

# **Municipal Employees' Annuity and Benefit Fund of Chicago**

**Actuarial Valuation and Review as of  
December 31, 2014**





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May 6, 2015

The Retirement Board of the  
Municipal Employees' Annuity and Benefit Fund of Chicago  
321 N Clark St, Ste 700  
Chicago IL 60654-4767

Dear Board Members:

We are pleased to submit this annual Actuarial Valuation and Review as of December 31, 2014. It summarizes the actuarial data used in the valuation, establishes the net pension liability under Governmental Accounting Standards Board (GASB) Statement No. 67 as of December 31, 2014, the actuarially determined contribution for the year ending December 31, 2015, the net OPEB obligation as of December 31, 2014, under GASB Statements No. 43 and 45, and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF). The census information and financial information on which our calculations were based was prepared by the Fund staff. That assistance is gratefully acknowledged. We have not subjected the census data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data.

Since the effective date of the last actuarial valuation, Public Act 98-0641 was enacted, which changed certain benefit and eligibility provisions, increased member and employer contributions, and resulted in a net decrease to the actuarial liabilities of the Fund. A summary of these changes is outlined on page i.

The actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the Fund's actuary. The assumptions and methods used for the December 31, 2014, actuarial valuation were based on an experience analysis covering the five-year period ending December 31, 2009, and were adopted by the Board, effective for the December 31, 2010 valuation. These actuarial assumptions and methods comply with the parameters set by the Actuarial Standards of Practice and the parameters for disclosure of GASB 43, 45, and 67. Further, in our opinion, the assumptions as approved by the Board appear to be reasonably related to the experience of the Fund.

The funding objective is to provide employer and employee contributions sufficient to deliver the benefits of the Plan when due. MEABF is funded by employer and member contributions in accordance with the funding policy specified under the Illinois Pension Code (40 ILCS 5/8), which was revised in 2014 by Public Act 98-0641. For 2015, employer contributions are equal to employee contributions from two years prior times 1.85, the tax multiple. The tax multiple increases in payment year

2016 through 2020. Starting in 2021 (or earlier, if this calculation yields a lower contribution than the tax multiple), employer contributions are calculated as a level percent of payroll sufficient to bring the total assets of the Fund up to 90% by the end of 2055. In our opinion, the methods mandated by the Illinois Pension Code are inadequate to appropriately fund MEABF. The funding target should be 100% within a period of 30 years or less. The actuarially determined tax multiple for 2015 is 5.23.

This report includes the following schedules for the actuarial section of the Comprehensive Annual Financial Report:

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

This report includes the following schedules for the financial section of the Comprehensive Annual Financial Report:


- Schedule of Funding Progress
- Schedule of Employer Contributions


The measurements shown in this actuarial valuation may not be applicable for other purposes. 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); and changes in plan provisions or applicable law.

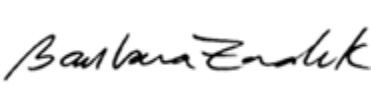
The actuarial calculations were directed under our supervision. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:   
\_\_\_\_\_  
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**SECTION 1****VALUATION SUMMARY**

Purpose .....	i
Significant Issues in Valuation Year .....	i
Summary of Key Valuation Results .....	iv

**SECTION 2****VALUATION RESULTS**

A. Member Data .....	1
B. Financial Information ..	4
C. Actuarial Experience....	6
D. Development of Employer Costs.....	11

**SECTION 3****SUPPLEMENTAL INFORMATION**

EXHIBIT A Table of Plan Coverage	14
EXHIBIT B Members in Active Service as of December 31, 2014.....	15
EXHIBIT C Inactive Members as of December 31, 2014.....	20
EXHIBIT D Annuitants as of December 31, 2014.....	21
EXHIBIT E Health Insurance Coverage as of December 31, 2014.....	25
EXHIBIT F Reconciliation of Member Data .....	28
EXHIBIT G Summary Statement of Income and Expenses .	29
EXHIBIT H Summary Statement of Plan Assets.....	31
EXHIBIT I Development of the Fund Through December 31, 2014.....	32
EXHIBIT J Development of Unfunded Actuarial Accrued Liability .....	33
EXHIBIT K Definitions of Pension Terms.....	34

**SECTION 4****REPORTING INFORMATION**

EXHIBIT A Summary of Actuarial Valuation Results.....	39
EXHIBIT B Schedule of Funding Progress .....	41
EXHIBIT C Solvency Test .....	42
EXHIBIT D Funded Ratio .....	43
EXHIBIT E Statutory Reserves as of December 31, 2014 .	44
EXHIBIT F State Reporting Disclosure .....	45
EXHIBIT G Actuarial Reserve Liabilities as of December 31, 2014.....	46
EXHIBIT H 50-Year Projection of Contributions, Liabilities, and Assets..	47
EXHIBIT I Historical Tables.....	50
EXHIBIT J Actuarial Assumptions and Actuarial Cost Method.....	57
EXHIBIT K Summary of Plan Provisions .....	61
EXHIBIT L Legislative Changes in Plan Provisions .....	68

**SECTION 5****GASB INFORMATION**

EXHIBIT A Net Pension Liability ...	93
EXHIBIT B Schedule of Changes in Net Pension Liability ...	95
EXHIBIT C Schedule of Employer Contributions .....	96
EXHIBIT D OPEB Actuarial Accrued Liability .....	98
EXHIBIT E Schedule of Employer Contributions .....	99
EXHIBIT F Schedule of Funding Progress.....	101
EXHIBIT G Net OPEB Obligation	102

## SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### Purpose

This report has been prepared by Segal Consulting to present a valuation of the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF or Fund or Plan) as of December 31, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Fund, as administered by the Retirement Board;
- The characteristics of covered active members, inactive vested members, and retirees and beneficiaries as of December 31, 2014, provided by the MEABF staff;
- The assets of the Plan as of December 31, 2014, provided by the MEABF staff;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

### Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. Public Act 98-0641 was signed into law, affecting the Plan. All changes are effective January 1, 2015, unless stated otherwise. The changes include:

#### Benefit Changes

- i) Tier 2 members' normal and early retirement ages were lowered from 67 and 62 to 65 and 60, respectively.
- ii) Automatic annual increase (AAI) for Tier 1 members, including current retirees, is the lesser of 3% or ½ of the change in CPI, of the originally granted retirement benefit (or the 2014 benefit for current retirees).
- iii) Tier 1 members will skip AAIs in 2017, 2019, and 2025 and Tier 2 members will skip AAIs in 2025.
- iv) All Tier 1 members and many Tier 2 members will have a 1-year AAI delay after the date the member would otherwise receive his or her first AAI.
- v) Tier 1 members with an annual annuity of less than \$22,000 will receive at least 1% AAI every year, including the skip years.

## SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### Funding Changes

- i) Member contributions increase to 9% in 2015, 9.5% in 2016, 10% in 2017, 10.5% in 2018, and 11% for 2019 and thereafter. When the Fund is at least 90% funded, member contributions decrease to 9.75%.
  - ii) Beginning in payment year 2016, the required employer contributions are the lesser of:
    - a) An amount determined as level percentage of pensionable payroll that is sufficient to bring the Fund up to 90% funded by 2055.
    - b) An amount determined as the member contributions from two years prior times the following: 1.85 in payment year 2016, 2.15 in 2017, 2.45 in 2018, 2.75 in 2019, and 3.05 in 2020.
  - iii) Beginning in 2021, the required employer contributions are determined as level percentage of pensionable payroll that is sufficient to bring the Fund up to 90% funded by 2055.
2. The Government Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 67 is effective with the fiscal year ending December 31, 2014, for Plan reporting. Statement 68 is effective with the fiscal year ending December 31, 2015, for employer reporting. The information contained in this valuation is intended to be used (along with other information) in order to comply with both Statements 67 and 68 (when applicable). Statements 43 and 45, for OPEB reporting, remain unchanged.
  3. When measuring pension liability for GASB purposes, the same actuarial cost method (Entry Age method) is used for funding purposes. In addition, the GASB blended discount rate calculation results in the same discount rate (expected return on assets) as used for funding purposes (7.5%). This means that the total pension liability (TPL) measure for financial reporting shown in this report is determined on the same basis as the actuarial accrued liability (AAL) measure for funding. We note that the same is true for the normal cost component of the annual plan cost for funding and financial reporting.
  4. The net pension liability (NPL) is equal to the difference between the TPL and the Plan's fiduciary net position. The Plan's fiduciary net position is equal to the market value of assets. The NPL decreased from \$8,407,243,737 as of December 31, 2013, to \$7,127,607,766 as of December 31, 2014.
  5. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of December 31, 2014, is 40.9%, compared to 36.9% as of December 31, 2013. Prior to reflecting the benefit provision changes outlined above,

## SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago

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the funded ratio as of December 31, 2014 is 35.2%. Using the market value of assets, the funded ratio as of December 31, 2014, is 42.0%, compared to 39.1% as of December 31, 2013.

6. Employer contributions are determined as a multiple of the applicable employee contributions from two years prior. For 2015, the employer contributions are 1.85 times the applicable employee contributions from 2013 (\$131,189,154). Therefore, 2015 employer contributions are estimated to be \$242,700,000 (\$131,189,154 times 1.85).
7. As shown in Chart 13, for the fiscal year beginning January 1, 2015, the actuarially determined contribution (ADC) for pension benefits is \$677,200,246. The estimated employer contribution for 2015 was determined to be \$242,700,000, of which \$9,111,300 is expected to be used for OPEB. Therefore, the estimated 2015 employer contribution for pension benefits is expected to be \$233,588,700. Compared to the actuarially determined contribution of \$677,200,246, the contribution deficiency is \$443,611,546. Each year there is a contribution deficiency leads to an increased deficiency in all future years.
8. The total employer contributions for 2014 were estimated to be \$156,091,400. Actual employer contributions for 2014 totaled \$158,797,631: \$9,050,883 for OPEB and \$149,746,748 for pension benefits.
9. For the year ended December 31, 2014, Segal has determined that the asset return on a market basis was 5.5%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 9.3%. This represents an experience gain when compared to the assumed rate of 7.5%. As of December 31, 2014, the actuarial value of assets (\$5.04 billion) represents 97.3% of the market value (\$5.18 billion).
10. As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of December 31, 2014, is \$140,188,864. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment losses derived from future experience. This implies that earning the assumed rate of investment return of 7.5% per year (net of expenses) on a market value basis will result in investment gains on the actuarial value of assets in the next few years.
11. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 97.3% of the market value of assets as of December 31, 2014. Guidelines in Actuarial Standards of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding market value. We believe the actuarial asset method currently complies with these guidelines.
12. This actuarial valuation report as of December 31, 2014, is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected.

**SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**Summary of Key Valuation Results**

	2014		2013*
	Before Changes	After Changes	
<b>Funding ratios as of December 31:</b>			
Actuarial accrued liability**	\$14,315,295,365	\$12,324,589,003	\$13,856,493,366
Market value of assets	5,179,486,296	5,179,486,296	5,421,676,295
Unfunded actuarial accrued liability on a market value basis	9,135,809,069	7,145,102,707	8,434,817,071
Funded ratio on a market value basis	36.18%	42.03%	39.13%
Actuarial value of assets	\$5,039,297,432	\$5,039,297,432	\$5,114,207,803
Unfunded actuarial accrued liability on an actuarial value basis	9,275,997,933	7,285,291,571	8,742,285,563
Funded ratio on an actuarial value basis	35.20%	40.89%	36.91%
Book value of assets	\$4,409,382,228	\$4,409,382,228	\$4,571,003,387
Unfunded actuarial accrued liability on a book value basis	9,905,913,137	7,915,206,775	9,285,489,979
Funded ratio on a book value basis	30.80%	35.78%	32.99%
<b>Demographic data as of December 31:</b>			
Number of retirees and beneficiaries	24,855	24,855	24,602
Number of inactive members	15,495	15,495	14,254
Number of active members	30,160	30,160	30,647
Total pensionable salary supplied by the Fund	\$1,602,977,593	\$1,602,977,593	\$1,580,288,709
Average pensionable salary	\$53,149	\$53,149	\$51,564

\* December 31, 2013 results shown here and throughout this report are based on the valuation performed by Gabriel Roeder Smith & Company.

\*\* Includes pension and OPEB



**SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**Summary of Key Valuation Results: Pension**

	2015		2014
	Before Changes	After Changes	
<b>Contributions for plan year beginning January 1:</b>			
Actuarially determined contribution requirement	\$872,483,614	\$677,200,246	\$839,038,303
Expected employer contributions	233,588,700	233,588,700	146,823,893
Actual employer contributions	--	--	149,746,748
<b>Funding elements for plan year beginning January 1:</b>			
Employer normal cost, including administrative expenses, adjusted for timing	\$116,395,454	\$83,681,511	\$116,757,639*
Market value of assets	5,179,486,296	5,179,486,296	5,421,676,295
Actuarial value of assets	5,039,297,432	5,039,297,432	5,114,207,803
Actuarial accrued liability	14,297,800,424	12,307,094,062	13,828,920,032
Unfunded actuarial accrued liability on an actuarial value basis	9,258,502,992	7,267,796,630	8,714,712,229
Funded ratio on an actuarial value basis	35.25%	40.95%	36.98%
<b>GASB information:</b>			
Discount rate	7.50%	7.50%	7.50%
Total pension liability	\$14,297,800,424	\$12,307,094,062	\$13,828,920,032
Plan fiduciary net position	5,179,486,296	5,179,486,296	5,421,676,295
Net pension liability	9,118,314,128	7,127,607,766	8,407,243,737
Plan fiduciary net position as a percentage of total pension liability	36.23%	42.09%	39.21%

\* Beginning of year timing

**SECTION 1: Valuation Summary for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**Summary of Key Valuation Results: OPEB**

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	<b>2015</b>	<b>2014</b>
<b>Contributions for the plan year beginning January 1:</b>		
Actuarially determined contribution requirement	\$9,173,481	\$9,826,193
Expected employer contributions	9,111,300	9,267,107
Actual employer contributions	--	9,050,883
<b>Funding elements for plan year beginning January 1:</b>		
Actuarial accrued liability	\$17,494,941	\$27,573,334
Actuarial value of assets	0	0
Unfunded actuarial accrued liability on a market value basis	17,494,941	27,573,334
Funded ratio on a market value basis	0%	0%
<b>GASB information:</b>		
Discount rate	4.50%	4.50%
Total OPEB liability	\$17,494,941	\$27,573,334

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**A. MEMBER DATA**

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive members, retirees and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A - E.

*A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.*

**CHART 1**  
**Member Population: 2005 – 2014**

<b>Year Ended December 31</b>	<b>Active Members</b>	<b>Inactive Members</b>	<b>Retirees and Beneficiaries</b>	<b>Ratio of Non-Actives to Actives</b>
2005	33,743	8,440	22,895	0.93
2006	33,429	10,200	22,828	0.99
2007	34,885	9,105	22,789	0.91
2008	32,563	12,082	22,730	1.07
2009	31,586	12,919	22,782	1.13
2010	30,726	13,866	22,960	1.20
2011	31,976	12,762	23,382	1.13
2012	31,326	13,465	24,120	1.20
2013	30,647	14,254	24,602	1.27
2014	30,160	15,495	24,855	1.34

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**Active Members**

Plan costs are affected by the age, years of service and salary of active members. In this year's valuation, there were 30,160 active members with an average age of 46.8, average years of service of 12.0 and average salary of \$53,149. The 30,647 active members in the prior valuation had an average age of 46.7, average years of service of 11.9 and average salary of \$51,564.

The active members included 195 members receiving ordinary disability benefits and 225 members receiving duty disability benefits. This compares to 227 and 213 members receiving ordinary and duty disability benefits, respectively, in the prior valuation.

**Inactive Members**

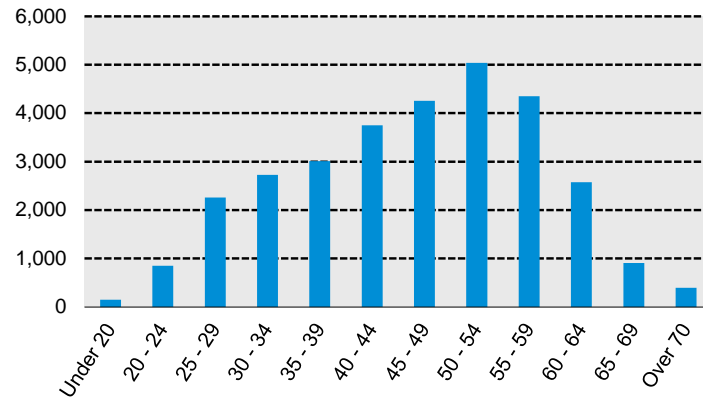
In this year's valuation, there were 1,865 members with a vested right to a deferred or immediate vested benefit. In addition, there were 13,630 members entitled to a return of their account balance.

This number includes 32 members with unknown age. The actuarial calculations were adjusted for the missing information by assuming that it was the same as information provided for other inactive members with similar known characteristics.

*These graphs show a distribution of active members by age and by years of service.*

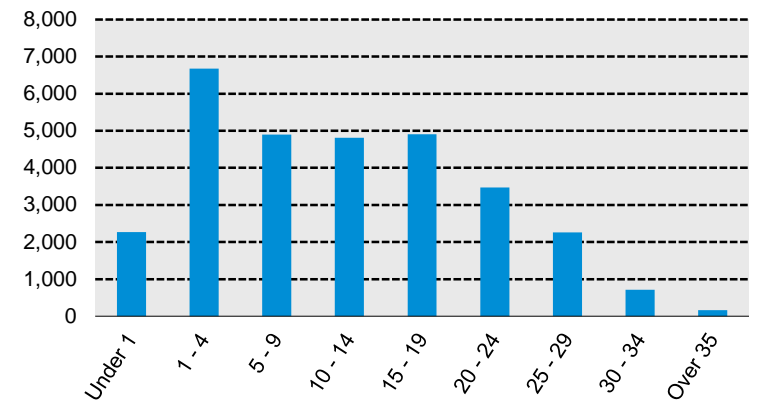
**CHART 2**

**Distribution of Active Members by Age as of December 31, 2014**



**CHART 3**

**Distribution of Active Members by Years of Service as of December 31, 2014**



**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

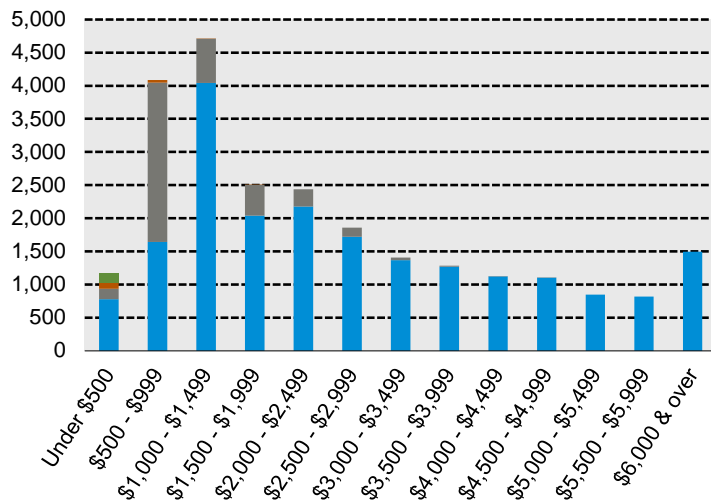
**Retirees and Beneficiaries**

As of December 31, 2014, 20,411 retirees and 4,441 beneficiaries were receiving total monthly benefits of \$63,634,307. For comparison, in the previous valuation, there were 20,113 retirees and 4,486 beneficiaries receiving monthly benefits of \$62,403,199.

