

# **Illinois Public Retirement Systems**

## **November 2015**



**A Report on the Financial Condition of the Illinois Municipal,  
Chicago and Cook County Pension Funds of Illinois**

**Chicago Transit Authority Retirement Fund**

**Cook County Employees' Pension Fund**

**Cook County Forest Preserve Employees' Pension Fund**

**Firemen's Annuity and Benefit Fund of Chicago**

**Illinois Municipal Retirement Fund**

**Laborers' Annuity and Benefit Fund of Chicago**

**Metropolitan Water Reclamation District Retirement Fund**

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

**Park Employees' Annuity and Benefit Fund of Chicago**

**Policemen's Annuity and Benefit Fund of Chicago**

**Public School Teachers' Pension and Retirement Fund of Chicago**

*Commission on Government Forecasting & Accountability*

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# **TABLE OF CONTENTS**

*November 2015*

*Illinois Public Retirement Systems:  
A Report on the Financial Condition of the Illinois  
Municipal, Chicago and Cook County Pension  
Funds in Illinois*

	<u>Page</u>
Executive Summary	i
I. Recent Pension Legislation	1
II. Chicago Transit Authority Retirement Fund	11
III. Cook County Employees' Pension Fund	21
IV. Cook County Forest Preserve Employees' Pension Fund	33
V. Firemen's Annuity and Benefit Fund of Chicago	45
VI. Illinois Municipal Retirement Fund	57
VII. Laborers' Annuity and Benefit Fund of Chicago	69
VIII. Metropolitan Water Reclamation District Retirement Fund	81
IX. Municipal Employees' Annuity and Benefit Fund of Chicago	91
X. Park Employees' Annuity and Benefit Fund of Chicago	101
XI. Policemen's Annuity and Benefit Fund of Chicago	113
XII. Public School Teachers' Pension and Retirement Fund of Chicago	125

## **INDEX TO CHARTS AND TABLES**

Chart 1	Chicago Transit Authority Active Employees	14
Chart 2	Chicago Transit Authority Employee Annuitants	14
Chart 3	Chicago Transit Authority Average Salaries	15
Chart 4	Chicago Transit Authority Average Retirement Annuity	15
Chart 5	Chicago Transit Authority Funded Ratios	16
Chart 6	Chicago Transit Authority Change in Unfunded	16



Chart 7	Chicago Transit Authority Investment Income	17
Chart 8	Chicago Transit Authority Rates of Return	17
Chart 9	Chicago Transit Authority Asset Allocation	20
Chart 10	Cook County Employees' Pension Fund Active Employees	24
Chart 11	Cook County Employees' Pension Fund Employee Annuitants	24
Chart 12	Cook County Employees' Pension Fund Average Salaries	25
Chart 13	Cook County Employees' Pension Fund Average Retirement Annuity	25
Chart 14	Cook County Employees' Pension Fund Funded Ratios	26
Chart 15	Cook County Employees' Pension Fund Change in Unfunded	26
Chart 16	Cook County Employees' Pension Fund Investment Income	27
Chart 17	Cook County Employees' Pension Fund Rates of Return	27
Chart 18	Cook County Employees' Pension Fund Asset Allocation	31
Chart 19	Cook County FP Employees' Pension Fund Active Employees	36
Chart 20	Cook County FP Employees' Pension Fund Employee Annuitants	36
Chart 21	Cook County FP Employees' Pension Fund Average Salaries	37
Chart 22	Cook County FP Employees' Pension Fund Average Retirement Annuity	37
Chart 23	Cook County FP Employees' Pension Fund Funded Ratios	38
Chart 24	Cook County FP Employees' Pension Fund Change in Unfunded	38
Chart 25	Cook County FP Employees' Pension Fund Investment Income	39
Chart 26	Cook County FP Employees' Pension Fund Rates of Return	39
Chart 27	Cook County FP Employees' Pension Fund Asset Allocation	43
Chart 28	Firemen's Annuity & Benefit Fund of Chicago Active Employees	48
Chart 29	Firemen's Annuity & Benefit Fund of Chicago Employee Annuitants	48
Chart 30	Firemen's Annuity & Benefit Fund of Chicago Average Salaries	49
Chart 31	Firemen's Annuity & Benefit Fund of Chicago Average Retirement Annuity	49
Chart 32	Firemen's Annuity & Benefit Fund of Chicago Funded Ratios	50
Chart 33	Firemen's Annuity & Benefit Fund of Chicago Change in Unfunded	50
Chart 34	Firemen's Annuity & Benefit Fund of Chicago Investment Income	51
Chart 35	Firemen's Annuity & Benefit Fund of Chicago Rates of Return	51
Chart 36	Firemen's Annuity & Benefit Fund of Chicago Asset Allocation	56
Chart 37	Illinois Municipal Retirement Fund Active Employees	62
Chart 38	Illinois Municipal Retirement Fund Employee Annuitants	62
Chart 39	Illinois Municipal Retirement Fund Average Salaries	63
Chart 40	Illinois Municipal Retirement Fund Average Retirement Annuity	63
Chart 41	Illinois Municipal Retirement Fund Funded Ratios	64
Chart 42	Illinois Municipal Retirement Fund Change in Unfunded	64
Chart 43	Illinois Municipal Retirement Fund Investment Income	65
Chart 44	Illinois Municipal Retirement Fund Rates of Return	65
Chart 45	Illinois Municipal Retirement Fund Asset Allocation	68
Chart 46	Laborers' Annuity & Benefit Fund of Chicago Active Employees	72
Chart 47	Laborers' Annuity & Benefit Fund of Chicago Employee Annuitants	72
Chart 48	Laborers' Annuity & Benefit Fund of Chicago Average Salaries	73
Chart 49	Laborers' Annuity & Benefit Fund of Chicago Average Retirement Annuity	73
Chart 50	Laborers' Annuity & Benefit Fund of Chicago Funded Ratios	74
Chart 51	Laborers' Annuity & Benefit Fund of Chicago Change in Unfunded	74
Chart 52	Laborers' Annuity & Benefit Fund Investment Income	75

