Ended	Number of Annuitants	Total Annuities	Average Annuities
2006	2,683	\$ 84,953,928	\$ 31,664
2007	2,644	87,891,144	33,242
2008	2,646	92,708,484	35,037
2009	2,683	98,915,980	36,868
2010	2,702	105,275,352	38,962
2011	2,721	111,712,416	41,056
2012	2,737	116,835,786	42,688
2013	2,727	120,707,652	44,264
2014	2,690	123,652,788	45,968
2015	2,665	126,518,076	47,474
Surviving Spouse and Reversionary Annuitants			
Year Ended	Number of Annuitants	Total Annuities	Average Annuities
2006 ¹	1,335	\$ 15,003,432	\$ 11,239
2007 ¹	1,316	15,164,628	11,523
2008 ¹	1,298	15,281,964	11,773
2009	1,272	15,375,816	12,088
2010	1,255	15,605,676	12,435
2011 ¹	1,221	15,583,920	12,763
2012 ²	1,204	15,579,660	12,940
2013 ³	1,189	15,757,533	13,253
2014 ⁴	1,182	16,357,413	13,839
2015 ⁴	1,149	16,567,370	14,419

¹Includes one Reversionary Annuitant.

²Includes 20 Reversionary Annuitants that are also Spouse Annuitants.

³Includes 21 Reversionary Annuitants that are also Spouse Annuitants.

⁴Includes 23 Reversionary Annuitants that are also Spouse Annuitants.

EXHIBIT Q
SCHEDULE OF RETIRED MEMBERS
BY AMOUNT AND TYPE OF BENEFIT AS OF DECEMBER 31, 2015

Amount of Monthly Benefit	Number of Employee Annuitants	Number of Spouse Annuitants	Number of Reversionary Annuitants ¹	Number of Child Annuitants	Total Number of Annuitants
\$ 1 - 250	35	19	7	32	93
251 - 500	36	5	10	-	51
501 - 750	33	9	5	-	47
751 - 1,000	31	578	1	-	610
1,001 - 1,250	32	113	3	-	148
1,251 - 1,500	138	108	-	-	246
1,501 - 1,750	60	75	-	-	135
1,751 - 2,000	63	82	1	-	146
2,001 - 2,250	68	49	-	-	117
2,251 - 2,500	91	37	-	-	128
2,501 - 2,750	84	18	-	-	102
2,751 - 3,000	89	7	-	-	96
3,001 - 3,250	82	11	-	-	93
3,251 - 3,500	107	4	-	-	111
3,501 - 3,750	113	4	-	-	117
3,751 - 4,000	125	1	-	-	126
4,001 - 4,250	202	1	-	-	203
4,251 - 4,500	199	-	-	-	199
4,501 - 4,750	223	-	-	-	223
4,751 - 5,000	198	-	-	-	198
5,001 - 5,250	153	1	-	-	154
5,251 - 5,500	78	-	-	-	78
5,501 - 5,750	77	-	-	-	77
5,751 - 6,000	65	-	-	-	65
6,001 - 6,250	66	-	-	-	66
6,251 - 6,500	45	-	-	-	45
6,501 - 6,750	44	-	-	-	44
6,751 - 7,000	24	-	-	-	24
7,001 - 7,250	30	-	-	-	30
7,251 - 7,500	8	-	-	-	8
Over \$7,500	66	-	-	-	66
Totals	2,665	1,122	27	32	3,846

¹Includes 23 reversionary annuitants that are also spouse annuitants.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015**

ACTUARIAL METHODS AND ASSUMPTIONS

AS OF DECEMBER 31, 2015

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 date of 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.

Estimated annual administrative expenses are added to the normal cost.

CURRENT ACTUARIAL ASSUMPTIONS

(Adopted as of December 31, 2012, unless otherwise stated)

Demographic Assumptions

Post Retirement Mortality: RP2000 Combined Healthy mortality table, sex distinct, set forward one year for males and setback 2 years for females. No adjustment is made for post-disabled mortality. The mortality table used is a static table and provides an estimated margin of 18 percent for future mortality improvements.

Pre-Retirement Mortality: 80 percent of post-retirement mortality.

Mortality assumptions first adopted for the December 31, 2011, valuation.

Disability: Disability cost valued as a term cost of 2.50 percent of payroll.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

RATE OF RETIREMENT:

Tier 1 Age-and-Service-Based Rates of Retirement

<u>Attained Age</u>	<u>Years of Service</u>								
	<u>10</u>	<u>11-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-32</u>	<u>33-34</u>	<u>35-39</u>	<u>40+</u>
50-54	-	-	-	-	-	24 %	40 %	35 %	100 %
55-59	-	-	-	16 %	24 %	24	40	35	100
60-64	16 %	10 %	10 %	16	24	24	40	35	100
65-69	16	16	24	24	24	24	40	35	100
70-79	24	24	24	24	24	24	40	40	100
80+	100	100	100	100	100	100	100	100	100

Tier 2 Age-and-Service-Based Rates of Retirement

<u>Attained Age</u>	<u>Years of Service</u>	
	<u>10-39</u>	<u>40+</u>
62-66	24 %	100 %
67-69	40	100
70-79	40	100
80+	100	100

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

RATE OF TERMINATION:

<u>Service¹</u>	<u>Rate</u>
0	8.00%
1	7.00%
2-3	5.00%
4-9	4.00%
10-15	3.00%
16-19	2.00%
20-29	1.50%
30+	1.00%

¹Based on service at beginning of valuation year.

Economic Assumptions

Investment Return Rate

and Discount Rate: 7.50 percent per annum (net of investment expense) for pensions and 4.50 percent per annum for OPEB. The 7.50 percent assumption contains a 3.00 percent inflation assumption and a 4.50 percent real rate of return assumption for pension. OPEB discount rate adopted 2005.

Future Salary Increases: The assumed base rate of individual salary increase is 3.75 percent per year, plus a service-based increase in the first 15 years.