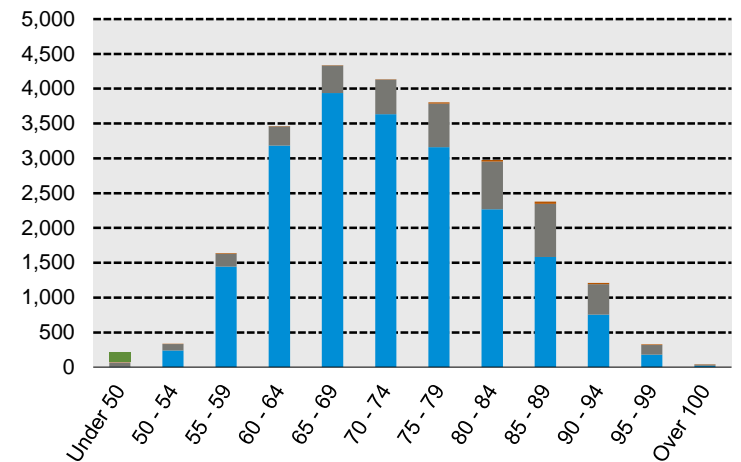
*These graphs show a distribution of the current retirees and beneficiaries based on their monthly amount and age, by type of pension.*

- Child Annuitants
- Reversionary Annuitants
- Surviving Spouse Annuitants
- Employee Annuitants

**CHART 4**  
**Distribution of Retirees and Beneficiaries by Type and by Monthly Amount as of December 31, 2014**



**CHART 5**  
**Distribution of Retirees and Beneficiaries by Type and by Age as of December 31, 2014**



## SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago

### B. FINANCIAL INFORMATION

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

*The chart shows the determination of the actuarial value of assets as of the valuation date.*

### CHART 6

#### Determination of Actuarial Value of Assets for Years Ended December 31, 2014 and December 31, 2013

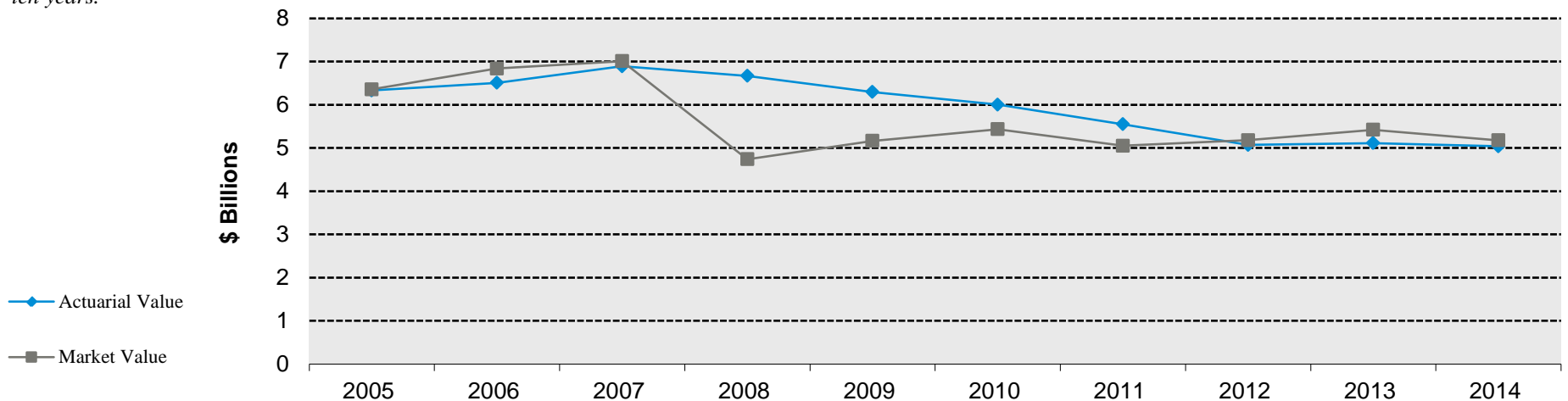
		2014	2013
1.	Market value of assets as of prior December 31	\$5,421,676,295	\$5,182,669,659
2.	Employer and employee contributions	288,769,612	289,237,144
3.	Benefits and expenses	814,241,536	785,502,940
4.	Expected investment income	386,920,525	370,090,257
5.	Total investment income, including income for securities lending	283,281,925	735,272,432
6.	Investment gain/(loss) for the year ended December 31: (5) – (4)	-103,638,600	365,182,175
7.	Market value of assets as of December 31	5,179,486,296	5,421,676,295
8.	Calculation of unrecognized return	<u>Original Amount*</u>	<u>% Not Recognized</u>
(a)	Year ended December 31, 2014	-\$103,638,600	80%
(b)	Year ended December 31, 2013	365,182,175	60%
(c)	Year ended December 31, 2012	203,329,666	40%
(d)	Year ended December 31, 2011	-386,707,137	20%
(e)	Year ended December 31, 2010	240,039,034	20%
(f)	Total unrecognized return	<u>140,188,864</u>	<u>% Not Recognized</u>
9.	Total actuarial value of assets as of December 31: (7) – (8f)	<u>\$5,039,297,432</u>	<u>\$5,114,207,803</u>

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

Both the actuarial value and market value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

*This chart shows the change in the actuarial value of assets versus the market value over the past ten years.*

**CHART 7**  
**Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2005 – 2014**



**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**C. ACTUARIAL EXPERIENCE**

To calculate the actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is \$95,335,525, \$86,701,165 from investment gains and \$8,634,360 in gains from all other sources. The net experience variation from individual sources other than investments was less than 0.1% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

*This chart provides a summary of the actuarial experience during the past year.*

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**CHART 8**  
**Actuarial Experience for Year Ended December 31, 2014**

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1. Net gain/(loss) from investments*	\$86,701,165
2. Net gain/(loss) from administrative expenses	-71,467
3. Net gain/(loss) from other experience**	<u>8,705,827</u>
4. Net experience gain/(loss): (1) + (2) + (3)	\$95,335,525

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\* Details in Chart 9

\*\* Details in Chart 12



**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the MEABF's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.50%. The actual rate of return on an actuarial basis for the 2014 plan year was 9.29%.

Since the actual return for the year was greater than the assumed return, the Fund experienced an actuarial gain during the year ended December 31, 2014 with regard to its investments.

*This chart shows the gain/(loss) due to investment experience.*

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**CHART 9**  
**Actuarial Value Investment Experience for Year Ended December 31, 2014**

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1. Actual return	\$450,561,553
2. Average value of assets	4,851,471,841
3. Actual rate of return: (1) ÷ (2)	9.29%
4. Assumed rate of return	7.50%
5. Expected return: (2) x (4)	\$363,860,388
6. Actuarial gain/(loss): (1) – (5)	<u>\$86,701,165</u>

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## SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago

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Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

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### CHART 10

#### Investment Return

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Year Ended December 31	Actuarial Value*	Market Value**
2005	4.5%	6.6%
2006	7.6%	12.7%
2007	11.0%	7.3%
2008	1.5%	(28.7)%
2009	(0.3)%	19.6%
2010	1.3%	14.2%
2011	(0.6)%	0.1%
2012	(0.4)%	12.8%
2013	11.1%	16.1%
2014	9.3%	4.7%
Average Returns		
Last 5 years	4.0%	9.4%
Last 10 years	4.4%	5.6%

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\* As determined by Segal

\*\* As determined by Investment Consultant

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

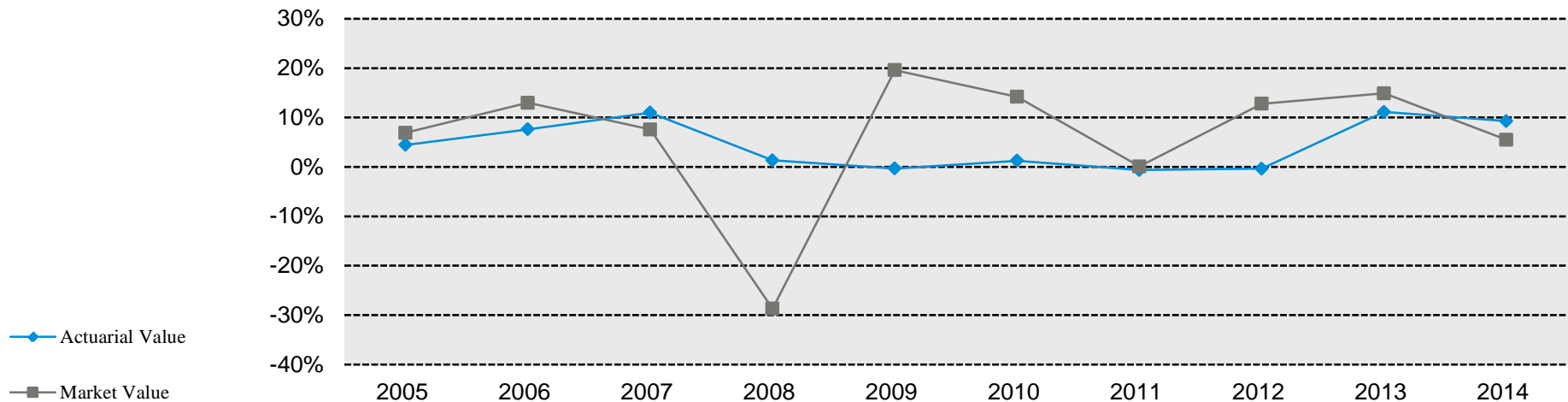
Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs. Chart 11 illustrates that the asset returns on a market basis tend to be more volatile than asset returns on an actuarial basis.

**Administrative Expenses**

Administrative expenses for the year ended December 31, 2014 totaled \$6,567,842 compared to the assumption of \$6,498,913. This resulted in a loss of \$71,467 for the year, when adjusted for timing.

*This chart illustrates how this leveling effect has actually worked over the years 2005 - 2014.*

**CHART 11**  
**Market and Actuarial Rates of Return for Years Ended December 31, 2005 - 2014**



**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),

- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended December 31, 2014 amounted to \$8,705,827, which is less than 0.1% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Fund for the year ended December 31, 2014 is shown in the chart below.

*The chart shows elements of the experience gain/(loss) for the most recent year.*

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**CHART 12**

**Experience Due to Changes in Demographics for Year Ended December 31, 2014**

1. Turnover	-\$14,710,593
2. Retirement	-5,029,460
3. Deaths among retirees and beneficiaries	16,894,300
4. Salary/service increase for continuing actives	92,081,758
5. New entrants	-8,663,405
6. Miscellaneous*	<u>-71,866,773</u>
7. Total	\$8,705,827

*\* Primarily due to change in software/actuary*

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**D. DEVELOPMENT OF EMPLOYER COSTS**

The amount of actuarially determined contribution is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the actuarially determined contribution of 38.56% of payroll.

The actuarially determined contribution is based on a 30-year, level dollar amortization of the unfunded actuarial accrued liability.

*The chart shows the calculation of the actuarially determined contribution for the upcoming year.*

**CHART 13**  
**Actuarially Determined Contribution**

	Year Beginning January 1, 2015	
	Amount	% of Payroll
1. Total normal cost, adjusted for timing	\$235,167,870*	13.40%
2. Administrative expenses	6,567,842	0.37%
3. Expected employee contributions	<u>-158,054,201</u>	<u>-9.00%</u>
4. Employer normal cost: (1) + (2) + (3)	\$83,681,511	4.77%
5. Actuarial accrued liability	12,307,094,062	
6. Actuarial value of assets	<u>5,039,297,432</u>	
7. Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	\$7,267,796,630	
8. Payment on unfunded actuarial accrued liability, adjusted for timing	593,518,735*	33.79%
9. Actuarially determined contribution: (4) + (8)	<u>\$677,200,246</u>	<u>38.56%</u>
10. Projected payroll	\$1,756,157,784	

\* Reflects timing adjustment to the middle of the year

## SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago

The contribution requirements as of December 31, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### Reconciliation of Actuarially Determined Contribution

The chart below details the changes in the actuarially determined contribution from the prior valuation to the current year's valuation.

#### CHART 14

#### Reconciliation of Actuarially Determined Contribution from December 31, 2013 to December 31, 2014

<b>Actuarially Determined Contribution as of December 31, 2013</b>	\$839,038,303
Effect of plan amendment(s)	-195,283,368
Effect of change in asset method	0
Effect of expected change in amortization payment due to payroll growth	0
Effect of rolling amortization period	-7,383,717
Effect of change in administrative expense assumption	68,929
Effect of change in other actuarial assumptions	0
Effect of contributions (more)/less than actuarially determined contribution	58,084,126
Effect of investment (gain)/loss	-7,080,381
Effect of other gains and losses on accrued liability	-9,227,553
Effect of net other changes	<u>-1,016,093</u>
<b>Total change</b>	<u>-\$161,838,057</u>
<b>Actuarially Determined Contribution as of December 31, 2014</b>	\$677,200,246

*The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.*

**SECTION 2: Valuation Results for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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The determination of the OPEB Annual Required Contribution is detailed below.

**Chart 15**  
**Annual Required Contribution: OPEB**

	Year Beginning January 1, 2015	
	Amount	% of Payroll
1. Normal Cost, adjusted for timing	\$27,562	0.00%
2. Unfunded Actuarial Accrued Liability (UAAL)		
(a) Actuarial Accrued Liability (AAL)	17,494,941	
(b) Actuarial Value of Assets	0	
(c) UAAL [(a) – (b)]	17,494,941	
3. Payment on UAAL (2 years, Level \$), adjusted for timing	9,146,541	0.57%
4. Minimum Actuarially Calculated Contributions [1 + 3]	9,174,103	0.57%
5. Estimated Member Contributions	0	
6. Annual Required Contribution (ARC) [4 - 5]	9,174,103	0.57%

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT A**

**Table of Plan Coverage**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2014</b>	<b>2013</b>	
<b>Active members in valuation:</b>			
Number*	30,160	30,647	-1.6%
Average age	46.8	46.7	N/A
Average years of service	12.0	11.9	N/A
Total pensionable salary supplied by the Fund	\$1,602,977,593	\$1,580,288,709	1.4%
Average pensionable salary	53,149	51,564	3.1%
Total active vested members	16,321	16,441	-0.7%
Male members	12,464	12,622	-1.3%
Female members	17,696	18,025	-1.8%
<b>Inactive members</b>	<b>15,495</b>	<b>14,254</b>	<b>8.7%</b>
<b>Deferred retirees</b>	<b>3</b>	<b>3</b>	<b>0.0%</b>
<b>Retirees:</b>			
Number in pay status	20,411	20,113	1.5%
Average age	72.7	72.6	N/A
Average monthly benefit	\$2,879	\$2,865	0.5%
<b>Surviving spouses:</b>			
Number in pay status	4,161	4,207	-1.1%
Average age	78.1	78.1	N/A
Average monthly benefit	\$1,148	\$1,117	2.8%
<b>Reversionary annuitants:</b>			
Number in pay status	139	138	0.7%
Average age	79.7	79.6	N/A
Average monthly benefit	\$392	\$399	-1.8%
<b>Children</b>	<b>141</b>	<b>141</b>	<b>0.0%</b>
<b>Total number of members</b>	<b>70,510</b>	<b>69,503</b>	<b>1.4%</b>

*\*Includes 440 and 420 members receiving disability benefits for 2013 and 2014, respectively*



**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B.1**

**All Members in Active Service as of December 31, 2014  
By Age, Years of Service, and Total Salary**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	39	28	11	--	--	--	--	--	--	--
	\$932,439	\$704,033	\$228,406	--	--	--	--	--	--	--
20 – 24	852	349	488	15	--	--	--	--	--	--
	26,068,802	10,831,092	14,780,696	\$457,014	--	--	--	--	--	--
25 – 29	2,258	495	1,379	346	38	--	--	--	--	--
	86,099,116	17,730,424	54,156,307	12,813,341	\$1,399,044	--	--	--	--	--
30 – 34	2,728	354	1,244	761	300	69	--	--	--	--
	128,000,476	14,513,010	59,418,878	35,580,213	14,260,713	\$4,227,662	--	--	--	--
35 – 39	3,012	290	957	710	638	372	45	--	--	--
	159,321,198	11,475,119	48,955,897	36,958,382	35,264,143	23,557,794	\$3,109,863	--	--	--
40 – 44	3,751	246	861	754	732	813	317	28	--	--
	210,007,326	9,467,364	43,678,823	40,148,076	40,879,913	53,171,774	20,795,718	\$1,865,658	--	--
45 – 49	4,257	205	634	665	805	905	701	321	21	--
	247,582,101	8,084,532	31,690,700	33,396,832	41,693,701	58,403,165	49,444,970	23,333,083	\$1,535,118	--
50 – 54	5,038	143	520	672	901	1,070	849	678	202	3
	288,874,263	5,443,829	24,457,054	31,951,950	44,674,830	60,109,682	55,948,058	49,819,053	16,254,791	\$215,016
55 – 59	4,348	101	350	491	763	883	821	657	247	35
	244,915,968	4,015,198	16,934,629	21,323,481	36,007,548	47,570,071	51,575,967	45,264,606	19,544,558	2,679,910
60 – 64	2,573	36	159	315	430	537	516	381	154	45
	143,233,562	1,351,862	7,934,043	14,112,213	19,643,798	29,890,527	30,892,593	25,320,457	11,084,910	3,003,159
65 – 69	908	12	56	118	146	188	156	138	58	36
	48,463,992	342,259	2,379,471	4,810,364	6,200,709	10,669,712	8,951,736	8,969,847	3,956,622	2,183,272
70 & Over	396	7	20	47	60	69	68	56	27	42
	19,478,350	273,748	795,788	1,463,877	2,367,258	3,743,478	3,618,164	3,326,937	1,618,832	2,270,268
<b>Total</b>	<b>30,160</b>	<b>2,266</b>	<b>6,679</b>	<b>4,894</b>	<b>4,813</b>	<b>4,906</b>	<b>3,473</b>	<b>2,259</b>	<b>709</b>	<b>161</b>
	<b>\$1,602,977,593</b>	<b>\$84,232,470</b>	<b>\$305,410,692</b>	<b>\$233,015,743</b>	<b>\$242,391,657</b>	<b>\$291,343,865</b>	<b>\$224,337,069</b>	<b>\$157,899,641</b>	<b>\$53,994,831</b>	<b>\$10,351,625</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B.2**

