

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL VALUATION REPORT FOR THE YEAR ENDING
DECEMBER 31, 2013



May 23, 2014

Board of Trustees
Policemen's Annuity and Benefit Fund
City of Chicago
221 North LaSalle Street, Suite 1626
Chicago, IL 60601-1404

Subject: Actuarial Valuation Report for the Year Ending December 31, 2013

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the Policemen's Annuity and Benefit Fund of Chicago ("the Fund") as of December 31, 2013. This valuation has been performed to measure the funded status of the Fund and to determine the contribution levels for 2014. In addition, it includes disclosure information required under GASB Statement No. 25, Statement No. 27, Statement No. 43, and Statement No. 45 for the fiscal year ending December 31, 2013. The assumptions and methods used were recommended by the actuary and approved by the Board and meet the parameters set for the disclosure presented in the financial section by GASB Statement No. 25 and GASB Statement No. 43. These actuarial valuations of the Fund are performed annually.

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

- Summary of Actuarial Valuation Methods and Assumptions
- Schedule of Active Member Data
- Retirements and Beneficiaries Added to and Removed from Rolls
- Prioritized Solvency (Termination) Test
- Development of Annual Required Contributions under GASB Statements No. 27 and No. 45
- Development of Actuarial Gains and Losses
- Summary of Basic Actuarial Values

We have also provided the following schedules in the financial section of the report.

- Schedule of Funding Progress
- Development of Statutory Contributions Requirements
- Notes to Required Supplementary Information

This valuation is based upon:

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

Asset Values – Actuarial value of assets are used to develop actuarial results for the determination of statutory contribution requirements as well as for financial reporting under GASB Statement No. 25 and Statement No. 27. In each future fiscal year, gains and losses will be phased in over a five year period.

Actuarial Method – The actuarial method utilized by the Fund is the Projected Unit Credit cost method. The objective of this method is to uniformly amortize the costs of Fund benefits over the entire career of each member. Any Unfunded Actuarial Accrued Liability (UAAL) under this method is separately financed. All actuarial gains and losses under this method are reflected in the UAAL. The actuarial method utilized for all GASB reporting purposes remains Entry-Age Normal.

Actuarial Assumptions – All actuarial assumptions remain unchanged from the prior valuation. The assumptions used are set forth in Appendix 4: Actuarial Methods and Assumptions of the Valuation Report.

Plan Provisions – The actuarial valuation is based on plan provisions in effect as of December 31, 2013.

Public Act 96-1495, effective as of January 1, 2011, requires that the City finance plan benefits on an actuarial basis commencing with tax levy year 2015. The funding policy requires that future employer contributions, employee contributions and other fund income is sufficient to produce 90 percent funding by fiscal year end 2040. The projections are based on an open group, level percent of pay financing, and the Projected Unit Credit cost method. This valuation report contains the projected funding requirements under the Public Act 96-1495 and the applicable contributions for tax levy year 2015.

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

Respectfully yours,



Alex Rivera, F.S.A., E.A., M.A.A.A.
Senior Consultant



Lance Weiss, E.A., F.C.A, M.A.A.A
Senior Consultant

ADDITIONAL DISCLOSURES REQUIRED BY ACTUARIAL STANDARDS OF PRACTICE

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

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

The signing actuaries are independent of the plan sponsor.

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POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF VALUATION RESULTS

This report sets forth the results of the actuarial valuation of the Policemen's Annuity and Benefit Fund of the City of Chicago ("Fund") as of December 31, 2013. The purposes of this valuation are:

1. To develop actuarially determined contributions for 2014, applicable to tax levy year 2015, based on the provisions of Public Act 96-1495.
2. To develop the annual required contributions (ARC) under GASB #25 and GASB #43.
3. To develop the annual pension and OPEB costs under GASB #27 and GASB #45.
4. To review the funded status of the Fund.

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

Funded status is measured differently for statutory funding and for Fund and City financial reports. The following chart shows how funded status is determined for each purpose.

PURPOSE	ACTUARIAL METHOD	ASSET VALUE
Statutory Funding	Projected Unit Credit	Actuarial (Market-Related) Value of Assets
Fund and City reporting after 1996 (GASB #25, #27, #43, and #45)	Entry-Age Normal	Actuarial (Market-Related) Value of Assets
Fund reporting after 2014 (GASB #67 for pension benefits)	Entry-Age Normal	Market Value of Assets
City reporting after 2015 (GASB #68 for pension benefits)	Entry-Age Normal	Market Value of Assets

Under the Entry-Age Normal Actuarial Cost Method, each participant's benefits are assumed to be funded by annual installments, equal to a level percentage of compensation, payable from date of participation to assumed retirement. The total "Normal Cost" is the sum of the current year's annual installments determined for all active participants. The "Actuarial Accrued Liability" is the excess of the discounted value of projected benefits for all participants (both active and retired) over the discounted value of Normal Costs determined for future years of service.

Under the Projected Unit Credit Actuarial Cost Method, the projected pension at retirement age is first calculated and the value thereof at the individual member's current or attained age is determined. The normal cost for the member for the current year is equal to the value so determined divided by the member's projected service at retirement. The normal cost for the plan for the year is the sum of the individual normal costs. The "Actuarial Accrued Liability" at any point in time is the value of the projected pensions at that time less the value of future normal costs.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF VALUATION RESULTS (CONT'D)

State statute requires that the Projected Unit Credit cost method be used for funding and, effective with GASB #67 in 2014, and GASB # 68 in 2015, financial reporting under GASB requires the use of the Entry-Age Normal cost method

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

Comments on Results

Public Act 96-1495, effective as of January 1, 2011, requires that the City finance plan benefits on an actuarial basis commencing with tax levy year 2015. The funding policy requires that future employer contributions, employee contributions and other fund income is sufficient to produce 90 percent funding by fiscal year end 2040. The projections are based on an open group, level percent of pay financing, and the Projected Unit Credit cost method. This valuation report contains the projected funding requirements under the provisions of Public Act 96-1495.

For statutory funding purposes, the contribution for the tax levy year ending December 31, 2015, is \$592.9 million (54.6 percent of covered payroll). The 2015 statutory funding contribution of \$592.9 million compares with \$188.4 million for 2014, which was based on the 2.0 multiple of employee contributions statutory funding requirement and applicable to the Fund prior to Public Act 96-1495.

The annual required contribution (ARC) under GASB #25 for the year ending December 31, 2014, is \$491.7 million, which is 48.4 percent of payroll. This amount compares with an ARC of \$474.2 million or 46.7 percent of payroll for the year ending December 31, 2013. These amounts are for pension benefits only and are net of employee contributions of \$93.6 million for fiscal year 2014 and \$93.5 million for fiscal year 2013.

GASB #43 requires the calculation of a separate ARC for Other Postemployment Benefits (OPEB). The ARC for fiscal year 2014 is based on this actuarial valuation as of December 31, 2013. The OPEB ARC for the fiscal year ending December 31, 2014, is \$ 9.7 million, which is 1.0 percent of payroll. This amount compares with an OPEB ARC of \$10.4 million or 1.0 percent of payroll for the year ending December 31, 2013.

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

	Pension ARC	OPEB ARC
Investment Return	7.75% per year	4.5% per year
Assets	5-year smoothed market	No assets (Pay-as-you-go)

GASB #43 requires the investment return assumption (or “discount rate”) used to value OPEB liabilities to be based on the estimated long-term yield of the investments expected to be used to finance the payment of benefits. The investment return assumption of 4.5 percent reflects the fact that OPEB liabilities are considered to be funded on a pay-as-you-go basis. That is, the health insurance supplement is financed with current contributions, and no separate healthcare account exists to prefund or pay the health insurance supplement.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF VALUATION RESULTS (CONT'D)

Beginning with the actuarial valuation as of December 31, 2006, GASB #25 requires the use of at most a 30-year amortization period to determine the pension ARC, which is already required for the OPEB ARC. P. A. 98-0043, effective June 28, 2013, terminates the retiree healthcare subsidy paid from the Fund after December 31, 2016. Consequently the amortization period used to calculate the fiscal year 2014 GASB #43 ARC was changed to a three year closed period.

Effective with Fiscal Year Ending December 31, 2014, GASB #67 is replacing GASB #25 for pension plan financial reporting requirements. GASB #68 is replacing GASB #27 for employer financial reporting effective with fiscal year ending December 31, 2015.

The discount rate used for GASB #67 and #68 financial reporting purposes will produce a blended or average discount rate based on 7.75 percent for the projected benefits for all current members that can be paid from current assets and projected investment return, future employee contributions from current members, and future employer contributions attributable to current members, and a 20-year high quality general obligation bond index (for example 4.00 percent) for the portion of the projected benefits after assets are depleted.

Due to the potential blended discount rate and shorter amortization periods required under GASB #67 and #68, the net pension liabilities and pension expense will be much higher and more volatile than under the current standards. A measurement of the blended discount rate, net pension liability and pension expense is to be performed as of December 31, 2014.

Total actuarial liabilities (pension and OPEB) increased by approximately \$79 million less than the expected value. The key factors impacting the actuarial liability gain of \$79 million include: Salary gains of \$134 million, demographic losses of \$29 million, new entrants losses of \$5 million, and other losses of \$21 million. The actuarial liability also decreased by \$230 million due to changing the funding method from Entry-Age Normal to Projected Unit Credit, and by an additional \$149 million due to changing the healthcare provisions. The gain due to changing the asset method from Book Value to Market-Related Value of Assets was \$141 million.

The unfunded liability, under the methods used to develop the statutory contributions, decreased from \$7.07 billion to \$7.03 billion and the funded ratio decreased from 30.81% to 30.29%. The key reasons for the change include a change in cost method from the Entry-Age Normal method to the Projected Unit Credit method, retroactively marking the actuarial value of assets to the market value as of January 1, 2012, favorable investment performance and favorable demographic experience.

Using the market value of assets produced an unfunded liability of \$6.8 billion and a funded ratio 32.4%. Using the book value of assets produced an unfunded liability of \$7.2 billion and a funded ratio of 28.9%.

There was a gain on invested assets due to an approximate return of 13.7% on market value compared with the assumed return of 7.75%.

The total ARC for pension and OPEB for 2013 was \$484.6 million compared to actual contributions of \$189.4 million. This difference has increased over the last ten years and the impact can be seen in the GASB #27 Net Pension Obligation (NPO). The NPO has increased from \$697.0 million at December 31, 2003, to \$2,702.6 million as of December 31, 2013.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF VALUATION RESULTS (CONT'D)

Please note the highlighted area on page 30 showing the age/service distribution for active members. A large portion of the population is at or nearing retirement. We should continue to monitor this as the ratio of actives to retirees has been steadily declining, which can ultimately have a large impact on contribution requirements. A more thorough examination of these and other factors can be found in the Analysis of Actuarial Assumptions explanation and the gain/loss information in Table 5.

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

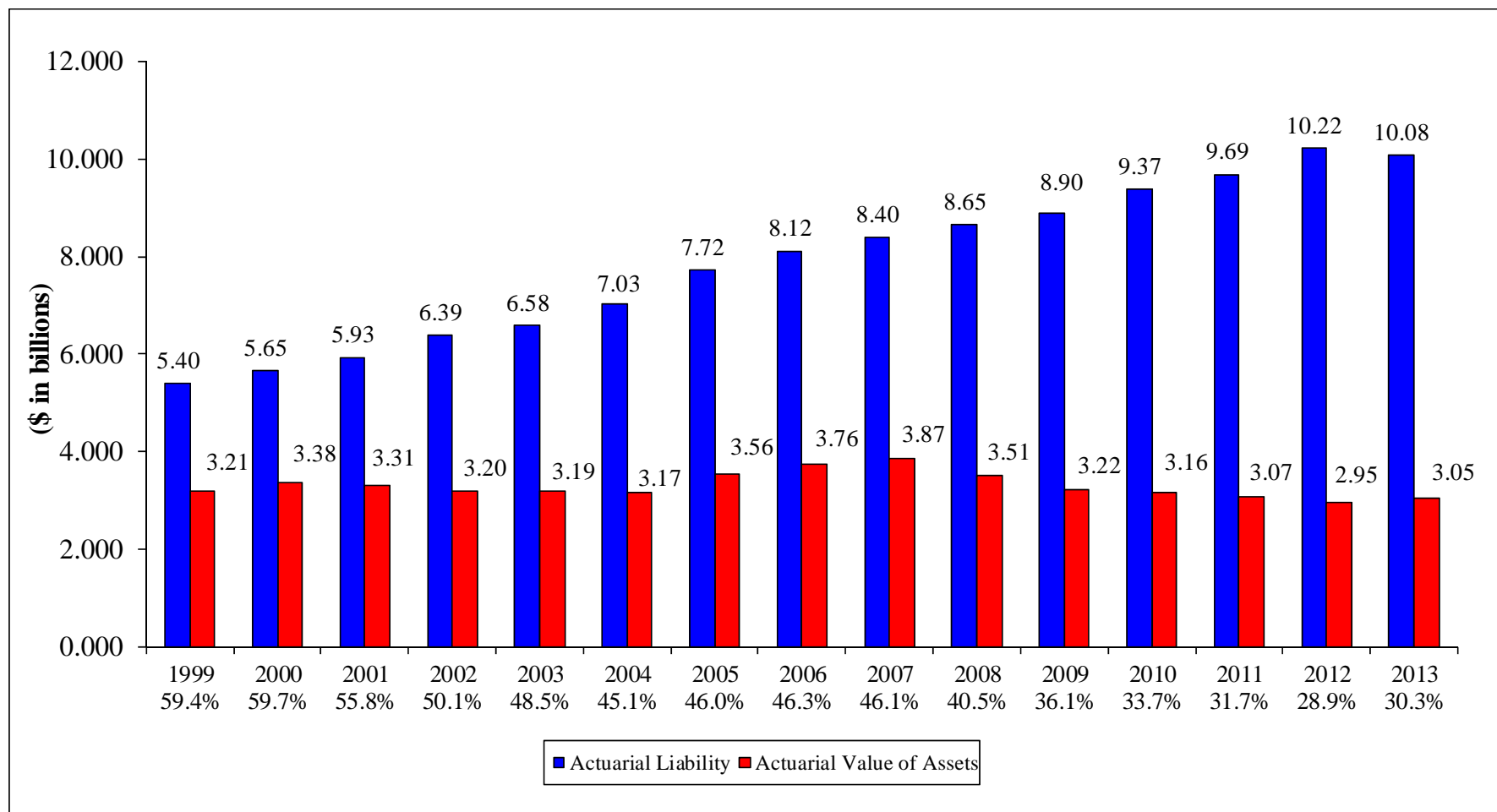
Valuation at:	12/31/2012		12/31/2013	
	\$ in Millions	% of Pay	\$ in Millions	% of Pay ¹
Contribution Levels				
Statutory Contribution (Tax Levy Year)	\$ 188.43 (2014)	17.97%	\$ 592.86 (2015)	54.59%
GASB Annual Required Contribution ^{2,3} (Plan Year)	484.61 (2013)	47.74	501.37 (2014)	49.38
Funded Status - Market-Related Value				
Market-Related Value of Assets	\$ 3,148.93	310.19%	\$ 3,053.88	300.75%
Actuarial Liability	10,220.64	1,006.79	10,080.61	992.75
Funded Ratio	30.81%	N/A	30.29%	N/A
Funded Status - Market Value				
Market Value of Assets	\$ 3,213.43	316.54%	\$ 3,265.20	321.56%
Actuarial Liability	10,220.64	1,006.79	10,080.61	992.75
Funded Ratios	31.44%	N/A	32.39%	N/A
Funded Status - GASB #25 and #43				
Market-Related Value of Assets	\$ 3,148.93	310.19%	\$ 3,053.88	300.75%
Actuarial Liability - Entry Age	10,220.64	1,006.79	10,310.71	1,015.41
Funded Ratios	30.81%	N/A	29.62%	N/A

¹ Payroll was \$1,015 million in 2012 and \$1,015 million in 2013.

² The annual required contribution for the plan year ending December 31, 2014 will be used to determine the plan sponsor's expense under GASB #27 and GASB #45 for the fiscal year end December 31, 2014.