Completed		
<u>Years of Service¹</u>	<u>Additional Increase</u>	<u>Total Increase</u>
1	6.25 %	10.00 %
2	4.75	8.50
3	3.75	7.50
4	3.25	7.00
5	2.25	6.00
6	1.25	5.00
7 – 15	0.25	4.00
16 – 30+	0.00	3.75

¹Based on projected service at end of valuation year.

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.

Expenses: Administrative expenses included in the first year normal cost are based on the previous years' administrative expenses increased by 3.0 percent and discounted to the beginning of the year. Future administrative expenses are assumed to increase at the assumed inflation assumption of 3.0 percent.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

Projection Assumptions

Population: The active population is assumed to remain stable at the December 31, 2015, level.

New Entrant Profile: New entrants in the projection are assumed to have the following characteristics:

	Before Pay Cap	After Pay Cap
Average Age:	34.35	34.35
Average Salary:	\$ 58,519	\$ 58,495
Minimum Salary:	\$ 12,660	\$ 12,660
Maximum Salary:	\$129,568	\$111,572

New entrant characteristics are based upon current members that have been hired in the last ten years. Approximately 75 percent of new entrants are assumed to be male.

Individual member new entrant uncapped pay at hire date is assumed to increase by 3.75 percent over the individual member new entrant pay during the prior period.

New entrant pay is calculated explicitly each year for each individual new entrant and is tested against the pensionable pay cap in the applicable year.

Individual new entrant pay once hired is assumed to increase in accordance with the salary increase assumptions used in the actuarial valuation until the pensionable pay cap is reached. Thereafter, pay increases at the same rate as the pay cap.

P.A. 96-0889 and P.A. 96-1490 Assumptions: Capped (pensionable pay) was \$111,571.63 for fiscal years 2015 and 2016 and increases at ½ CPI thereafter.

Employee and employer contributions and benefits are based on capped pay.

The annual increase in the Consumer Price Index-U is assumed to be 3.0 percent for all years.

Disability Payments in Lieu are assumed to reduce the applicable members' contributions used in the determination of the City's contribution by 7.6 percent.

Other Assumptions

Marital Status: It is assumed that 85 percent of active 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.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

Disability:	Liability for disability benefits is recognized as a one-year term cost of 2.50 percent of pay added to the normal cost.
Reciprocal Service:	No assumption for reciprocal service.
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.
Group Health Insurance:	<p>Due to P.A. 98-0043 effective June 28, 2013, it is assumed for valuation purposes that the health insurance supplement in effect prior to June 30, 2013, will end on December 31, 2016 for all employee annuitants (and their future surviving spouses). The amount of the Fund paid health insurance from July 1, 2008, until December 31, 2016, 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.</p> <p>It is assumed that 75 percent of future retirees will elect to receive the health insurance supplement at retirement, first adopted for the valuation as of December 31, 2011.</p>
Loss in Tax Levy:	4.00 percent loss on tax levy is assumed.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

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. It was also the minimum required for private pension plans for IRS qualification before ERISA.

Normal Cost Plus

Amortization

Method:

GASB Statement No. 43 requires a maximum 30-year amortization of the unfunded liability. We have calculated the cost of amortizing the existing unfunded liability. The GASB Statement No. 43 ARC for 2016 is based on a one-year amortization period.

Both of these cost methods, the normal cost plus interest method and the normal cost plus 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.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

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.

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.

Actuarial Assets with Various Amortization Methods	Required 2016 Tax Levy	Required Multiple	Unfunded Liability Will	Portion Applicable to Unfunded Liability
1. Normal Cost Plus Interest Only	N/A	7.08	Remain Constant	\$80,957,186
2. Normal Cost Plus 30-Year Level Dollar Amortization ^a	N/A	7.94	Decrease	\$93,425,980
3. Normal Cost Plus 30-Year Level % of Payroll ^b	N/A	5.75	Increase	\$63,830,191
4. Present Law	\$15,019,000	1.00		

^a One-year closed-period level dollar amortization for postretirement healthcare benefits because benefits cease after 2016.

^b One-year closed-period level percent of payroll amortization for postretirement healthcare benefits because benefits cease after 2016.

When evaluating and selecting a funding policy, it is important to consider the projected improvement of the funded ratio over time. In addition, the current and projected future funded status can change significantly downward or upward due to unfavorable or favorable experience on investment returns, salary increases, retirement patterns, longevity and changing plan membership.

**SUMMARY OF PROVISIONS OF THE FUND
AS OF DECEMBER 31, 2015**

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015**

PLAN DESCRIPTION

Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance as labor service or any person employed by a retirement board of any annuity and benefit fund in the city is covered by the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers' Plan) which is a defined benefit single employer pension plan with a money purchase 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, Article 5/11) and may be amended only by the Illinois legislature. The City of Chicago accounts for the plan as a pension trust fund. The City of Chicago payroll for employees covered by the Laborers' Plan for the year ended December 31, 2015, was \$204,772,903. At December 31, 2015, the Laborers' Plan membership consisted of:

Retiree, surviving spouse, reversionary annuitant and child annuitants currently receiving benefits	3,846
Terminated inactive employees entitled to benefits or a refund of contributions but not yet receiving them	1,455
Current employees (includes 239 disabilities)	2,816

The Laborers' Fund 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 2.4 percent per year of service times the final average salary (highest average annual salary for any 4 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 $\frac{1}{4}$ of 1.00 percent for each month the employee is under age 60, unless the employee is 50 or over with at least 30 years of service or 55 or over with at least 25 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 retire 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 no 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
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

PLAN DESCRIPTION (CONT'D)

Covered employees are required to contribute 8.50 percent of their salary to the Laborers' Plan. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with 3.00 percent interest.

The City of Chicago is required by state statutes to contribute the remaining amounts necessary to finance the requirements of the Fund. 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 Fund made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 1.00 annually. The total amount of contributions by the employees for purposes of establishing the tax levy amount shall not include contributions for service credit purchases under the Early Retirement Incentive provided for in Section 11-133.3 of the Illinois Pension Code.

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 fund.

“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).