**Male Members in Active Service as of December 31, 2014  
By Age, Years of Service, and Total Salary**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	17	12	5	--	--	--	--	--	--	--
	\$404,192	\$313,086	\$91,106	--	--	--	--	--	--	--
20 – 24	336	132	194	10	--	--	--	--	--	--
	10,827,250	4,363,442	6,176,816	\$286,992	--	--	--	--	--	--
25 – 29	916	185	567	150	14	--	--	--	--	--
	38,078,234	6,921,981	24,183,537	6,359,231	\$613,485	--	--	--	--	--
30 – 34	1,227	134	584	355	124	30	--	--	--	--
	64,324,321	6,240,998	30,497,421	18,817,776	6,749,225	\$2,018,901	--	--	--	--
35 – 39	1,274	93	445	292	256	171	17	--	--	--
	78,177,452	4,295,608	26,448,530	17,735,646	16,020,551	12,399,493	\$1,277,624	--	--	--
40 – 44	1,594	84	416	334	291	344	116	9	--	--
	104,465,532	3,992,430	23,842,419	21,945,619	19,255,468	25,807,074	8,939,231	\$683,291	--	--
45 – 49	1,790	76	274	284	301	353	348	141	13	--
	126,097,770	3,141,594	16,644,468	18,271,808	20,086,475	27,749,185	27,976,198	11,289,271	\$938,771	--
50 – 54	2,048	50	221	275	310	392	342	331	127	--
	147,783,235	2,319,928	12,905,263	16,569,420	20,864,541	29,457,762	27,756,439	26,803,578	11,106,304	--
55 – 59	1,728	41	153	183	257	284	326	311	153	20
	126,146,547	1,962,083	9,454,179	10,353,380	16,784,857	21,275,457	26,614,494	25,141,998	12,930,026	\$1,630,073
60 – 64	1,048	18	88	129	144	192	196	161	96	24
	74,767,894	783,692	5,109,633	7,722,088	9,155,987	14,506,419	14,797,501	13,139,147	7,751,003	1,802,424
65 – 69	335	3	26	44	47	64	49	59	28	15
	22,644,675	39,151	1,190,590	2,448,630	2,762,189	4,690,206	3,480,454	4,725,390	2,214,218	1,093,847
70 & Over	151	2	7	19	32	32	20	21	6	12
	9,539,156	51,656	293,025	735,322	1,606,770	2,144,292	1,577,909	1,642,153	491,903	996,126
<b>Total</b>	<b>12,464</b>	<b>830</b>	<b>2,980</b>	<b>2,075</b>	<b>1,776</b>	<b>1,862</b>	<b>1,414</b>	<b>1,033</b>	<b>423</b>	<b>71</b>
	<b>\$803,256,258</b>	<b>\$34,425,649</b>	<b>\$156,836,987</b>	<b>\$121,245,912</b>	<b>\$113,899,548</b>	<b>\$140,048,789</b>	<b>\$112,419,850</b>	<b>\$83,424,828</b>	<b>\$35,432,225</b>	<b>\$5,522,470</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B.3**

**Female Members in Active Service as of December 31, 2014  
By Age, Years of Service, and Total Salary**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	22	16	6	--	--	--	--	--	--	--
	\$528,247	\$390,947	\$137,300	--	--	--	--	--	--	--
20 – 24	516	217	294	5	--	--	--	--	--	--
	15,241,552	6,467,650	8,603,880	\$170,022	--	--	--	--	--	--
25 – 29	1,342	310	812	196	24	--	--	--	--	--
	48,020,882	10,808,443	29,972,770	6,454,110	\$785,559	--	--	--	--	--
30 – 34	1,501	220	660	406	176	39	--	--	--	--
	63,676,155	8,272,012	28,921,457	16,762,437	7,511,488	\$2,208,761	--	--	--	--
35 – 39	1,738	197	512	418	382	201	28	--	--	--
	81,143,746	7,179,511	22,507,367	19,222,736	19,243,592	11,158,301	\$1,832,239	--	--	--
40 – 44	2,157	162	445	420	441	469	201	19	--	--
	105,541,794	5,474,934	19,836,404	18,202,457	21,624,445	27,364,700	11,856,487	\$1,182,367	--	--
45 – 49	2,467	129	360	381	504	552	353	180	8	--
	121,484,331	4,942,938	15,046,232	15,125,024	21,607,226	30,653,980	21,468,772	12,043,812	\$596,347	--
50 – 54	2,990	93	299	397	591	678	507	347	75	3
	141,091,028	3,123,901	11,551,791	15,382,530	23,810,289	30,651,920	28,191,619	23,015,475	5,148,487	\$215,016
55 – 59	2,620	60	197	308	506	599	495	346	94	15
	118,769,421	2,053,115	7,480,450	10,970,101	19,222,691	26,294,614	24,961,473	20,122,608	6,614,532	1,049,837
60 – 64	1,525	18	71	186	286	345	320	220	58	21
	68,465,668	568,170	2,824,410	6,390,125	10,487,811	15,384,108	16,095,092	12,181,310	3,333,907	1,200,735
65 – 69	573	9	30	74	99	124	107	79	30	21
	25,819,317	303,108	1,188,881	2,361,734	3,438,520	5,979,506	5,471,282	4,244,457	1,742,404	1,089,425
70 & Over	245	5	13	28	28	37	48	35	21	30
	9,939,194	222,092	502,763	728,555	760,488	1,599,186	2,040,255	1,684,784	1,126,929	1,274,142
Total	17,696	1,436	3,699	2,819	3,037	3,044	2,059	1,226	286	90
	\$799,721,335	\$49,806,821	\$148,573,705	\$111,769,831	\$128,492,109	\$151,295,076	\$111,917,219	\$74,474,813	\$18,562,606	\$4,829,155

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B.4**

**Board of Education Plan Members in Active Service as of December 31, 2014  
By Age, Years of Service, and Total Salary**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	31	27	4	--	--	--	--	--	--	--
	\$837,532	\$699,098	\$138,434	--	--	--	--	--	--	--
20 – 24	693	296	386	11	--	--	--	--	--	--
	21,560,421	9,358,357	11,823,330	\$378,734	--	--	--	--	--	--
25 – 29	1,794	401	1,095	290	8	--	--	--	--	--
	65,725,829	14,011,486	40,572,279	10,861,583	\$280,481	--	--	--	--	--
30 – 34	1,891	255	881	547	180	28	--	--	--	--
	80,093,675	9,618,238	37,069,953	23,353,298	7,897,286	\$2,154,900	--	--	--	--
35 – 39	1,760	233	622	424	360	119	2	--	--	--
	75,958,852	8,553,877	26,830,158	18,303,451	16,137,580	6,041,611	\$92,175	--	--	--
40 – 44	2,007	184	565	449	387	300	112	10	--	--
	85,247,465	6,414,305	23,628,761	19,257,276	16,354,035	13,739,345	5,296,384	\$557,359	--	--
45 – 49	2,128	141	412	395	480	354	234	100	12	--
	90,451,372	5,246,007	16,952,150	15,501,958	18,600,761	15,553,430	11,792,039	5,963,181	\$841,846	--
50 – 54	2,546	96	346	403	534	515	353	228	71	--
	105,597,432	3,313,524	13,405,721	14,799,309	19,696,162	19,861,837	16,501,667	13,230,148	4,789,064	--
55 – 59	2,132	61	210	295	454	435	376	239	54	8
	85,076,863	2,085,188	8,177,698	9,468,210	16,012,985	16,155,649	17,550,382	11,722,676	3,287,008	\$617,067
60 – 64	1,231	23	95	186	257	250	223	147	37	13
	48,792,940	895,013	3,907,735	6,347,852	8,736,251	9,746,181	9,599,216	6,918,096	1,827,951	814,645
65 – 69	380	8	38	57	73	65	60	55	18	6
	14,452,498	269,289	1,415,260	1,551,577	2,441,781	2,378,153	2,621,584	2,541,590	986,690	246,574
70 & Over	139	6	10	31	25	13	23	14	10	7
	4,857,866	260,093	562,370	769,486	683,579	484,501	842,597	538,419	379,022	337,799
Total	16,732	1,731	4,664	3,088	2,758	2,079	1,383	793	202	34
	\$678,652,745	\$60,724,475	\$184,483,849	\$120,592,734	\$106,840,901	\$86,115,607	\$64,296,044	\$41,471,469	\$12,111,581	\$2,016,085

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B.5**

**City Plan Members in Active Service as of December 31, 2014  
By Age, Years of Service, and Total Salary**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	6	--	6	--	--	--	--	--	--	--
	\$85,851	--	\$85,851	--	--	--	--	--	--	--
20 – 24	158	53	101	4	--	--	--	--	--	--
	4,474,352	\$1,472,735	2,923,337	\$78,280	--	--	--	--	--	--
25 – 29	462	94	282	56	30	--	--	--	--	--
	20,300,668	3,718,938	13,511,409	1,951,758	\$1,118,563	--	--	--	--	--
30 – 34	829	99	360	210	119	41	--	--	--	--
	47,454,296	4,894,772	22,222,978	11,962,211	6,301,573	\$2,072,762	--	--	--	--
35 – 39	1,242	57	333	284	274	251	43	--	--	--
	82,411,856	2,921,242	22,044,733	18,523,423	18,503,149	17,401,621	\$3,017,688	--	--	--
40 – 44	1,735	62	296	305	343	509	202	18	--	--
	123,834,921	3,053,059	20,050,062	20,890,800	24,261,105	39,034,384	15,237,212	\$1,308,299	--	--
45 – 49	2,117	64	222	268	321	548	465	220	9	--
	155,719,603	2,838,525	14,738,550	17,619,326	22,667,816	42,495,563	37,371,182	17,295,369	\$693,272	--
50 – 54	2,483	47	174	268	364	554	494	448	131	3
	182,583,369	2,130,305	11,051,333	17,072,611	24,748,721	40,151,304	39,291,666	36,456,686	11,465,727	\$215,016
55 – 59	2,205	40	140	195	305	444	444	418	192	27
	158,907,801	1,930,010	8,756,931	11,811,676	19,603,085	31,150,349	33,964,283	33,541,930	16,086,694	2,062,843
60 – 64	1,336	13	64	128	172	286	292	234	116	31
	93,981,296	456,849	4,026,308	7,722,871	10,860,287	20,036,197	21,222,209	18,402,361	9,141,526	2,112,688
65 – 69	525	4	17	61	73	122	96	83	40	29
	33,777,966	72,970	943,853	3,258,787	3,758,928	8,197,026	6,330,152	6,428,257	2,969,932	1,818,061
70 & Over	255	1	10	16	35	55	44	42	17	35
	14,494,773	13,655	233,418	694,391	1,683,679	3,199,600	2,709,233	2,788,518	1,239,810	1,932,469
<b>Total</b>	<b>13,353</b>	<b>534</b>	<b>2,005</b>	<b>1,795</b>	<b>2,036</b>	<b>2,810</b>	<b>2,080</b>	<b>1,463</b>	<b>505</b>	<b>125</b>
	<b>\$918,026,752</b>	<b>\$23,503,060</b>	<b>\$120,588,763</b>	<b>\$111,586,134</b>	<b>\$133,506,906</b>	<b>\$203,738,806</b>	<b>\$159,143,625</b>	<b>\$116,221,420</b>	<b>\$41,596,961</b>	<b>\$8,141,077</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT C**

**Inactive Members as of December 31, 2014  
By Age and Years of Service**

Age	Years of Service									
	Total	Under 1	1 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 & Over
Under 20	4	4	--	--	--	--	--	--	--	--
20 – 24	271	133	138	--	--	--	--	--	--	--
25 – 29	1,304	481	786	37	--	--	--	--	--	--
30 – 34	2,023	556	1,292	157	18	--	--	--	--	--
35 – 39	1,978	456	1,199	244	75	4	--	--	--	--
40 – 44	2,032	437	1,091	305	145	43	10	1	--	--
45 – 49	2,121	579	981	283	168	75	27	8	--	--
50 – 54	1,934	308	838	309	246	131	80	20	2	--
55 – 59	1,641	211	699	295	246	139	44	5	2	--
60 – 64	1,029	172	491	166	99	59	28	12	1	1
65 – 69	532	108	250	112	25	18	11	4	4	--
70 & Over	594	80	277	123	54	21	15	15	5	4
Unknown	32	19	9	4	--	--	--	--	--	--
<b>Total</b>	<b>15,495</b>	<b>3,544</b>	<b>8,051</b>	<b>2,035</b>	<b>1,076</b>	<b>490</b>	<b>215</b>	<b>65</b>	<b>14</b>	<b>5</b>
Average Age	46.09									
Average Service	3.86									

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D.1**

**Employee Annuitants as of December 31, 2014  
By Age and Annual Benefit**

Age	Male		Female	
	Number	Annual Payments	Number	Annual Payments
Under 50	--	--	4	\$47,484
50 – 54	132	\$7,761,048	107	5,090,208
55 – 59	763	40,595,808	683	26,214,024
60 – 64	1,367	68,011,896	1,818	56,314,944
65 – 69	1,558	70,760,520	2,378	67,496,844
70 – 74	1,355	57,605,340	2,280	61,943,508
75 – 79	1,101	46,178,388	2,059	53,909,316
80 – 84	842	34,572,408	1,425	35,980,464
85 – 89	575	24,204,504	1,007	23,317,260
90 – 94	246	9,497,364	510	10,765,920
95 – 99	56	1,759,092	126	2,463,084
100 & over	<u>6</u>	<u>126,600</u>	<u>13</u>	<u>216,852</u>
<b>Totals</b>	8,001	\$361,072,968	12,410	\$343,759,908

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D.2**

**Surviving Spouse Annuitants as of December 31, 2014  
By Age and Annual Benefit**

Age	Male		Female	
	Number	Annual Payments	Number	Annual Payments
Under 30	--	--	--	--
30 – 34	--	--	--	--
35 – 39	2	\$19,200	6	\$57,600
40 – 44	1	9,600	11	109,920
45 – 49	6	58,848	36	477,276
50 – 54	22	253,356	69	973,080
55 – 59	41	504,864	140	2,107,404
60 – 64	40	426,816	233	3,548,976
65 – 69	97	1,175,112	299	4,559,424
70 – 74	103	1,202,220	390	6,091,824
75 – 79	134	1,558,128	490	7,532,484
80 – 84	115	1,327,548	573	8,369,832
85 – 89	141	1,568,868	622	8,573,832
90 – 94	58	635,520	379	4,526,940
95 – 99	19	188,100	116	1,292,136
100 & over	<u>2</u>	<u>25,752</u>	<u>16</u>	<u>148,884</u>
<b>Totals</b>	781	\$8,953,932	3,380	\$48,369,612



**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D.3**

**Reversionary Annuitants as of December 31, 2014  
By Age and Annual Benefit**

Age	Male		Female	
	Number	Annual Payments	Number	Annual Payments
Under 30	--	--	1	\$2,616
30 – 34	--	--	1	1,092
35 – 39	--	--	1	2,784
40 – 44	--	--	2	3,048
45 – 49	--	--	1	1,848
50 – 54	1	\$744	1	696
55 – 59	1	18,864	8	57,840
60 – 64	--	--	7	30,912
65 – 69	2	4,584	1	3,552
70 – 74	1	4,440	7	47,124
75 – 79	--	--	21	122,352
80 – 84	--	--	19	93,192
85 – 89	--	--	33	137,736
90 – 94	--	--	19	82,908
95 – 99	--	--	10	32,436
100 & over	--	--	<u>2</u>	<u>4,356</u>
<b>Totals</b>	<b>5</b>	<b>\$28,632</b>	<b>134</b>	<b>\$624,492</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D.4**

**Retirees and Beneficiaries as of December 31, 2014  
By Monthly Benefit Amount and Type**

<b>Amount of Monthly Benefit</b>	<b>Number of Employee Annuitants</b>	<b>Number of Spouse Annuitants</b>	<b>Number of Reversionary Annuitants</b>	<b>Number of Child Annuitants</b>	<b>Total Number of Annuitants</b>
Under \$500	776	160	98	141	1,175
\$500 - \$999	1,644	2,404	36	--	4,084
\$1,000 - \$1,499	4,040	671	3	--	4,714
\$1,500 - \$1,999	2,038	467	2	--	2,507
\$2,000 - \$2,499	2,176	263	--	--	2,439
\$2,500 - \$2,999	1,719	140	--	--	1,859
\$3,000 - \$3,499	1,366	40	--	--	1,406
\$3,500 - \$3,999	1,270	13	--	--	1,283
\$4,000 - \$4,499	1,120	2	--	--	1,122
\$4,500 - \$4,999	1,102	1	--	--	1,103
\$5,000 - \$5,499	846	--	--	--	846
\$5,500 - \$5,999	818	--	--	--	818
\$6,000 & over	<u>1,496</u>	--	--	--	<u>1,496</u>
Totals	20,411	4,161	139	141	24,852