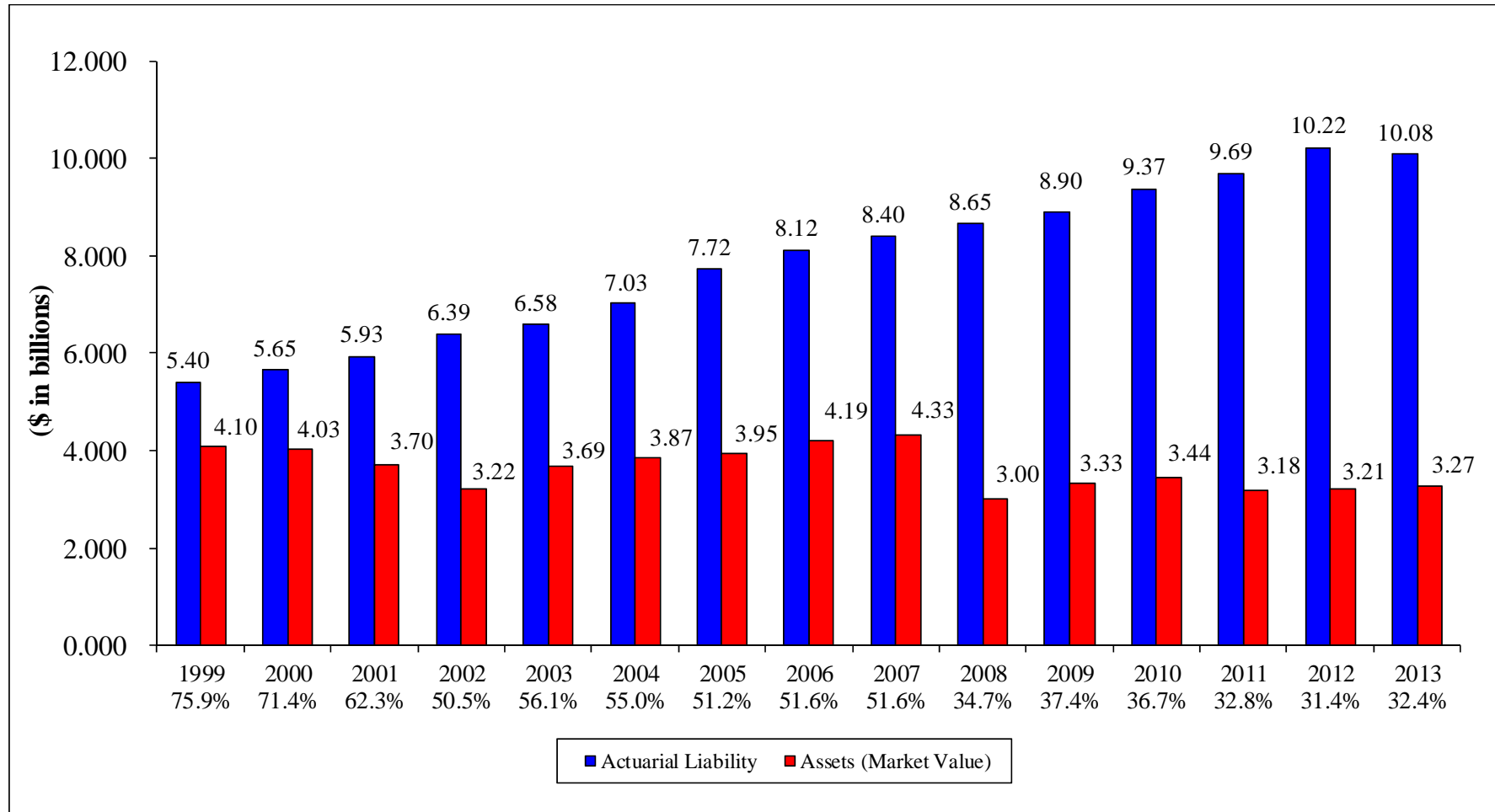
³ For the following fiscal year net of employee contributions. ARC includes both pension and healthcare benefits under GASB #25 and GASB #43.

**POLICEMEN'S ANNUITY AND BENEFIT FUND
SUMMARY OF VALUATION RESULTS (CONT'D)
COMPONENTS OF FUNDED RATIO
STATE REPORTING**

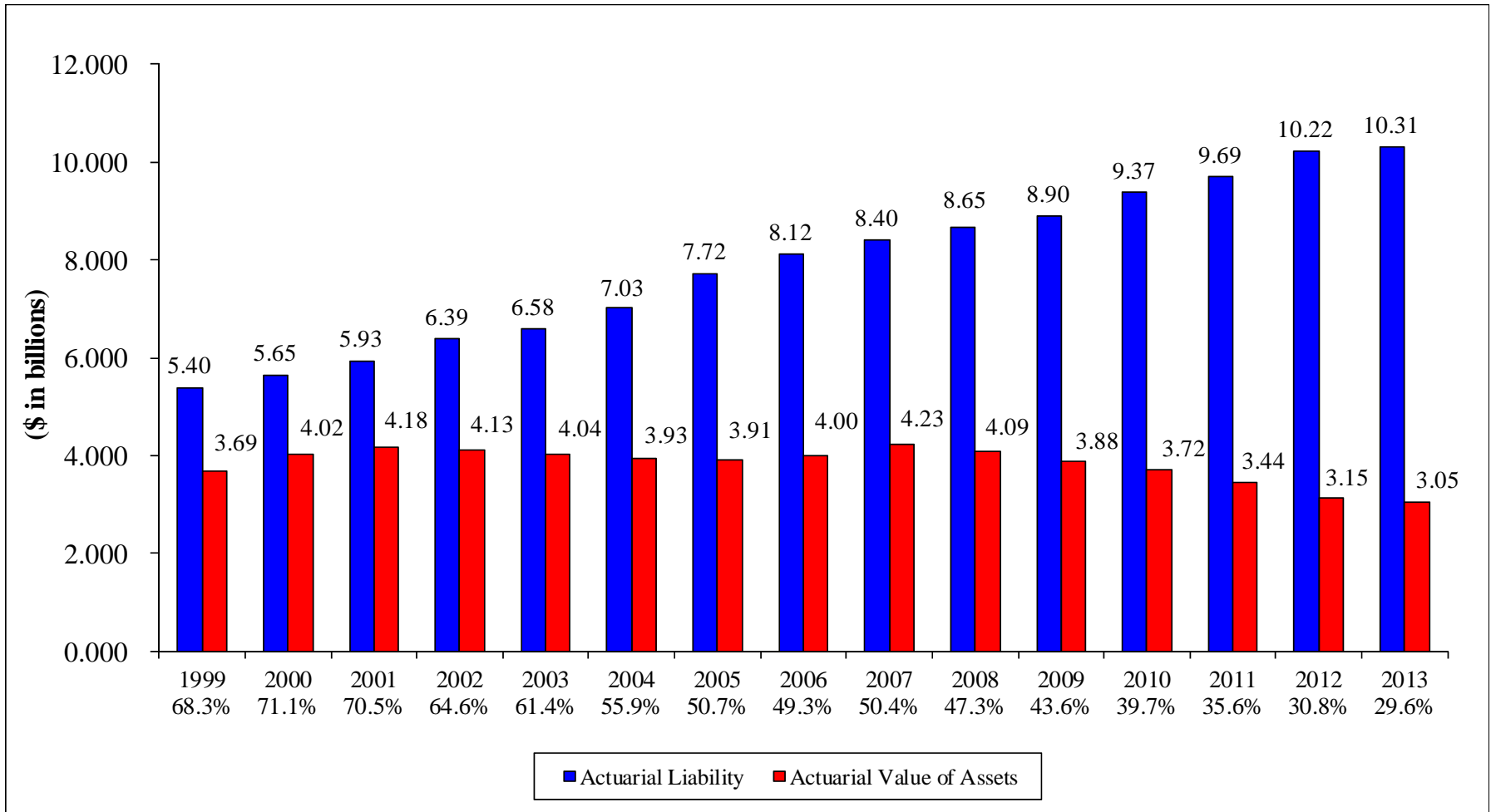


¹ State reporting for 2013 uses Projected Unit Credit for Actuarial Liabilities and Actuarial (Market-Related) Value for Assets. Prior to 2013, the Entry-Age Normal cost method was used for Actuarial Liabilities and Book Value was used for Assets.

**POLICEMEN'S ANNUITY AND BENEFIT FUND
SUMMARY OF VALUATION RESULTS (CONT'D)
COMPONENTS OF FUNDED RATIO
BASED ON MARKET VALUE**



**POLICEMEN'S ANNUITY AND BENEFIT FUND
SUMMARY OF VALUATION RESULTS (CONT'D)
COMPONENTS OF FUNDED RATIO
GASB #25 #43**



POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF VALUATION RESULTS (CONT'D)

Participants

	<u>December 31, 2012</u>	<u>December 31, 2013</u>
Active Participants		
Number	12,026	12,161
Average Age	43.4	43.4
Average Service	14.9	14.9
Average Annual Salary	\$84,415 ¹	\$83,499 ²
Retirees		
Number	9,035	9,194
Average Age	68.5	68.8
Average Monthly Benefit	\$4,741	\$4,880
Survivors		
Number	3,191	3,196
Average Age	75.1	75.3
Average Monthly Benefit	\$1,616	\$1,656

The major characteristics of the Fund participants are summarized as follows:

A large portion of the active participant population is nearing or is eligible for retirement; 34.4% of the workforce is between the ages of 45 and 54, while 25.1% have 20 or more years of service. Total participants receiving benefits under the Fund, including retirees, disabilities, survivors and children increased 1.49% during 2013 from 12,966 to 13,159. The total retiree count increased by 1.8% during 2013. Total expenditures for benefits increased from \$613.9 million in 2012 to \$641.9 million during 2013, or 4.56%.

Changes in Provisions of the Fund

The following Public Acts were passed in 2013 by the 98th General Assembly that made changes to the Fund Provisions.

P. A. 98-0043, Sec. 5-167.5 effective June 28, 2013

Payments to city (Health care) extends healthcare benefits from 7/1/2013 to 12/31/2016 or until such time as the city no longer provides a health care plan for such annuitants.

P. A. 98-0433, effective August 16, 2013

Allows for an additional exception to the current selection process for obtaining investment services and does not directly impact the liabilities of the Fund as of the valuation date.

A detailed description of the provisions in the Public Acts passed in 2013 can be found in the Historical Information section of this report.

¹ Average annual salary would have been \$81,307 without the addition of duty availability pay.

² Average annual salary would have been \$80,429 without the addition of duty availability pay.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF VALUATION RESULTS (CONT'D)

Analysis of Actuarial Assumptions

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

There are two general types of actuarial assumptions:

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

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

Changes in Actuarial Assumptions and Methods

There were no changes to the Actuarial Assumptions during the plan year ending December 31, 2013.

2013 Gain/Loss Analysis

We performed a gain/loss analysis of the major factors which contributed to the change in the unfunded actuarial liability between December 31, 2012 and December 31, 2013. Our analysis by source follows.

Turnover

We reviewed all exits in 2013 from the Fund for reasons other than retirement, death or disability for members with less than 20 years of service. The ratio of actual withdrawals to expected withdrawals was 79% (21% fewer than expected). The overall result is an actuarial loss.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF VALUATION RESULTS (CONT'D)

Retirement

The number of retirements during 2013 was more than expected. The ratio of actual retirements to expected retirements was 119%, resulting in an actuarial loss to the plan.

Disability

The number of new disabled participants during 2013 was more than expected. The ratio of actual to expected disability was 120%, resulting in a loss to the plan.

Mortality

There were fewer deaths during 2013 than expected for both active members and for annuitants, which resulted in a net actuarial loss to the fund.

Pay Increase

The average salary for continuing active members in the 2012 and 2013 valuations increased by 2.5%. This was 2.5% less than the expected increase from the 2012 salary. The lower than expected salary increases resulted in an actuarial gain to the fund.

Investment Return

During 2013, assets earned 13.7% on a market basis, 11.7% on a book basis, and 11.4% on an actuarial basis which compares favorably to the 2013 assumed return of 7.75%. Overall, the fund experienced an actuarial gain due to investment performance, on a market basis and actuarial basis, as well as on a book value basis, during the year.

Data and Other Sources

There were small actuarial losses in liabilities due to data corrections and other sources.

Changes to the Funding Method

Due to Public Act 96-1495, the actuarial funding method was change from Entry-Age Normal to Projected Unit Credit and the Actuarial (market-related) Value for Assets was retroactively marked to Market Value as of January 1, 2012.

Conclusion

Overall, we believe that the current assumptions are doing a reasonable job of modeling experience. Table 5 of Appendix 1 shows a more detailed development of the actuarial gains and losses for the plan year ending December 31, 2013.

APPENDIX 1

RESULTS OF ACTUARIAL VALUATION

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY

Table 1A

	December 31,	
	2012	2013
<u>Assets</u>		
Book Value - Beginning of Year	\$ 3,073,609,092	\$ 2,952,874,317
<u>Income</u>		
Investment Income Net of Expenses	\$ 194,517,018	\$ 323,504,550
Employer Contributions	207,228,022	188,889,240
Employee Contributions	95,892,052	93,328,944
Miscellaneous	423,216	479,329
Subtotal	\$ 498,060,308	\$ 606,202,063
<u>Outgo (Refunds, Benefits, & Administration)</u>	\$ 618,795,083	\$ 646,223,804
Book Value - End of Year	\$ 2,952,874,317	\$ 2,912,852,576
Market Value - End of Year	3,213,433,233	3,265,200,554
Actuarial Value - End of Year	3,148,929,770	3,053,881,777
<u>Member Counts</u>		
Active	12,026	12,161
Retirees	9,035	9,194
Survivors	3,191	3,196
Disabilities	346	350
Inactives	664	654
Children	394	419
<u>Payroll Data</u>		
Valuation Payroll	\$ 1,015,170,686	\$ 1,015,426,128
Average Salary	84,415	83,499

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY (CONT'D)

Table 1B

	December 31,	
	2012	2013
<u>ACTUARIAL VALUES</u>		
<u>Statutory Funding</u>		
Actuarial Liability ¹	\$ 10,220,638,509	\$ 10,080,605,544
Assets - Actuarial Value	3,148,929,770	3,053,881,777
Unfunded Liability	7,071,708,739	7,026,723,767
Funded Ratio	30.81%	30.29%
Statutory Employer Contribution (Tax Levy Year)	\$ 188,430,990 (2014)	\$ 592,863,325 (2015)
<u>Book Value Funding</u>		
Actuarial Liability ¹	\$ 10,220,638,509	\$ 10,080,605,544
Assets - Book Value	2,952,874,317	2,912,852,576
Unfunded Liability	7,267,764,192	7,167,752,968
Funded Ratio	28.89%	28.90%
<u>Termination Values</u>		
Liability	\$ 7,834,008,959	\$ 7,988,229,559
Deficiency	4,881,134,642	5,075,376,983
Quick Ratio	37.69%	36.46%
<u>Market Value Funding</u>		
Actuarial Liability ¹	\$ 10,220,638,509	\$ 10,080,605,544
Assets - Market Value	3,213,433,233	3,265,200,554
Unfunded Liability	7,007,205,276	6,815,404,990
Funded Ratio	31.44%	32.39%
<u>GASB #25 and #43 Values</u>		
Actuarial Liability - Entry Age	\$ 10,220,638,509	\$ 10,310,714,280
Assets - Actuarial Value	3,148,929,770	3,053,881,777
Unfunded Liability	7,071,708,739	7,256,832,503
Funded Ratio	30.81%	29.62%
Annual Required Contribution (ARC) ² (Plan Year End)	484,607,486 (2013)	501,374,829 (2014)

¹ For 2013, Actuarial Liabilities for Statutory Funding, Market Value Funding, and Book Value Funding are calculated using the Projected Unit Credit cost method. 2012 numbers were based on the Entry-Age Normal cost method.

² Disclosures under GASB#25 and GASB#43 show Actuarial Accrued Liability separately for Pensions and OPEB.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY (CONT'D)

Table 1C

Active Accrued Liability and Normal Cost by Tier
Includes Pension and Healthcare

	<u>Tier 1 Members</u>	<u>Tier 2 Members²</u>	<u>Total</u>
(1) Count	11,119	1,042	12,161
(2) Payroll	\$ 960,140,950	\$ 55,285,178	\$ 1,015,426,128
(3) Average Payroll	\$ 86,351	\$ 53,057	\$ 83,499
(4) Actuarial Accrued Liability (AAL) ¹	\$ 3,433,179,128	\$ 7,551,119	\$ 3,440,730,247
(5) Total Normal Cost ¹	\$ 190,283,080	\$ 8,175,536	\$ 198,458,616
(6) Total Normal Cost as a Percent of Pay	19.8%	14.8%	19.5%
(7) Estimated Member Contributions	\$ 88,457,564	\$ 5,105,464	\$ 93,563,028
(8) Net Normal Cost ¹	\$ 101,825,516	\$ 3,070,072	\$ 104,895,588
(9) Net Normal Cost as a Percent of Pay	10.6%	5.6%	10.3%

¹The normal cost and liabilities for healthcare are based on a discount rate of 4.5%.

²Members hired on or after January 1, 2011.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF BASIC ACTUARIAL VALUES

Table 2

	APV of Projected Benefits	Actuarial Accrued Liability (AAL)
<u>(1) Values for Active Members</u>		
(a) Retirement	\$4,965,351,350	\$3,115,994,391
(b) Termination	64,233,010	40,239,764
(c) Disability	362,887,464	229,846,750
(d) Death	87,363,160	54,649,342
Total for Actives	\$5,479,834,984	\$3,440,730,247
<u>(2) Values for Inactive Members</u>		
(a) Retired	5,802,966,080	5,802,966,080
(b) Survivor	510,252,851	510,252,851
(c) Disability	272,177,986	272,177,986
(d) Inactive (Deferred Vested)	45,083,100	45,083,100
(e) Children	9,395,280	9,395,280
Total for Inactives	6,639,875,297	6,639,875,297
<u>(3) Grand Totals</u>	<u>\$12,119,710,281</u>	<u>\$10,080,605,544</u>
<u>(4) Normal Cost for Active Members</u>	\$ 198,458,616	
<u>(5) Actuarial Present Value of Future Compensation</u>	\$10,730,484,065	

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL VALUATION PROJECTION RESULTS AND
DEVELOPMENT OF STATUTORY CONTRIBUTION