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

“Participant” means a participating member or deferred pensioner or annuitant of the pension fund, or a beneficiary thereof.

“Pension Fund” or “Fund” means the Laborers’ and Retirement Board Employees’ Annuity and Benefit Fund of Chicago established under Article 11 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); and
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.

PARTICIPANTS

Any person employed by the City or the Board of Education in a position classified as labor service of the employer, any person employed by the Board and any person employed by the Retirement Board of any other Annuity and Benefit Fund which is in operation for the employer.

SERVICE

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 money purchase annuity, 700 hours of service in any calendar year constitutes one year of service credit. For Ordinary Disability credit, the exact number of days, months and years is used.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

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 1/10th 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 1/10th 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.

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 30 years of service and is age 50 or over, or has at least 25 years of service and is age 55 or over.

The employee will receive a minimum annuity of \$850 per month if the employee withdraws from service 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 65 with 10 years of service. Members are first eligible to begin receiving a reduced annuity benefit upon attainment of age 60 with 10 years of service. The annuity is discounted 0.50 percent for each full month the employee is younger than age 65. 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.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

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 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.

Automatic Increase in Annuity

An employee annuitant is entitled to receive an increase of 3.00 percent of the currently payable annuity (compound). 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.*

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

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

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.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

Child's Annuity

A child's annuity is provided for unmarried children of a deceased employee who are under the age of 18, if the child was conceived or 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 shall have 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 (the issue of the employee) 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 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 1st 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, 1983, while the employee is receiving duty disability benefits, are not refundable to the employee and will be used for annuity purposes only.

Ordinary Disability Benefit

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. Disability is payable until age 65 and limited to a maximum of 25 percent of the employee's total service or five years, whichever occurs first.

For ordinary disability benefits paid on or after January 1, 2001, the Fund credits amounts equal to the amounts ordinarily contributed by an employee for annuity purposes for any period during which the employee receives ordinary disability. These amounts are used for annuity purposes but are not credited for refund purposes.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

GROUP HEALTH HOSPITAL AND SURGICAL INSURANCE PREMIUMS

The pension fund shall provide payments in the amount of \$95 per month for non-Medicare eligible city annuitants (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 beginning July 1, 2008 and until such time as the city no longer provides a health care plan for such annuitants or December 31, 2016, whichever comes first.

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 beginning July 1, 2008 and until such time as the city no longer provides a health care plan for such annuitants or December 31, 2016, whichever comes first.

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 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.

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

Spouse's annuity deductions are payable to the employee if not married when he retires.

For participants that first became members on or after January 1, 2011, an employee who resigns before age 62 without regard to length of service or with less than 10 years of service regardless of age is 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.

To Spouses

The spouse may choose a refund in lieu of annuity if the annuity would be less than \$800 per month.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

Remaining Amounts

Amounts contributed by the employee excluding 0.50 percent deductions for annuity increases, and which have not yet been paid out as annuity, are refundable to his estate with interest to his retirement or death if the employee died in service.

DEDUCTIONS AND CONTRIBUTIONS

Members are required to contribute 8.50 percent of their salary to the pension fund.

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 Fund. The tax will produce an amount that does not exceed the 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 1.00 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 11-133.3 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 or 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. All liabilities attributable to the cost of the Early Retirement Incentive created by Public Act 93-0654 are to be excluded from the determination of a required City contribution.

TAX SHELTER OF EMPLOYEE SALARY DEDUCTIONS

Beginning January 1, 1982, the City employee salary deductions were designated for income tax purposes to be made by the employer. The W-2 salary is therefore reduced by the amount of contributions. For pension purposes the salary remains 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 1, 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 1, 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.

**SUMMARY OF
PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2015 (CONT'D)**

SALARY AND COLA DEVELOPMENT FOR MEMBERS HIRED ON OR AFTER JANUARY 1, 2011

Calendar Year	CPI-U	1/2 CPI-U	COLA	Maximum Annual Pensionable Earnings
2011				\$106,800.00
2012	3.90%	1.95%	1.95%	\$108,882.60
2013	2.00%	1.00%	1.00%	\$109,971.43
2014	1.20%	0.60%	0.60%	\$110,631.26
2015	1.70%	0.85%	0.85%	\$111,571.63
2016	0.00%	0.00%	0.00%	\$111,571.63

HISTORICAL INFORMATION

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015

1984 Session

- Direct deposit.
- Illinois Public Employees' Pension Laws Commission abolished.

1985 Session

HB 398

- 1.80, 2.00, 2.20, 2.40 percent benefit accrual rate for those born before January 1, 1936, and retiring after August 16, 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 or dying in service after August 16, 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.

1986 Session

HB 2630

- Cap removed on spouse maximum annuity.
- Automatic post-retirement increase to begin on first anniversary of retirement following attainment at age 60.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

1987 Session

HB 2715

- 1.80, 2.00, 2.20, 2.40 percent benefit accrual rate for those born on or after January 1, 1936, and retiring on or after January 1, 1988.
- Reduction in 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 annuity of \$200 under certain conditions.
- Change amount of children's benefits to \$120 or \$150 effective January 1, 1988.
- Provide for certain "Good Government" initiatives.
- Remove chronic alcoholism restriction for ordinary disability.

1988 Session

- No changes.

1989 Session

SB 95

- Signed August 23, 1989. Changed the amount of fund paid health insurance "supplement" from January 1, 1988, until December 31, 1992, to \$65 per month for each annuitant not qualified to receive Medicare benefits (and \$35 if qualified) and from January 1, 1993, until December 31, 1997, the amounts are \$75 and \$45, respectively. 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

HB 332

- Signed August 23, 1989. Eliminated age related 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.
- Eliminated the \$300, \$400 or \$500 maximum spouse annuity limitation for spouses of employees who retired before January 23, 1987, but die after January 23, 1987.
- Allow for local labor officials on a leave of absence from the Fund to contribute for their current 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.

SB 1951

- 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 employees' 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- Refund in lieu of \$300 annuity.
- Disability benefit retroactive one year from application; duty disability deductions in lieu for heart attack or stroke; 10 percent increase in duty disability benefit January 1 of the sixth year.
- 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

- No changes.