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E.1**

**Health Insurance Coverage as of December 31, 2014 – All Plan Members**

**Employee Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	0	0	0	0	--
40 - 49	1	0	1	3	4	25.00%
50 - 59	395	213	608	1,077	1,685	36.08%
60 - 69	1,750	814	2,564	4,557	7,121	36.01%
70 - 79	2,012	841	2,853	3,942	6,795	41.99%
80 - 89	1,438	479	1,917	1,932	3,849	49.81%
90 & Over	451	89	540	417	957	56.43%
<b>Total</b>	<b>6,047</b>	<b>2,436</b>	<b>8,483</b>	<b>11,928</b>	<b>20,411</b>	<b>41.56%</b>

**Spouse Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	1	1	7	8	12.50%
40 - 49	5	3	8	46	54	14.81%
50 - 59	37	8	45	227	272	16.54%
60 - 69	176	5	181	488	669	27.06%
70 - 79	406	4	410	707	1,117	36.71%
80 - 89	653	3	656	795	1,451	45.21%
90 & Over	280	3	283	307	590	47.97%
<b>Total</b>	<b>1,557</b>	<b>27</b>	<b>1,584</b>	<b>2,577</b>	<b>4,161</b>	<b>38.07%</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E.2**

**Health Insurance Coverage as of December 31, 2014 – City Plan Members**

**Employee Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	0	0	0	0	--
40 - 49	1	0	1	2	3	33.33%
50 - 59	392	213	605	520	1,125	53.78%
60 - 69	1,672	792	2,464	1,639	4,103	60.05%
70 - 79	1,731	798	2,529	930	3,459	73.11%
80 - 89	1,060	430	1,490	479	1,969	75.67%
90 & Over	292	74	366	115	481	76.09%
<b>Total</b>	<b>5,148</b>	<b>2,307</b>	<b>7,455</b>	<b>3,685</b>	<b>11,140</b>	<b>66.92%</b>

**Spouse Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	1	1	3	4	25.00%
40 - 49	5	3	8	24	32	25.00%
50 - 59	37	8	45	138	183	24.59%
60 - 69	173	5	178	270	448	39.73%
70 - 79	392	4	396	317	713	55.54%
80 - 89	578	3	581	379	960	60.52%
90 & Over	223	2	225	181	406	55.42%
<b>Total</b>	<b>1,408</b>	<b>26</b>	<b>1,434</b>	<b>1,312</b>	<b>2,746</b>	<b>52.22%</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E.3**

**Health Insurance Coverage as of December 31, 2014 – Board of Education Members**

**Employee Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	0	0	0	0	--
40 - 49	0	0	0	1	1	0.00%
50 - 59	3	0	3	557	560	0.54%
60 - 69	78	22	100	2,918	3,018	3.31%
70 - 79	281	43	324	3,012	3,336	9.71%
80 - 89	378	49	427	1,453	1,880	22.71%
90 & Over	159	15	174	302	476	36.55%
<b>Total</b>	<b>899</b>	<b>129</b>	<b>1,028</b>	<b>8,243</b>	<b>9,271</b>	<b>11.09%</b>

**Spouse Annuitants**

<b>Age</b>	<b>Single Coverage</b>	<b>Family Coverage</b>	<b>Total Covered</b>	<b>Total Not Covered</b>	<b>Total Annuitants</b>	<b>% Covered Annuitants</b>
Under 30	0	0	0	0	0	--
30 - 39	0	0	0	4	4	0.00%
40 - 49	0	0	0	22	22	0.00%
50 - 59	0	0	0	89	89	0.00%
60 - 69	3	0	3	218	221	1.36%
70 - 79	14	0	14	390	404	3.47%
80 - 89	75	0	75	416	491	15.27%
90 & Over	57	1	58	126	184	31.52%
<b>Total</b>	<b>149</b>	<b>1</b>	<b>150</b>	<b>1,265</b>	<b>1,415</b>	<b>10.60%</b>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT F**

**Reconciliation of Member Data**

	<b>Active Members*</b>	<b>Inactive Members</b>	<b>Deferred Retirees</b>	<b>Retirees</b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of December 31, 2013	30,647	14,254	3	20,113	4,486	69,503
New members	2,871	N/A	N/A	N/A	N/A	2,871
Terminations	-1,868	1,868	0	0	0	0
Retirements	-827	-212	0	1,039	N/A	0
Died with beneficiary	-37	-6	0	-197	240	0
Died without beneficiary	-41	-11	0	-550	-308	-910
Refunds	-784	-238	0	0	0	-1,022
Rehire	204	-202	0	-2	N/A	0
Net transfers	-5	42	0	0	0	37
Temporary annuity expired	N/A	N/A	NA	-7	-24	-31
Data adjustment	<u>0</u>	<u>0</u>	<u>0</u>	<u>15</u>	<u>47</u>	<u>62</u>
Number as of December 31, 2014	30,160	15,495	3	20,411	4,441	70,510

\* Includes members receiving disability benefits

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT G.1**

**Summary Statement of Income and Expenses on a Market Value Basis**

	Year Ended December 31, 2014	Year Ended December 31, 2013
<b>Net assets at market value at the beginning of the year</b>	\$5,421,676,295	\$5,182,669,659
<b>Contribution income:</b>		
Employer contributions	\$158,797,631	\$157,704,971
Employee contributions	129,971,981	131,532,173
Administrative expenses	<u>-6,567,842</u>	<u>-6,498,913</u>
Net contribution income	282,201,770	282,738,231
<b>Investment income:</b>		
Interest, dividends and other income	\$133,521,538	\$119,533,435
Asset appreciation	174,388,129	641,676,103
Less investment and administrative fees	<u>-24,627,742</u>	<u>-25,937,106</u>
Net investment income	<u>283,281,925</u>	<u>735,272,432</u>
<b>Total income available for benefits</b>	\$565,483,695	\$1,018,010,663
<b>Less benefit payments:</b>		
Annuity payments	-\$754,391,331	-\$723,880,608
Refund of contributions	-32,325,780	-33,456,449
Disability payments	-11,905,700	-12,158,883
Postemployment healthcare subsidy	<u>-9,050,883</u>	<u>-9,508,087</u>
Net benefit payments	-\$807,673,694	-\$779,004,027
<b>Change in reserve for future benefits</b>	-\$242,189,999	\$239,006,636
<b>Net assets at market value at the end of the year</b>	\$5,179,486,296	\$5,421,676,295

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT G.2**

**Summary Statement of Income and Expenses on a Book Value Basis**

	Year Ended December 31, 2014	Year Ended December 31, 2013
<b>Net assets at book value at the beginning of the year</b>	\$4,571,003,387	\$4,714,152,568
<b>Contribution income:</b>		
Employer contributions	\$158,797,631	\$157,704,971
Employee contributions	129,971,981	131,532,173
Administrative expenses	<u>-6,567,842</u>	<u>-6,498,913</u>
Net contribution income	282,201,770	282,738,231
<b>Investment income:</b>		
Interest, dividends and other income	\$133,521,538	\$119,533,435
Realized investment gain/(loss)	254,956,970	259,520,286
Less investment and administrative fees	<u>-24,627,742</u>	<u>-25,937,106</u>
Net investment income	<u>363,850,766</u>	<u>353,116,615</u>
<b>Total income available for benefits</b>	\$646,052,536	\$635,854,846
<b>Less benefit payments:</b>		
Annuity payments	-\$754,391,331	-\$723,880,608
Refund of contributions	-32,325,780	-33,456,449
Disability payments	-11,905,700	-12,158,883
Postemployment healthcare subsidy	<u>-9,050,883</u>	<u>-9,508,087</u>
Net benefit payments	-\$807,673,694	-\$779,004,027
<b>Change in reserve for future benefits</b>	-\$161,621,158	-\$143,149,181
<b>Net assets at book value at the end of the year</b>	\$4,409,382,228	\$4,571,003,387



**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT H**

**Summary Statement of Plan Assets**

	Year Ended December 31, 2014	Year Ended December 31, 2013
<b>Cash equivalents</b>	\$489,181	\$489,134
<b>Accounts receivable:</b>		
Contributions	\$170,523,074	\$168,708,906
Interest and dividends	12,940,276	15,535,870
Investments sold	39,908,005	39,862,563
Miscellaneous	<u>299,515</u>	<u>277,108</u>
Total accounts receivable	223,670,870	224,384,447
<b>Investments, at fair value:</b>		
Equities	\$2,819,487,638	\$3,086,927,428
Fixed income	1,284,769,161	1,276,960,316
Real estate	493,998,298	487,640,544
Short-term investments	213,971,637	212,664,580
Other	<u>255,281,280</u>	<u>245,680,753</u>
Total investments at market value	<u>5,067,508,014</u>	<u>5,309,873,621</u>
<b>Invested securities lending collateral</b>	391,442,762	592,858,237
<b>Capital assets</b>	<u>15,299</u>	<u>179,826</u>
<b>Total assets</b>	\$5,683,126,126	\$6,127,785,265
<b>Less accounts payable:</b>		
Securities lending collateral	-\$393,208,539	-\$596,267,607
Investments purchased	-99,258,070	-99,123,876
Accounts payable	-6,929,526	-6,944,398
OPEB liability	<u>-4,243,695</u>	<u>-3,773,089</u>
Total accounts payable	-\$503,639,830	-\$706,108,970
<b>Net assets at market value</b>	<u>\$5,179,486,296</u>	<u>\$5,421,676,295</u>
<b>Net assets at actuarial value</b>	<u>\$5,039,297,432</u>	<u>\$5,114,207,803</u>

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I**

**Development of the Fund Through December 31, 2014**

<b>Year Ended December 31</b>	<b>Employer Contributions</b>	<b>Employee Contributions</b>	<b>Net Investment Return*</b>	<b>Administrative Expenses</b>	<b>Benefit Payments</b>	<b>Actuarial Value of Assets at End of Year</b>
2005	\$155,067,116	\$122,542,484	\$277,466,346	\$5,545,268	\$560,228,161	\$6,332,378,676
2006	157,062,769	129,466,091	471,253,769	6,397,685	574,617,994	6,509,145,626
2007	148,137,050	132,442,200	698,847,365	7,532,301	590,577,022	6,890,462,918
2008	155,832,612	137,748,907	101,373,105	7,749,714	608,166,058	6,669,501,770
2009	157,697,608	130,980,605	(21,761,698)	7,765,918	632,864,176	6,295,788,191
2010	164,302,005	133,299,542	76,825,912	6,744,947	660,081,098	6,003,389,605
2011	156,525,374	132,596,417	(37,170,409)	7,375,338	695,674,232	5,552,291,417
2012	158,380,709	130,266,293	(19,193,464)	6,841,486	741,583,194	5,073,320,275
2013	157,704,971	131,532,173	537,153,324	6,498,913	779,004,027	5,114,207,803
2014	158,797,631	129,971,981	450,561,553	6,567,842	807,673,694	5,039,297,432

\* Actuarial investment return, net of investment fees

**SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT J**

**Development of Unfunded Actuarial Accrued Liability**

	Year Ending December 31	
	2014	2013
1. Unfunded actuarial accrued liability at beginning of year*	\$8,742,285,563	\$8,564,139,771
2. Normal cost at beginning of year*	253,748,078	265,457,853
3. Total contributions	-288,769,612	-289,237,144
4. Interest		
(a) Unfunded actuarial accrued liability and normal cost	\$674,702,523	\$662,219,822
(b) Total contributions	<u>-10,633,094</u>	<u>-10,650,310</u>
(c) Total interest: (4a) + (4b)	<u>664,069,429</u>	<u>651,569,512</u>
5. Expected unfunded actuarial accrued liability: (1) + (2) + (3) + (4c)	\$9,371,333,458	\$9,191,929,992
6. Changes due to (gain)/loss from:		
(a) Investments	-\$86,701,165	-\$174,927,836
(b) Demographics and other	<u>-8,634,360</u>	<u>-144,376,875</u>
(c) Total changes due to (gain)/loss: (6a) + (6b)	-95,335,525	-319,304,711
7. Change due to plan provisions	-1,990,706,362	-130,339,718
8. Change in actuarial assumptions	<u>0</u>	<u>0</u>
9. Unfunded actuarial accrued liability at end of year*: (5) + (6c) + (7) + (8)	<u>\$7,285,291,571</u>	<u>\$8,742,285,563</u>

\* Includes pension and OPEB liabilities

### SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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#### EXHIBIT K

#### Definitions of Pension Terms

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The following list defines certain technical terms for the convenience of the reader:

**Actuarial Accrued Liability**

**For Actives:**

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

**Actuarial Accrued Liability**

**For Pensioners:**

The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

**Actuarial Cost Method:**

A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the Annual Required Contribution.

**Actuarial Gain or Actuarial Loss:**

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., MEABF's assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

**Actuarially Equivalent:**

Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

### SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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**Actuarial Present Value (APV):** The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:

- a. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)
- b. Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

**Actuarial Present Value of Future Plan Benefits:** The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

**Actuarial Valuation:** The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).

**Actuarial Value of Assets:** The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.

**Actuarially Determined:** Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

### SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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**Actuarially Determined Contribution (ADC):**

The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.

**Amortization Method:**

A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

**Amortization Payment:**

The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

**Assumptions or Actuarial Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Withdrawal rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Closed Amortization Period:**

A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

**Decrements:**

Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

### SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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<b>Defined Benefit Plan:</b>	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
<b>Defined Contribution Plan:</b>	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
<b>Employer Normal Cost:</b>	The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.
<b>Experience Study:</b>	A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
<b>Funded Ratio:</b>	The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA, as another measure of the Plan's health.
<b>GASB:</b>	Governmental Accounting Standards Board.
<b>GASB 25 and GASB 27:</b>	Governmental Accounting Standards Board Statements No. 25 and No. 27. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
<b>GASB 67 and GASB 68:</b>	Governmental Accounting Standards Board Statements No. 67 and No. 68 are the successor statements to GASB Statements No. 25 and No. 27.
<b>Investment Return:</b>	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
<b>Net Pension Liability (NPL):</b>	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.

### SECTION 3: Supplemental Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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<b>Normal Cost:</b>	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.
<b>Open Amortization Period:</b>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount, or in relation to covered payroll, if the actuarial assumptions are realized.
<b>Plan Fiduciary Net Position:</b>	Market value of assets.
<b>Total Pension Liability (TPL):</b>	The actuarially accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
<b>Unfunded Actuarial Accrued Liability:</b>	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
<b>Valuation Date or Actuarial Valuation Date:</b>	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.



**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT A**

**Summary of Actuarial Valuation Results**

The valuation was made with respect to the following data supplied to us:

1. Pensioners as of the valuation date (including 4,441 beneficiaries and 3 deferred retirees)		24,855
2. Members inactive during year ended December 31, 2014 with vested rights		1,865
3. Members active during the year ended December 31, 2014		30,160
Fully vested	16,325	
Not vested	13,835	
4. Other non-vested inactive members as of the valuation date		13,630

**Determination of Actuarial Accrued Liability:**

	<b>Actuarial Present Value of Projected Benefits</b>	<b>Actuarial Present Value of Future Normal Costs</b>	<b>Actuarial Accrued Liability</b>
1. Active members			
a. Retirement benefits	\$6,206,302,623	\$1,407,043,806	\$4,799,258,817
b. Death benefits	101,960,675	34,187,359	67,773,316
c. Withdrawal benefits	<u>539,287,500</u>	<u>470,119,324</u>	<u>69,168,176</u>
d. Total	\$6,847,550,798	\$1,911,350,489	\$4,936,200,309
2. Inactive vested members	248,757,941	--	248,757,941
3. Inactive non-vested members	108,335,768	--	108,335,768
4. Retirees and beneficiaries	<u>7,013,800,044</u>	<u>--</u>	<u>7,013,800,044</u>
5. Total	\$14,218,444,551	\$1,911,350,489	\$12,307,094,062

**Determination of Unfunded Actuarial Accrued Liability:**

1. Actuarial accrued liability	\$12,307,094,062
2. Actuarial value of assets (\$5,179,486,296 at market value)	5,039,297,432
3. Unfunded actuarial accrued liability	\$7,267,796,630

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT A (continued)**

**Summary of Actuarial Valuation Results**

Components of normal cost:	Tier 1		Tier 2		Total	
	<u>% of Payroll</u>	<u>Amount</u>	<u>% of Payroll</u>	<u>Amount</u>	<u>% of Payroll</u>	<u>Amount</u>
1. Retirement	9.70%	\$132,861,553	6.16%	\$23,831,258	8.92%	\$156,692,811
2. Turnover	3.23%	44,295,539	2.26%	8,750,470	3.02%	53,046,009
3. Mortality	0.22%	2,979,982	0.24%	926,050	0.22%	3,906,032
4. Disability	<u>0.75%</u>	<u>10,271,416</u>	<u>0.75%</u>	<u>2,899,767</u>	<u>0.75%</u>	<u>13,171,183</u>
5. Total normal cost: (1) + (2) + (3) + (4)	13.90%	\$190,408,490	9.41%	\$36,407,545	12.91%	\$226,816,035
6. Total normal cost, adjusted for timing*					13.40%	235,167,870
7. Administrative expenses					<u>0.37%</u>	<u>6,567,842</u>
8. Total normal cost, including administrative expenses: (6) + (7)					13.77%	\$241,735,712
9. Expected employee contributions					<u>-9.00%</u>	<u>-158,054,201</u>
10. Employer normal cost: (8) + (9)					4.77%	\$83,681,511

The determination of the actuarially determined contribution is as follows:

1. Total normal cost, adjusted to the middle of the year	\$235,167,870
2. Administrative expenses	6,567,842
3. Expected employee contributions	<u>-158,054,201</u>
4. Employer normal cost: (1) + (2) + (3)	\$83,681,511
5. Payment on projected unfunded/(overfunded) actuarial accrued liability, adjusted for timing*	593,518,735
6. Total actuarially determined contribution: (4) + (5)	<u>\$677,200,246</u>
7. Expected employer contributions	\$233,588,700
8. Projected payroll	\$1,756,157,784
9. Actuarially determined contribution as a percentage of projected payroll: (6) ÷ (8)	38.56%

\* Reflects timing adjustment to the middle of the year.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B**

**Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)</b>
12/31/2005	\$6,332,378,676	\$9,250,211,817	\$2,917,833,141	68.46%	\$1,407,323,058	207.33%
12/31/2006	6,509,145,626	9,476,118,446	2,966,972,820	68.69%	1,475,877,378	201.03%
12/31/2007	6,890,462,918	9,968,746,844	3,078,283,926	69.12%	1,564,458,835	196.76%
12/31/2008	6,669,501,770	10,383,157,695	3,713,655,925	64.23%	1,543,976,553	240.53%
12/31/2009	6,295,788,191	10,830,119,369	4,534,331,178	58.13%	1,551,973,348	292.17%
12/31/2010	6,003,389,605	11,828,665,658	5,825,276,053	50.75%	1,541,388,065	377.92%
12/31/2011	5,552,291,417	12,292,930,124	6,740,638,707	45.17%	1,605,993,339	419.72%
12/31/2012	5,073,320,275	13,475,376,963	8,402,056,688	37.65%	1,590,793,702	528.17%
12/31/2013	5,114,207,803	13,828,920,032	8,714,712,229	36.98%	1,580,288,709	551.46%
12/31/2014	5,039,297,432	12,307,094,062	7,267,796,630	40.94%	1,602,977,593	453.39%

\* Not less than zero

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT C**  
**Solvency Test**

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	<b>December 31, 2014</b>	<b>December 31, 2013</b>
1. Actuarial accrued liability (AAL)*		
a. Active and inactive member contributions	\$1,816,477,893	\$1,763,193,047
b. Retirees and beneficiaries	7,029,523,772	7,938,850,949
c. Active and inactive members (employer financed)	<u>3,478,587,338</u>	<u>4,154,449,370</u>
d. Total	\$12,324,589,003	\$13,856,493,366
2. Actuarial value of assets	5,039,297,432	5,114,207,803
3. Cumulative portion of AAL covered		
a. Active member contribution	100.0%	100.0%
b. Retirees and beneficiaries	45.85%	42.21%
c. Active and inactive members (employer financed)	0.0%	0.0%

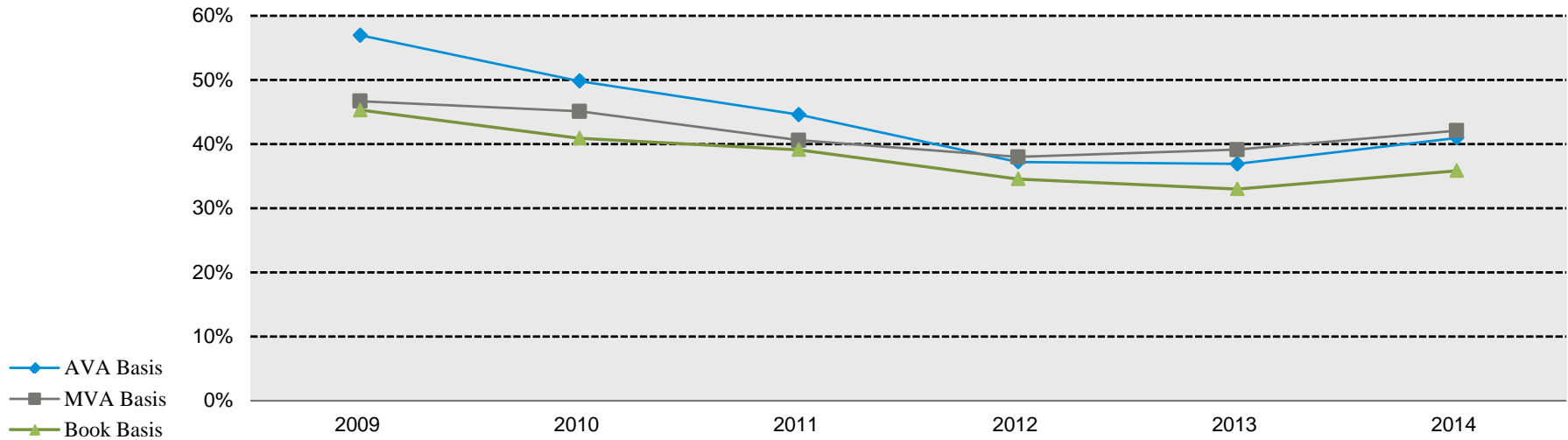
\* Includes pension and OPEB liabilities

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D  
Funded Ratio**

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan.



**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E**

**Statutory Reserves as of December 31, 2014**

	New in 2014			Continuing from 2013			Total		
	Annuity Payment Fund	Prior Service Fund	Total	Annuity Payment Fund	Prior Service Fund	Total	Annuity Payment Fund	Prior Service Fund	Total
<b>Statutory Reserve*</b>									
Retirees	\$138,261,127	\$257,043,629	\$395,304,756	\$1,396,346,820	\$4,344,226,899	\$5,740,573,719	\$1,534,607,947	\$4,601,270,528	\$6,135,878,475
Future Surviving Spouses	\$25,355,084	\$8,740,636	\$34,095,720	\$321,492,535	\$319,775,413	\$641,267,948	\$346,847,619	\$328,516,049	\$675,363,668
Spouses**	\$19,922,333	\$15,186,674	\$35,109,007	\$169,282,140	\$160,056,666	\$329,338,806	\$189,204,473	\$175,243,340	\$364,447,813
<b>Annual Benefits</b>									
Retirees	\$12,375,770	\$19,007,242	\$31,383,012	\$171,797,630	\$501,652,234	\$673,449,864	\$184,173,400	\$520,659,476	\$704,832,876
Future Surviving Spouses	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spouses**	\$2,488,665	\$2,156,703	\$4,645,368	\$26,078,228	\$27,253,072	\$53,331,300	\$28,566,893	\$29,409,775	\$57,976,668

\* As required by State statutes, Statutory Reserves are 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.

\*\* Surviving spouses also include reversionary annuitants.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT F**

**State Reporting Disclosure (40 ILCS 5/1A-110 (b)(5)(iv))**

	<b>2014</b>	<b>2013</b>
<b>Projected Unit Credit Accrued Liability (PUCAL)</b>		
Payable to Retirees and Beneficiaries	\$7,029,523,772	\$7,938,850,949
Current Active and Inactive Employees:		
Accumulated Active and Inactive Employee Contributions	1,816,477,893	1,763,193,047
Payable to Vested and Non-Vested Employees	<u>1,773,450,898</u>	<u>2,989,544,623</u>
Total PUCAL	\$10,619,452,563	\$12,691,588,619
 <b>Net Assets Available for Benefits, Actuarial Value</b>	 \$5,039,297,432	 \$5,114,207,803
 <b>Unfunded PUCAL (PUCAL in excess of assets)</b>	 \$5,580,155,131	 \$7,577,380,816
Percent Funded	47.45%	40.30%
Unfunded PUCAL as Percent of Payroll	453.39%	479.49%
 <b>Payroll</b>	 \$1,602,977,593	 \$1,580,288,709

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT G**

**Actuarial Reserve Liabilities as of December 31, 2014**

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<b>Accrued Liability for Active and Inactive Participants*</b>	\$5,295,065,231
<b>Reserves for:</b>	
Service Retirement Pension	\$6,183,679,500
Future Spouses of Current Retirees	428,082,420
Surviving Spouse Pension	400,702,503
Health Insurance Supplement	15,723,728
Child Annuitants	<u>1,335,621</u>
<b>Total Accrued Liability</b>	\$12,324,589,003
<b>Actuarial Net Assets</b>	<u>5,039,297,432</u>
<b>Unfunded Actuarial Liabilities</b>	\$7,285,291,571

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\* *Accrued liability for active participants includes retirement liability for members in ordinary or duty disability status. Liability for disability benefits is recognized as a one-year term cost of 0.75 percent of pay added to the normal cost. Includes pension and OPEB liabilities.*



## **SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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### **EXHIBIT H**

#### **50-Year Projection of Contributions, Liabilities, and Assets**

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Based on the results of the December 31, 2014, actuarial valuation, we have projected valuation results for a 50-year period. We have based City contributions on the contribution requirements on the funding provision of Public Act 98-0641.

For purposes of the projections, all assets, contributions, and benefit payments, including amounts attributable to the retiree health insurance program, have been included. Our projections of contributions, liabilities, and assets are based on the actuarial assumptions, membership data and benefit provisions that were used for the regular actuarial valuation.

In order to determine projected contributions, liabilities, and assets, certain calculations needed to be made that are not normally required in a regular actuarial valuation. Benefit payout requirements, actuarial liabilities, and payroll were estimated over the 50-year period from 2015 through 2063 by projecting the membership of the Fund over the 50-year period, taking into account the impact of new entrants into the Fund over the 50-year period.

To make the required projections, assumptions needed to be made regarding the age and salary distribution of new entrants as well as the size of the active membership of the Fund. The assumptions regarding the profile of new entrants to the Fund were based on the recent experience of the Fund with regard to new entrants. The size of the active membership of the Fund was assumed to remain constant over the 50-year projection period. The results of our projections are shown on the following pages.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT H (continued)**

**50-Year Projection of Contributions, Liabilities, and Assets**

Based on the December 31, 2014 actuarial valuation  
(All dollar amounts are in thousands. Actuarial Liability and asset figures as of end of year.)

Fiscal Year	Employee Contributions	Employer Contributions	Pensionable Payroll	Normal Cost	Benefit Payouts	Estimated Expenses	Total Actuarial Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio	Contribution Multiple
2014	\$129,972	\$158,798	\$1,602,978	\$235,397	\$807,674	\$6,568	\$12,324,589	\$5,179,486	\$5,039,297	\$7,285,292	40.9%	1.25
2015	158,054	242,700	1,756,158	226,816	837,290	6,568	12,623,220	5,099,126	4,974,571	7,648,649	39.4%	1.85
2016	171,524	275,248	1,805,517	243,872	854,826	6,765	12,944,628	5,040,865	5,009,284	7,935,345	38.7%	2.15
2017	185,203	381,424	1,852,026	246,169	859,276	6,968	13,288,088	5,093,774	5,114,501	8,173,586	38.5%	2.45
2018	199,142	464,616	1,896,593	248,540	883,647	7,177	13,634,558	5,222,804	5,222,804	8,411,754	38.3%	2.75
2019	213,467	542,585	1,940,605	251,115	901,508	7,392	13,991,237	5,435,586	5,435,586	8,555,651	38.8%	2.97
2020	218,105	554,376	1,982,777	253,500	931,255	7,614	14,346,358	5,649,839	5,649,839	8,696,519	39.4%	2.83
2021	222,573	565,732	2,023,393	255,412	963,117	7,842	14,697,099	5,862,858	5,862,858	8,834,241	39.9%	2.69
2022	226,740	576,324	2,061,277	256,614	996,423	8,078	15,040,872	6,071,971	6,071,971	8,968,902	40.4%	2.68
2023	230,843	586,751	2,098,570	257,595	1,029,103	8,320	15,377,568	6,277,293	6,277,293	9,100,275	40.8%	2.68
2024	234,830	596,887	2,134,822	258,259	1,063,085	8,570	15,704,963	6,476,772	6,476,772	9,228,191	41.2%	2.67
2025	238,634	606,555	2,169,398	258,313	1,086,864	8,827	16,032,289	6,679,887	6,679,887	9,352,402	41.7%	2.67
2026	242,287	615,840	2,202,610	257,806	1,123,572	9,091	16,345,527	6,872,954	6,872,954	9,472,573	42.0%	2.66
2027	246,017	625,322	2,236,520	257,154	1,160,503	9,364	16,643,231	7,055,253	7,055,253	9,587,978	42.4%	2.66
2028	249,834	635,022	2,271,216	256,347	1,195,406	9,645	16,926,173	7,228,381	7,228,381	9,697,792	42.7%	2.66
2029	253,845	645,219	2,307,685	255,578	1,229,463	9,934	17,194,166	7,393,218	7,393,218	9,800,948	43.0%	2.66
2030	257,951	655,655	2,345,010	254,619	1,262,997	10,232	17,446,425	7,550,013	7,550,013	9,896,412	43.3%	2.66
2031	262,091	666,177	2,382,644	253,275	1,295,548	10,539	17,682,375	7,699,294	7,699,294	9,983,082	43.5%	2.66
2032	266,440	677,231	2,422,180	251,904	1,325,531	10,856	17,903,431	7,843,902	7,843,902	10,059,529	43.8%	2.67
2033	271,117	689,120	2,464,701	250,746	1,352,673	11,181	18,111,649	7,987,600	7,987,600	10,124,049	44.1%	2.67
2034	276,111	701,813	2,510,098	249,726	1,376,699	11,517	18,309,447	8,134,674	8,134,674	10,174,773	44.4%	2.67
2035	281,385	715,218	2,558,044	248,883	1,386,789	11,862	18,510,692	8,300,829	8,300,829	10,209,863	44.8%	2.68
2036	286,984	729,451	2,608,949	248,353	1,403,954	12,218	18,708,637	8,481,310	8,481,310	10,227,327	45.3%	2.68
2037	292,984	744,700	2,663,488	248,303	1,417,944	12,585	18,906,845	8,681,906	8,681,906	10,224,939	45.9%	2.69
2038	299,390	760,983	2,721,726	248,720	1,428,378	12,962	19,109,525	8,909,258	8,909,258	10,200,267	46.6%	2.69

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT H (continued)**

**50-Year Projection of Contributions, Liabilities, and Assets**

Based on the December 31, 2014 actuarial valuation  
(All dollar amounts are in thousands. Actuarial Liability and asset figures as of end of year.)

Fiscal Year	Employee Contributions	Employer Contributions	Pensionable Payroll	Normal Cost	Benefit Payouts	Estimated Expenses	Total Actuarial Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio	Contribution Multiple
2039	\$306,216	\$778,333	\$2,783,781	\$249,534	\$1,435,761	\$13,351	\$19,320,602	\$9,170,030	\$9,170,030	\$10,150,572	47.5%	2.70
2040	313,461	796,748	2,849,642	250,799	1,454,355	13,752	19,529,562	9,456,586	9,456,586	10,072,977	48.4%	2.70
2041	321,077	816,108	2,918,886	252,367	1,470,635	14,164	19,738,969	9,774,576	9,774,576	9,964,393	49.5%	2.71
2042	329,260	836,906	2,993,271	254,625	1,483,265	14,589	19,953,385	10,132,159	10,132,159	9,821,226	50.8%	2.71
2043	338,059	859,272	3,073,265	257,773	1,492,072	15,027	20,178,105	10,538,464	10,538,464	9,639,641	52.2%	2.72
2044	347,499	883,265	3,159,080	261,755	1,497,690	15,478	20,418,108	11,002,733	11,002,733	9,415,375	53.9%	2.72
2045	357,447	908,552	3,249,518	266,402	1,500,467	15,942	20,678,199	11,534,066	11,534,066	9,144,134	55.8%	2.73
2046	367,940	935,223	3,344,911	271,805	1,502,230	16,420	20,961,750	12,140,483	12,140,483	8,821,268	57.9%	2.73
2047	379,139	963,688	3,446,721	278,047	1,503,049	16,913	21,272,400	12,831,104	12,831,104	8,441,296	60.3%	2.74
2048	391,003	993,844	3,554,574	285,049	1,504,221	17,420	21,612,629	13,614,244	13,614,244	7,998,385	63.0%	2.74
2049	403,628	1,025,933	3,669,342	292,782	1,505,586	17,943	21,985,240	14,499,348	14,499,348	7,485,892	66.0%	2.75
2050	416,912	1,059,697	3,790,105	301,185	1,507,150	18,481	22,393,172	15,496,200	15,496,200	6,896,972	69.2%	2.75
2051	430,849	1,095,123	3,916,809	310,179	1,510,426	19,035	22,837,934	16,613,728	16,613,728	6,224,206	72.7%	2.75
2052	445,785	1,133,088	4,052,593	320,090	1,513,568	19,606	23,323,409	17,864,679	17,864,679	5,458,730	76.6%	2.76
2053	461,706	1,173,555	4,197,327	330,910	1,517,337	20,195	23,852,975	19,261,915	19,261,915	4,591,060	80.8%	2.77
2054	478,786	1,216,969	4,352,602	342,692	1,521,819	20,801	24,430,230	20,819,801	20,819,801	3,610,429	85.2%	2.77
2055	496,780	1,262,706	4,516,185	355,203	1,526,844	21,425	25,058,969	22,553,072	22,553,072	2,505,897	90.0%	2.78
2056	457,074	63,022	4,687,941	368,409	1,533,421	22,067	25,742,190	23,167,971	23,167,971	2,574,219	90.0%	0.13
2057	474,750	59,735	4,869,231	382,430	1,541,574	22,729	26,483,213	23,834,891	23,834,891	2,648,321	90.0%	0.12
2058	493,333	56,483	5,059,827	397,221	1,551,770	23,411	27,285,082	24,556,574	24,556,574	2,728,508	90.0%	0.13
2059	512,897	53,266	5,260,483	412,846	1,564,159	24,114	28,150,979	25,335,881	25,335,881	2,815,098	90.0%	0.11
2060	533,359	50,110	5,470,350	429,220	1,578,950	24,837	29,084,014	26,175,613	26,175,613	2,908,401	90.0%	0.10
2061	554,730	47,047	5,689,540	446,350	1,596,479	25,582	30,087,194	27,078,475	27,078,475	3,008,719	90.0%	0.09
2062	577,071	44,080	5,918,679	464,289	1,616,891	26,349	31,163,655	28,047,290	28,047,290	3,116,366	90.0%	0.08
2063	600,384	41,220	6,157,786	483,032	1,640,353	27,140	32,316,590	29,084,931	29,084,931	3,231,659	90.0%	0.08

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.1**

**Comparison of Employer Contribution to Actuarially Determined Contribution**

<b>Plan Year Ended December 31</b>	<b>Actuarially Determined Contributions (ADC)*</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2005	\$285,291,350	\$155,067,116	54.4%
2006	325,913,986	157,062,769	48.2%
2007	366,410,212	148,137,050	40.4%
2008	384,169,836	155,832,612	40.6%
2009	436,475,587	157,697,608	36.1%
2010	506,902,840	164,302,004	32.4%
2011	634,559,144	156,525,374	24.7%
2012	705,454,416	158,380,709	22.5%
2013	834,398,482	157,704,971	18.9%
2014	848,864,496	158,797,631	18.7%
2015	686,373,727	--	--

*\* Prior to 2015, this amount was the Annual Required Contribution (ARC). Includes pension and OPEB.*