Chart 53	Laborers' Annuity & Benefit Fund Rates of Return	75
Chart 54	Laborers' Annuity & Benefit Fund Asset Allocation	80
Chart 55	Metropolitan Water Reclamation District Ret. Fund Active Employees	84
Chart 56	Metropolitan Water Reclamation District Ret. Fund Employee Annuitants	84
Chart 57	Metropolitan Water Reclamation District Ret. Fund Average Salaries	85
Chart 58	Metropolitan Water Reclamation District Ret. Fund Avg. Ret. Annuity	85
Chart 59	Metropolitan Water Reclamation District Ret. Fund Funded Ratios	86
Chart 60	Metropolitan Water Reclamation District Ret. Fund Change in Unfunded	86
Chart 61	Metropolitan Water Reclamation District Ret. Fund Investment Income	87
Chart 62	Metropolitan Water Reclamation District Ret. Fund Rates of Return	87
Chart 63	Metropolitan Water Reclamation District Ret. Fund Asset Allocation	90
Chart 64	Municipal Employees' Annuity & Benefit Fund of Chi. Active Employees	94
Chart 65	Municipal Employees' Annuity & Benefit Fund of Chi. Annuitants	94
Chart 66	Municipal Employees' Annuity & Benefit Fund of Chi. Average Salaries	95
Chart 67	Municipal Employees' Annuity & Benefit Fund of Chi. Avg. Ret. Annuity	95
Chart 68	Municipal Employees' Annuity & Benefit Fund of Chi. Funded Ratios	96
Chart 69	Municipal Employees' Annuity & Benefit Fund of Chi. Chg. In Unfunded	96
Chart 70	Municipal Employees' Annuity & Benefit Fund of Chi. Investment Income	97
Chart 71	Municipal Employees' Annuity & Benefit Fund of Chi. Rates of Return	97
Chart 72	Municipal Employees' Annuity & Benefit Fund of Chi. Asset Allocation	100
Chart 73	Park Employees' Annuity & Benefit Fund of Chicago Active Employees	104
Chart 74	Park Employees' Annuity & Benefit Fund of Chicago Annuitants	104
Chart 75	Park Employees' Annuity & Benefit Fund of Chicago Average Salaries	105
Chart 76	Park Employees' Annuity & Benefit Fund of Chicago Avg. Ret. Annuity	105
Chart 77	Park Employees' Annuity & Benefit Fund of Chicago Funded Ratios	106
Chart 78	Park Employees' Annuity & Benefit Fund of Chicago Chg. In Unfunded	106
Chart 79	Park Employees' Annuity & Benefit Fund of Chicago Investment Income	107
Chart 80	Park Employees' Annuity & Benefit Fund of Chicago Rates of Return	107
Chart 81	Park Employees' Annuity & Benefit Fund of Chicago Asset Allocation	112
Chart 82	Policemen's Annuity & Benefit Fund of Chicago Active Employees	116
Chart 83	Policemen's Annuity & Benefit Fund of Chicago Employee Annuitants	116
Chart 84	Policemen's Annuity & Benefit Fund of Chicago Average Salaries	117
Chart 85	Policemen's Annuity & Benefit Fund of Chicago Avg. Ret. Annuity	117
Chart 86	Policemen's Annuity & Benefit Fund of Chicago Funded Ratios	118
Chart 87	Policemen's Annuity & Benefit Fund of Chicago Changes In Unfunded	118
Chart 88	Policemen's Annuity & Benefit Fund of Chicago Investment Income	119
Chart 89	Policemen's Annuity & Benefit Fund of Chicago Rates of Return	119
Chart 90	Policemen's Annuity & Benefit Fund of Chicago Asset Allocation	124
Chart 91	PS Teachers' Pension & Retirement Fund of Chi. Active Employees	128
Chart 92	PS Teachers' Pension & Retirement Fund of Chi. Employee Annuitants	128
Chart 93	PS Teachers' Pension & Retirement Fund of Chi. Average Salaries	129
Chart 94	PS Teachers' Pension & Retirement Fund of Chi. Avg. Ret. Annuity	129
Chart 95	PS Teachers' Pension & Retirement Fund of Chi. Funded Ratios	130
Chart 96	PS Teachers' Pension & Retirement Fund of Chi. Changes in Unfunded	130
Chart 97	PS Teachers' Pension & Retirement Fund of Chi. Investment Income	131
Chart 98	PS Teachers' Pension & Retirement Fund of Chi. Rates of Return	131