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 fund, and up to five purchased under ERI).
 - Requires age 55 or older.
 - Requires an election form to be filed before June 1, 1993.
 - Requires a member to be a current contributor on November 1, 1992, and have not previously 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

1993 Session

- No changes.

1994 Session

- No 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 participants before 1996.
- The Fund is authorized to make certain involuntary distributions required by Section 401(a)(9) of the Internal Revenue Code.

SB 424

- Approved July 7, 1995.
- The Pension Laws Commission was created as a legislative support services agency.

1996 Session

SBJPA

- On August 20, 1996, the Small Business Job Protection Act was signed by President Clinton.
- Treatment of governmental plans under Code Section 415:
 - Rule limiting annual benefit to 100 percent of the average of the highest three-year compensation no longer applies.
 - Excess benefit plans are permitted to provide participants with benefits in excess of the Code Section 415 limits.
 - Early retirement reduction does not apply to certain survivor and disability benefits.
 - The definition of compensation now includes elective deferrals.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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.
- The requirement that any person employed by a retirement board of any other annuity and benefit fund in the City apply for participation in the Fund is eliminated.
- Payment is allowed for service as a police officer, firefighter or public school teacher in the City.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

HB 313

- Approved June 27, 1997.
- For withdrawals from service occurring on or after June 27, 1997, an employee (and 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 spouse of an employee 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 the spouse's age under 55 at the time of employee's death. Excess spouse refund, if any, must be repaid.
- 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 Laborers' 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 Laborers' 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 fund supplement remains \$45 and \$75 for Medicare eligible and non-Medicare eligible annuitants respectively.
- Beginning June 27, 1997, spouses of employees dying in service after age 50, with at least 30 years of service or after age 55 with 25 years of service, 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.

HB 1641

- Approved August 22, 1997.
- Beginning August 22, 1997, for 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- Service paid under Section 11-221 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 a total of 20 years of service (with at least 10 in this fund, up to five in a Reciprocal fund, and up to five purchased under ERI) and age 55 or older.
 - Requires a total of 30 years of service (with at least 10 years of that service in this fund and without including any service purchased under the ERI provisions) and age 50 or older.
 - 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

HB 3515

- 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 Laborers' 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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 Laborers' 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 1.00 for 1999 and beyond.
- Money deposited under 5/11-169(f) may be used by the Fund for any of the purposes for which the proceeds of the tax levied by the City under this section may be used.
- The number of board members is changed from five to eight. The makeup of the board is two ex-officio members, three appointed persons, two employees and one annuitant.

HB 1612

- Qualified Illinois Domestic Relations Orders recognized effective July 1, 1999.

1999 Session

- No Change.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

2000 Session

HB 1583

- 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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.

HB 5168

- 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 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 Fund. These contributions are not refundable.
- The pension fund supplement for retiree health insurance was extended through June 30, 2003. For annuitants (other than child annuitants) taking the employer-provided plan, the supplement is \$75 per month if the annuitant is not eligible for Medicare and \$45 per month if the annuitant is eligible for Medicare.

2003 Session

SB 1701

- Effective July 1, 2003.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- The healthcare benefits were increased to \$85 per month for non-Medicare eligible participants and \$55 per month for Medicare eligible participants for the period from July 1, 2003, through June 30, 2008. Thereafter, the benefits are increased from \$85 to \$95 and \$55 to \$65 for the period July 1, 2008, to June 30, 2013.
- The healthcare benefits referred to above are not and shall not be construed to be pension or retirement benefits for the purposes of Section 5 of Article XIII of the Illinois Constitution of 1970.

2004 Session

HB 600

- 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 reenter 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 10 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.
 - Provides for the exclusion of the liabilities arising from the ERI for the purpose of determining if a contribution by the city is required.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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).
- Allows Board members to continue until the end of their terms without forfeiting the benefits provided by the early retirement incentive.
- 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.
- 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

SB 23

- Approved June 27, 2005.
- Prohibits the investment or deposit from the retirement system or pension fund to certain entities doing business in or with the government of the Republic of the Sudan. Fund managing companies must certify that 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).

EXHIBIT R
LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

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.

2006 Session

- No Change.

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.

SB 1169

- 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.

2008 Session

- No Change.

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

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

award or other payment under the Workers' Compensation Act or the Workers' Occupational Diseases Act. Makes other changes concerning disability benefits.

HB 2257

- 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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 that 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 members' 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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- Requires approval for travel or education mission expense of a Trustee by a majority of the Board prior to the 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.

2010 Session

Public Act 96-0889 (SB 1946)

- 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 $66 \frac{2}{3}$ 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

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- 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).
- 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.

Public Act 96-1490 (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

Public Act 97-0530 (SB 1672)

- 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.

Public Act 97-0609 (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.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

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

Public Act 97-0504 (HB 1670)

- Approved August 23, 2011.
- Amends the Open Meetings Act.
 - Requires each elected or appointed member of a public body subject to this Act who is such a member on the effective date of the amendatory Act to successfully complete the electronic training curriculum developed and administered by the Public Access Counselor.
 - Requires those members to complete the training not later than one year after the effective date of the amendatory Act.
 - Requires each elected or appointed member of a public body subject to the Act who becomes such a member after the effective date of the amendatory Act to successfully complete the electronic training curriculum developed and administered by the Public Access Counselor.
 - Requires those members to complete the training not later than the 90th day after the date the member either (i) takes the oath of office, if the member is required to take an oath of office to assume the person's duties as a member of the public body or (ii) otherwise assumes responsibilities as a member of the public body, if the member is not required to take an oath of office to assume the person's duties as a member of the governmental body.
 - Requires each member who successfully completes the curriculum to file a copy of the certificate of completion with the public body.
 - Provides that the failure of one or more members of a public body to complete the training required by this Section does not affect the validity of an action taken by the public body.
 - Provides that an elected or appointed member of a public body subject to this Act who has successfully completed the required training and filed a copy of the certificate of completion with the public body is not required to subsequently complete that training.