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.2**

**History of Active Member Valuation Data**

<b>Actuarial Valuation Date</b>	<b>Active Members</b>	<b>Percent Increase</b>	<b>Annual Salaries</b>	<b>Percent Increase</b>	<b>Average Salary</b>	<b>Percent Increase</b>	<b>Payroll Growth Assumption</b>	<b>CPI Chicago*</b>
12/31/2005	33,743	1.43%	\$1,407,323,058	8.00%	\$41,707	6.47%	4.50%	3.59%
12/31/2006	33,429	(0.93)%	1,475,877,378	4.87%	44,150	5.86%	4.50%	0.71%
12/31/2007	34,885	4.36%	1,564,458,835	6.00%	44,846	1.58%	4.50%	4.73%
12/31/2008	32,563	(6.66)%	1,543,976,553	(1.31)%	47,415	5.73%	4.50%	(0.58)%
12/31/2009	31,586	(3.00)%	1,551,973,348	0.52%	49,135	3.63%	4.50%	2.54%
12/31/2010	30,726	(2.72)%	1,541,388,065	(0.68)%	50,166	2.10%	4.50%	1.23%
12/31/2011	31,976	4.07%	1,605,993,339	4.19%	50,225	0.12%	4.00%	2.06%
12/31/2012	31,326	(2.03)%	1,590,793,702	(0.95)%	50,782	1.11%	4.00%	1.68%
12/31/2013	30,647	(2.17)%	1,580,288,709	(0.66)%	51,564	1.54%	4.00%	0.51%
12/31/2014	30,160	(1.59)%	1,602,977,593	1.44%	53,149	3.07%	4.00%	1.48%
Average Increase/ (Decrease) Last 5 years		(0.92)%		0.65%		1.58%		1.39%

\* CPI-Chicago as of the valuation date

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.3**

**History of Average Pension Benefit Payments to New Retirees<sup>1</sup>**

Retirement Effective Date	Years of Service					Total	
	10 – 14	15 – 19	20 – 24	25 – 29	30 & Over		
2005	Average Monthly Benefit at Retirement	\$1,067	\$1,250	\$1,578	\$2,177	\$3,269	\$2,394
	Average Final Average Salary	\$2,955	\$2,799	\$3,110	\$3,298	\$4,095	\$3,565
	Number of Active Recipients	56	54	51	65	219	445
2006	Average Monthly Benefit at Retirement	\$1,141	\$1,286	\$1,577	\$2,416	\$3,610	\$2,451
	Average Final Average Salary	\$3,471	\$2,927	\$3,076	\$3,716	\$4,555	\$3,804
	Number of Active Recipients	53	60	95	73	194	475
2007	Average Monthly Benefit at Retirement	\$1,198	\$1,381	\$2,029	\$2,658	\$3,919	\$2,800
	Average Final Average Salary	\$3,548	\$3,075	\$3,796	\$2,811	\$4,939	\$4,242
	Number of Active Recipients	54	69	94	70	229	516
2008	Average Monthly Benefit at Retirement	\$1,293	\$1,630	\$2,031	\$2,765	\$4,129	\$2,847
	Average Final Average Salary	\$3,980	\$3,565	\$3,981	\$4,199	\$5,285	\$4,491
	Number of Active Recipients	60	65	106	63	206	500
2009	Average Monthly Benefit at Retirement	\$1,407	\$1,790	\$2,275	\$3,255	\$4,082	\$2,969
	Average Final Average Salary	\$4,664	\$4,148	\$4,406	\$5,005	\$5,209	\$4,794
	Number of Active Recipients	57	75	153	92	231	608
2010	Average Monthly Benefit at Retirement	\$1,334	\$1,835	\$2,215	\$3,208	\$4,354	\$3,129
	Average Final Average Salary	\$4,418	\$4,311	\$4,278	\$4,945	\$5,590	\$4,933
	Number of Active Recipients	60	77	169	132	287	725
2011	Average Monthly Benefit at Retirement	\$1,350	\$1,981	\$2,432	\$3,459	\$4,696	\$3,361
	Average Final Average Salary	\$4,261	\$4,506	\$4,661	\$5,265	\$6,046	\$5,257
	Number of Active Recipients	66	88	193	185	311	843
2012	Average Monthly Benefit at Retirement	\$1,295	\$2,014	\$2,391	\$3,362	\$4,506	\$3,230
	Average Final Average Salary	\$4,400	\$4,893	\$4,533	\$5,094	\$5,737	\$5,125
	Number of Active Recipients	93	132	274	254	418	1,171
2013	Average Monthly Benefit at Retirement	\$1,304	\$1,998	\$2,348	\$3,259	\$4,446	\$3,065
	Average Final Average Salary	\$4,456	\$4,890	\$4,314	\$4,953	\$5,668	\$5,030
	Number of Active Recipients	104	106	204	216	290	920
2014	Average Monthly Benefit at Retirement	\$1,169	\$1,760	\$2,290	\$3,137	\$4,350	\$2,891
	Average Final Average Salary	\$4,161	\$4,528	\$4,597	\$4,877	\$5,644	\$4,921
	Number of Active Recipients	93	92	185	203	223	796

<sup>1</sup> This schedule excludes reciprocal annuities, money purchase annuities and minimum annuities.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.4**

**History of Retirees and Beneficiaries by Type of Benefit**

Valuation Date	Annuitants				Disability		Compensation	Reciprocal	
	Employee	Spouse	Child	Reversionary*	Ordinary	Duty	Annuitants**	Employee	Spouse
12/31/2005	16,027	4,094	204		304	158	2	2,194	373
12/31/2006	15,926	4,075	193		330	193	2	2,257	376
12/31/2007	15,899	4,042	178		304	209	2	2,299	368
12/31/2008	15,804	4,018	174		266	192	2	2,369	360
12/31/2009	15,838	4,008	167		306	220	2	2,407	356
12/31/2010	15,961	3,982	173		304	246	2	2,477	364
12/31/2011	16,230	3,910	164	129	346	264	2	2,583	364
12/31/2012	16,874	3,864	149	129	280	250	2	2,740	361
12/31/2013	17,320	3,844	141	138	227	213	2	2,793	363
12/31/2014	17,553	3,798	141	139	195	225	2	2,858	363

\* Prior to December 31, 2011, reversionary annuitants were included with spouse annuitants.

\*\* Compensation annuitants also included with spouse annuitants.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT I.5**

**History of Average Employee Retirement Benefits Payable**

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<b>Valuation Date</b>	<b>Average Annual Benefit</b>	<b>Average Current Age of Retirees</b>	<b>Average Benefit at Retirement Current Year</b>	<b>Average Age at Retirement Current Year</b>	<b>Average Service Years at Retirement Current Year</b>
12/31/2005	\$26,178	71.8	\$22,753	63.5	24.44
12/31/2006	27,028	72.1	23,757	63.1	24.05
12/31/2007	27,960	72.4	26,910	63.1	24.60
12/31/2008	28,928	72.6	27,750	62.4	24.30
12/31/2009	29,960	72.8	29,843	62.9	23.90
12/31/2010	31,046	72.8	31,290	62.2	24.25
12/31/2011	32,269	72.7	34,513	62.1	24.86
12/31/2012	33,423	72.6	33,508	62.7	24.81
12/31/2013	34,357	72.6	31,177	63.0	23.55
12/31/2014	34,532	72.7	29,775	62.5	23.35

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**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.6**

**History of Annuities 2005 – 2014**

<b>Employee Annuitants (Male and Female)</b>			
<b>Valuation Date</b>	<b>Number of Annuitants</b>	<b>Total Annuities</b>	<b>Average Annuities</b>
12/31/2005	18,221	\$476,988,948	\$26,178
12/31/2006	18,183	491,452,740	27,028
12/31/2007	18,198	508,815,996	27,960
12/31/2008	18,173	525,707,352	28,928
12/31/2009	18,245	546,628,095	29,960
12/31/2010	18,438	572,425,992	31,046
12/31/2011	18,813	607,077,636	32,269
12/31/2012	19,614	655,556,736	33,423
12/31/2013	20,113	691,021,680	34,357
12/31/2014	20,411	704,832,876	34,532

<b>Surviving Spouse and Reversionary Annuities</b>			
<b>Valuation Date</b>	<b>Number of Annuitants</b>	<b>Total Annuities</b>	<b>Average Annuities</b>
12/31/2005	4,467	\$50,078,232	\$11,211
12/31/2006	4,451	50,672,592	11,385
12/31/2007	4,410	51,107,748	11,589
12/31/2008	4,378	51,954,588	11,867
12/31/2009	4,364	52,884,192	12,118
12/31/2010	4,346	53,920,752	12,407
12/31/2011	4,403	54,594,060	12,399
12/31/2012	4,354	55,544,340	12,757
12/31/2013	4,345	57,041,916	13,128
12/31/2014	4,300	57,976,668	13,483

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT I.7**

**History of Retirees and Beneficiaries Added to Payrolls 2005 – 2014**

Valuation Date	Added to Payroll		Removed from Payroll		Payroll End of Year		Average Annual Benefit	Increase in Average Benefit
	Number	Annual Benefits*	Number	Annual Benefits	Number	Annual Benefits		
<b>Employee Annuitants (Male and Female)</b>								
12/31/2005	698	\$27,479,544	730	\$15,040,308	18,221	\$476,988,948	\$26,178	2.86%
12/31/2006	713	30,424,920	751	15,961,128	18,183	491,452,740	27,028	3.25%
12/31/2007	769	34,450,704	754	17,087,448	18,198	508,815,996	27,960	3.45%
12/31/2008	743	34,658,424	768	17,767,068	18,173	525,707,352	28,928	3.46%
12/31/2009	840	39,821,463	768	18,900,720	18,245	546,628,095	29,960	3.57%
12/31/2010	1,008	46,836,109	815	21,038,211	18,438	572,425,992	31,406	3.62%
12/31/2011	1,149	55,405,692	774	20,754,048	18,813	607,077,636	32,269	3.94%
12/31/2012	1,559	68,828,940	758	20,349,840	19,614	655,556,736	33,423	3.58%
12/31/2013	1,242	57,147,576	743	21,682,632	20,113	691,021,680	34,357	2.79%
12/31/2014	1,054	37,110,852	756	23,299,656	20,411	704,832,876	34,532	0.51%
<b>Surviving Spouse and Reversionary Annuitants (Not Including Compensation)</b>								
12/31/2005	255	\$3,408,036	260	\$2,624,292	4,467	\$50,078,232	\$11,211	1.70%
12/31/2006	265	3,498,720	281	2,904,360	4,451	50,672,592	11,385	1.55%
12/31/2007	247	3,464,400	288	3,029,244	4,410	51,107,748	11,589	1.79%
12/31/2008	260	3,989,592	260	3,142,752	4,378	51,954,588	11,867	2.40%
12/31/2009	266	3,869,064	280	2,939,460	4,364	52,884,192	12,118	2.12%
12/31/2010	269	4,329,156	287	3,292,596	4,346	53,920,752	12,407	2.38%
12/31/2011**	362	4,152,804	241	3,479,496	4,403	54,594,060	12,399	(0.06)%
12/31/2012	237	4,168,092	286	3,217,812	4,354	55,544,340	12,757	2.89%
12/31/2013	270	4,593,708	279	3,096,132	4,345	57,041,916	13,128	2.91%
12/31/2014	265	4,648,596	310	3,713,844	4,300	57,976,668	13,483	2.70%

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

\*\* Number added in 2011 includes 121 reversionary annuitants that are also surviving spouses.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT J**

**Actuarial Assumptions and Actuarial Cost Method**

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**Mortality Rates:**

*Post-retirement:*

The RP-2000 Combined Healthy Mortality Table, with mortality improvements projected statically to 2010 using Scale AA (adopted December 31, 2010).

*Pre-retirement:*

Post-retirement mortality multiplied by 85% for males and 70% for females (adopted December 31, 2010).

The mortality table specified above was determined to contain provision appropriate to reasonably reflect future mortality improvement (actual-to-expected ratios of 111% for male retirees and 107% for female retirees, per the experience study report dated January 17, 2011), based on a review of mortality experience as of the measurement date .

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**Termination Rates:**

These service-based rates are based on recent experience of the Fund (adopted December 31, 2010).

<u>Service</u>	<u>Rate (%)</u>	<u>Service</u>	<u>Rate (%)</u>	<u>Service</u>	<u>Rate (%)</u>
0 - 0.99	15.00	11 - 11.99	4.00	21 - 21.99	1.80
1 - 1.99	15.00	12 - 12.99	4.00	22 - 22.99	1.70
2 - 2.99	12.00	13 - 13.99	3.60	23 - 23.99	1.60
3 - 3.99	9.00	14 - 14.99	3.30	24 - 24.99	1.50
4 - 4.99	8.00	15 - 15.99	3.00	25 - 25.99	1.40
5 - 5.99	7.00	16 - 16.99	2.80	26 - 26.99	1.30
6 - 6.99	6.50	17 - 17.99	2.50	27 - 27.99	1.20
7 - 7.99	5.25	18 - 18.99	2.30	28 - 28.99	1.10
8 - 8.99	5.00	19 - 19.99	2.10	29 - 29.99	1.00
9 - 9.99	4.75	20 - 20.99	1.90	30 +	0.90
10 - 10.99	4.25				

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**Retirement Rates:**

For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (adopted December 31, 2010).

<b>Age and Service-Based Retirement Rates</b>								
<u>Service</u>	<u>50 - 54</u>	<u>55 - 59</u>	<u>60 - 64</u>	<u>65 - 66</u>	<u>67</u>	<u>68 - 69</u>	<u>70 - 79</u>	<u>80+</u>
10 - 11		0%	12%	30%	30%	15%	45%	100%
12 - 19		0%	10%	15%	10%	10%	45%	100%
20 - 24		6%	10%	15%	10%	10%	45%	100%
25 - 29		12%	12%	20%	20%	20%	45%	100%
30	25%	20%	20%	20%	20%	20%	45%	100%
31 - 32	20%	20%	20%	20%	20%	20%	45%	100%
33 - 34	30%	30%	30%	30%	30%	30%	45%	100%
35 - 39	30%	30%	30%	45%	45%	45%	45%	100%
40+	100%	100%	100%	100%	100%	100%	100%	100%

For employees first hired on or after January 1, 2011, rates of retirement for each age from 60 to 80 were used (adopted December 31, 2011, and modified December 31, 2014, to accommodate change in retirement eligibility).

<u>Age</u>	<u>Rate</u>
60 - 61	20%
62	40%
63 - 69	20%
70 - 79	45%
80 +	100%

#### SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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<b>Disability Benefit Valuation:</b>	Disability benefits are valued in normal cost as 0.75% of projected payroll (adopted December 31, 2005).
<b>Valuation of Inactive Participants:</b>	Inactive members with less than 10 years of service are assumed to take an immediate refund of his or her account balance. For inactive members with 10 or more years of service, the money purchase benefit is estimated by projecting the account balance (including employer contributions, when applicable) to the earliest retirement age. This estimated money purchase benefit is increased by 15% to account for the possibility that the minimum annuity formula is more valuable.
<b>Unknown Data for Participants:</b>	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
<b>Spouse:</b>	85% of members are assumed to be married, female spouses are assumed to be four years younger than male spouses, and 100% of spouses are assumed to be opposite gender (adopted December 31, 1999).
<b>Group Health Insurance Participation:</b>	50% of employees eligible to retire and receive postretirement welfare coverage were assumed to elect health coverage. All annuitants age 65 and older are assumed to be eligible for Medicare, and all annuitants under age 65 are assumed not to be eligible for Medicare. All current surviving spouses are assumed to be eligible for Medicare.
<b>Net Investment Return:</b>	7.50% per year, net of investment expense (adopted December 31, 2012)
<b>Inflation:</b>	3.00% per year (adopted December 31, 1999)
<b>Payroll Growth:</b>	4.00% per year (adopted December 31, 2010)

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**Salary Increases:** These service-based rates are based on the recent experience of the Fund (adopted December 31, 2010).

<b>Service</b>	<b>Rate (%)</b>
0 - 1.99	8.25
2 - 2.99	7.75
3 - 3.99	7.25
4 - 5.99	6.75
6 - 6.99	6.50
7 - 7.99	6.00
8 - 8.99	5.50
9 - 9.99	5.25
10 - 25.99	5.00
26 +	4.50

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**Administrative Expenses:** Equal to actual expenses for the prior year.

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**Actuarial Value of Assets:** Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five - year period (adopted December 31, 1999).

**Actuarial Cost Method:** Entry Age Normal. Under this method, a normal cost is calculated for each employee that is the level annual contribution as a percent of pay required to be made from the employee's date of hire for as long as he/she remains active (not past 2016 for OPEB benefits) so that sufficient assets will be accumulated to provide his/her benefit. The accrued liability is the difference between the present value of all future benefits and the present value of all future normal costs.

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**Changes in Assumptions:** Retirement rates for ages 60 and 61 were added for members hired on or after January 1, 2011, in order to accommodate the retirement eligibility changes for Tier 2 members contained in Public Act 98-0641.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT K**

**Summary of Plan Provisions**

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This exhibit summarizes the major provisions of the Fund included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

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<b>Membership:</b>	Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance or any person employed by the Municipal Employees' Annuity and Benefit Fund of Chicago who is not participating in any other pension fund or retirement system is covered by the Fund. Current and former employees of the Chicago Housing Authority and the Public Building Commission who have service in this Plan or who reinstate service in this Plan, may elect to participate in this Plan with respect to their employment with the Chicago Housing Authority or the Public Building Commission under certain circumstances.
<b>Employee Contributions:</b>	Effective January 1, 2015, members of the Fund are required to contribute 9% of pensionable salary to the Fund as follows: 7% for the employee's retirement annuity, 1.5% for the spouse's annuity, and 0.5% for the automatic increases in the retirement annuity. The member contribution rate will increase by 0.5% per year until it reaches 11% for 2019. When the Fund is at least 90% funded, the member contribution rate decreases to 9.75%.
<b>Tiers:</b>	Tier 1: First hired before January 1, 2011 Tier 2: First hired on or after January 1, 2011
<b>Final Average Salary:</b>	For Tier 1 members, the final average salary is the average salary of the highest four consecutive years within the last 10 years of service prior to retirement.

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**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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For Tier 2 members, the final average salary is the average pensionable salary of the highest eight 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% or ½ of the change in CPI-U, not less than zero. For 2014, the salary limit was \$110,631.

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**Employee Retirement Annuity:**

Money Purchase Formula

Eligibility	Tier 1: Age 55 and 10 years of service Tier 2: Age 60 and 10 years of service
Amount	The annuity is based on all employee and City contributions. However, for Tier 1 members who retire before age 60 with less than 20 years of service, the annuity is based on employee contributions plus 1/10 <sup>th</sup> of the City contributions for each year of service over 10. Maximum is 60% of highest salary.