Chart 99	PS Teachers' Pension & Retirement Fund of Chi. Asset Allocation	135
Table 1	Chicago Transit Authority Systems Experience	18
Table 2	Chicago Transit Authority Changes in Net Assets	19
Table 3	Cook County Employees' Pension Fund Systems Experience	28
Table 4	Cook County Employees' Pension Fund Changes in Net Assets	29
Table 5	Cook County Employees' Pension Fund System Projections	30
Table 6	Cook County FP Employees' Pension Fund Systems Experience	40
Table 7	Cook County FP Employees' Pension Fund Changes in Net Assets	41
Table 8	Cook County FP Employees' Pension Fund System Projections	42
Table 9	Firemen's Annuity & Benefit Fund of Chicago Systems Experience	52
Table 10	Firemen's Annuity & Benefit Fund of Chicago Changes in Net Assets	53
Table 11	Firemen's Annuity & Benefit Fund of Chicago System Projections	54
Table 12	Firemen's Annuity & Benefit Fund of Chicago Normal Cost Projections	55
Table 13	Illinois Municipal Retirement Fund Systems Experience	66
Table 14	Illinois Municipal Retirement Fund Changes in Net Assets	67
Table 15	Laborers' Annuity & Benefit Fund of Chicago Systems Experience	76
Table 16	Laborers' Annuity & Benefit Fund of Chicago Changes in Net Assets	77
Table 17	Laborers' Annuity & Benefit Fund of Chicago System Projections	78
Table 18	Laborers' Annuity & Benefit Fund of Chicago Normal Cost Projections	79
Table 19	Metropolitan Water Reclamation District Ret. Fund Systems Experience	88
Table 20	Metropolitan Water Reclamation District Ret. Fund Changes in Net Assets	89
Table 21	Municipal Employees' Annuity & Benefit Fund of Chi. Systems Experience	98
Table 22	Municipal Employees' Annuity & Benefit Fund of Chi. Changes in Net Assets	99
Table 23	Park Employees' Annuity & Benefit Fund of Chicago Systems Experience	108
Table 24	Park Employees' Annuity & Benefit Fund of Chicago Changes in Net Assets	109
Table 25	Park Employees' Annuity & Benefit Fund of Chicago System Projections	110
Table 26	Park Employees' Annuity & Benefit Fund of Chi. Normal Cost Projections	111
Table 27	Policemen's Annuity & Benefit Fund of Chicago Systems Experience	120
Table 28	Policemen's Annuity & Benefit Fund of Chicago Changes in Net Assets	121
Table 29	Policemen's Annuity & Benefit Fund of Chicago System Projections	122
Table 30	Policemen's Annuity & Benefit Fund of Chicago Normal Cost Projections	123
Table 31	PS Teachers' Pension & Retirement Fund of Chi. Systems Experience	132
Table 32	PS Teachers' Pension & Retirement Fund of Chi. Changes in Net Assets	133
Table 33	PS Teachers' Pension & Retirement Fund of Chi. System Projections	134