2012 Session

Public Act 97-0651 (HB 3813)

- Approved and effective January 5, 2012.
- Requires any reasonable suspicion of fraud against the Fund to be reported to the State's Attorney for investigation.
- Changes provisions for Union Leaves of Absence as follows:
 - Service credit can be accrued only for union leaves that begin before the effective date of this amendatory Act.

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- “Any pension plan established by the local labor organization” is defined as any pension plan in which the member can receive credit as a result of his membership in the local labor organization. This is a declaration of existing law.
- Salary used for calculation of final average salary must be a salary paid by an employer, not by the union. This is a declaration of existing law.
- Minimum annuity section 11-134 is changed to add to the final average salary the product of (1) final average salary, (2) the average percentage increase in the CPI during the leave of absence, and (3) the number of years of leave of absence. This does not seem to deal with a situation where the employee may have been on leave within the last 10 years but is last with Laborers. It also only amends paragraph (f-1) which applies to those members who go on annuity on or after the attainment of age 60.
- Does not change that contributions are based current salary with the union.

Public Act 97-0967 (HB 3969)

- Approved and effective August 16, 2012.
- Applies if the member retired after the effective date with less than 2 years of service in a participating system under the Reciprocal Act after General Assembly service.
- Requires that if the final average salary in a participating system is used to calculate the annuity, the employer must pay the General Assembly Retirement System for any increased cost of the General Assembly annuity that is attributable to the higher salary under the participating system.

2013 Session

Public Act 98-0043 (SB 1584)

- Approved and effective June 28, 2013.
- Changes the duration of health insurance supplement payments to eligible employee annuitants to “Beginning July 1, 2008 and until such time as the city no longer provides a health care plan for such annuitants or December 31, 2016, whichever comes first.”

Public Act 98-0433 (HB 2620)

- Approved and effective August 16, 2013.
- Allows for an additional exception to the RFP process for obtaining investment services for “contracts for follow-on funds with the same fund sponsor through close-end funds.”

2014 Session

Public Act 98-0641 (SB 1922)

- Approved and effective June 9, 2014.
- Implements a funding policy designed to achieve 90% funded ratio by 2055

EXHIBIT R

LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- Provides for incrementally increased employer contribution multiple which eventually converts to actuarial based funding.
- Caps the current pension levy at the full required city contribution amount.
- Creates payment obligation to the fund, provides enforcement.
- Provides for incrementally increased employee contributions.
- Tier 1: Ties annual increase in retirement annuity to inflation, subject to 3% cap, delays initial annual increase by one year, and eliminates annual increases in 2017, 2019 and 2025 for most annuitants.
- Tier 2: Reduces minimum retirement age by 2 years, delays the initial annual increase by one year, and eliminates the annual increases in 2025.

Public Act 98-1022 (HB 452)

- Approved and effective August 22, 2014.
- Requires investment managers and consultants entering into a contract to disclose information on use of vendors owned by minorities, females and persons with disabilities.
- Requires minority consideration to be “within the bounds of financial and fiduciary prudence.”
- Defines “minority investment managers” and requires funds to adopt a policy to increase goals for utilization. Requires annual review.
- Declares it is the public policy of the State to encourage use of minority investment managers.

2015 Session

Public Act 99-0462 (SB 1334)

- Approved August 25, 2015.
- Sets aspirational goals that, beginning January 1, 2016, at least 20% of the total funds under management be managed by emerging investment managers and that at least 20% of the investment advisors be minorities, females, and persons with disabilities.
- Sets the aspirational goal that, beginning January 1, 2016, at least 20% of contracts for “information technology services,” “accounting services,” “insurance brokers,” “architectural and engineering services” and “legal services” be awarded to businesses owned by minorities, females and persons with disabilities.

Johnson et al. v. Municipal Employees’ Annuity and Benefit Fund of Chicago, et al.

- Public Act 98-0641 was ruled unconstitutional by the circuit court on July 24, 2015. On March 24, 2016, the Illinois Supreme Court affirmed the circuit court’s decision.

EXHIBIT R
LEGISLATIVE CHANGES 1984 THROUGH 2015 (CONT'D)

- Restores full automatic annual increase, the date of initial increase and eliminates increase holidays.
- For Tier 2, changes retirement age for unreduced benefits back to age 67 and for reduced benefits to age 62.
- Eliminates new funding policy.