Minimum Annuity Formula

Eligibility	Tier 1, the earlier of: <ul style="list-style-type: none"><li>• Age 60 and 10 years of service</li><li>• Age 55 and 20 years of service</li><li>• Age 50 and 30 years of service</li></ul> Tier 2: Age 60 and 10 years of service
Amount	The annuity is equal to 2.4% for each year of service times final average salary. For Tier 1 members under age 60 with less than 25 years of service, the annuity is reduced by 0.25% for each month that the member is under age 60. For Tier 2 members under age 65, the annuity is reduced by 0.50% for each month that the member is under age 65. Maximum is 80% of final average salary.



## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### Post-Retirement Increase:

#### Tier 1:

An employee annuitant is eligible to receive an increase of the lesser of 3% or ½ 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. There is a minimum increase of 1% for those receiving an annuity of less than \$22,000. The increase is calculated using the 2014 annuity amount or if the member was not yet receiving an annuity prior to January 1, 2015, on the originally granted annuity amount. 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 or age 53, or
- 2) the later of the first anniversary of retirement or age 60

An annuitant who retires after June 9, 2014 is not eligible for the annual increase until one year after the date on which the annual increase would have taken effect.

No automatic annual increase will be given in 2017, 2019, or 2025 except for those receiving a minimum increase.

#### Tier 2:

An employee annuitant or surviving spouse who is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to the lesser of 3% or ½ of the annual unadjusted percentage increase in the Consumer Price Index-U. The increase is based on the amount of the originally granted benefit (simple). This increase begins in January of the year of the first payment date following the later of:

- 1) the attainment of age 65, or
- 2) the second anniversary of the annuity start date

No automatic annual increase will be given in 2025.

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### 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

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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voids this election. The reversionary annuity for a spouse when added to the spouse's annuity cannot exceed 100% of the employee's reduced annuity. 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 start date of the employee's annuity.

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**Elected City Officer's Optional Plan:** An alternative plan for elected officials of 3% of final salary for the first eight years, 4% for the next four years, and 5% thereafter, subject to an 80% maximum, is available. The elected official must contribute an additional 3% of salary to receive these benefits. This plan also includes alternative widow and disability benefit formulas. This plan became effective upon approval from the IRS on September 17, 1991.

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**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 and City contributions for the spouse's annuity and a joint life age factor.

If the employee dies in service, the spouse's annuity is based on all contributions.

For 3% 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.

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 the annuity the employee was entitled to receive at the time of retirement or death in service. This annuity must be reduced by 0.25% 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.

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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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 reduced by 0.25% 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 of the employee's death.

If the employee dies in service 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. 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 at least 10 years.

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 Tier 2 members, the annuity payable to the surviving spouse is equal to 66 2/3% of the participant's accrued retirement annuity without a reduction due to age.

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**Child Annuity:**

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

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**Group Health Insurance:**

Retirees receive a health insurance supplement of \$95 per month if not eligible for Medicare and \$65 per month if eligible for Medicare. Spouses married to retirees do not receive an additional benefit. Surviving spouses may continue to receive benefits after the retiree's death. Per Public Act 98-0043, the health insurance supplement will not be provided after December 31, 2016.

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**Ordinary Disability Benefit:**

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

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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

**Duty Disability Benefit:**

Any employee who becomes disabled as the result of an injury incurred in the performance of any act of duty has a right to receive a duty disability benefit in the amount of 75% of salary at date of injury, plus \$10 a month for each unmarried child less than age 18. Child's duty disability benefit is limited to 15% 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% of salary at date of injury. Disablement because of heart attacks, strokes, or any disablement due to heart disease shall not be considered the result of an accident suffered in the performance of duty. However, the employee will receive service credit and the City will contribute salary deductions for annuity purposes if the employee is receiving Workers' Compensation.

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

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

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**Refunds:**

Tier 1:

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

**SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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Tier 2:

An employee who resigns before age 62 without regard to length of service, or who resigns with less than 10 years of service regardless of age, is entitled to all salary deductions accumulated with interest to date of resignation, plus the 0.50% deducted for annuity increase purposes without interest.

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

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

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

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**Plan Year:**

January 1 through December 31

**Changes in Plan Provisions:**

The following plan provisions were changed effective January 1, 2015, and are reflected in this valuation:

Tier 2 members' normal and early retirement ages were lowered from 67 and 62 to 65 and 60, respectively.

Automatic annual increase (AAI) for Tier 1 members, including current retirees, is the lesser of 3% or ½ of the change in CPI-U, of the originally granted retirement benefit (or the 2014 benefit for current retirees).

Tier 1 members will skip AAIs in 2017, 2019, and 2025 and Tier 2 members will skip AAIs in 2025.

All Tier 1 members and many Tier 2 members will have a 1-year AAI delay after the date the member would otherwise receive his or her first AAI.

Tier 1 members with an annual annuity of less than \$22,000 will receive at least 1% AAI every year, including the skip years.

Member contributions increase to 9% in 2015, 9.5% in 2016, 10% in 2017, 10.5% in 2018, and 11% for 2019 and thereafter. When the fund is at least 90% funded, member contributions decrease to 9.75%.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### EXHIBIT L

#### Legislative Changes in Plan Provisions

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##### 1979 Session

###### *SB 964*

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

###### *HB 1023*

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

###### *HB 2012*

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

##### 1980 Session

###### *HB 3635*

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

##### Spring 1981 Session

###### *SB 21*

- Actuarial Reporting Standards.

###### *SB 851*

- Authorizes investments in conventional mortgage pass-through securities.

###### *SB 879*

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

###### *HB 212*

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

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### *HB 213*

- \$200 refund in lieu of annuity.

### *HB 215*

- Authorizes securities lending.

### **Spring 1982 Session**

#### *SB 1147*

- Minimum reporting and actuarial information for 1984.

#### *SB 1180*

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

#### *SB 1452*

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

#### *SB 1579*

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

#### *HB 740*

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

#### *HB 2286*

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

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### Spring 1983 Session

#### *SB22*

- Delegation of investment authority restrictions.

#### *HB 380*

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

#### *HB 514*

- 10% prudent person investment category.

#### *HB 637*

- Allows an active member of the General Assembly to establish credit in this fund for time for which he or she could have elected to participate with interest at 6% and to transfer credits to the Park Fund.

#### *HB 1144*

- Revises provision allowing a person who withdrew from service or began receiving a widow's annuity in 1981 to elect to receive a refund in lieu of annuity by extending the deadline for election by one year to March 1, 1984, and by raising the amount subject to refund to \$250 per month.
- 3% post-retirement annuity increase for those who qualify.
- Mandatory coverage for all employees in temporary positions.
- Reversionary annuity revisions - table of factors.
- Credit for Executive Director of Chicago Land Clearance Commission or Chicago Dwellings Association or for service as administrator of Illinois--Indiana Bi-State Commission--if certain contributions are made before April 1, 1984.

#### *Federal Law and Regulation or Supreme Court Decision*

- For an employee under the age of 70 who commences disability on or after attainment of age 60 in service, the ordinary disability benefit payments shall not exceed in the aggregate throughout the employee's service a period equal to 1/4 of the total service rendered prior to the date of the disability but no more than five years or age 70, whichever is earlier. The duty disability payments shall be payable for a period of five years or age 70, whichever occurs first.
- For 3% annuities fixed on or after August 1, 1983, the "Combined Annuity Mortality Table" shall continue to be used; however, widows' single life annuities and reversionary annuities shall be computed using the best factor (the factor producing the highest annuity, not depending upon sex).



## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### 1984 Session

- Illinois Public Employees' Pension Laws Commission abolished.

### 1985 Session

#### *HB 561*

- 1.80, 2.00, 2.20, 2.40% benefit accrual rate for those born before January 1, 1936, and retiring after July 18, 1985.
- Reduction in age discount factor (employee and widow) from 0.5% to 0.25% for employees born before January 1, 1936, and retiring after July 18, 1985.
- Health insurance supplement up to \$25 per month if the employee is age 65 or older with at least 15 years of service (for each employee annuitant in receipt of annuity and for each employee who retires on annuity in the future).
- Disability provisions extended to age 70 in certain cases.
- Unisex money purchase factors for widows/widowers.
- Membership provisions extended to age 70.
- Board of Education employee contribution "pick up" included in the definition of salary for contribution and benefit purposes (retroactive).

### 1986 Session

#### *HB 2630*

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

### 1987 Session

#### *HB 2715*

- 1.80, 2.00, 2.20, 2.40% benefit accrual rates for those born on or after January 1, 1936, and retiring on or after January 1, 1988.
- Reduction in an age discount factor (employee and widow) from .5% to .25% for employees born on or after January 1, 1936, and retiring or dying in service on or after January 1, 1988. No discount for employee age less than 60 if employee has at least 35 years of service.
- Minimum employee annuity of \$250 and minimum spouse of \$200 under certain conditions.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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

### 1988 Session

- No legislative changes.

### 1989 Session

#### *SB 95*

- Signed August 23, 1989. Changed the amount of 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% 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.

#### *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.
- Allow for local labor officials on a leave of absence from the Fund to contribute for their service as a local labor official.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### 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.
- 2.2% benefit accrual rate for employees retiring on or after July 1, 1990.
- No discount for employee age less than 60 if employee has at least 30 years of service and retires on or after July 1, 1990.
- Minimum employee annuity of \$350 and minimum spouse of \$300 under certain conditions.
- Spouses and widows of employees retiring or dying in service on or after July 1, 1990 with 20 or more years of service at age 55 or over will be eligible for half of the employee's annuity discounted .25% for each month the spouse or widow is less than 55.
- Retroactive eligibility for 35 years no discount and spouse and widow annuities computed as half of employee annuity.
- Refund in lieu of \$300 annuity.
- Disability benefit retroactive one year from application; duty disability deductions in lieu for heart attack or stroke.
- An alternative plan for elected officials of 3% of salary for the first 8 years, 4% for the next 4 years and 5% thereafter, subject to a maximum of 80%, is available. The elected official must contribute an additional 3% of salary to receive these benefits. This plan also includes alternative widow and disability benefit formulas. This plan will become effective upon approval from the IRS.
- Collateral for securities lending expanded.
- Fractional payment for refund repayment and temporary service authorized. Credit established by fractional payment shall be earliest service for which credit may be established.

## **SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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### **1991 Session**

#### ***HB 971***

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

### **1992 Session**

#### ***SB 1650***

- Signed January 25, 1993.
- Transfer provisions for County elected officers and judges.
- Early Retirement Incentive was created for withdrawals from December 31, 1992 to June 30, 1993.
  - Requires a total of 20 years of service (with at least 10 in this fund, 5 in a Reciprocal fund and up to 5 purchased under ERI).
  - Requires age 55 or older.
  - Requires an election form to be filed before June 1, 1993.
  - Retired under this Article.
  - Provides for elimination of the age discount for employees 55-60.
  - Provides for 80% maximum final average salary compared to the present 75%.
  - Provides for an optional purchase of up to five years of service credit for 4.25% of the November 1, 1992 salary.
  - Provides for a 24-month option to pay for ERI service.
  - Provides for a tax levy derived from ERI contributions.

### **1993 Session**

- No legislative changes.

### **1994 Session**

- No legislative changes.

### **1995 Session**

#### ***SB 114***

- Approved July 14, 1995.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- The amount of earnings that may be taken into account by any retirement system is limited to the maximum dollar limitation specified in Section 401(a)(17) of the Internal Revenue Code, except for persons who became Members before 1996.
- The Plan is authorized to make certain involuntary distributions required by Section 401(a)(9) of the Internal Revenue Code.

### ***SB 424***

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

### **1996 Session**

#### **SBJPA**

- On August 20, 1996, the Small Business Job Protection Act was signed by President Clinton.
- Treatment of governmental plans under Code Section 415:
  - Rule limiting annual benefit to 100 percent of the average of the highest three-year compensation no longer applies.
  - Excess benefit plans are permitted to provide Members with benefits in excess of the Code Section 415 limits.
  - Early retirement reduction does not apply to certain survivor and disability benefits.
  - The definition of compensation now includes elective deferrals.
  - Taxation of distributions:
    - \$5,000 death benefit exclusion was repealed for deaths after August 20, 1996.
    - Five-year averaging for lump sum distributions was repealed effective January 1, 2000.
    - Annuity payments will be taxed according to a simplified general rule, which uses investment and age as of annuity starting date for annuities, which start on or after November 19, 1996.

### **1997 Session**

#### ***HB 15***

- Approved June 27, 1997.
- For withdrawals from service occurring on or after July 1, 1990, an alternate method of calculating salary using the annual equivalent of average salary instead of the salary rate applicable for the greatest part of the year is allowed.
- Annuities effective on or after January 1, 1998, will be payable on the first day of the calendar month.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- 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.

### *HB 313*

- Approved June 27, 1997. For withdrawals from service occurring on or after June 27, 1997, an employee (or surviving spouse) age 50 or over with at least 30 years of service is eligible to receive an annuity based on the minimum annuity formula.
- For withdrawals from service occurring on or after June 27, 1997, an employee under age 60, with at least 25 years of service, is not subject to an age discount.
- The surviving spouse of a retiree dying on or after June 27, 1997, while receiving an annuity is eligible for one-half of the employee's annuity at death, discounted for spouse's age under 55 at the time of employee's death.
- Beginning June 27, 1997, employees already receiving annuity will receive a minimum annuity of \$550 for life (reciprocal annuitants must have at least five years of Municipal service). Any future employee annuitant withdrawing from service after attainment of age 60 with 10 or more years of service would qualify for this minimum.
- Beginning June 27, 1997, widow(er)s already receiving annuity will receive a minimum annuity of \$500 for life (reciprocal annuitants must have at least five years of Municipal service). For future spouses of retirees, 10 years of service is required. For spouses of employees dying in service in the future, five years of service is required.
- Beginning June 27, 1997, the child's annuity will be increased to \$220 per month if the spouse of the deceased employee parent survives or \$250 per month if no such spouse survives.
- Coverage in the City group health insurance is extended through June 30, 2002, with some modification in the plans offered. Pension plan supplement remains \$45 and \$75 for Medicare eligible and non-Medicare eligible annuitants respectively.
- Spouses of employees dying in service after age 50 on or after June 27, 1997, will be eligible to receive 50 percent of the annuity that the employee would have received. This annuity will be reduced by 0.25 percent per month for each month that the spouse is below the age of 55.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Spouses of employees dying after retirement on or after June 27, 1997, will be eligible to receive 50 percent of the employee's annuity at death. This annuity will be reduced by 0.25 percent per month for each month that the spouse is below the age of 55.

### ***HB 1641***

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

### **1998 Session**

#### ***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.

#### SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Beginning January 1, 1999, employees already receiving an annuity as of August 14, 1998, will receive a minimum annuity of \$850 for life (reciprocal annuitants must have at least five years of Municipal service). Any future employee annuitant withdrawing from service after August 14, 1998, after attainment of age 60 with 10 or more years of service would qualify for this minimum.
- Beginning January 1, 1999, widow(er)s already receiving annuity as of August 14, 1998, will receive a minimum of \$800 for life (reciprocal annuitants must have at least five years of Municipal service). For future spouses of retirees dying after August 14, 1998, 10 years of service is required. For spouses of employees dying in service after August 14, 1998, five years of service is required.
- The conditions of the reversionary option were changed as follows:
  - The nullification of reversionary payment due to employee dying was reduced to 365 days after written designation was filed with the board and now applies only to parents, children, and siblings (not spouses).
  - Employees may reduce their monthly annuity by as much as \$400.
  - The increased annuity for spouse may now be as much as 100 percent of the reduced employee annuity.
- Spouses and widows that are eligible for the "50 percent employee amount" will no longer have this amount reduced for under age 55 if the employee dies on or after January 1, 1998, and withdrew from service on or after June 27, 1997, and the employee retired after age 55 with at least 25 years of service or after age 50 with at least 30 years of service. The age discount will only apply if the spouse is under age 50.
- The child of an annuitant who withdraws after January 1, 1998, having attained age 50 with at least 30 years of service is eligible for a child annuity upon the death of the annuitant.
- The required employer multiple has been set at 1.25 for 1999 and beyond.
- Money deposited under 5/8-173(f) may be used by the plan for any of the purposes for which the proceeds of the tax levied by the city under this section may be used.
- An employee or former employee may pay and receive credit for all periods of full-time employment by the Public Building Commission as long as they are not receiving credit for the same service from another retirement system. Employee must pay employee and employer contributions based on the salary received from the Public Building Commission for employment. Repayment must be made before annuity begins.
- Annuitants may authorize a portion of their annuity to be withheld for payment of dues to the labor organization by which they were represented. A minimum of 25 annuitants must choose an organization for it to be included in this plan.



## **SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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### ***HB 1612***

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

### **1999 Session**

- No Changes.

### **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.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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

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

### ***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 percent of final average salary for each year of service. The employee and the spouse must have been married for ten years.
- For children of employees who die in service on or after June 28, 2002, there is no service requirement for eligibility for children's annuity.
- The definition of "child" now includes any child adopted before employee withdraws from service and at least one year prior to the date any benefit for the child accrues. Previously the adoption also had to take place before the employee attained age 55.
- For ordinary disability benefits paid on or after January 1, 2001, the ordinary disability benefit is 50 percent of the employee's salary at the date of disability with the amounts ordinarily contributed by the employee for annuity purposes contributed by the Plan. These contributions are not refundable.
- The pension plan subsidy for retiree health insurance was extended through June 30, 2003. For annuitants (older than child annuitants) taking the employer-provided plan, the subsidy is \$75 per month if the annuitant is not eligible for Medicare, and \$45 per month if the annuitant is eligible for Medicare.

## **SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

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- Current and former Chicago Housing Authority employees who have service in this Plan or who reinstate service in this Plan may elect to participate in this Plan with respect to their employment with the Chicago Housing Authority under certain conditions. Contributions can be made for past service as well as current service.
- Current and former Public Building Commission employees who have service in this Plan or who reinstate service in this Plan may elect to participate in this Plan with respect to their employment with the Public Building Commission under certain conditions. Contributions can be made for past service as well as current service.
- An employee with 10 years of service in this Plan may establish service credit for up to seven years of full-time employment by the Illinois Housing Development Authority.
- The City Clerk and City Treasurer may elect to establish alternative credits in the Aldermanic Plan.
- Chicago aldermen may receive an annuity at age 55 with 10 years of service or age 60 with eight years of service.
- An alderman in service on June 1, 1995, can make payments for prior service up to 30 days after the effective date, even though he might be out of service or retired.
- A member of the Plan who has service in Police Fund may apply to Police to transfer his credits and service to Municipal under certain conditions. This must be done within 90 days of the effective date. Employee and employer contributions will be transferred.