Table 3a

Actuarial Valuation Projection Results as of December 31, 2013													
Discount Rate of 7.75%													
(\$ in Thousands)													
Year Ending	Actuarial Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Liability	Actuarial Value Funded Ratio	Uncapped Payroll	Capped Payroll	Employer Normal Cost	Statutory Contribution¹	Statutory Contribution as % of Pay	Employee Contributions	Benefit Payments	Admin Expenses
2013	\$10,080,606	\$3,265,201	\$3,053,882	\$7,026,724	30.29%	\$1,015,426	\$1,015,426	\$89,750	\$188,889	18.6%	\$93,329	\$ 641,926	\$4,298
2014	10,401,796	3,116,381	2,963,479	7,438,317	28.49%	1,048,339	1,048,339	104,896	188,431	18.0%	93,563	650,390	4,426
2015	10,729,870	3,331,205	3,236,720	7,493,150	30.17%	1,086,009	1,086,009	99,873	592,863	54.6%	104,012	673,783	4,559
2016	11,062,868	3,559,011	3,522,943	7,539,925	31.84%	1,123,148	1,123,148	101,669	613,138	54.6%	107,591	699,517	4,696
2017	11,409,721	3,810,987	3,810,987	7,598,735	33.40%	1,162,873	1,162,873	103,330	634,824	54.6%	111,403	716,984	4,837
2018	11,760,065	4,077,395	4,077,395	7,682,670	34.67%	1,201,523	1,201,523	104,640	655,923	54.6%	115,243	745,110	4,982
2019	12,111,074	4,357,100	4,357,100	7,753,974	35.98%	1,240,722	1,240,722	105,482	677,323	54.6%	119,086	775,682	5,131
2020	12,460,807	4,650,079	4,650,079	7,810,727	37.32%	1,281,435	1,280,646	105,811	699,118	54.6%	123,002	807,703	5,285
2021	12,807,516	4,956,243	4,956,243	7,851,273	38.70%	1,322,691	1,320,975	105,874	721,134	54.6%	126,890	840,971	5,444
2022	13,150,495	5,277,247	5,277,247	7,873,248	40.13%	1,365,592	1,362,923	105,718	744,034	54.6%	130,893	874,558	5,607
2023	13,488,428	5,613,787	5,613,787	7,874,642	41.62%	1,410,449	1,405,432	105,265	767,240	54.6%	134,992	908,958	5,775
2024	13,820,165	5,968,320	5,968,320	7,851,845	43.19%	1,457,083	1,450,948	104,426	792,087	54.6%	139,329	943,901	5,949
2025	14,144,765	6,343,147	6,343,147	7,801,618	44.84%	1,505,844	1,498,545	103,309	818,071	54.6%	143,865	979,218	6,127
2026	14,461,365	6,740,553	6,740,553	7,720,812	46.61%	1,556,321	1,547,618	101,942	844,860	54.6%	148,540	1,014,730	6,311
2027	14,768,889	7,162,785	7,162,785	7,606,104	48.50%	1,608,695	1,598,050	100,354	872,392	54.6%	153,334	1,050,562	6,500
2028	15,068,056	7,614,943	7,614,943	7,453,113	50.54%	1,665,709	1,651,969	98,955	901,827	54.6%	158,302	1,085,266	6,695
2029	15,346,057	8,097,936	8,097,936	7,248,121	52.77%	1,724,274	1,700,825	97,567	928,497	54.6%	163,532	1,119,027	6,896
2030	15,602,859	8,610,245	8,610,245	6,992,614	55.18%	1,785,339	1,742,926	95,940	951,481	54.6%	168,225	1,152,594	7,103
2031	15,838,748	9,150,449	9,150,449	6,688,299	57.77%	1,849,829	1,777,764	94,331	970,499	54.6%	172,250	1,185,374	7,316
2032	16,058,874	9,719,291	9,719,291	6,339,583	60.52%	1,917,464	1,809,094	92,815	987,603	54.6%	175,499	1,216,964	7,536
2033	16,264,244	10,318,876	10,318,876	5,945,368	63.45%	1,990,242	1,838,184	91,660	1,003,483	54.6%	178,361	1,247,142	7,762
2034	16,456,853	10,952,376	10,952,376	5,504,476	66.55%	2,067,519	1,863,840	91,275	1,017,489	54.6%	180,877	1,274,470	7,995
2035	16,641,419	11,626,336	11,626,336	5,015,083	69.86%	2,148,776	1,889,250	91,455	1,031,361	54.6%	183,231	1,297,735	8,234
2036	16,820,971	12,345,734	12,345,734	4,475,237	73.39%	2,233,651	1,912,262	92,199	1,043,923	54.6%	185,514	1,317,937	8,482
2037	16,999,574	13,117,020	13,117,020	3,882,555	77.16%	2,322,997	1,935,515	93,595	1,056,617	54.6%	187,563	1,335,200	8,736
2038	17,179,866	13,945,618	13,945,618	3,234,248	81.17%	2,417,585	1,957,541	95,379	1,068,641	54.6%	189,661	1,350,533	8,998
2039	17,363,605	14,837,009	14,837,009	2,526,595	85.45%	2,515,886	1,979,782	97,561	1,080,783	54.6%	191,680	1,364,888	9,268
2040	17,551,592	15,796,433	15,796,433	1,755,159	90.00%	2,616,604	2,002,563	99,895	1,093,219	54.6%	193,748	1,379,197	9,546
2041	17,744,374	15,969,631	15,969,631	1,774,743	90.00%	2,721,179	2,026,872	102,410	211,482	10.4%	195,914	1,393,603	9,832

¹ Contribution receivable to be paid in the following fiscal year. The funded ratio includes receivable contributions.

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF STATUTORY CONTRIBUTION¹ (CONT'D)**

Table 3b

	<u>Pension</u>	<u>Health Ins. Supplement</u>	<u>Total</u>
<u>(1) Total Normal Cost for 2015</u>	\$ 203,848,861	\$ 36,292	\$ 203,885,153
<u>(2) Actuarial Accrued Liability (AAL) at 12/31/2014¹</u>	\$ 10,382,376,572	\$ 19,419,804	\$ 10,401,796,376
<u>(3) Unfunded AAL (UAAL)</u>			
(a) Actuarial Value of Assets at 12/31/2014 ³	\$ 2,963,479,146	\$ 0	\$ 2,963,479,146
(b) UAAL (2-3(a))	7,418,897,427	19,419,804	7,438,317,230
<u>(4) Estimated Member Contributions during 2015</u>	\$ 104,012,130	\$ 0	\$ 104,012,130
<u>(5) Estimated City Contribution for Tax Levy Year 2015</u>	\$582,992,045	\$ 9,871,280 ²	\$ 592,863,325

¹ Pension liabilities were discounted at 7.75% per year, and OPEB liabilities discounted at 4.5% per year.

² Represents expected health insurance supplemental benefits for fiscal year 2015.

³ The actuarial value of assets was retroactively marked to the market value of assets as of December 31, 2011. Marking the actuarial value of assets at either March 30, 2011, or December 31, 2011, produced the exact same statutory contribution for tax levy year 2015 because the contribution depends on the projected funded ratio at plan year end 2040.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF ANNUAL REQUIRED
CONTRIBUTION UNDER GASB #25 AND GASB #43 FOR 2014¹

Table 4

	<u>Pension</u>	<u>Health Ins. Supplement</u>	<u>Total</u>
<u>(1) Total Normal Cost for 2014</u>	\$ 178,643,818	\$ 43	\$ 178,643,861
<u>(2) Actuarial Accrued Liability (AAL) at 12/31/2013²</u>	\$ 10,282,338,599	\$ 28,375,681	\$ 10,310,714,280
<u>(3) Unfunded AAL (UAAL)</u>			
(a) Actuarial Value of Assets at 12/31/2013	\$ 3,053,881,777	\$ 0	\$ 3,053,881,777
(b) UAAL (2-3(a))	7,228,456,822	28,375,681	7,256,832,503
<u>(4) Amortization Payable at Beginning of Year³</u>	\$ 384,386,169	\$ 9,503,961	\$ 393,890,130
<u>(5) Estimated Member Contributions</u>	\$ 93,563,028	\$ 0	\$ 93,563,028
<u>(6) Annual Required Contribution (ARC) for 2014</u>			
(a) Interest Adjustment for Semimonthly Payment	<u>22,184,249</u>	<u>219,617</u>	<u>22,403,866</u>
(b) Annual Required Contribution (1 + 4 - 5 + 6(a))	\$ 491,651,208	\$ 9,723,621	\$ 501,374,829
(c) Annual Required Contribution (Percent of Pay)	48.42%	0.96%	49.38%
<u>(7) Estimated City Contribution for 2014</u>	\$ 178,700,098	\$ 9,730,902 ⁴	\$ 188,431,000
<u>(8) Estimated Deficiency/(Excess) for 2014</u>			
(a) in Dollars (6(b)-7)	<u>\$ 312,951,110</u>	<u>\$ (7,281)</u>	<u>\$ 312,943,829</u>
(b) as a Percentage of Pay	30.82%	(0.00%)	30.82%

¹ Pension liabilities were discounted at 7.75% per year, and OPEB liabilities discounted at 4.5% per year.

² Actuarial Accrued Liabilities calculated using the Entry-Age Normal cost method.

³ Amortization is over a 30-year period as a level percent of pay for pension benefits, and a 3-year period as a level percent of pay for OPEB benefits.

⁴ Represents expected health insurance supplemental benefits for fiscal year 2014.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF ACTUARIAL GAINS AND LOSSES FOR 2013

Table 5

UNFUNDED ACTUARIAL ACCRUED LIABILITY - BEGINNING OF 2013

(1) Actuarial Accrued Liability - 12/31/2012	\$10,220,638,509
(2) Assets at Book Value - 12/31/2012	2,952,874,317
(3) Unfunded Accrued Actuarial Liability - 12/31/2012	\$7,267,764,192

EXPECTED UNFUNDED ACTUARIAL ACCRUED LIABILITY - END OF 2013

(4) Normal Cost for 2013	\$ 183,285,557
(5) Total Contributions for 2013	282,697,513
(6) Interest on (3), (4), & (5) at Valuation Rates	561,239,766
(7) Expected Unfunded Actuarial Accrued Liability - 12/31/2013	\$7,729,592,002
((3)+(4)-(5)+(6))	

DEVIATIONS FROM EXPECTED

(8) (Gain)/Loss on Investment Return (Book Value)	\$ (104,019,662)
(9) (Gain)/Loss from Salary Changes	(133,771,825)
(10) (Gain)/Loss from Retirement	17,527,311
(11) (Gain)/Loss from Turnover	4,391,837
(12) (Gain)/Loss from Mortality	4,263,263
(13) (Gain)/Loss from Disability	2,676,814
(14) (Gain)/Loss from New Entrants	5,065,372
(15) (Gain)/Loss from All Other Sources	21,199,700
(16) Composite Actuarial (Gain)/Loss	(\$182,667,190)
(17) (Gain)/Loss as a percentage of Expected UAAL (16)/(7)	(2.4)%
(18) (Gain)/Loss from Asset Method Changes	\$ (141,029,201)
(19) (Gain)/Loss from Funding Method Change	(230,108,736)
(20) (Gain)/Loss from Provision Changes	(149,063,108)

UNFUNDED ACTUARIAL ACCRUED LIABILITY - END OF 2013

(21) Unfunded Accrued Actuarial Liability - 12/31/2013	\$7,026,723,767
((7)+(16)+(18)+(19)+(20))	

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
HISTORY OF RECOMMENDED EMPLOYER MULTIPLES ***

Table 6

<u>Year of Report</u>	<u>Statutory Multiple</u>	<u>Normal Cost Plus Interest</u>	<u>Normal Cost Plus Amortization⁴</u>	
			<u>Level \$</u>	<u>Level % of Salary</u>
1984	2.00	4.26	4.46	3.24
1985 ^{1,2}	2.00	4.50	4.70	3.48
1986 ¹	2.00	4.15	4.31	3.18
1987 ¹	2.00	4.13	4.29	3.16
1988	2.00	4.16	4.32	3.18
1989 ^{1,2}	2.00	3.79	3.91	2.85
1990 ³	2.00	3.58	3.68	2.73
1991	2.00	3.80	3.91	2.98
1992 ¹	2.00	3.23	3.36	2.11
1993	2.00	3.23	3.37	2.10
1994	2.00	3.05	3.18	1.98
1995	2.00	3.34	3.49	2.17
1996	2.00	3.19	3.32	2.10
1997	2.00	3.10	3.23	2.04
1998 ^{1,2}	2.00	3.63	3.77	2.56
1999	2.00	3.15	3.27	2.24
2000 ¹	2.00	3.27	3.39	2.32
2001 ²	2.00	3.63	3.78	2.56
2002	2.00	4.62	4.79	3.33
2003 ^{1,2}	2.00	4.46	4.63	3.23
2004 ²	2.00	4.99	5.18	3.60
2005 ^{1,2}	2.00	5.33	5.56	3.85
2006	2.00	4.95	5.40	3.94
2007	2.00	4.98	5.43	3.97
2008	2.00	5.43	5.94	4.30
2009 ¹	2.00	5.87	6.42	4.61
2010	2.00	6.19	6.78	4.85
2011	2.00	5.71	6.26	4.45
2012 ¹	2.00	6.73	7.43	5.25
2013 ²	2.00	6.92	7.60	5.44

¹Change in actuarial assumptions.

²Change in benefits.

³Change in actuary.

⁴Prior to 2005, amortizations were over a 40-year period. In 2005, pension unfunded liability was amortized over a 40-year period and OPEB liability over a 30-year period. Starting in 2006, both pension and OPEB amortizations are over a 30-year period. Starting in 2013, OPEB amortizations are over a closed 3-year period as a level percent of pay.

* Based on book value of assets.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ORDINARY DEATH BENEFIT RESERVE

Table 7

Actuarial Balance Sheet – 6% Basis

December 31, 2013

ASSETS

Fund Balance	(24,754,256)
Present Values of Future Contributions:	
Contributions by Members at \$30.00 a Year	4,388,867
Annual City Contribution of \$224,000	2,694,696
Unfunded Liability	50,566,602
TOTAL ASSETS	\$ 32,895,909

LIABILITIES

Present Value of Future Death Benefits (6%, 83 GAM)	
Active & Disabled Members	6,634,601
Retired Members	26,261,308
TOTAL LIABILITIES	\$ 32,895,909

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL ACCRUED LIABILITY PRIORITIZED SOLVENCY TEST

Table 8

Valuation Date 12/31	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets		
	Active and Inactive Member Contribution	Retirees and Beneficiaries	Active and Inactive Members (ER Financed Portion)		(1)	(2)	(3)
1999	\$ 763,729,532	\$ 2,939,332,536	\$ 1,691,810,150	\$3,685,681,671	100.00%	99.41%	0.00%
2000 ¹	818,382,556	3,228,954,418	1,604,693,684	4,019,467,561	100.00%	99.14%	0.00%
2001 ²	803,453,930	3,463,944,097	1,665,112,602	4,183,796,025	100.00%	97.59%	0.00%
2002	846,622,627	3,769,125,439	1,769,097,893	4,124,579,960	100.00%	86.97%	0.00%
2003 ^{1,2}	893,425,839	3,856,262,804	1,831,744,607	4,039,695,590	100.00%	81.59%	0.00%
2004 ²	910,480,098	4,313,531,046	1,810,260,330	3,933,031,342	100.00%	70.07%	0.00%
2005 ^{1,2}	950,764,942	4,677,632,909	2,094,339,296	3,914,431,654	100.00%	63.36%	0.00%
2006	1,016,217,810	4,858,554,051	2,241,771,313	3,997,990,919	100.00%	61.37%	0.00%
2007	1,082,742,927	5,006,931,293	2,309,718,259	4,231,681,817	100.00%	62.89%	0.00%
2008	1,144,380,257	5,208,199,833	2,299,966,099	4,093,719,894	100.00%	56.63%	0.00%
2009 ¹	1,217,645,647	5,391,373,730	2,291,882,108	3,884,978,241	100.00%	49.47%	0.00%
2010	1,251,147,487	5,717,654,520	2,406,050,870	3,718,954,539	100.00%	43.16%	0.00%
2011	1,286,345,939	6,041,684,411	2,360,319,555	3,444,690,362	100.00%	35.72%	0.00%
2012 ¹	1,309,825,828	6,475,282,318	2,435,530,363	3,148,929,770	100.00%	28.40%	0.00%
2013 ²	1,358,193,244	6,594,792,197	2,127,620,103	3,053,881,777	100.00%	25.71%	0.00%

¹Change in actuarial assumptions.

²Change in benefits.

APPENDIX 2

ASSETS OF THE PLAN

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ASSETS OF THE PLAN

The book value of the plan assets, net of accounts payable, decreased from \$2.953 billion as of December 31, 2012, to \$2.913 billion as of December 31, 2013. The market value of the plan assets, net of accounts payable, increased from \$3.213 billion as of December 31, 2012, to \$3.265 billion as of December 31, 2013. Table 9 details the development of asset values during 2013 and Table 10 shows the development of the actuarial value of assets as of December 31, 2013. In each future fiscal year, gains and losses will be phased in over a five year period.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
RECONCILIATION OF ASSETS AS OF DECEMBER 31, 2013

Table 9

	Market Value	Book Value
1. Value of assets as of 12/31/2012	\$3,213,433,233	\$2,952,874,317
2. Income for plan year:		
a) Member contributions	\$ 93,328,944	\$ 93,328,944
b) City contributions	188,889,240	188,889,240
c) Investment income net of expenses	415,293,612	323,504,550
d) Miscellaneous revenue	479,329	479,329
e) Total income	\$ 697,991,125	\$ 606,202,063
3. Disbursements for plan year:		
a) Benefit payments		
i) Pension, disability and death benefit payments	\$ 623,991,964	\$ 623,991,964
ii) Healthcare premiums	9,847,310	9,847,310
b) Refunds	8,087,018	8,087,018
c) Administration	4,297,512	4,297,512
d) Total disbursements	\$ 646,223,804	\$ 646,223,804
4. Value of assets as of 12/31/2013	\$3,265,200,554	\$2,912,852,576
5. Estimated rate of return in 2013: ¹		
a) Gross	13.98%	12.01%
b) Net of investment expense (Investment expense of \$8,673,346)	13.70%	11.67%

¹Method used for calculating rate of return does not reflect specific timing of income and outflows. It is also based on total assets, not invested assets.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF ACTUARIAL (MARKET-RELATED)
VALUE OF ASSETS AS OF DECEMBER 31, 2013

Table 10

1. Expected Return on Market Value of Assets for Prior Year

a) Market value of assets as of 12/31/2012	\$ 3,213,433,233
b) Actual income and disbursements in prior year weighted for timing	

Item	Amount	Weight for Timing	Weighted Amount
i) Member contributions	\$ 93,328,944	50.0%	\$ 46,664,472
ii) City contributions	188,889,240	50.0%	94,444,620
iii) Miscellaneous revenue	479,329	50.0%	239,665
iv) Benefit payments	(633,839,274)	50.0%	(316,919,637)
v) Refunds	(8,087,018)	50.0%	(4,043,509)
vi) Administration	(4,297,512)	50.0%	(2,148,756)
vii) Total	\$(363,526,291)		\$ (181,763,145)

c) Market value of assets adjusted for actual income and disbursements [(a) + (b)(vii)]	\$ 3,031,670,088
d) Assumed rate of return on plan assets for the year	7.75%
e) Expected return [(c) * (d)]	\$ 234,954,432