EXHIBIT S

HISTORY OF RECOMMENDED EMPLOYER MULTIPLES AND TAXES LEVIED

Year of Report	Statutory Multiple	Normal Cost Plus Interest	Normal Cost Plus 30-Year Amortization ¹²	Normal Cost Plus 30-Year % of Salary Amortization ¹²	Tax Levy Year	Normal Cost		Total Tax Levy
						City	Park	
1984	1.37	1.58	2.04	1.30	1984	\$15,606,000	\$32,000	\$15,638,000
1985 ²	1.37	1.60	2.08	1.33	1985	15,618,000	29,000	15,647,000
1986 ¹	1.37	0.99	1.84	0.94	1986	15,373,000	25,000	15,398,000
1987 ¹	1.37	1.13	1.90	1.03	1987	15,260,000	21,000	15,281,000
1988	1.37	1.03	1.87	0.98	1988	15,380,000	20,000	15,400,000
1989 ^{1,2}	1.37	0.56	1.49	0.56	1989	15,442,000	14,000	15,456,000
1990 ^{1,2}	1.37	1.01	1.80	0.93	1990	15,261,000	12,000	15,273,000
1991	1.37	0.93	1.70	0.90	1991	16,382,000	10,000	16,392,000
1992 ²	1.37	0.80	1.75	0.80	1992	16,835,000	11,000	16,846,000
1993 ²	1.37	0.83	1.96	0.83	1993	18,036,000	11,000	18,047,000
1994 ^{1,2}	1.37	0.64	1.84	0.64	1994	17,069,000	12,000	17,081,000
1995 ²	1.37	0.75	1.87	0.75	1995	18,726,000	9,500	18,735,500
1996	1.37	0.66	1.75	0.66	1996	20,037,300	6,900	20,044,200
1997 ^{1,2,3,4}	1.37	N/A	N/A	N/A	1997	19,645,400	4,300	19,649,700
1998 ^{1,2,4}	1.37	N/A	N/A	N/A	1998	19,757,000	4,600	19,761,600
1999 ^{1,4,5}	1.00	N/A	N/A	N/A	1999	14,676,000	1,898	14,677,898
2000 ⁴	1.00	N/A	N/A	N/A	2000 ⁶	0	0	0
2001 ⁴	1.00	N/A	N/A	N/A	2001 ⁷	0	0	0
2002 ^{2,4}	1.00	N/A	N/A	N/A	2002 ⁸	0	0	0
2003 ²	1.00	0.44	0.43	0.53	2003 ⁹	0	0	0
2004 ^{1,2}	1.00	0.67	0.67	0.63	2004 ¹⁰	0	0	0
2005 ¹	1.00	1.18	1.23	0.63	2005 ¹¹	0	0	0
2006	1.00	1.54	1.64	1.30	2006 ¹³	0	0	0
2007	1.00	1.12	1.19	0.99	2007	15,460,000	0	15,460,000
2008	1.00	1.98	2.12	1.60	2008	17,891,000	0	17,891,000
2009	1.00	2.54	2.76	1.97	2009	17,545,800	0	17,545,800
2010	1.00	3.57	3.89	2.71	2010	18,239,700	0	18,239,700
2011 ¹	1.00	4.95	5.41	3.67	2011 ¹	15,635,700	0	15,635,700
2012 ¹	1.00	6.78	7.48	5.44	2012 ¹	14,898,700	0	14,898,700
2013 ²	1.00	6.42	7.20	5.26	2013 ²	14,616,300	0	14,616,300
2014 ²	1.00	4.87	5.48	4.05	2014 ²	15,074,500	0	15,074,500
2015 ^{2,14}	1.00	7.08	7.94	5.75	2015 ²	15,011,900	0	15,011,900

¹ Change in actuarial assumptions

² Change in benefits

³ Change in asset valuation method to GASB

⁴ No contribution is required under these valuation methods

⁵ Change in actuary

⁶ Tax levy based on the statutory multiple would be \$16,726,700

⁷ Tax levy based on the statutory multiple would be \$16,504,660

⁸ Tax levy based on the statutory multiple would be \$16,892,000

⁹ Tax levy based on the statutory multiple would be \$19,430,000

¹⁰ Tax levy based on the statutory multiple would be \$19,570,600

¹¹ Tax levy based on the statutory multiple would be \$18,970,900

¹² 40-year amortization for years prior to 2006; 30-year amortization for 2006 and after.

¹³ Tax levy based on the statutory multiple would be \$17,193,400

¹⁴ Statutory multiple applicable in tax levy year 2015

EXHIBIT T
ACTUARIAL DETERMINED CONTRIBUTIONS OF EMPLOYER
AND TREND INFORMATION

Year	Actuarial Determined Contribution (ADC) of the Employer¹	Required Statutory Basis²	Actual³	Percent of ADC Contributed
2006 ⁴	\$ 21,142,739	\$ 16,505,724	\$ 106,270	0.50%
2007	25,293,490	14,840,698	15,458,982	61.12%
2008	21,216,989	17,175,360	17,580,428	82.86%
2009	37,199,049	16,843,872	17,189,811	46.21%
2010	50,274,041	17,510,112	17,938,810	35.68%
2011	60,801,575	15,010,272	15,358,602	25.26%
2012	80,636,419	14,302,752	14,414,835	17.88%
2013	109,290,128	14,031,648	14,100,639	12.90%
2014	108,538,602	14,471,520	14,520,515	13.38%
2015	82,252,473	14,411,424	14,566,544	17.71%

¹Under Normal Cost plus Level-Dollar Amortization. Amortization period of 30 years beginning in 2007 and 40 years prior to 2007. Negative ADC values are set to zero, as no contribution is then required.

²Tax levy after 4.00 percent overall loss.

³Net tax levy plus miscellaneous. Includes prior year adjustments for taxes beginning in 1991.

⁴The City of Chicago did not levy a tax for the Fund this year.

Year	Assets Available for Benefits as a % of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (Surplus) as a % of Covered Payroll End of Year	Employer Contribution as a % of Covered Payroll
2006	91.98%	75.15 %	0.06%
2007	95.03%	47.70 %	8.02%
2008	86.77%	119.48 %	8.11%
2009	79.37%	199.46 %	8.24%
2010	73.83%	271.18 %	8.98%
2011	64.92%	393.76 %	7.87%
2012	55.41%	532.69 %	7.25%
2013	56.65%	517.25 %	7.04%
2014	64.28%	372.15 %	7.16%
2015	52.99%	567.07 %	7.11%

Actuarial accrued liabilities and contributions include pension and OPEB.