### **2003 Session**

#### ***SB 1701***

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

### **2004 Session**

#### ***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.

#### SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Requires a member to be a current contributor who has not previously retired under this Article and satisfy one of the following:
  - Active as of October 15, 2003
  - Returned to active from approved leave of absence prior to December 15, 2003
  - Receiving ordinary or duty disability benefits as of October 15, 2003
  - Restored to service by January 31, 2004, after having been involuntarily laid off
- Requires that employees that re-enter service forfeit their right to receive benefits and will have their benefits recalculated at the time of retirement excluding the benefits provided under the ERI.
- Requires that the participant is age 50 with ten years of creditable service in this Fund and have 70 combined years of age and service, with service in one or more systems under the Reciprocal Act (excluding service purchased under the ERI).
- Provides for elimination of the age discount for employees younger than age 60.
- Provides for an optional purchase of up to five years of service credit for 4.25 percent of the monthly salary rate in effect October 15, 2003.
- Provides for a 24-month option to pay for ERI service.
- Provides for the exclusion of ERI contributions from the base from which the tax levy is derived.
  - Allows Board members to continue until the end of their terms without forfeiting the benefits provided by the early retirement incentive.
  - Provides for a lump sum benefit option of 100 percent of salary at retirement and an actuarially reduced monthly annuity for those employees who were eligible for the maximum benefit (excluding purchased service under the ERI).
- Automatic increases in annuities will now take effect in the January of each year in which they are to be provided.
- An employee who previously withdrew contributions from the Fund, may have his rights under the Fund restored after repaying the withdrawn contributions with interest after completing the required amount of service after the date of refund. The required service is:
  - 90 days of service under this Fund or
  - Two years of service under any participating Fund under the Reciprocal Act.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Municipality credits earned in this Fund shall be transferred to the Firemen's Annuity and Benefit Fund of Chicago with 11.00 percent interest compounded annually to the date of the transfer for former paramedics who are now covered under the Firemen's Annuity and Benefit Fund.
- Employees may elect to have their optional contributions "picked-up" by the employer, to be treated as employer contributions for tax purposes. The employee election is irrevocable.
- For the eligible spouse of an employee who died in service on or after January 1, 2002, and before August 28, 2002, with at least 10 years of service, the annuity is no less than 50 percent of the minimum formula annuity the employee would have been entitled to based on service and salary to date of death without regard to age eligibility requirements. This minimum formula annuity is equal to 2.40 percent of final average salary for each year of service. The employee and spouse must have been married for ten years.

### 2005 Session

#### *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).

#### *SB 1446*

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

#### *HB 227*

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

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### 2006 Session

- No Changes.

### 2007 Session

#### *HB 49*

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

#### *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. Makes changes in the severability provisions applicable to the amendatory Act.

#### *SB 1380*

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

### 2008 Session

- No Changes.

### 2009 Session

#### *SB 2520*

- Approved February 17, 2009.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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

### ***HB 2557***

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

### ***SB 364***

- Approved April 3, 2009.
- Requires Board members to file a verified written statement of economic interest annually with the office of the Clerk of Cook County.
- Requires the Board to adopt a policy that sets quantifiable utilization goals for the management of assets in specific asset classes for emerging investment managers. Goals shall be separated by minority ownership, female ownership, and person with a disability ownership.
- Requires that if at least one emerging firm(s) meet criteria of search process, at least one shall be invited to present to the Board for final consideration.
- Requires the Board to adopt a policy that sets forth goals for increasing the racial, ethnic and gender diversity of its fiduciaries, including its consultants and senior staff.
- Requires the Board to adopt a policy that sets forth goals for utilization of WMDBE firms for all contracts and services, based on the percentage of total dollar amount of all contracts let.

#### SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Requires the Board to adopt a policy that sets forth goals for increasing the utilization of minority broker-dealers.
- Requires an annual report to the Governor and General Assembly on the utilization of “emerging firms” as defined by Article 1 of the Pension Code.
- Requires the Board to award all contracts for investment services using a competitive process that is substantially similar to the process required for the procurement of professional services under Article 35 of the Illinois Procurement Code. Requires the Board to adopt a procurement policy which will be posted on the Fund’s website and filed with the Illinois Procurement Policy Board.
- Provides that a person may not act as a consultant or investment adviser unless that person is registered as an investment adviser or bank under the federal Investment Advisers Act of 1940.
- Requires investment contracts between the Retirement Board and investment service providers to include certain required information.
- Provides consultant contracts cannot exceed five years in duration; however, incumbent consultant may compete for new contract.
- Requires investment consultants and advisers to disclose all direct and indirect fees, commissions, penalties, and other compensation paid by or on behalf of the investment consultant or adviser in connection with the services provided.
- Requires that a description of every contract let for investment services be posted on the website, including name of entity awarded the contract, amount of contract, total fees paid, and disclosure describing the factors that contributed to the selection.
- Requires the Fund to maintain a website that shall include standard investment reporting, a copy of relevant Board policies, a listing of investment consultants and managers, a notification of any requests for investment services, and the names and e-mail addresses of Board members, Fund directors, and senior staff.
- Requires Board members to attend at least eight hours of ethics training per year and requires each Board to annually certify its member’s compliance and submit an annual certification to the Division of Insurance of the Department of Financial and Professional Regulation.
- Prohibits any Fund trustee or employee or their spouses or immediate family living with them to intentionally solicit or accept any gift from any prohibited source as prescribed in Article 10 of the State Officials and Employees Ethics Act, including educational materials and missions and travel expenses for discussing Fund business.
- Provides that any person who knowingly makes any false statement or falsifies or permits falsifying any record of the pension fund in an attempt to defraud is guilty of a Class 3 felony.



## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Provides that no person or entity shall retain a person or entity to influence the outcome of an investment decision or the procurement of investment advice to a pension fund for compensation, contingent upon the decision of the Board.
- Requires approval for travel or education mission expense of a Trustee by a majority of the Board prior to mission.

### ***SB 1440***

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

### ***SB 1705***

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

## **2010 Session**

### ***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:

#### SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Increases begin in the year following the later of the first anniversary of the annuity start date and attainment of age 67.
- Increases are equal to the lesser of 3 percent or one-half of the annual increase in the Consumer Price Index-U during the preceding 12-months.
- Increases are based on the amount of the originally granted benefit (not compounded).
- Changes benefits provided to surviving spouses:
  - Surviving spouse annuity is equal to 66 2/3 percent of the participant's earned retirement annuity at the date of death.
  - Provides an automatic increase in annuity:
    - Increases begin on January 1 in the year following the commencement of the survivor's annuity if the deceased member died while receiving a retirement annuity and January 1 following the first anniversary of commencement otherwise.
    - 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.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- 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.
  - 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.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- 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.
  - "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 Municipal. 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 on current salary with the union.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### *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 (HB 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
- 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.

## SECTION 4: Reporting Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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- Tier 2: Reduces minimum retirement age by 2 years, delays the initial annual increase by one year for some retirees, and eliminates the annual increases in 2025.

### *Public Act 98-1022 (SB 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.

## SECTION 5: GASB 67 Information for Municipal Employees' Annuity and Benefit Fund of Chicago

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### EXHIBIT A

#### Net Pension Liability

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The components of the net pension liability at December 31, 2014, were as follows:

Total pension liability	\$12,307,094,062
Plan fiduciary net position	5,179,486,296
Net pension liability	7,127,607,766
Plan fiduciary net position as a percentage of the total pension liability	42.09%

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*Actuarial assumptions.* The total pension liability was determined by an actuarial valuation as of December 31, 2014, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	4.50% to 8.25%, varying by years of service
Investment rate of return	7.50%, net of investment expense
Cost of living adjustments	the lesser of 3% or one-half of the change in CPI, simple

Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality improvements projected to 2010 using Scale AA. Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by 85% for males and 70% for females.

The actuarial assumptions used in the December 31, 2014, valuation were based on the results of an experience study for the period January 1, 2005, through December 31, 2009. They are the same as the assumptions used in the December 31, 2013, actuarial valuation.

**SECTION 5: GASB 67 Information for Municipal Employees' Annuity and Benefit Fund of Chicago**

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*Discount rate:* The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that member and employer contributions will be made as specified by Public Act 98-0641. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

*Sensitivity of the net pension liability to changes in the discount rate.* The following presents the net pension liability as of December 31, 2014, calculated using the discount rate of 7.50%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	<b>1% Decrease (6.50%)</b>	<b>Current Discount (7.50%)</b>	<b>1% Increase (8.50%)</b>
Net pension liability as of December 31, 2014	\$8,511,385,746	\$7,127,607,766	\$5,955,121,103



**SECTION 5: GASB 67 Information for Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT B**

**Schedules of Changes in Net Pension Liability**

	<b>2014</b>
<b>Total pension liability</b>	
Service cost	\$247,243,416
Interest	1,025,763,903
Change of benefit terms	(1,990,706,362)
Differences between expected and actual experience	(5,504,116)
Changes of assumptions	0
Benefit payments, including refunds of employee contributions	<u>(798,622,811)</u>
<b>Net change in total pension liability</b>	(\$1,521,825,970)
<b>Total pension liability – beginning</b>	<u>13,828,920,032</u>
<b>Total pension liability – ending (a)</b>	<u>\$12,307,094,062</u>
<b>Plan fiduciary net position</b>	
Contributions – employer	\$149,746,748
Contributions – employee	129,971,981
Net investment income	283,281,925
Benefit payments, including refunds of employee contributions	(798,622,811)
Administrative expense	(6,567,842)
Other	<u>0</u>
<b>Net change in plan fiduciary net position</b>	(\$242,189,999)
<b>Plan fiduciary net position – beginning</b>	<u>5,421,676,295</u>
<b>Plan fiduciary net position – ending (b)</b>	\$5,179,486,296
<b>Fund's net pension liability – ending (a) – (b)</b>	<u>\$7,127,607,766</u>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	42.09%
<b>Covered employee payroll</b>	\$1,602,977,593
<b>Fund's net pension liability as percentage of covered employee payroll</b>	444.65%

**SECTION 5: GASB 67 Information for Municipal Employees' Annuity and Benefit Fund of Chicago**

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**EXHIBIT C**

**Schedule of Employer Contribution**

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<b>Year Ended December 31</b>	<b>Actuarially Determined Contributions</b>	<b>Contributions in Relation to the Actuarially Determined Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Actual Employee Payroll</b>	<b>Contributions as a Percentage of Covered Employee Payroll</b>
2014	\$839,038,303	\$149,746,748	\$689,291,555	\$1,602,977,593	9.34%

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## SECTION 5: GASB 67 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago

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### Notes to EXHIBIT C

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<b>Valuation date</b>	Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year.
<b>Methods and assumptions used to establish "actuarially determined contribution" rates:</b>	
<b>Actuarial cost method</b>	Entry Age Actuarial cost method
<b>Amortization method</b>	30-year open, level dollar amortization
<b>Asset valuation method</b>	5-year smoothed market
<b>Actuarial assumptions:</b>	
Investment rate of return	7.50%, net of investment expense
Projected salary increases	4.50% to 8.25%, varying by years of service
Mortality	Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality improvements projected to 2010 using Scale AA. Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by 85% for males and 70% for females.
Cost of living adjustments	The lesser of 3% or one-half of the change in CPI, simple
<b>Other assumptions:</b>	Same as those used in the December 31, 2014, actuarial funding valuations.

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**SECTION 5: GASB 43 and 45 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT D**

**Summary of Required Supplementary Information**

<b>Valuation date</b>	December 31, 2014
<b>Actuarial cost method</b>	Entry Age Normal
<b>Amortization method</b>	Level dollar, closed (30-year open prior to January 1, 2014)
<b>Remaining amortization period</b>	2 years as of December 31, 2014
<b>Asset valuation method</b>	N/A (Pay-as-you-go)
<b>Actuarial assumptions:</b>	
Investment rate of return	4.50%
Inflation rate	3.00%
Payroll growth	4.00%
Medical cost trend rate	N/A (Fixed subsidy benefit)

**Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)**

	<b>December 31, 2013</b>	<b>December 31, 2014</b>
<b>Participant Category</b>		
Current retirees, beneficiaries, and dependents	\$23,578,656	\$15,723,728
Current active members and terminated members entitled but not yet eligible	<u>3,994,678</u>	<u>1,771,213</u>
Total	\$27,573,334	\$17,494,941
Actuarial value of assets	<u>0</u>	<u>0</u>
Unfunded actuarial accrued liability	\$27,573,334	\$17,494,941
Percent Funded	0.00%	0.00%
Unfunded AAL as a Percent of Payroll	1.74%	1.09%
Payroll	\$1,580,288,709	\$1,602,977,593

**SECTION 5: GASB 43 and 45 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E-1**

**Required Supplementary Information – Schedule of Employer Contributions**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
1. Payroll (beginning of year)	\$1,564,458,835	\$1,543,976,553	\$1,551,973,348	\$1,541,388,065	\$1,605,993,339	\$1,590,793,702	\$1,580,288,709
2. Current Year Normal Cost	10,446,202	9,365,607	9,266,349	9,154,612	4,711,272	4,529,064	5,749
3. Normal Cost as a Percent of Covered Payroll	0.67%	0.61%	0.60%	0.59%	0.29%	0.28%	0.00%
4. Level Dollar Amortization of the Unfunded Liability*	12,799,305	13,082,628	13,169,704	13,133,926	9,590,117	9,522,039	9,598,511
5. Level Dollar Amortization as a Percent of Covered Payroll*	0.82%	0.85%	0.85%	0.85%	0.60%	0.60%	0.61%
6. Interest Adjustment for Semi-Monthly Payment	537,153	518,730	518,448	515,039	330,474	324,690	221,933
7. Actuarially Determined Contribution (ADC) (NC + amortization* + interest adjustment)	23,782,660	22,966,965	22,954,501	22,803,577	14,631,863	14,375,793	9,826,193
8. ADC as a Percent of Covered Payroll	1.52%	1.49%	1.48%	1.48%	0.91%	0.90%	0.62%
9. Annual Required Contribution (ARC) (ADC - estimated employee contributions)	23,782,660	22,966,965	22,954,501	22,803,577	14,631,863	14,375,793	9,826,193
10. ARC as a Percent of Covered Payroll	1.52%	1.49%	1.48%	1.48%	0.91%	0.90%	0.62%
11. City of Chicago Contribution	9,029,362	9,651,118	9,549,684	9,516,053	9,522,054	9,508,087	9,050,883
12. City of Chicago Contribution as a Percent of Covered Payroll	0.58%	0.63%	0.62%	0.62%	0.59%	0.60%	0.57%
13. Percentage of ARC Contributed	37.97%	42.02%	41.60%	41.73%	65.08%	66.14%	92.11%

\* For fiscal years prior to 2014, the amortization period is 30 years. For the 2014 fiscal year, the amortization period is three years.

**SECTION 5: GASB 43 and 45 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT E-2**

**Required Supplementary Information – Schedule of Employer Contributions**

<b>Fiscal Year Ending December 31,</b>	<b>Annual OPEB Cost</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2007	\$23,287,106	8,530,910	36.6%
2008	23,579,794	9,029,362	38.3%
2009	22,564,061	9,651,118	42.8%
2010	22,374,071	9,549,684	42.7%
2011	22,046,839	9,516,053	43.2%
2012	13,702,853	9,522,054	69.5%
2013	13,389,305	9,508,087	71.0%
2014	(13,099,951)*	9,050,883	--

\*The negative cost is primarily due to the insurance subsidy ending in 2016.

**SECTION 5: GASB 43 and 45 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT F**

**Required Supplementary Information – Schedule of Funding Progress**

<b>Fiscal Year Ending December 31,</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded AAL (UAAL) (b)-(a)</b>	<b>Funded Ratio (a)/(b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as % of Payroll [(b)-(a) / (c)]</b>
2006	\$0	\$216,201,037	\$216,201,037	0.0%	\$1,475,877,378	14.65%
2007	0	217,868,343	217,868,343	0.0%	1,564,458,835	13.93%
2008	0	222,691,036	222,691,036	0.0%	1,543,976,553	14.42%
2009	0	224,173,231	224,173,231	0.0%	1,551,973,348	14.44%
2010	0	223,564,218	223,564,218	0.0%	1,541,388,065	14.50%
2011	0	163,241,898	163,241,898	0.0%	1,605,993,339	10.16%
2012	0	162,083,083	162,083,083	0.0%	1,590,793,702	10.19%
2013	0	27,573,334	27,573,334	0.0%	1,580,288,709	1.74%
2014	0	17,494,941	17,494,941	0.0%	1,602,977,593	1.09%

**SECTION 5: GASB 43 and 45 Information for the Municipal Employees' Annuity and Benefit Fund of Chicago**

**EXHIBIT G**

**Required Supplementary Information – Net OPEB Obligation (NOO)**

<b>Fiscal Year Ending December 31,</b>	<b>Annual Required Contribution (a)</b>	<b>Interest on Existing NOO (b)</b>	<b>ARC Adjustment (c)</b>	<b>Annual OPEB Cost (a) + (b) + (c) (d)</b>	<b>Actual Contribution Amount (e)</b>	<b>Net Increases in NOO (d) - (e) (f)</b>	<b>NOO as of End of Year (g)</b>
2007	\$23,287,106	\$0	\$0	\$23,287,106	\$8,530,910	\$14,756,196	\$14,756,196
2008	23,782,660	664,029	(866,895)	23,579,794	9,029,362	14,550,432	29,306,628
2009	22,966,965	1,318,798	(1,721,702)	22,564,061	9,651,118	12,912,943	42,219,571
2010	22,954,501	1,899,881	(2,480,311)	22,374,071	9,549,684	12,824,387	55,043,958
2011	22,803,577	2,476,978	(3,233,716)	22,046,839	9,516,053	12,530,786	67,574,744
2012	14,631,863	3,040,863	(3,969,873)	13,702,853	9,522,054	4,180,799	71,755,543
2013	14,375,793	3,228,999	(4,215,487)	13,389,305	9,508,087	3,881,218	75,636,761
2014	9,826,193	3,403,654	(26,329,798)	(13,099,951)	9,050,883	(22,150,834)	53,485,927

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