2. Actual Return on Market Value of Assets for Prior Year

a) Market value of assets as of 12/31/2012	\$ 3,213,433,233
b) Income (less investment income) for prior plan year	282,697,513
c) Disbursements paid in prior year	646,223,804
d) Market value of assets as of 12/31/2013	3,265,200,554
e) Actual return [(d) + (c) - (b) - (a)]	\$ 415,293,612

3. Investment Gain/(Loss) for Prior Year [2(e) - 1(e)]

\$ 180,339,180

4. Actuarial Value of Assets as of 12/31/2013

a) Market value of assets as of 12/31/2013	3,265,200,554
b) Deferred investment gains and (losses) for last 5 years	

Plan Year	Gain/(Loss)	Percent Deferred	Deferred Amount
i) 2009	\$ -	0.00%	\$ -
ii) 2010	-	20.00%	-
iii) 2011	-	40.00%	-
iv) 2012	111,745,722	60.00%	67,047,433
v) 2013	180,339,180	80.00%	144,271,344
vi) Total	\$ 292,084,902		\$ 211,318,777

c) Actuarial Value of Assets	\$ 3,053,881,777
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The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last 5 years at the rate of 20% per year.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF ACTUARIAL (MARKET-RELATED)
VALUE OF ASSETS AS OF DECEMBER 31, 2012

Table 10b

1. Expected Return on Market Value of Assets for Prior Year

- a) Market value of assets as of 12/31/2011 \$ 3,175,508,681
b) Actual income and disbursements in prior year weighted for timing

<u>Item</u>	<u>Amount</u>	<u>Weight for Timing</u>	<u>Weighted Amount</u>
i) Member contributions	\$ 95,892,052	50.0%	\$ 47,946,026
ii) City contributions	207,228,022	50.0%	103,614,011
iii) Miscellaneous revenue	423,216	50.0%	211,608
iv) Benefit payments	(602,756,032)	50.0%	(301,378,016)
v) Refunds	(11,150,565)	50.0%	(5,575,283)
vi) Administration	(4,888,486)	50.0%	(2,444,243)
vii) Total	<u>\$ (315,251,793)</u>		<u>\$ (157,625,897)</u>

- c) Market value of assets adjusted for actual income and disbursements [(a) + (b)(vii)] \$ 3,017,882,784
d) Assumed rate of return on plan assets for the year 8.00%
e) Expected return [(c) * (d)] \$ 241,430,623

2. Actual Return on Market Value of Assets for Prior Year

- a) Market value of assets as of 12/31/2011 \$ 3,175,508,681
b) Income (less investment income) for prior plan year 303,543,290
c) Disbursements paid in prior year 618,795,083
d) Market value of assets as of 12/31/2012 3,213,433,233
e) Actual return [(d) + (c) - (b) - (a)] \$ 353,176,345

3. Investment Gain/(Loss) for Prior Year [2(e) - 1(e)]

\$ 111,745,722

4. Actuarial Value of Assets as of 12/31/2012 ^a

- a) Market value of assets as of 12/31/2012 3,213,433,233
b) Deferred investment gains and (losses) for last 5 years

	<u>Plan Year</u>	<u>Gain/(Loss)</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>
i)	2008	\$ -	0.00%	\$ -
ii)	2009	-	20.00%	-
iii)	2010	-	40.00%	-
iv)	2011	-	60.00%	-
v)	2012	111,745,722	80.00%	89,396,578
vi)	Total	<u>\$ 111,745,722</u>		<u>\$ 89,396,578</u>

- c) Actuarial Value of Assets \$ 3,124,036,655

The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last 5 years at the rate of 20% per year.

^a The actuarial value of assets was marked to market as of January 1, 2012, in accordance with the provisions of Public Act 96-1495.

APPENDIX 3

DATA REFLECTING PLAN MEMBERS

EXHIBIT A
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF CHANGES IN ACTIVE PARTICIPANTS
FOR FISCAL YEAR ENDING DECEMBER 31, 2013

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Number of Participants at Beginning of Fiscal Year ²	9,176	2,850	12,026
Increases:			
Participants Added During Year	459	114	573
Participants Returning From Inactive or Disability Status	<u>25</u>	<u>9</u>	<u>34</u>
Totals	9,660	2,973	12,633
Decreases:			
Terminations During Year	<u>331</u>	<u>141</u>	<u>472</u>
Number of Participants at End of Fiscal Year	9,329	2,832	12,161
Total Inactive Participants			654
<u>Terminations:</u>			
Withdrawal (With Refunds) ¹	6	1	7
Withdrawal (Without Refunds)	73	26	99
Ordinary Disability Benefit	8	11	19
Occupational Disease Disability Benefit	5	1	6
Duty Disability Benefit	13	7	20
Retirements	213	92	305
Deaths (Occupational)	0	0	0
Deaths (Non-occupational)	<u>13</u>	<u>3</u>	<u>16</u>
Totals	331	141	472

¹ This total differs from the total of 31 shown in Exhibit D due to the fact that only 7 of the refunds were paid to participants who were considered to be active as of December 31, 2012.

² Includes seven active members reclassified from male to female and ten active members reclassified from female to male.

EXHIBIT B
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF CHANGES IN ANNUITANTS AND BENEFICIARIES
FOR FISCAL YEAR ENDING DECEMBER 31, 2013

	<u>Number at Beginning of Year</u>	<u>Additions During Year</u>	<u>Terminations During Year</u>	<u>Number at End of Year</u>
Service Retirement Annuities	9,035	401	242	9,194
Widow Annuities	3,122	157	149	3,130
Children's Annuities	214	16	24	206
Ordinary Disability Benefit (Non-Occupational)	47	20	21	46
Occupational Disease Disability Benefit	36	6	7	35
Duty Disability Benefit (Occupational)	263	35	29	269
Children's Disability Benefit	180	48	15	213
Widows' Compensation Annuities (Service Connected Death)	69	0	3	66
Totals	12,966	683	490	13,159
Annual Benefits	\$ 595,829,340	\$ 43,380,694	\$ 17,020,751	\$ 622,189,283

EXHIBIT C – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE MALE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2013

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24	2 86,208	5 323,750								7	409,958
25 to 29	235 10,129,440	248 16,651,306	50 3,933,396							533	30,714,142
30 to 34	154 6,638,016	224 15,467,671	714 56,169,667	182 14,966,491						1,274	93,241,845
35 to 39	62 2,672,448	101 7,050,958	414 32,563,062	790 65,326,598	92 7,961,188					1,459	115,574,254
40 to 44	5 215,520	27 1,960,217	234 18,371,195	675 55,578,163	1,004 88,339,204	177 16,984,087				2,122	181,448,386
45 to 49		3 218,172	71 5,580,029	293 23,991,822	749 65,148,242	627 58,544,695	144 14,728,744			1,887	168,211,704
50 to 54			1 78,592	96 7,871,108	332 28,567,119	388 35,567,250	427 42,886,989	26 2,795,627		1,270	117,766,685
55 to 59				38 3,097,086	131 11,178,495	147 13,246,692	219 21,507,905	54 5,691,976	9 897,438	598	55,619,592
60 to 63				10 812,320	47 4,036,974	33 2,999,039	46 4,429,628	23 2,305,825	20 2,103,411	179	16,687,197
Total Active	458	608	1,484	2,084	2,355	1,372	836	103	29	9,329	
Annual Salary	\$19,741,632	\$41,672,074	\$116,695,941	\$171,643,588	\$205,231,222	\$127,341,763	\$83,553,266	\$10,793,428	\$ 3,000,849		\$ 779,673,763

EXHIBIT C – PART II
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
TOTAL LIVES AND ANNUAL SALARIES OF ACTIVE FEMALE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2013

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24										0	0
25 to 29	47 2,025,888	43 2,907,602	14 1,107,883							104	6,041,373
30 to 34	46 2,001,210	71 4,946,189	219 17,215,611	38 3,108,894						374	27,271,904
35 to 39	17 732,768	35 2,389,741	133 10,464,703	220 18,165,751	18 1,533,563					423	33,286,526
40 to 44	5 215,520	11 763,718	98 7,706,388	199 16,335,188	243 21,215,654	44 4,042,074				600	50,278,542
45 to 49			35 2,750,719	108 8,859,164	211 18,142,282	179 16,543,405	39 3,823,120			572	50,118,690
50 to 54				44 3,584,478	132 11,216,371	139 12,700,546	136 13,342,315	9 921,144		460	41,764,854
55 to 59			1 78,592	20 1,624,639	88 7,493,484	65 5,962,763	57 5,591,650	9 903,498		240	21,654,626
60 to 63				1 81,232	27 2,290,475	16 1,438,965	8 769,982	4 449,668	3 305,526	59	5,335,848
Total Active		160	500	630	719	443	240	22	3	2,832	
Annual Salary		\$11,007,250	\$39,323,896	\$51,759,346	\$61,891,829	\$40,687,753	\$23,527,067	\$2,274,310	\$ 305,526		\$ 235,752,363

EXHIBIT C – PART III
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
TOTAL LIVES AND ANNUAL SALARIES OF ALL ACTIVE PARTICIPANTS
CLASSIFIED BY AGE AND YEARS OF SERVICE AS OF DECEMBER 31, 2013

AGE	Years of Service									Total	Annual Salary
	Under 1 year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 and over		
Under 20										0	\$ 0
20 to 24	2 86,208	5 323,750								7	409,958
25 to 29	282 12,155,328	291 19,558,908	64 5,041,279							637	36,755,515
30 to 34	200 8,639,226	295 20,413,860	933 73,385,278	220 18,075,385						1,648	120,513,749
35 to 39	79 3,405,216	136 9,440,699	547 43,027,765	1,010 83,492,349	110 9,494,751					1,882	148,860,780
40 to 44	10 431,040	38 2,723,935	332 26,077,583	874 71,913,351	1,247 109,554,858	221 21,026,161				2,722	231,726,928
45 to 49		3 218,172	106 8,330,748	401 32,850,986	960 83,290,524	806 75,088,100	183 18,551,864			2,459	218,330,394
50 to 54			1 78,592	140 11,455,586	464 39,783,490	527 48,267,796	563 56,229,304	35 3,716,771		1,730	159,531,539
55 to 59			1 78,592	58 4,721,725	219 18,671,979	212 19,209,455	276 27,099,555	63 6,595,474	9 897,438	838	77,274,218
60 to 63				11 893,552	74 6,327,449	49 4,438,004	54 5,199,610	27 2,755,493	23 2,408,937	238	22,023,045
Total Active	573	768	1,984	2,714	3,074	1,815	1,076	125	32	12,161	
Annual Salary	\$24,717,018	\$52,679,324	\$156,019,837	\$223,402,934	\$267,123,051	\$168,029,516	\$107,080,333	\$13,067,738	\$ 3,306,375		\$ 1,015,426,126

EXHIBIT D – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING NUMBER OF REFUND PAYMENTS MADE DURING YEAR
TO MALE EMPLOYEES FOR FISCAL YEAR ENDING DECEMBER 31, 2013

Age at Date of Refund	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and over	
Under 20							0
20 to 24							0
25 to 29				1			1
30 to 34	1	1				6	8
35 to 39	1					6	7
40 to 44						3	3
45 to 49						7	7
50 to 54							0
55 to 59				1			1
60 to 63							0
Totals	2	1	0	2	0	22	27

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

EXHIBIT D – PART II
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING NUMBER OF REFUND PAYMENTS MADE DURING YEAR
TO FEMALE EMPLOYEES FOR FISCAL YEAR ENDING DECEMBER 31, 2013

Age at Date of Refund	Length of Service at Date of Refund						Total
	Under 1 Year	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5	5 and over	
Under 20							0
20 to 24							0
25 to 29							0
30 to 34				1		1	2
35 to 39						1	1
40 to 44							0
45 to 49						1	1
50 to 54							0
55 to 59							0
60 to 63							0
Totals	0	0	0	1	0	3	4

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

EXHIBIT E
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING STATISTICS ON SERVICE RETIREMENT ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2013

AGE	MALE		FEMALE		TOTAL	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 50	5	\$ 63,000	3	\$ 37,800	8	\$ 100,800
50	18	1,125,561	8	371,577	26	1,497,138
51	22	1,301,934	14	782,858	36	2,084,792
52	32	1,729,925	19	1,010,141	51	2,740,066
53	35	2,042,859	13	799,741	48	2,842,600
54	45	2,391,090	19	920,192	64	3,311,282
55	49	2,924,380	36	2,047,242	85	4,971,622
56	106	6,477,912	62	3,547,690	168	10,025,602
57	85	5,064,538	62	3,285,329	147	8,349,867
58	112	6,960,828	49	2,548,036	161	9,508,864
59	161	11,031,111	69	3,810,702	230	14,841,813
60	180	11,848,331	69	4,031,509	249	15,879,840
61	228	14,802,872	78	4,480,236	306	19,283,108
62	343	22,928,650	81	4,675,420	424	27,604,070
63	443	29,977,734	106	5,894,041	549	35,871,775
64	477	30,672,629	83	4,531,755	560	35,204,384
65	515	33,551,884	107	5,691,528	622	39,243,412
66	580	37,492,813	72	3,895,157	652	41,387,970
67	537	33,678,840	47	2,121,442	584	35,800,282
68	346	21,370,969	35	1,686,291	381	23,057,260
69	360	22,083,239	40	2,030,471	400	24,113,710
70	389	23,306,385	37	1,615,349	426	24,921,734
71	340	19,975,694	23	1,030,199	363	21,005,893
72	305	17,112,805	17	875,470	322	17,988,275
73	246	13,888,714	17	804,607	263	14,693,321
74	228	12,561,319	2	43,497	230	12,604,816
75	223	12,148,846	3	171,718	226	12,320,564
76	164	8,523,407	6	299,474	170	8,822,881
77	146	7,557,493	5	280,425	151	7,837,918
78	132	6,956,150	1	41,253	133	6,997,403
79	119	6,087,702	0	0	119	6,087,702
80	127	6,443,354	0	0	127	6,443,354
81	145	7,273,797	0	0	145	7,273,797
82	119	6,058,027	0	0	119	6,058,027
83	122	5,788,651	0	0	122	5,788,651
84	106	5,086,251	0	0	106	5,086,251
85 to 89	318	13,269,055	0	0	318	13,269,055
90 to 94	90	3,088,232	0	0	90	3,088,232
95 to 99	10	322,328	1	764	11	323,092
100+	2	37,005	0	0	2	37,005
Totals	8,010	\$475,006,314	1184	\$63,361,914	9,194	\$538,368,228

EXHIBIT F
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING STATISTICS ON WIDOW'S ANNUITIES
CLASSIFIED BY AGE AS OF DECEMBER 31, 2013

Age	No.	Annual Payments	Age	No.	Annual Payments
Under 30	2	\$ 52,646	65	81	\$ 1,891,451
30	1	20,479	66	82	1,787,790
31	1	20,953	67	94	2,013,369
32	0	0	68	86	1,779,479
33	0	0	69	79	1,690,590
34	1	19,399	70	102	2,120,881
35	0	0	71	108	2,271,754
36	0	0	72	86	1,839,338
37	0	0	73	85	1,767,006
38	3	62,088	74	89	1,780,813
39	3	98,422	75	114	2,058,027
40	2	40,828	76	118	2,237,741
41	5	105,930	77	103	1,977,639
42	6	120,722	78	97	1,801,090
43	4	84,114	79	88	1,626,942
44	9	174,990	80	98	1,855,458
45	4	84,851	81	98	1,758,783
46	7	134,814	82	108	1,837,372
47	3	57,023	83	109	1,916,275
48	8	170,583	84	89	1,560,318
49	9	202,778	85	89	1,428,755
50	11	236,423	86	96	1,588,932
51	7	172,868	87	96	1,474,639
52	13	272,664	88	80	1,166,017
53	17	374,843	89	55	790,403
54	14	277,117	90	67	986,270
55	19	398,227	91	40	590,900
56	23	474,447	92	44	594,227
57	27	659,488	93	43	561,321
58	26	577,723	94	20	270,301
59	48	1,138,392	95	22	298,414
60	38	957,056	96	15	180,000
61	36	844,816	97	7	84,000
62	47	981,085	98	10	120,000
63	56	1,214,130	99	3	36,000
64	70	1,480,325	100+	9	108,000
			Total	3,130	\$59,360,519

EXHIBIT G
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING STATISTICS ON MISCELLANEOUS ANNUITIES
FOR FISCAL YEAR ENDING DECEMBER 31, 2013

	<u>No.</u>	<u>Annual Payments</u>
Children's Annuities	206	1,315,842
Widows' Compensation Annuities	66	4,163,215
Ordinary Disability Benefits	46	1,930,087
Occupational Disease Disability Benefits	35	1,826,679
Duty Disability Benefits	269	14,952,797
Children's Disability Benefits	213	271,916
Totals	835	\$24,460,536

EXHIBIT H – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING MALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

Length of Service as of December 31, 2013														
ATTAINED AGE	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over		Total	
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments
UNDER 30													0	\$ 0
30 to 34			1	41,796			1	58,509					2	100,305
35 to 39			1	53,908	6	313,935	5	293,681					12	661,524
40 to 44			4	193,738	8	386,073	12	662,020	9	539,198	1	62,780	34	1,843,809
45 to 49			4	208,274	8	422,544	6	347,871	12	729,232	1	62,210	31	1,770,131
50 to 54			4	197,316	5	255,624	9	488,286	7	403,232	10	637,428	35	1,981,886
55 to 59			7	344,206	2	104,061	12	649,229	11	646,428	11	634,217	43	2,378,141
60 to 63					3	156,841	2	101,902	5	259,885	10	608,767	20	1,127,395
Totals	0	\$0	21	\$1,039,238	32	\$1,639,078	47	\$2,601,498	44	\$2,577,975	33	\$2,005,402	177	\$ 9,863,191

EXHIBIT H – PART II
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING FEMALE PARTICIPANTS RECEIVING DUTY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