EXHIBIT W
HISTORY OF RETIREES AND BENEFICIARIES
ADDED TO PAYROLLS 2005-2014

Year	Added to Payroll		Removed from Payroll		Payroll End of Year		Average	Increase in
	No.	Ann. Benefits ¹	No.	Ann. Benefits	No.	Ann. Benefits	Annual Benefit	Average Benefit
Employee Annuitants (Male and Female)								
2006	79	\$ 4,971,772	133	\$ 3,475,111	2,683	\$ 84,953,928	\$ 31,664	3.84%
2007	95	6,301,188	134	3,363,972	2,644	87,891,144	33,242	4.98%
2008	120	7,756,776	118	2,939,436	2,646	92,708,484	35,037	5.40%
2009	169	9,882,832	132	3,675,336	2,683	98,915,980	36,868	5.22%
2010	163	10,367,852	144	4,008,480	2,702	105,275,352	38,962	5.68%
2011	163	10,624,236	144	4,187,172	2,721	111,712,416	41,056	5.37%
2012	136	9,154,278	120	4,030,908	2,737	116,835,786	42,688	3.97%
2013	112	7,904,208	122	4,032,342	2,727	120,707,652	44,264	3.69%
2014	102	8,125,860	139	5,180,724	2,690	123,652,788	45,968	3.85%
2015	92	7,652,892	117	4,787,604	2,665	126,518,076	47,474	3.28%
Surviving Spouse and Reversionary Annuitants								
2006 ²	69	\$ 1,052,875	101	\$ 962,926	1,335	\$ 15,003,432	\$ 11,239	3.01%
2007 ²	68	1,007,856	87	846,660	1,316	15,164,628	11,523	2.53%
2008 ²	64	972,408	82	855,072	1,298	15,281,964	11,773	2.17%
2009	49	866,592	75	772,740	1,272	15,375,816	12,088	2.67%
2010	57	1,000,668	74	770,808	1,255	15,605,676	12,435	2.87%
2011 ²	57	1,000,152	91	1,021,908	1,221	15,583,920	12,763	2.64%
2012 ³	74	1,028,112	91	1,032,372	1,204	15,579,660	12,940	1.39%
2013 ⁴	51	908,433	66	730,560	1,189	15,757,533	13,253	2.42%
2014 ⁵	62	1,333,056	69	733,176	1,182	16,357,413	13,839	4.42%
2015 ⁶	45	1,093,704	78	883,747	1,149	16,567,370	14,419	4.19%

¹ Annual benefits added to payroll include post-retirement increase amounts.

² Includes one Reversionary Annuitant.

³ Number added in 2012 includes 20 Reversionary Annuitants that are also Surviving Spouses.

⁴ Number added in 2013 includes 1 Reversionary Annuitant that is also a Surviving Spouses.

⁵ Number added in 2014 includes 2 Reversionary Annuitants that are also Surviving Spouses.

⁶ Number added in 2015 includes 3 Reversionary Annuitants that are also Surviving Spouses and number removed in 2015 includes 2 Reversionary Annuitants that are also Surviving Spouses.

GASB EXHIBITS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago. Financial Statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

The measurements required under GASB Statements Nos. 67 and 68 are provided in a separate report.

EXHIBIT A-1
GASB STATEMENTS NOS. 43 AND 45 DISCLOSURES

GASB: Financial Accounting Information

Prior to fiscal year ending December 31, 2014, the accounting policies of the City of Chicago relative to its retirement funds were based on the terms of GASB Statements Nos. 25 and 27. Effective with fiscal year ending December 31, 2014, GASB Statement No. 67 replaced GASB Statement No. 25 for pension plan financial reporting. Effective with fiscal year ending December 31, 2015, GASB Statement No. 68 replaced GASB Statement No. 27 for employer financial reporting. A separate report containing the information required under GASB Statements Nos. 67 and 68 has been provided to the Fund. 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 Statements Nos. 43 and 45 pertain to postretirement benefits other than pensions.

This report includes the following exhibits with information required to be reported under GASB Statements Nos. 43 and 45. **This information is subject to review by the Fund’s auditor. Please let us know if the Fund’s auditor recommends any changes.**

Exhibit A-2: Schedule of Funding Progress for GASB Statement No. 43

This exhibit shows a history of funding progress under GASB Statement No. 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-3: Schedule of Employer Contributions for GASB Statement No. 43

This exhibit shows the Annual Required Contribution (“ARC”) as computed under GASB Statement No. 43.

Exhibit A-4: History of Annual OPEB Cost and Contributions Made for GASB Statement No. 45 from 2007

This exhibit shows the components of annual OPEB cost (ARC, interest on the Net OPEB Obligation (“NOO”) and the adjustment to the ARC), increase or decrease in the NOO and the NOO at the end of the year for year 2015. The exhibit also includes the dollar amount of City contributions made to pay current year health insurance supplement benefits.

Exhibit A-5: OPEB Cost Summary for GASB Statement No. 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-6: Supplementary Information for GASB Statements Nos. 43 and 45

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

EXHIBIT A-2
SCHEDULE OF FUNDING PROGRESS FOR GASB STATEMENT NO. 43

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a) / c]
2009	\$ -	\$ 41,738,247	\$ 41,738,247	0.00%	\$ 208,626,493	20.01%
2010	-	41,361,276	41,361,276	0.00%	199,863,410	20.69%
2011	-	38,327,860	38,327,860	0.00%	195,238,332	19.63%
2012	-	38,653,355	38,653,355	0.00%	198,789,741	19.44%
2013 ¹	-	7,073,697	7,073,697	0.00%	200,351,820	3.53%
2014 ¹	-	4,593,378	4,593,378	0.00%	202,673,014	2.27%
2015 ¹	-	2,133,080	2,133,080	0.00%	204,772,903	1.04%

¹Entry age actuarial accrued liability was determined based on the provisions of P. A. 98-0043.

EXHIBIT A-3
SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR GASB STATEMENT NO. 43