ATTAINED AGE	Length of Service as of December 31, 2013												Total Annual Payments	
	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over			
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments		
UNDER 30													0	\$ 0
30 to 34			1	45,223	1	58,944							2	104,167
35 to 39			2	100,087	2	113,273	1	60,924					5	274,284
40 to 44			3	142,354	4	208,867	3	174,306	3	179,308			13	704,835
45 to 49			2	96,869	2	113,324	4	209,280	3	179,918	3	171,615	14	771,006
50 to 54			2	100,447	7	352,480	8	427,174	5	298,137	5	333,066	27	1,511,304
55 to 59			1	50,224	3	163,256	9	478,205	7	398,071	1	66,553	21	1,156,309
60 to 63			2	98,485			3	155,034	1	61,787	4	252,395	10	567,701
Totals	0	\$0	13	\$633,689	19	\$1,010,144	28	\$1,504,923	19	\$1,117,221	13	\$823,629	92	\$ 5,089,606

EXHIBIT I – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING MALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

ATTAINED AGE	Length of Service as of December 31, 2013												Total Annual Payments	
	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over			
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments		
UNDER 30													0	\$ 0
30 to 34					1	39,296							1	39,296
35 to 39					2	76,510							2	76,510
40 to 44									1	41,473			1	41,473
45 to 49							1	40,616	7	285,788			8	326,404
50 to 54							2	80,258	2	82,113	3	130,349	7	292,720
55 to 59									1	38,948	2	97,812	3	136,760
60 to 63											1	41,684	1	41,684
Totals	0	\$0	0	\$0	3	\$115,806	3	\$120,874	11	\$448,322	6	\$269,845	23	\$ 954,847

EXHIBIT I- PART II
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING FEMALE PARTICIPANTS RECEIVING ORDINARY DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

ATTAINED AGE	Length of Service as of December 31, 2013												Total Annual Payments	
	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over			
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments		
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39					1	39,296							1	39,296
40 to 44							1	40,616					1	40,616
45 to 49					1	38,042			2	83,944	3	137,220	6	259,206
50 to 54							1	40,616	4	164,365	5	216,122	10	421,103
55 to 59									1	41,972	3	131,075	4	173,047
60 to 63									1	41,972			1	41,972
Totals	0	\$0	0	\$0	2	\$77,338	2	\$81,232	8	\$332,253	11	\$484,417	23	\$ 975,240

EXHIBIT J – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING MALE PARTICIPANTS RECEIVING OCCUPATIONAL DISEASE DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

ATTAINED AGE	Length of Service as of December 31, 2013												Total Annual Payments	
	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over			
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments		
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39													0	0
40 to 44													0	0
45 to 49													0	0
50 to 54								4	201,465	5	285,601		9	487,066
55 to 59							1	41,853	2	104,346	7	418,561	10	564,760
60 to 63							2	86,130	2	99,490	6	309,603	10	495,223
Totals	0	\$0	0	\$0	0	\$0	3	\$127,983	8	\$405,301	18	\$1,013,765	29	\$ 1,547,049

EXHIBIT J- PART II
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SHOWING FEMALE PARTICIPANTS RECEIVING OCCUPATIONAL DISEASE DISABILITY
CLASSIFIED BY AGE AND LENGTH OF SERVICE AS OF DECEMBER 31, 2013

ATTAINED AGE	Length of Service as of December 31, 2013												Total Annual Payments	
	Under 1 Year		1 to 4		5 to 9		10 to 14		15 to 19		20 & Over			
	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments	No.	Annual Payments		
UNDER 30													0	\$ 0
30 to 34													0	0
35 to 39													0	0
40 to 44													0	0
45 to 49							1	42,635					1	42,635
50 to 54							1	41,853	1	45,026	1	56,502	3	143,381
55 to 59								-	1	40,782		-	1	40,782
60 to 63								-	1	52,832		-	1	52,832
Totals	0	\$0	0	\$0	0	\$0	2	\$84,488	3	\$138,640	1	\$56,502	6	\$ 279,630

EXHIBIT K
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
HISTORY OF AVERAGE ANNUAL SALARIES

Year End	Members in Service	Increase	Current Year Salary	Increase	Average Salary	Increase	Actuarial Assumptions	CPI Chicago
1984 ¹	12,110	(3.6)%	\$ 379,686,648	(2.8)%	\$ 30,610	0.7 %	6.00	3.8
1985	12,096	(0.1)	395,295,432	6.6	32,680	6.8	6.00	3.8
1986	12,578	4.0	431,883,240	9.3	34,336	5.1	6.00	2.0
1987	12,602	0.2	443,122,728	2.6	35,163	2.4	6.00	4.1
1988 ²	12,495	(0.8)	443,669,520	0.1	35,508	1.0	6.00	3.9
1989	12,060	(3.5)	437,121,504	(1.5)	36,246	2.1	6.00	5.1
1990	12,039	(0.2)	471,544,173	7.9	39,168	8.1	6.00	5.5
1991	12,513	3.9	520,015,930	10.3	41,558	6.1	6.00	3.0
1992	12,570	0.5	538,404,098	3.5	42,832	3.1	5.80	3.3
1993	12,591	0.2	561,156,282	4.2	44,568	4.1	5.80	2.3
1994	13,095	4.0	599,073,276	6.8	45,748	2.6	5.80	2.9
1995	13,437	2.6	622,413,737	3.9	46,321	1.3	5.80	2.2
1996	13,475	0.3	654,149,310	5.1	48,545	4.8	5.80	3.8
1997	13,435	(0.3)	675,515,532	3.7	50,280	3.6	5.80	1.7
1998 ³	13,586	1.1	736,401,756	9.0	54,203	7.8	5.50	1.5
1999	13,829	1.8	755,303,667	2.6	54,617	0.8	5.50	2.6
2000	13,858	0.2	759,343,026	0.5	54,795	0.3	5.50	4.0
2001	13,889	0.2	763,352,475	0.5	54,961	0.3	5.50	0.8
2002	13,720	(1.2)	866,531,789	13.5	63,158	14.9	5.50	2.5
2003	13,746	0.2	887,555,791	2.4	64,568	2.2	5.50	1.7
2004	13,569	(1.3)	874,301,958	(1.5)	64,434	(0.2)	5.50	2.2
2005	13,462	(0.8)	948,973,732	8.5	70,493	9.4	5.50	3.6
2006	13,749	2.1	1,012,983,635	6.7	73,677	4.5	5.50	0.7
2007	13,748	0.0	1,038,957,026	2.6	75,572	2.6	5.50	4.7
2008	13,373	(2.7)	1,023,580,667	(1.5)	76,541	1.3	5.50	(0.6)
2009	13,154	(1.6)	1,011,205,359	(1.2)	76,874	0.4	5.50	2.5
2010	12,737	(3.2)	1,048,084,301	3.6	82,287	7.0	5.50	1.2
2011	12,236	(3.9)	1,034,403,526	(1.3)	84,538	2.7	5.50	2.1
2012	12,026	(1.7)	1,015,170,686	(1.9)	84,415	(0.1)	5.50	1.7
2013	12,161	1.1	1,015,426,126	0.0	83,499	(1.1)	5.50 ⁴	0.5
Average Increase (Decrease) for the last 5 years:		(1.9)%		(0.2)%		1.8 %		1.6 %

¹ Members in service does not include those age 63 and over who are still working.

² Figures do not include retroactive raise.

³ Pay definition changed to include duty availability pay. Of the \$1,015,426,128 current year salary, \$37,327,036 is duty availability pay.

⁴ See Appendix 4 for a complete description of the current assumptions.

EXHIBIT L
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
NEW ANNUITIES GRANTED DURING 2013

	Annuitants	Widows/ Widowers of Deceased Employees ¹	Widows/ Widowers of Deceased Annuitants	Compensation Widows/ Widowers
Number retired/deceased	401	8	149	0
Average age attained	58.2	47.1	72.4	0.0
Average length of service	26.1	N/A	N/A	N/A
Average annual salary ²	\$ 92,252	N/A	N/A	N/A
Average annual final salary	\$ 95,250	N/A	N/A	N/A
Total annual annuity	24,462,037	208,328	3,952,026	0
Average annual annuity	61,002	26,041	26,523	0
Total liability [(Based on 3% Comb. and 4% Amer. Exp.)]	\$ 350,607,311	3,668,553	36,347,543	0
Average liability	\$ 874,332	458,569	243,943	0
Total investment [Employee-paid for tax purposes]	\$ 617,499	N/A	N/A	N/A
Average investment ³	\$ 1,540	N/A	N/A	N/A
Liability/cost	567.8	N/A	N/A	N/A
Liability/final pay	\$ 9.18	N/A	N/A	N/A

¹ Not including compensation or supplemental.

² Four-year average for tier 1, and eight-year average for tier 2.

³ Based on previously-taxed contributions.

EXHIBIT M
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
RETIREES AND BENEFICIARIES BY TYPE OF BENEFIT

Years	ANNUITANTS			DISABILITY				Widow	Total
	Employee	Spouse ¹	Child	Ordinary	Duty	Occup.	Child ²	Comp.	
1984	3,723	3,152	435	87	113			74	7,584
1985	3,861	3,234	406	95	126			70	7,792
1986	4,212	3,145	380	78	144			69	8,028
1987	4,467	3,100	354	66	156			75	8,218
1988	4,595	3,184	350	63	167			78	8,437
1989	4,772	3,202	335	58	179			71	8,617
1990	4,936	3,214	335	51	187			66	8,789
1991	5,033	3,137	329	75	192			68	8,834
1992	5,109	3,129	310	83	204			66	8,901
1993	5,195	3,151	294	59	211		160	66	9,136
1994	5,309	3,123	281	51	221		159	64	9,208
1995	5,510	3,133	254	51	231	1	144	60	9,384
1996	5,714	3,120	252	67	256	12	158	59	9,638
1997	5,945	3,104	240	59	270	36	130	59	9,843
1998	6,241	3,093	228	56	279	57	150	57	10,161
1999	6,520	3,118	249	57	291	76	150	58	10,519
2000	6,876	3,107	267	48	274	87	149	59	10,867
2001	7,192	3,114	255	52	265	95	143	59	11,175
2002	7,392	3,092	235	38	289	103	150	59	11,358
2003	7,498	3,083	247	29	285	97	139	63	11,441
2004	7,815	3,133	249	44	287	85	130	65	11,808
2005	8,026	3,107	247	35	298	82	139	65	11,999
2006	8,083	3,093	255	39	291	69	132	64	12,026
2007	8,155	3,137	242	52	284	65	136	64	12,135
2008	8,210	3,148	237	39	286	58	139	66	12,183
2009	8,227	3,111	232	44	284	52	138	66	12,154
2010	8,495	3,079	222	37	284	40	155	69	12,381
2011	8,763	3,091	214	43	270	36	176	70	12,663
2012	9,035	3,122	214	47	263	36	180	69	12,966
2013	9,194	3,130	206	46	269	35	213	66	13,159

¹ Includes reversionary.

² Children's Disability Benefit not tracked before 1993.

EXHIBIT N
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
AVERAGE EMPLOYEE RETIREMENT BENEFITS PAYABLE

Years Ended	Average Annual Benefit	Average Current Age of Retirees	Average Age at Retirement Current Year *	Average Years of Benefit Service at Retirement Current Year *
1984	\$ 11,782	68	58.6	29.9
1985	13,070	68	58.7	30.2
1986	15,033	67	57.7	30.0
1987	16,257	67	58.1	30.1
1988	17,855	67	58.8	30.9
1989	19,315	67	58.6	30.7
1990	21,120	68	58.9	30.2
1991	21,782	68	58.4	30.8
1992	23,128	68	57.7	30.3
1993	24,724	68	56.9	29.6
1994	25,636	68	55.7	29.5
1995	26,996	67	55.3	29.2
1996	28,412	67	55.5	29.8
1997	29,867	67	55.0	29.3
1998	31,682	66	54.6	30.0
1999	33,220	66	54.8	29.9
2000	34,880	66	56.3	31.6
2001	36,428	66	56.4	29.8
2002	38,199	66	55.6	29.4
2003	38,998	66	57.1	30.2
2004	41,914	66	57.5	30.4
2005	43,930	67	57.3	30.6
2006	45,680	67	58.0	29.6
2007	47,392	67	58.1	29.3
2008	49,239	68	58.3	29.4
2009	50,799	68	59.2	28.6
2010	53,060	68	59.1	28.1
2011	55,104	68	59.5	27.4
2012	56,896	69	58.7	26.7
2013	58,556	69	58.2	26.1

* Averages for New Annuitants in 2013.

EXHIBIT O – PART I
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
HISTORY OF ANNUITIES EMPLOYEE ANNUITANTS (MALE AND FEMALE)

Year End	Number of Annuitants	Total Annuities	Average Annuities
1984	3,723	\$ 43,864,666	\$ 11,782
1985	3,861	50,464,782	13,070
1986	4,212	63,319,877	15,033
1987	4,467	72,621,701	16,257
1988	4,595	82,044,371	17,855
1989	4,772	92,170,354	19,315
1990	4,936	104,221,349	21,114
1991	5,033	109,629,175	21,782
1992	5,109	118,162,135	23,128
1993	5,195	128,443,550	24,724
1994	5,309	136,102,089	25,636
1995	5,510	148,748,836	26,996
1996	5,714	162,343,898	28,412
1997	5,945	177,557,655	29,867
1998	6,241	197,728,489	31,682
1999	6,520	216,593,933	33,220
2000	6,876	239,833,436	34,880
2001	7,192	261,991,891	36,428
2002	7,392	282,368,164	38,199
2003	7,498	292,407,321	38,998
2004	7,815	327,560,253	41,914
2005	8,026	352,579,199	43,930
2006	8,083	369,228,619	45,680
2007	8,155	386,485,701	47,392
2008	8,210	404,254,060	49,239
2009	8,227	417,924,766	50,799
2010	8,495	450,742,884	53,060
2011	8,763	482,875,300	55,104
2012	9,035	514,053,838	56,896
2013	9,194	538,368,228	58,556

EXHIBIT O – PART II
POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
HISTORY OF ANNUITIES SPOUSE ANNUITANTS
(NOT INCLUDING COMPENSATION WIDOWS)

Year End	Number of Annuitants	Total Annuities	Average Annuities
1984	3,152	\$ 10,213,392	\$ 3,199
1985	3,164	10,339,504	3,228
1986	3,145	12,770,159	4,060
1987	3,100	12,959,691	4,180
1988	3,184	13,701,678	4,303
1989	3,202	16,304,771	5,092
1990	3,214	16,779,894	5,221
1991	3,137	17,342,488	5,528
1992	3,129	20,773,699	6,639
1993	3,151	24,711,076	7,842
1994	3,123	28,041,269	8,979
1995	3,133	28,792,959	9,190
1996	3,120	30,778,518	9,865
1997	3,104	31,492,268	10,146
1998	3,093	32,285,743	10,438
1999	3,118	36,134,606	11,589
2000	3,107	37,022,962	11,916
2001	3,114	38,316,493	12,305
2002	3,092	40,086,748	12,965
2003	3,083	39,924,324	12,950
2004	3,133	44,609,535	14,239
2005	3,107	47,658,776	15,339
2006	3,093	49,187,928	15,903
2007	3,137	51,646,225	16,464
2008	3,148	53,489,665	16,992
2009	3,111	53,381,986	17,159
2010	3,079	53,621,501	17,415
2011	3,091	55,323,666	17,898
2012	3,122	57,650,477	18,466
2013	3,130	59,360,519	18,965

EXHIBIT P
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
COUNTS OF RETIREES AND BENEFICIARIES WITH HEALTHCARE
COVERAGE SUBSIDIES

Year End	Employee	Spouse¹	Total
2006	7,552	2,104	9,656
2007	7,637	2,253	9,890
2008	7,731	2,286	10,017
2009	7,763	2,285	10,048
2010	7,878	2,240	10,118
2011	8,111	2,257	10,368
2012	8,458	2,280	10,738
2013	8,539	2,270	10,809

¹ Includes children.

EXHIBIT Q
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF RETIRED MEMBERS BY TYPES OF BENEFIT AND MONTHLY BENEFIT LEVELS

Years	Retirement		Disability		Widow ¹		Child		Totals	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under \$100	6	1					2		8	1
\$100 to under \$250	11	3					137	95	148	98
\$250 to under \$500	20	8					40	33	60	41
\$500 to under \$750	21	2					36	45	57	47
\$750 to under \$1,000	3	3					19	12	22	15
\$1,000 to under \$2,000	122	33			39	2,355			161	2,388
\$2,000 to under \$3,000	420	49	3		5	643			428	692
\$3,000 to under \$4,000	1,273	373	40	34		74			1,313	481
\$4,000 to under \$5,000	2,097	328	127	60		32			2,224	420
\$5,000 to under \$6,000	2,650	254	55	26	3	36			2,708	316
\$6,000 to under \$7,000	968	89	4	1		6			972	96
\$7,000 to under \$8,000	235	22							235	22
\$8,000 to under \$9,000	79	7				1			79	8
\$9,000 to under \$10,000	56	9				1			56	10
\$10,000 and over	49	3				1			49	4
Totals:	8,010	1,184	229	121	47	3,149	234	185	8,520	4,639

¹ Includes reversionary.

² Children's Disability Benefit not tracked before 1993.

EXHIBIT R
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF AVERAGE BENEFIT PAYMENTS FOR NEW ANNUITIES GRANTED DURING 2013

Years of Service:		0-9	10-14	15-19	20-24	25-29	30-34	>= 35	Total
2010	Number of Retired Members	0	1	13	105	161	140	131	551
	Average annual salary used	\$0	\$81,122	\$70,339	\$80,639	\$88,735	\$91,739	\$92,194	\$88,330
	Average Monthly Benefit	\$0	\$2,535	\$2,667	\$3,837	\$5,385	\$5,734	\$5,762	\$5,199
2011	Number of Retired Members	1	8	16	95	175	103	102	500
	Average annual salary used	\$18,730	\$76,848	\$70,140	\$82,778	\$92,829	\$93,780	\$98,280	\$91,097
	Average Monthly Benefit	\$390	\$2,158	\$2,728	\$3,949	\$5,497	\$5,861	\$6,142	\$5,257
2012	Number of Retired Members	0	9	22	123	217	88	80	539
	Average annual salary used	\$0	\$72,245	\$65,305	\$85,175	\$92,825	\$94,854	\$98,415	\$90,773
	Average Monthly Benefit	\$0	\$2,066	\$2,511	\$4,002	\$5,408	\$5,928	\$6,151	\$5,108
2013	Number of Retired Members	0	6	20	118	161	62	34	401
	Average annual salary used	\$0	\$62,730	\$75,088	\$86,979	\$94,193	\$99,759	\$102,980	\$92,252
	Average Monthly Benefit	\$0	\$1,809	\$2,857	\$4,164	\$5,427	\$6,235	\$6,436	\$5,084

EXHIBIT S
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
HISTORY OF RETIREES AND BENEFICIARIES
ADDED TO AND REMOVED FROM BENEFIT PAYROLL

Yr.	Added to Payroll		Removed from Payroll		Payroll End of Year		Average Annual Benefits	Increase to Avg. Benefits
	No.	Annual Benefits.	No.	Annual Benefits	No.	Annual Benefits		
Employee Annuitants (Male and Female)								
2010	551	\$ 44,873,260	283	\$ 12,055,142	8,495	\$ 450,742,884	\$ 53,060	4.5%
2011	500	42,603,517	232	10,471,101	8,763	482,875,300	55,104	3.9%
2012	539	43,830,960	267	12,652,422	9,035	514,053,838	56,896	3.3%
2013	401	36,004,890	242	11,690,500	9,194	538,368,228	58,556	2.9%
Widow/Widower Annuitants (Not Including Compensation) ¹								
2010	145	\$ 2,838,113	177	\$ 2,598,598	3,079	\$ 53,621,501	\$ 17,415	1.5%
2011	144	3,709,829	132	2,007,664	3,091	55,323,666	17,898	2.8%
2012	174	4,436,964	143	2,110,153	3,122	57,650,477	18,466	3.2%
2013	157	3,969,877	149	2,259,835	3,130	59,360,519	18,965	2.7%

¹ Not including Compensation Annuitants.

APPENDIX 4

ACTUARIAL METHODS AND ASSUMPTIONS AS OF
DECEMBER 31, 2013

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

ACTUARIAL METHODS AND ASSUMPTIONS AS OF DECEMBER 31, 2013

I. ACTUARIAL COST METHOD

An Actuarial Cost Method is a set of techniques used by the actuary to develop contribution levels under a retirement plan. The Actuarial Cost Method used in this valuation for statutory funding and State reporting purposes is the Projected Unit Credit cost method. The Actuarial Cost Method used for GASB accounting purposes is the Entry-Age Normal cost method.

Under the Projected Unit Credit cost method, the projected pension at retirement age is first calculated and the value thereof at the individual member's current or attained age is determined. The normal cost for the member for the current year is equal to the value so determined divided by the member's projected service at retirement. The normal cost for the plan for the year is the sum of the individual normal costs.

The actuarial liability at any point in time is the value of the projected pensions at that time less the value of future normal costs.

Under the Entry-Age Normal Actuarial Cost Method, each participant's benefits are assumed to be funded by annual installments, equal to a level percentage of compensation, payable from date of participation to assumed retirement. The total "Normal Cost" is the sum of the current year's annual installments determined for all active participants. The "Actuarial Accrued Liability" is the excess of the value of projected benefits for all participants (both active and retired) over the discounted value of Normal Costs determined for future years of service.

To the extent that current assets and future Normal Costs do not support participants' expected future benefits, an Unfunded Actuarial Accrued Liability ("UAAL") develops. The UAAL is generally amortized over a fixed period of time (e.g. 30 years) from the date incurred. At a minimum, interest on UAAL should be funded. The total contribution developed under this method is the sum of the Normal Cost and the payment toward the UAAL. The Minimum Actuarially Determined Contribution contains only an interest payment on the UAAL.

II. CURRENT ACTUARIAL ASSUMPTIONS

The current actuarial assumptions were adopted and became effective December 31, 2009, and were based on an experience study for the period January 1, 2003, to December 31, 2008. The investment return assumption was changed effective for the December 31, 2012 actuarial valuation.

A. Demographic Assumptions

Mortality: 1994 Group Annuity Mortality Table. The mortality table used is a static table and provides an estimated margin of 25 percent, based on the postretirement experience from 2003 through 2008, for future mortality improvement.

Disabled Mortality: 1994 Group Annuity Mortality Table set forward six years.

**ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2013 (CONT'D)**

Rate of Disability: Rates at which members are assumed to become disabled under the provisions of the Fund. Sample rates assumed are as follows:

<u>ATTAINED AGE</u>	<u>RATE</u>
22	.0003
27	.0006
32	.0012
37	.0015
42	.0020
47	.0045
52	.0050
57	.0060
62	.0060

The distribution of disability types is assumed to be as follows:

Duty Disability	45%
Occupational Disease Disability	15%
Ordinary Disability	40%

Rate of Retirement: Rates at which members are assumed to retire under the provisions of the Fund. The rates assumed are as follows:

For members hired before January 1, 2011:

<u>ATTAINED AGE</u>	<u>RATE ¹</u>
49	.00
50	.08
51	.08
52	.08
53	.08
54	.15
55	.15
56	.15
57	.15
58	.15
59	.15
60	.25
61	.30
62	.35
63	1.00

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2013 (CONT'D)

For members hired on or after January 1, 2011:

<u>ATTAINED AGE</u>	<u>RATE</u> ¹
49	.00
50	.02
51	.02
52	.02
53	.02
54	.08
55	.17
56	.17
57	.17
58	.17
59	.17
60	.25
61	.30
62	.35
63	1.00

¹ Only for members eligible for a formula annuity.

Turnover Rates:

The following sample rates exemplify the table:

<u>YEARS OF SERVICE</u>	<u>RATE</u>
0	0.028
1	0.022
2	0.014
3	0.013
4-9	0.012
10	0.011
11	0.010
12	0.009
13	0.008
14	0.007
15	0.006
16	0.005
17-25	0.004

B. Economic Assumptions

Investment Return Rate: 7.75% per annum for pensions effective as of December 31, 2012 and 4.50% for OPEB effective as of December 31, 2005.

General Inflation: The 7.75% Investment Return Rate assumption contains a 3.00% inflation assumption and a 4.75% real rate of return assumption for pension.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2013 (CONT'D)

Future Salary Increases: Assumed rates of individual salary increase at 4.0% per year, plus an additional percentage based on the following service scale:

COMPLETED YEARS OF SERVICE*	SCALE
1	0.250
2	0.060
3	0.050
4	0.050
5	0.040
6-9	0.000
10	0.035
11-14	0.000
15	0.035
16-19	0.000
20	0.035
21-24	0.000
25	0.035
Over 25	0.000

* Includes increases at 12 and 18 months of service.

Asset Value: For Book-value of Assets, bonds are at amortized value and stocks are at cost.

For statutory funding and GASB #25 and #27 reporting, the actuarial value of assets is smoothed by recognizing each year's difference between actual and expected investment return at the rate of 20 percent per year over a five-year period.

The actuarial value of assets was marked to the market value as of January 1, 2012.

C. Other Assumptions

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

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2013 (CONT'D)

- Group Health Insurance: Due to P. A. 98-0043 effective June 28, 2013, it is assumed for valuation purposes that the health insurance supplement in effect prior to June 30, 2013, will end on December 31, 2016, for all employee annuitants (and their future surviving spouses). The amount of the Plan paid health insurance from July 1, 2008, until June 30, 2013, is \$95.00 per month for each annuitant (employees and surviving spouses) not qualified to receive Medicare benefits, and \$65.00 if qualified. It is assumed that all annuitants age 65 and older will be eligible for Medicare and all annuitants less than age 65 will not be eligible for Medicare. Future widows of retirees are assumed to be eligible for Medicare, as well as widow annuitants that are currently receiving a health insurance supplement.
- Required Ultimate Multiple: The actuarially determined contribution (adjusted for tax levy loss) less expected employee contributions divided by the actual employee contributions made in the second prior year.
- Loss in Tax Levy: 4% overall loss on tax levy is assumed for the tax levy year 2014. No tax levy loss is assumed after 2014.

The projections under the provisions of P.A. 96-1495 were based on the following assumptions and methods:

- (1) Active members who terminate, retire, become disabled or die during the year are replaced by new entrants such that the number of active members remains level during the projection period based on the most recent actuarial valuation. The number of active members as of the valuation at December 31, 2013 is 12,161.
- (2) The entry age of future new entrants, which is summarized below, is based on the profile of current active members hired over the last five years with one or more years of service as of December 31, 2013. These members were hired from January 1, 2009 through December 31, 2012.

Entry Age	Number
20 to 25	27
25 to 30	448
30 to 35	198
35 to 40	95
40 to 45	5

- (3) Approximately 79 percent of the new entrants are assumed to be male.
- (4) Based on the most recent employment contract, new entrants were assumed to earn \$50,104 for the plan year ending December 31, 2014. This amount includes pay provided for duty availability pay. The new entrant pay for members hired after 2014 is assumed to increase by the wage inflation assumption of 4.0 percent.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ACTUARIAL METHODS AND ASSUMPTIONS
AS OF DECEMBER 31, 2013 (CONT'D)

- (5) Pay for a specific new entrant is assumed to increase in the future by the wage inflation and the service based increases disclosed in the most recent actuarial valuation as of December 31, 2013.
- (6) The projections assume a pay cap of \$109,971 for plan year 2013, increasing by 1.5 percent per year after plan year 2013. The annual increase of 1.5 percent per year is based on 50 percent of the CPI-U increase which is assumed to be 3.0 percent per year.

APPENDIX 5

SUMMARY OF PROVISIONS OF THE FUND AS OF
DECEMBER 31, 2013

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013

PARTICIPANTS

An employee in the police department of the City of Chicago appointed and sworn or designated by law as a peace officer with the title of policeman, policewoman, chief surgeon, police surgeon, police dog catcher, police kennelman, police matron and members of the police force of the police department.

SERVICE

In computing service rendered by a police officer, the following periods shall be counted, in addition to all periods during which he performed the duties of his position, as periods of service for annuity purposes only: All periods of (a) vacation; (b) leave of absence with pay; (c) military service; (d) disability for which the police officer receives disability benefit. The calculation of service is based on a day-to-day basis for most purposes. For the purpose of calculating benefits under the Dominant Formula, one-year of Service is credited for a year in any portion of which a police officer is compensated.

RETIREMENT

Eligibility

Attainment of age 50 with at least 10 years of service.

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

Mandatory

Effective in plan year 2003, retirement is mandatory for a participant who has attained age 63.

Accumulation Annuity

At age 50 or more, with 10 or more years of service, the employee is entitled to an annuity based on the sums accumulated for age and service annuity plus 1/10 of the sum accumulated from the contributions by the City for the age and service annuity for each completed year of service after the first 10 years. At age 50 or more with 20 or more years, the employee is entitled to an annuity based on all sums accumulated.

Formula Minimum Annuity

While there are several alternative formulas available with 20 or more years of service, the Dominant Formula is 50% of highest average salary (including duty availability pay) in 48 consecutive months within the last 10 years of service plus 2.5% for each year or fraction of service over 20 years, limited to 75% of average salary.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

***Mandatory Retirement
Minimum Annuity***

A police officer who is required to withdraw from service due to attainment of mandatory retirement age who has less than 20 years of service credit may elect to receive an annuity equal to 30% of average salary for the first 10 years of service, plus 2% of average salary for each completed year of service in excess of 10, to a maximum of 48% of average salary. This benefit qualifies for post retirement increases.

Post-Retirement Increase

A retiree born before January 1, 1955, with at least 20 years of service or receiving a mandatory retirement minimum annuity, receives an increase of 3% of the original annuity, starting on the first of the month following the first anniversary of his retirement or the first of the month following attainment of age 55, whichever is later, and shall not be subject to a 30% maximum increase. For retirees born after January 1, 1955, automatic increases are 1.5% of the original annuity, commencing at age 60, or the first anniversary of retirement, if later, to a maximum of 30%.

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

Minimum Annuity

The benefit of any retiree who retired from the service before January 1, 1986, at age 50 or over with at least 20 years of service, or due to termination of disability is not less than \$1,050 per month.

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

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

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

Reversionary Annuity A member, prior to retirement, may elect to reduce his own annuity, and provide a reversionary annuity, to begin upon the officer's death, for the officer's spouse.

SURVIVOR INCOME BENEFITS PAYABLE ON DEATH

Death in Service (Non-Duty): Generally, a money-purchase benefit is provided, based on total salary deductions and City contributions. However, if a policeman dies in service after December 31, 1985, with at least 1.5 years of service, the widow's annuity is the greater of (a) 30% of the annual maximum salary attached to the classified civil service position of a first class patrolman at the time of his death (without dollar limit) or (b) 50% of the benefit accrued by the policeman at date of death.

The lifetime benefit is payable until death.

Death in Service (Duty Related)

Compensation Annuity 75% of the member's salary attached to the civil service position that would ordinarily have been paid to such member as though in active discharge of his duties at the time of death payable until the date the policeman would have attained age 63.

Supplemental Annuity Payable for life and is equal to the difference between the money purchase annuity for the spouse and an amount equal to 75% of the annual salary (including all salary increases and longevity raises) the police officer would have been receiving when he attained age 63 if the police officer had continued in service at the same rank last held in the department.

Death after Retirement If a police officer retires on or after January 1, 1986, and subsequently dies, the widow's annuity is 40% before 1988 and 50% on and after January 1, 1988 of the retired policeman's annuity at the time of death (without dollar limit).

Maximum Annuity \$500 a month (after discount for age difference) under both the accumulation method and the old formula method. There is no dollar limit on the 30%, 40% or 50% benefit.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

Minimum Annuity Any spouse is entitled to a minimum annuity of \$1,000 a month.

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

CHILDREN'S ANNUITIES

Eligibility Payable at death of the policeman to all unmarried children less than 18 years of age.

Benefit 10% of the annual maximum salary of a first class patrolman during widow (widower) life, 15% otherwise.

Payable Until Age 18. If the child is disabled, benefit is payable for life or as long as such disablement exists.

Family Maximum 60% (non-duty death) or 100% (duty death) of the salary that would ordinarily been paid to the policeman, if he had been in the active discharge of his duties.

Parent's Annuities

Eligibility Payable to a dependent parent at the death of a policeman who is in either active service, or receiving a disability benefit, or on leave of absence, or in receipt of an annuity granted after 20 years of service, or waiting to start receiving an annuity granted for 20 years of service. The benefit is only payable if there are no surviving spouses or children eligible for benefits.

Benefit 18% of the current salary attached to the rank at separation from service.

Payable until Death of the dependent parent.

DUTY DISABILITY BENEFIT

Eligibility Disabling condition incurred in the performance of duty.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

Benefit 75% of salary at the time the disability is allowed plus \$100.00 per month for each unmarried child less than age 18, (total amount of child's benefits shall not exceed 25% of salary). Beginning January 1, 2000, after 7 years of payment, the benefit shall not be less than 60% of the current salary attached to the rank held by the policemen at the time of disability. Payable to employee's age 63 or by operation of law, whichever is later. Salary deductions are contributed by the City.

OCCUPATIONAL DISEASE DISABILITY BENEFIT

Eligibility Heart attack or any disability heart disease after 10 years of service.

Benefit 65% of salary attached to the rank held by the police officer at the time of his or her removal from the police department payroll with a minimum after 10 years of 50% of the current salary attached to the rank. Each natural or legally adopted unmarried child of the officer under the age of 18 is entitled to a benefit of \$100 per month. This benefit is not terminated at age 18 if the child is then dependent by reason of physical or mental disability. Salary deductions are contributed by the City.

ORDINARY DISABILITY BENEFIT

Eligibility Disabling condition other than duty or occupational related.

Benefit 50% of salary at the time of injury, payable for a period not more than 25% of service (excluding any previous disability time) rendered prior to injury, nor more than 5 years. Disability shall cease at age 63. Salary deductions are contributed by the City.

DEATH BENEFIT

Eligibility Payable upon the death of a police officer whose death occurs while in active service; on authorized leave of absence; within 60 days of receipt of salary; while receiving duty or ordinary disability benefit; occurring within 60 days of termination of such benefit; or occurring on retirement while in receipt of annuity and separation was effective after 20 years of service. This benefit is payable to beneficiaries or, if none, to estate.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

Benefit

<i>Death in Service:</i>	<u>AGE AT DEATH</u>	<u>BENEFIT</u>
	49 and under	\$12,000
	50-62	\$12,000 less \$400 for each year by which age at death exceeds 49
<i>Death after Retirement:</i>	<u>AGE AT DEATH</u>	<u>BENEFIT</u>
	50 and over	\$6,000

If death results from injury incurred in performance of duty before retirement on annuity, the benefit payable is \$12,000 regardless of the attained age.

***GROUP HEALTH
HOSPITAL AND
SURGICAL INSURANCE
PROGRAM***

The pension fund shall provide payments in the amount of \$95 per month for non-Medicare eligible city annuitants and \$65 per month for Medicare eligible city annuitants through December 31, 2016.

REFUNDS

<i>Policemen</i>	Without regard to service and under age 50, or with less than 10 years of service and under age 57 at withdrawal: a refund of all salary deductions together with 1.5% simple interest until the date of withdrawal.
<i>For Spouse's Annuity</i>	Upon retirement an unmarried policeman will receive a refund of contributions for spouse's annuity, accumulated at 3% compounded annually.
<i>Of Remaining Amounts</i>	If at death of a retired policeman the total member contributions paid while active exceed the total retirement benefits paid to date of death, the difference is payable.