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Payroll (beginning of year)	\$182,809,397	\$193,176,272	\$192,847,482	\$216,744,211	\$208,626,493	\$199,863,410	\$195,238,332	\$198,789,741	\$200,351,820	\$202,673,014
2. Current Year Normal Cost	1,023,208	1,045,917	1,051,630	1,127,307	1,075,783	1,033,073	749,005	750,108	549	168
3. Normal Cost as a Percent of Covered Payroll	0.56%	0.54%	0.55%	0.52%	0.52%	0.52%	0.38%	0.38%	0.00%	0.00%
4. 30-Year Level Dollar Amortization of the Unfunded Liability	2,439,744	2,441,189	2,432,818	2,471,160	2,452,034	2,429,888	2,251,681	2,270,803	2,462,414 ²	2,347,227
5. 30-Year Level Dollar Amortization as a Percent of Covered Payroll	1.33%	1.26%	1.26%	1.14%	1.18%	1.22%	1.15%	1.14%	1.23%	1.16%
6. Interest Adjustment for Semi-Monthly Payment	80,021	80,579	80,518	83,153	81,520	80,021	69,339	69,807	56,914	54,243
7. Actuarially Determined Contribution (ADC) (NC + 30-year level dollar + interest adjustment)	3,542,974	3,567,685	3,564,966	3,681,620	3,609,337	3,542,982	3,070,025	3,090,718	2,519,877	2,401,638
8. ADC as a Percent of Covered Payroll	1.94%	1.85%	1.85%	1.70%	1.73%	1.77%	1.57%	1.55%	1.26%	1.18%
9. Annual Required Contribution (ARC) (ADC - estimated employee contributions)	3,542,974	3,567,685	3,564,966	3,681,620	3,609,337	3,542,982	3,070,025	3,090,718	2,519,877	2,401,638
10. ARC as a Percent of Covered Payroll	1.94%	1.85%	1.85%	1.70%	1.73%	1.77%	1.57%	1.55%	1.26%	1.18%
11. City of Chicago Contribution	0 ¹	2,202,835	2,347,624	2,563,040	2,586,866	2,579,905	2,561,930	2,517,588	2,359,700	2,154,073
12. City of Chicago Contribution as a Percent of Covered Payroll	0.00%	1.14%	1.22%	1.18%	1.24%	1.29%	1.31%	1.27%	1.18%	1.06%
13. Percentage of ARC Contributed	0.00%	61.74%	65.85%	69.62%	71.67%	72.82%	83.45%	81.46%	93.64%	89.69%

¹ The City of Chicago did not make a contribution for Laborers' for 2006. The health insurance supplement benefits were financed by Plan investment income.

² Based on provisions of P. A. 98-0043, the amortization period for fiscal year 2014 was changed from a 30-year open period to a three-year closed period because benefits will no longer be paid after December 31, 2016.

EXHIBIT A-4
HISTORY OF ANNUAL OPEB COST AND CONTRIBUTIONS
MADE FOR GASB STATEMENT NO. 45 FROM 2007

Year Ending December 31:	2007	2008	2009	2010	2011	2012	2013	2014	2015
Annual OPEB Cost									
Annual Required Contribution (ARC)	\$ 3,567,685	\$ 3,564,966	\$ 3,681,620	\$ 3,609,337	\$ 3,542,982	\$ 3,070,025	\$ 3,090,718	\$ 2,519,877 ¹	\$ 2,401,638
Interest on NOO	-	61,418	115,354	164,104	207,860	248,340	267,791	289,900	209,237
Adjustment to ARC	-	(80,182)	(150,596)	(214,240)	(271,362)	(324,211)	(349,603)	(2,242,591) ¹	(2,376,010)
Annual OPEB Cost	\$ 3,567,685	\$ 3,546,202	\$ 3,646,378	\$ 3,559,201	\$ 3,479,480	\$ 2,994,154	\$ 3,008,906	\$ 567,186	\$ 234,865
Employer Contributions	\$ 2,202,835	\$ 2,347,624	\$ 2,563,040	\$ 2,586,866	\$ 2,579,905	\$ 2,561,930	\$ 2,517,588	\$ 2,359,700	\$ 2,154,073
Net OPEB Obligations (NOO)									
NOO at Beginning of Year	\$ -	\$ 1,364,850	\$ 2,563,428	\$ 3,646,766	\$ 4,619,101	\$ 5,518,676	\$ 5,950,900	\$ 6,442,218	\$ 4,649,704
Increase/(Decrease) in NOO	1,364,850	1,198,578	1,083,338	972,335	899,575	432,224	491,318	(1,792,514)	(1,919,208)
NOO at End of Year	\$ 1,364,850	\$ 2,563,428	\$ 3,646,766	\$ 4,619,101	\$ 5,518,676	\$ 5,950,900	\$ 6,442,218	\$ 4,649,704	\$ 2,730,496

¹ The amortization period used to determine the ARC and the adjustment to ARC for fiscal year 2014 was changed from an 30-year open period to a three-year closed period to reflect the provisions of P. A. 98-0043.

EXHIBIT A-5
OPEB COST SUMMARY FOR GASB STATEMENT No. 45

Year Ended December 31	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation
2010	\$ 3,559,201	72.68%	\$ 4,619,101
2011	3,479,480	74.15%	5,518,676
2012	2,994,154	85.56%	5,950,900
2013	3,008,906	83.67%	6,442,218
2014	567,186	416.04%	4,649,704
2015	234,865	917.15%	2,730,496

EXHIBIT A-6
SUPPLEMENTARY INFORMATION FOR
GASB STATEMENTS NOS. 43 AND 45

Valuation Date	December 31, 2015
Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	No Assets (Pay-as-you-go)
Amortization Method	Level Dollar
Remaining Amortization Period	30 year open-period for Fiscal Years prior to 2014 and 3 year closed-period for Fiscal Years 2014 and beyond
Actuarial Assumptions:	
OPEB Investment Rate of Return	4.5%
Projected Base Salary Increases	3.75% per year
Includes Inflation at:	3.0% per year
Healthcare Cost Trend Rate	0% ¹

Actuarial Accrued Liability (AAL)

	<u>December 31, 2014</u> ^{2,3}	<u>December 31, 2015</u> ^{2,3}
Payable to Retirees and Beneficiaries	\$ 4,187,596	\$ 1,975,984
Current Employees:		
Accumulated Employee Contributions		
Including Statutory Interest	-	-
Payable to Vested and Non-Vested Employees (not split)	<u>405,782</u>	<u>157,096</u>
Total Actuarial Accrued Liability	\$ 4,593,378	\$ 2,133,080
Net Plan Actuarial Assets	<u>-</u>	<u>-</u>
Unfunded AAL (assets in excess of AAL)	\$ 4,593,378	\$ 2,133,080
Percent Funded	0.00 %	0.00 %
Unfunded AAL as Percent of Payroll	2.27 %	1.04 %
Payroll	\$ 202,673,014	\$ 204,772,903

¹Trend not applicable – Fixed dollar subsidy.

² Actuarial Accrued Liability for OPEB at Valuation Date.

³ Actuarial Accrued Liability was determined based on the provisions of P. A. 98-0043.