CONTRIBUTIONS

<i>Salary Deductions</i>	Employee	7 %
	Spouse	1½%
	Annuity Increase	<u>½%</u>
		9 %

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUMMARY OF PRINCIPAL ELIGIBILITY AND BENEFIT PROVISIONS
AS OF DECEMBER 31, 2013 (CONT'D)

<i>City Contributions</i> ¹	Employee	9-5/7%	
	Spouse	2%	
	Annuity Increase	1/2%	Unallocated
		12-3/14%	

¹ Credited to Participant's Accumulation Annuity and Widow's Annuity Account

In addition to the above contributions, a contribution is made to support the Death Benefit. Policemen contribute \$2.50 per month. City contributes a total of \$224,000 for all policemen.

The total City contribution is generated by a tax equal to double the contributions by the policemen to the Fund two years prior to the year of the tax levy.

Starting in tax levy year 2015, employer contributions combined with member contributions and other fund revenue must be equal to the amount, as a level percentage of payroll, that is sufficient to produce 90% funding by the end of fiscal year 2040.

**"PICK UP" OF
EMPLOYEE SALARY
DEDUCTIONS**

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

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

Year Ending	CPI-U	1/2 CPI-U	COLA	Maximum Annual Pensionable Earnings
2011			3.00%	\$106,800.00
2012	3.90%	1.95%	1.95%	\$108,882.60
2013	2.00%	1.00%	1.00%	\$109,971.43
2014	1.20%	0.60%	0.60%	\$110,631.26

APPENDIX 6

LEGISLATIVE CHANGES 1979 THROUGH 2013

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013

1979 Session

HB 2128

Refund repayment provided at least 3 years of service after reentry, surviving spouse may pay in the case of death of the employee.

HB 2012

Under IRS Code Section 414(h), employer may pick up the employee contributions for all compensation earned after December 31, 1981 by a reduction in the cash salary or an offset to a future salary increase or by a combination of both.

HB 2160

Duty disability benefit based on the salary when the benefit is payable in the case of a disabled policeman who returns to active service for a period of at least 2 years.

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.

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.

SB 1126

Duty disability benefits based on salary at time disability is allowed; salary for policeman on leave of absence; definition of heart attack.

HB 291

Minimum survivor's annuity from \$200 to \$250.

Spring 1982 Session

SB 740

Minimum employee annuity from \$350 to \$400 effective July 1, 1982, for policemen who retired before September 1, 1976.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

SB 1127

3% post-retirement increase for employees born before January 1, 1930, without 30% maximum, effective January 1, 1983.

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

SB 1147

Actuarial reporting to Insurance Department and Pension Laws Commission. Actuarial statements prepared by a qualified actuary for plan years ending after December 31, 1984, including actuarial present value of credited projected benefits.

SB 1579

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

Spring 1983 Session

SB 22

Delegation of investment authority restrictions.

HB 514

10% prudent person investment category.

HB 1412

Heart attack; need not result from an injury.

HB 1413

Wrongful death of a police officer bars benefit.

HB 1414

50/20 50%, plus 2% minimum formula; if retire in 1984 qualify with 52 and 22; in 1985, 51 and 21; in 1986 and after, 50 and 20.

HB 2003

Reversionary annuity. Securities lending.

City Ordinance

Changes compulsory retirement from 63 to 70.

1984 Court Decision

Kaner case awarding widow compensation annuity 75% of the salary attached to the civil service position that would have ordinarily have been paid to him as though he were in active discharge of his duties for widows of policemen who died a duty death after January 1, 1970.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

1984 Session

Illinois Public Employees' Pension Laws Commission abolished.

1985 Session

HB 1529

30% (of maximum first class patrolman salary) widow's benefit for death in service, with 1.5 years of service, eliminated the excess spouse refund.

40% (of policeman annuity at the time of death) widow's benefit for death after retirement (for retirements after January 1, 1986 only).

Death benefit increase: retirees \$2,250 to \$6,000, actives \$12,000 before 50 graded down to \$6,000.

Minimum widow pension from \$250 to \$325 under certain conditions.

3% increase for the closed group receiving 2%.

Widow compensation annuity for duty deaths after September 17, 1969.

1986 Session

HB 2630

Expands the widow compensation annuity category to include duty deaths after January 1, 1940.

1987 Session

HB 2715

Beginning January 1, 1988, 50% of employees' annuity at death for widows (present and future) whose spouse retired on or after January 1, 1986.

3% annual increase for life to all employee annuitants (present and future) born before 1940 instead of 1930.

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, 1995, until December 31, 1997, the amounts are \$75 and \$45, respectively. Widows will now be supplemented also. The City will be required to pay 50% of the aggregated cost of health care claims for the retired group under all health

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

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.

\$150 to \$200 minimum widow's benefit.

Beginning January 1, 1990, minimum widow's annuity shall be \$400.

Transfer of credits to IMRF for a County Sheriff upon application and payment by the Fund.

HB 332

Signed August 23, 1989, age discrimination changes. Removed the age 63 limitations in determining benefits for money purchase employee and widow annuities, disability benefits and refunds. The change requires contributions (deductions from salary) and concurrent City contributions from January 1, 1988, until withdrawal but not for the period between the attainment of age 63 and January 1, 1988.

Allow transfer credits and creditable service under any other pension fund if police officer has 10 years of service and payment before January 1, 1990.

Provides for a transfer of credits to the Municipal Fund or State Fund of any police officer with at least 10 years of service.

1990 Session

SB 1951

Allows policemen to withdraw at age under 50 with at least 20 years of service to receive benefit based on minimum formula commencing at age 50.

Widows of active policemen receive benefit not less than 50% of annuity payable to the policeman had he retired on the date of death.

Compensation and supplemental widows' annuities do not cease upon remarriage.

1991 Session

HB 969

Increases the minimum monthly benefit to retirees who had at least 20 years of service prior to January 1, 1992 to \$650.

Increases the minimum monthly widow's annuity payable upon death after January 1, 1992 of:

- An active policeman with at least 10 years of service, or
- A policeman who had at least 20 years of service at withdrawal from the Fund to \$500.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

1992 Session

No legislative changes.

1993 Session

SB 1650

Increases the minimum monthly benefit to retirees who had at least 20 years of service prior to January 1, 1995 to \$750, and after January 1, 1995 to \$850.

Increases the minimum monthly widow's annuity payable upon death after January 1, 1995 of:

- An active policeman with at least 10 years of service; or
- A policeman who had at least 20 years of service at withdrawal from the Fund to \$600, and after January 1, 1995 to \$700.

1994 Session

No legislative changes.

1995 Session

SB 99

Beginning January 1, 1996, supplemental annuity changed to the difference between the annuity for the widow and an amount equal to 50% of the annual salary (including all salary increases and longevity raises) the policeman would have been receiving when he attained age 63 if the policeman had continued in service at the same rank (whether career service or exempt) that he last held in the police department.

Beginning January 1, 1996, duty disability minimum benefit is stated such that after 10 years of payment the benefit shall not be less than 50% of the current salary attached to the rank held by the policeman at the time of removal from police department payroll.

An occupational disease disability benefit has been added for any policeman with at least 10 years of service who suffers a heart attack or any other disability heart disease. The benefit shall be 65% of salary attached to the rank held by the officer at the time of his or her removal from the police department payroll, with a minimum after 10 years of 50% of the current salary attached to the rank. Each natural or legally adopted unmarried child of the officer under age 18 is entitled to a benefit of \$50 per month. This benefit is not terminated at age 18 if child is then dependent by reason of a physical or mental disability.

Beginning January 1, 1996, the age of the commencement of automatic increases in annuities has been lowered to age 55 for policemen born on or after January 1, 1940, but before January 1, 1945. Any policemen born before January 1, 1945, who qualifies for a minimum annuity and retires after September 1, 1967, not receiving the initial increases before January 1, 1996, will receive the initial increase on (1) January 1, 1996, (2) the first anniversary of the date of retirement, or (3) attainment of age 55, whichever occurs last.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

Beginning January 1, 1996, the minimum monthly widow's annuity payable upon death increases to \$700.00 for all widow's not previously eligible for the minimum.

1996 Session

SB 1456

Effective August 9, 1996, a parent's annuity equal to 18% of the current salary attached to the rank at separation from service will be provided to each of the natural parents of a police officer who dies under certain conditions. Those conditions include: death in active service, while receiving a disability benefit, during leave of absences or after 20 years of service and eligible or receiving an annuity. The benefit is payable only if there are no surviving spouse or children eligible for benefits.

1997 Session

PA 90-551

Effective December 12, 1997, the law was amended to include on prospective basis duty availability in the definition of salary. The law also allows policemen who retired or were at least age 50 and had at least 20 years of service between July 1, 1994, and December 31, 1997, to count duty availability pay in the calculation of final average salary. In order for this to happen, the policemen must elect to do so and must contribute the employee contributions (9%) without interest from the duty availability pay that is to be considered in the final average salary calculation.

Effective June 27, 1997, PA 90-0031 was enacted. This law extends the hospitalization plan through June 30, 2002, for annuitants and their eligible dependents.

Effective July 1, 1997, PA 89-643 was amended. This provision extended the parent's annuity eligibility to apply to dependent parents of police officers who died prior to August 9, 1996.

1998 Session

PA 90-0766

Effective August 16, 1998, this law increased the minimum monthly widow's annuity payable from \$700.00 to \$800.00 effective January 1, 2013. This law also increased the earnings limit maximum for those receiving disability benefits such that the sum of the disability benefit and outside compensation may be up to 150% of the rate of salary which the participant would be receiving if working in his regularly appointed civil service position as a policeman.

2000 Session

In 2000 the City of Chicago has enacted mandatory retirement for Policemen upon attainment of age 63.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

2001 Session

PA92-0052

Effective July 12, 2001.

Beginning on January 1, 2000, the minimum duty disability after 7 years of payment shall be 60% of the current salary attached to the rank held by the policeman at the time of removal from police department payroll. If the Board finds that the disability permanently renders the policeman totally disabled for any service of a remunerative character, the minimum disability benefit shall be 75% of the current salary attached to the rank held by the policeman at the time of removal from payroll.

The child's benefit for both duty disability and occupational disease disability was increased to \$100 per month.

The law removed the earnings limit of 150% of regular salary to be eligible to receive disability benefits.

With effect from January 1, 2000, the age of the commencement of the automatic 3% increases in annuities has been lowered to age 55 for policemen born on or after January 1, 1945, but before January 1, 1950. Any policeman born before January 1, 1950, who qualifies for a minimum annuity and retires after September 1, 1967, not receiving the initial increase before January 1, 2000, will receive the initial increase at the latest of (1) January 1, 2000, (2) the first anniversary of the date of retirement, or (3) attainment of age 55.

2002 Session

HB 5168

- Effective June 28, 2002.
- A police officer who is required to withdraw from service due to attainment of mandatory retirement age and who has less than 20 years of service credit, may elect to receive an annuity equal to 30% of average salary for the first 10 years of service, plus 2% of average salary for each completed year of service in excess of 10, to a maximum of 48% of average salary. This benefit qualifies for post-retirement increases.
- The supplemental annuity payable to the widow of an officer on account of a duty-related death is increased to the difference between the money purchase annuity for the spouse and 75% (previously 50%) of the annual salary the police officer would have been receiving when he attained age 63 if the police officer had continued in service at the same rank last held in the department.
- The pension fund subsidy for retiree health insurance was extended through June 30, 2003. For annuitants (other 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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

2003 Session

SB 1701

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

2004 Session

PA 93-0654

- Effective January 16, 2004.
- The minimum annuity formula accrual rate for service after 20 years was increased from 2.0% to 2.5% with total benefits limited to 75% of final average pay.
- The minimum benefit for age-service retirements was increased to \$950 per month during 2004 and \$1,050 per month thereafter.
- The minimum widow annuity was increased to \$900 per month during 2004 and \$1,000 per month thereafter.

2005 Session

PA 94-0624

- Effective August 18, 2005.
- Beginning January 1, 2000, removes the limitation for maintaining benefits for non-civil service positions when assigned within three years of retirement for non-civil service positions with the title of Captain.

HB 1009

- Effective January 1, 2005, any policeman born after January 1, 1950, but before January 1, 1955 shall receive a benefit increase of 3% compounded annually. Any policeman born before January 1, 1955, who qualifies for a minimum annuity and retires after September 1, 1967, not receiving the initial increase before January 1, 2005, will receive the initial increase at the latest of (1) January 1, 2005, (2) the first anniversary of the date of retirement, or (3) attainment of age 55.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

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 1446

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

2006 Session

No legislative changes.

2007 Session

PA 95-0279

- Effective January 1, 2008.
- Removes restriction that a child be born or legally adopted before withdrawal from service for a child's annuity. Removes restriction requiring that adoption proceedings must have been initiated 6 months prior to the policeman's death.

PA 95-0504

- Effective August 28, 2007.
- Beginning on the effective date, a widow's annuity shall no longer be subject to termination or suspension due to remarriage. Any widow's annuities previously terminated or suspended due to remarriage shall be resumed upon application, but the resumption shall not be retroactive.
- At the discretion of the Board, a widow's annuity may be granted to a widow who was denied a benefit for having been married less than one year at the time of the member's death.
- Removes age limitation on child's annuity for children who are so physically or mentally handicapped as to be unable to support themselves.

2008 Session

No legislative changes.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

2009 Session

P.A. 95 -1036

- Effective February 17, 2009.
- For purposes of tax levy, contributions by the policeman to the Fund shall not include payments made by a policeman to establish credit under Section 5-214.2.
- An officer with prior service credit under article 3,7,9,10,13,14,15 Funds may transfer up to 10 years of service in 6 month increments provided the transfer of service results in no increase to the unfunded actuarial accrued liability of the Fund.

PA 96-0006

- Effective April 3, 2009.
- The Illinois Governmental Ethics Act.

P.A. 96 -285

- Effective August 11, 2009.
- Extends PA 95-1036 service purchase eligibility to include members of article 8 Funds and law enforcement officers with any agency of the United States Government.

P.A. 96 -727

- Effective August 25, 2009.
- Allows an officer with at least 10 years of PABF service to transfer up to 48 months of eligible service as a County Correctional Officer. The officer is required to pay to the Fund the difference between contributions transferred by the County on behalf of the officer and the amount of employee and employer contributions that would have been contributed had the officer been a member of this Fund plus interest at the actuarially assumed rate.

P.A. 96 -745

- Effective August 25, 2009.
- Transfer of service to Article 14 (State Employees' Retirement System) now includes investigators for the Office of the Attorney General and investigators for
- The Department of Revenue. Interest on the repayment of refund is changed from 6% to the actuarially assumed rate.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

PA 96-753

- Effective August 25, 2009.

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

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

2010 Session

P.A. 96-1260

- Effective July 23, 2010.

- A policeman may purchase benefit service for all periods of service in the military before beginning service as an active policeman. The total amount of such service shall not exceed 2 years.

PA 96-1495 (HB 3538)

- Effective January 1, 2011.

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

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

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)

Widow COLA is equal to the lesser of 3.0 percent and 50 percent of CPI-U, commencing when the survivor reached age 60, and applied to the original granted retirement annuity.

2011 Session

P.A. 97-326 (HB 1872)

- Effective August 12, 2011.
- A policeman may transfer up to 10 years of credible service to a fund covered under Article 3. PABF will pay the Article 3 fund an amount consisting of (1) the amounts credited to the applicant through employee contributions, plus accumulated interest plus (2) an amount representing municipality contributions equal to the amount determined in (1) plus (3) any interest paid to PABF in order to reinstate credits and credible service.
- A policeman may reinstate credits and credible service that was terminated upon receipt of a refund, by paying the Fund the amount of the refund plus interest thereon at the actuarially assumed rate, compounded annually, from the date of the refund to the date of the payment.

P.A. 97-344 (HB 3376)

- Effective August 12, 2011.
- Makes changes concerning annual increases to the monthly annuities of persons who first become a policeman on or after January 1, 2011 and deletes repetitive language concerning annual increases in survivor's annuities for Tier 2.

P.A. 97-530 (SB 1672)

- Effective August 23, 2011.
- Requires all pension funds and retirement systems subject to the Code to comply with the federal Heroes Earnings Assistance and Relief Tax Act of 2008.

P.A. 97-609 (SB 1831)

- Effective August 26, 2011.
- Applies to those members hired on or after January 1, 2012.
 - Provides that if a new hire is receiving a retirement annuity or pension and accepts a contractual position to provide services to a governmental entity from which he or she has retired, then that person's annuity or pension will be suspended during that contractual service.
 - 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.

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)**

P.A. 97-504 (HB 1670)

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

2012 Session

P.A. 97-0651

- 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.

P.A. 97-813

- Effective July 13, 2012.
- Clarifies provisions of widow's annuity.

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
LEGISLATIVE CHANGES 1979 THROUGH 2013 (CONT'D)**

2013 Session

P.A. 98-0043 (SB 1584)

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

P.A. 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.”

APPENDIX 7

ADDITIONAL EXHIBITS – GASB DISCLOSURES

EXHIBIT A-1

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

GASB #25, #27, #43, AND #45 DISCLOSURES

The Governmental Accounting Standards Board (GASB) adopted Statement #25, changing the way in which governmental retirement systems must report financial information. GASB #25 and GASB #27 are effective for Fund and City reporting in 1997.

The GASB also issued Statements #43 and #45, changing the way in which governmental retirement systems and governmental employers report financial information for other postemployment benefits (OPEB). GASB #43 is effective for the fund in fiscal year 2006 and GASB #45 is effective for the City in fiscal year 2007.

This report includes the following Exhibits with information required to be reported under GASB #25, #27, #43, and #45. GASB has released GASB #67 and GASB #68 which replace Statements #25 and #27 and significantly change the calculations of the unfunded liability, annual pension expense, and employer's balance sheet liability. However, GASB #67 is first effective for the fiscal year ending December 31, 2014, and GASB #68 is first effective with fiscal year ending December 31, 2015. Therefore, the information presented in this report is based on the current GASB #25 and #27 requirements. **This information is presented in draft form for review. Please let us know if there are any changes so that we may maintain consistency with the financial statements.**

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

This exhibit shows a 15-year history of funding progress. The funding progress is a comparison of Actuarial Value of Assets with the Actuarial Accrued Liability (AAL), and a comparison of the unfunded AAL (UAAL) with compensation.

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

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

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

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

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

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

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

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

EXHIBIT A-1 (CONT'D)
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
GASB #25, #27, #43, AND #45 DISCLOSURES

Exhibit A-7: Development of Net Pension Obligation (NPO) for GASB #27

This exhibit documents the 27-year summary of the calculation of the net pension obligations under GASB #27.

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

The funding progress is a comparison of Actuarial Value of Assets with the Actuarial Accrued Liability (AAL), and a comparison of the unfunded AAL (UAAL) with compensation.

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

This exhibit compares the Annual Required Contribution (ARC) as computed under GASB #43 with the amount actually received.

Exhibit A-10: Supplementary Information for GASB #43

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

Exhibit A-11: Annual OPEB Cost and Contributions Made for GASB #45 for 2013

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

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

This exhibit has a six-year summary of annual OPEB cost; percentage of annual OPEB cost contributed that year and NOO at the end of the year.

EXHIBIT A-2
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF FUNDING PROGRESS FOR GASB #25

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)¹	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/1999	\$ 3,685,681,671	\$ 5,394,872,218	\$ 1,709,190,547	68.32%	\$ 755,303,667	226.29%
12/31/2000	4,019,467,561	5,652,030,658	1,632,563,097	71.12%	759,343,026	215.00%
12/31/2001	4,183,796,025	5,932,510,629	1,748,714,604	70.52%	763,352,475	229.08%
12/31/2002	4,124,579,960	6,384,845,959	2,260,265,999	64.60%	866,531,789	260.84%
12/31/2003	4,039,695,590	6,581,433,250	2,541,737,660	61.38%	887,555,791	286.37%
12/31/2004	3,933,031,342	7,034,271,474	3,101,240,132	55.91%	874,301,958	354.71%
12/31/2005	3,914,431,654	7,722,737,147	3,808,305,493	50.69%	948,973,732	401.31%
12/31/2006	3,997,990,919	7,939,561,277	3,941,570,358	50.36%	1,012,983,634	389.11%
12/31/2007	4,231,681,817	8,220,352,638	3,988,670,821	51.48%	1,038,957,026	383.91%
12/31/2008	4,093,719,894	8,482,574,033	4,388,854,139	48.26%	1,023,580,667	428.77%
12/31/2009	3,884,978,241	8,736,101,666	4,851,123,425	44.47%	1,011,205,359	479.74%
12/31/2010	3,718,954,539	9,210,056,428	5,491,101,889	40.38%	1,048,084,301	523.92%
12/31/2011	3,444,690,362	9,522,395,036	6,077,704,674	36.17%	1,034,403,526	587.56%
12/31/2012	3,148,929,770	10,051,827,391	6,902,897,621	31.33%	1,015,170,686	679.97%
12/31/2013	3,053,881,777	10,282,338,599	7,228,456,822	29.70%	1,015,426,128	711.86%

¹ Actuarial liability excludes OPEB benefits as of December 31, 2006.

EXHIBIT A-3
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR GASB #25

For Year Ending December 31	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
1999	\$133,535,979	\$125,281,970	93.82%
2000	125,129,864	139,481,871	111.47%
2001	123,201,657	139,675,766	113.37%
2002	130,237,405	141,989,027	109.02%
2003	181,545,562	140,807,354	77.56%
2004	203,757,534	135,744,173	66.62%
2005	238,423,459	178,278,371	74.77%
2006 ¹	262,657,025	150,717,705	57.38%
2007	312,726,608	170,598,268	54.55%
2008	318,234,870	172,835,805	54.31%
2009	339,488,187	172,043,784	50.68%
2010	363,624,570	174,500,507	47.99%
2011	402,751,961	174,034,600	43.21%
2012	431,010,173	197,885,552	45.91%
2013	474,177,604	179,521,259	37.86%
2014 ²	491,651,208	TBD	TBD

¹ Starting with fiscal year 2006, GASB #25 disclosure includes pension benefits only. The retiree healthcare supplement will be recognized under GASB #43 disclosure.

² ARC for year ending December 31, 2014, will be used for GASB #27 reporting purposes.

EXHIBIT A-4
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUPPLEMENTARY INFORMATION FOR GASB #25/27

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

Valuation Date	December 31, 2013
Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	5-year smoothed market
Amortization Method	Level percent open
Remaining Amortization Period	30 years open
Actuarial Assumptions:	
Pension Investment Rate of Return	7.75%, December 31, 2013
General Inflation	3.00%
Projected Salary Increases	4.00% per year, plus additional percentage related to service.
Cost-of-Living Allowance	For members hired before January 1, 2011: 3.00% (1.50% for retirees born after January 1, 1955) For members hired on or after January 1, 2011: ½ CPI, max 3.00%; assumed rate of 1.5%

	2012 ¹	2013 ¹
Payable to Retirees, Beneficiaries, and Inactives	\$ 6,428,152,427	\$ 6,613,949,117
Current Employees:		
Accumulated Employee Contributions Including Statutory Interest	1,309,825,828	1,358,193,244
Payable to Vested and Non-Vested Employees	2,313,849,136	2,310,196,238
Total Actuarial Accrued Liability	\$10,051,827,391	\$10,282,338,599
Net Plan Actuarial Assets	3,148,929,770	3,053,881,777
Unfunded AAL (assets in excess of AAL)	\$ 6,902,897,621	\$ 7,228,456,822
Percent Funded	31.33%	29.70%
Unfunded AAL as Percent of Payroll	679.97%	711.86%
Payroll	\$ 1,015,170,686	\$ 1,015,426,128

¹ Excludes liabilities for retiree healthcare subsidy.

EXHIBIT A-5
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ANNUAL PENSION COST AND CONTRIBUTIONS MADE FOR GASB #27

Contribution Rates

City	Proceeds from a tax levy not more than an amount equal to the total amount of contributions by the employees to the Fund made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 2.00.
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Plan Members	9.0%
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Annual Pension Cost for 2013

Annual Required Contribution (ARC)	\$474,177,604
Interest on Net Pension Obligation	182,182,330
Adjustment to ARC	<u>(125,004,806)</u>
Total	\$531,355,128

Contributions Made in 2013	\$179,521,259 ¹
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Net Pension Obligation (NPO):

NPO at 12/31/2012	\$2,350,739,737
Increase/(Decrease) in NPO	<u>351,833,869</u>
NPO at 12/31/2013	\$2,702,573,606

Pension Liability at Transition (January 1, 1997)	\$566,107,984
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¹ Includes miscellaneous revenue.

EXHIBIT A-6
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
PENSION COST SUMMARY FOR GASB #27

Year Ended December 31	Annual Pension Cost	% of Annual Pension Cost Contributed	Net Pension Obligation
1999	\$152,690,804	82.05%	\$617,588,119
2000	145,174,269	96.08	623,280,517
2001	143,430,813	97.38	627,035,564
2002	150,588,435	94.29	635,634,972
2003	202,175,694	69.65	697,003,312
2004	226,379,433	59.96	787,638,572
2005	263,987,011	67.53	873,347,212
2006	302,556,587	52.47	1,017,144,522
2007 ¹	338,508,467	50.40	1,185,054,721
2008	348,272,798	49.63	1,360,491,714
2009	373,972,967	46.00	1,562,420,897
2010	403,227,708	43.28	1,791,148,098
2011	448,152,714	38.83	2,065,266,212
2012	483,359,077	40.94	2,350,739,737
2013	531,355,128	33.79	2,702,573,606

¹ Annual pension cost for fiscal years on and after 2007 excludes OPEB which are recognized in GASB 45 accounting.

EXHIBIT A-7
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF NET PENSION OBLIGATION (NPO) FOR GASB #27 PRIOR TO JANUARY 1, 1997

Year Ending December 31:	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Assumptions and Method										
Interest Rate	7.5%	7.5%	7.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Amortization Period (years)	40	40	40	40	40	40	40	40	40	40
Cost Method	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN
Actuarially Determined Contribution (ADC)										
Normal Cost	\$ 88,600,984	\$90,317,357	\$90,506,052	\$79,153,328	\$67,782,578	\$78,695,560	\$66,329,000	\$68,617,000	\$72,637,000	\$76,463,000
Interest on Unfunded	89,867,346	92,162,828	93,180,094	88,948,163	110,558,088	126,460,879	120,691,562	132,733,871	144,248,034	150,876,009
Total ADC	\$178,468,330	\$182,480,185	\$183,686,146	\$168,101,491	\$178,340,666	\$205,156,439	\$187,020,562	\$201,350,871	\$216,885,034	\$227,339,009
Interest on NPO	-	5,194,794	10,671,277	16,254,357	19,887,447	23,818,783	29,389,826	32,880,844	36,612,931	40,614,169
Adjustment to ADC	-	(4,758,157)	(11,443,199)	(17,430,139)	(21,421,034)	(25,657,792)	(31,714,118)	(35,473,365)	(39,495,803)	(43,810,319)
Annual Pension Cost	\$178,468,330	\$182,916,822	\$182,914,224	\$166,925,709	\$176,807,079	\$203,317,430	\$184,696,270	\$198,758,350	\$214,002,162	\$224,142,859
Net Pension Obligations (NPO)										
NPO at Beginning of Year	\$ -	\$69,263,914	\$142,283,691	\$203,179,467	\$248,593,093	\$297,734,789	\$367,372,826	\$411,010,553	\$457,661,636	\$507,677,114
Annual Pension Cost	178,468,330	182,916,822	182,914,224	166,925,709	176,807,079	203,317,430	184,696,270	198,758,350	214,002,162	224,142,859
Total Contributions	(109,204,416)	(109,897,045)	(122,018,448)	(121,512,083)	(127,665,383)	(133,679,393)	(141,058,542)	(152,107,267)	(163,986,684)	(165,711,990)
NPO at End of Year	\$ 69,263,914	\$142,283,691	\$203,179,467	\$248,593,093	\$297,734,789	\$367,372,826	\$411,010,553	\$457,661,636	\$507,677,114	\$566,107,984

EXHIBIT A-7 (CONT'D)
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF NET PENSION OBLIGATION (NPO) FOR GASB #27 AFTER JANUARY 1, 1997

Year Ending December 31: Assumptions and Method	1997	1998	1999	2000	2001	2002	2003	2004	2005
Interest Rate	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Salary Scale	4.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Amortization Period (years)	40	40	40	40	40	40	40	40	40
Cost Method	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN
Annual Pension Cost									
Annual Required Contribution (ARC)	\$107,607,525	\$105,484,624	\$133,535,979	\$125,129,864	\$123,201,657	\$130,237,405	\$181,545,562	\$203,757,534	\$238,423,459
Interest on Net Pension Obligation	45,288,639	46,767,096	47,214,343	49,407,050	49,862,441	50,162,845	50,850,798	55,760,265	63,011,086
Adjustment to ARC	(25,053,818)	(27,793,719)	(28,059,518)	(29,362,645)	(29,633,285)	(29,811,815)	(30,220,666)	(33,138,366)	(37,447,534)
Total	\$127,842,346	\$124,458,001	\$152,690,804	\$145,174,269	\$143,430,813	\$150,588,435	\$202,175,694	\$226,379,433	\$263,987,011
Net Pension Obligations (NPO)									
NPO at Beginning of Year	\$566,107,984	\$584,588,700	\$590,179,285	\$617,588,119	\$623,280,517	\$627,035,564	\$635,634,972	\$697,003,312	\$787,638,572
Annual Pension Cost	127,842,346	124,458,001	152,690,804	145,174,269	143,430,813	150,588,435	202,175,694	226,379,433	263,987,011
Total Contributions	(109,361,629)	(118,867,416)	(125,281,970)	(139,481,871)	(139,675,766)	(141,989,027)	(140,807,354)	(135,744,173)	(178,278,371)
NPO at End of Year	\$584,588,700	\$590,179,285	\$617,588,119	\$623,280,517	\$627,035,564	\$635,634,972	\$697,003,312	\$787,638,572	\$873,347,212

EXHIBIT A-7 (CONT'D)
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
DEVELOPMENT OF NET PENSION OBLIGATION (NPO) FOR GASB #27 AFTER JANUARY 1, 1997

Year Ending December 31:	2006	2007	2008	2009	2010	2011	2012	2013
Assumptions and Method								
Interest Rate	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	7.75% ¹
Salary Scale	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Amortization Period (years)	40	30	30	30	30	30	30	30 ²
Cost Method	EAN	EAN	EAN	EAN	EAN	EAN	EAN	EAN
Annual Pension Cost								
Annual Required Contribution (ARC)	\$273,733,047	\$312,726,608	\$318,234,870	\$339,488,187	\$363,624,570	\$402,751,961	\$431,010,173	\$474,177,604
Interest on Net Pension Obligation	69,867,777	81,371,562	94,804,378	108,839,337	124,993,672	143,291,848	165,221,297	182,182,330
Adjustment to ARC	(41,044,237)	(55,589,703)	(64,766,450)	(74,354,557)	(85,390,534)	(97,891,095)	(112,872,393)	(125,004,806)
Total	\$302,556,587	\$338,508,467	\$348,272,798	\$373,972,967	\$403,227,708	\$448,152,714	\$483,359,077	\$531,355,128
Net Pension Obligations (NPO)								
NPO at Beginning of Year	\$873,347,212	\$1,017,144,522	\$1,185,054,721	\$1,360,491,714	\$1,562,420,897	\$1,791,148,098	\$2,065,266,212	\$2,350,739,737
Annual Pension Cost	302,556,587	338,508,467	348,272,798	373,972,967	403,227,708	448,152,714	483,359,077	531,355,128 ³
Total Contributions	(158,759,277)	(170,598,268)	(172,835,805)	(172,043,784)	(174,500,507)	(174,034,600)	(197,885,552)	(179,521,259)
NPO at End of Year	\$1,017,144,522	\$1,185,054,721	\$1,360,491,714	\$1,562,420,897	\$1,791,148,098	\$2,065,266,212	\$2,350,739,737	\$2,702,573,606

¹ 7.75% for Pension, beginning with fiscal year 2013 and 4.5% for OPEB, beginning with fiscal year 2006.

² 40 years for Pension and 30 years for OPEB for fiscal year 2006.

³ Annual Pension Cost for fiscal years on and after 2007 excludes OPEB which are recognized in GASB 45 accounting.

EXHIBIT A-8
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF FUNDING PROGRESS FOR GASB #43

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
12/31/2005	\$ 0	\$ 176,117,539	\$ 176,117,539	0.00%	\$ 948,973,732	18.56%
12/31/2006	0	176,981,897	176,981,897	0.00%	1,012,983,634	17.47%
12/31/2007	0	179,039,841	179,039,841	0.00%	1,038,957,026	17.23%
12/31/2008	0	169,972,156	169,972,156	0.00%	1,023,580,667	16.61%
12/31/2009	0	164,799,819	164,799,819	0.00%	1,011,205,359	16.30%
12/31/2010	0	164,796,449	164,796,449	0.00%	1,048,084,301	15.72%
12/31/2011	0	165,954,869	165,954,869	0.00%	1,034,403,526	16.04%
12/31/2012	0	168,811,118	168,811,118	0.00%	1,015,170,686	16.63%
12/31/2013	0	28,375,681	28,375,681	0.00%	1,015,426,128	2.79%

EXHIBIT A-9
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR GASB #43

For Year Ending December 31	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2006	\$11,076,022	\$8,041,573	72.60%
2007	11,220,081	8,107,708	72.26%
2008	11,348,959	8,850,186	77.98%
2009	11,810,766	9,266,431	78.46%
2010	10,659,006	9,354,163	87.76%
2011	10,538,116	9,591,394	91.02%
2012	10,473,478	9,765,686	93.24%
2013	10,429,882	9,847,310	94.41%
2014	9,723,621	TBD	TBD

EXHIBIT A-10
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
SUPPLEMENTARY INFORMATION FOR GASB #43

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

Valuation Date	December 31, 2013
Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	No assets (Pay-as-you-go)
Amortization Method	Level percent
Remaining Amortization Period	3 years closed
Actuarial Assumptions:	
OPEB Investment Rate of Return	4.50%
General Inflation	3.00%
Projected Salary Increases	4.00% per year, plus additional percentage related to service.
Healthcare Cost Trend Rate	0.00% ¹

	2012	2013
Payable to Retirees, Beneficiaries, and Inactives	\$ 112,070,287	\$ 25,926,180
Current Employees:		
Accumulated Employee Contributions Including Statutory Interest	-	-
Payable to Vested and Non-Vested Employees	56,740,831	2,449,501
Total Actuarial Accrued Liability	\$ 168,811,118	\$ 28,375,681
Net Plan Actuarial Assets	-	-
Unfunded AAL (assets in excess of AAL)	\$ 168,811,118	\$ 28,375,681
Percent Funded	0.00%	0.00%
Unfunded AAL as Percent of Payroll	16.63%	2.79%
Payroll	\$ 1,015,170,686	\$ 1,015,426,128

¹ Trend not applicable - Fixed dollar subsidy.

EXHIBIT A-11
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
ANNUAL OPEB COST AND CONTRIBUTIONS
MADE FOR GASB #45 FOR 2013

Contribution Rates

City	Pay-as-you-go
Plan Members	None

Annual OPEB Cost for 2013

Annual Required Contribution (ARC)	\$ 10,429,882
Interest on Net OPEB Obligation	515,756
Adjustment to ARC	<u>(409,204)</u>
Total	\$ 10,536,434

Contributions Made in 2013

\$ 9,847,310

Net OPEB Obligation (NOO):

NOO at 12/31/2012	\$ 11,461,254
Increase/(Decrease) in NOO	<u>689,124</u>
NOO at 12/31/2013	\$ 12,150,378

EXHIBIT A-12
POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
OPEB COST SUMMARY FOR GASB #45

Year Ended December 31	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation
2008	\$11,377,894	77.78%	\$5,640,081
2009	11,863,201	78.11	8,236,851
2010	10,735,582	87.13	9,618,270
2011	10,627,535	90.25	10,654,411
2012	10,572,529	92.37	11,461,254
2013	10,536,434	93.46	12,150,378