## Executive Summary

This report examines the financial status of various public employee retirement systems in Chicago and Cook County, along with the Illinois Municipal Retirement Fund, as of Fiscal Year 2014. The following is a summary of the findings:

- The Chicago Transit Authority Retirement Fund covers all employees of the Chicago Transit Authority. At the end of 2014 there were 8,251 active employees and 7,886 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$1.856 Billion and Total Actuarial Liabilities were \$3.186 Billion.
- The Cook County Employees' Retirement Fund covers all persons employed and paid by the County. At the end of 2014 there were 21,656 active employees and 14,437 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$8.811 Billion and Total Actuarial Liabilities were \$14.141 Billion.
- The Cook County Employees' Retirement Fund active member headcount has dropped by approximately 3,900 employees since 2006. This is due mainly to positions not being filled by attrition and an Alternative Retirement Cancellation Payment Option that was offered to Cook County employees in 2007 (P.A. 95-0369).
- The Cook County Forest Preserve Employees' Retirement Fund covers all persons employed and paid by the Forest Preserve. At the end of 2014 there were 525 active employees and 384 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$189.9 Million and Total Actuarial Liabilities were \$315.2 Million.
- The Firemen's Annuity and Benefit Fund of Chicago covers anyone employed by the City of Chicago in its fire services whose duty it is to in any way participate in the work of controlling and extinguishing fires. At the end of 2014 there were 4,809 active employees and 2,977 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$988.1 Million and Total Actuarial Liabilities were \$4.344 Billion.
- The Illinois Municipal Retirement Fund covers employees hired by the following units of government: (1) All counties except Cook and all school districts except Chicago, (2) Other units of government with general taxing powers, such as cities, villages, townships and special districts, (3) Units of government without general taxing powers, associations or cooperatives authorized to participate by State statute. At the end of 2014 there were 173,968 active employees and 99,793 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$32.700 Billion and Total Actuarial Liabilities were \$37.465 Billion.

- The Laborers' Annuity and Benefit Fund of Chicago covers persons employed by the City of Chicago in a position classified as labor service by the employer; anyone employed by the Board, or anyone employed by the Retirement Board of any other Annuity and Benefit Fund. At the end of 2014 there were 2,837 active employees and 2,690 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$1.358 Billion and Total Actuarial Liabilities were \$2.112 Billion.
- The Metropolitan Water Reclamation District Retirement Fund covers any person employed by the District whose duties include service during a calendar year for a minimum of 120 days. At the end of 2014 there were 1,873 active employees and 1,729 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$1.263 Billion and Total Actuarial Liabilities were \$2.296 Billion.
- The Metropolitan Water Reclamation District Retirement Fund lowered its actuarial assumption on the future investment rate of return from 7.75% to 7.50% annually as of the most recent valuation, i.e., FY 2014.
- The Municipal Employees' Annuity and Benefit Fund of Chicago covers persons appointed under civil service rules who are employed by the City of Chicago and Board of Education of Chicago (except teachers); temporary and non-career service employees; aldermen and other officials of the City and the Board that make written application. At the end of 2014 there were 30,160 active employees and 20,411 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$5.039 Billion and Total Actuarial Liabilities were \$12.325 Billion.
- The Park Employees' Annuity and Benefit Fund of Chicago covers all persons employed by the Chicago Park District. At the end of 2014 there were 2,973 active employees and 2,101 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$393.8 Million and Total Actuarial Liabilities were \$900.8 Million.
- The Policemen's Annuity and Benefit Fund of Chicago covers any employee in the Police Department of the City of Chicago sworn and designated by law as a police officer. At the end of 2014 there were 12,020 active employees and 9,311 employee annuitants. Total Actuarial Assets of the system at the end of that year were \$2.954 Billion and Total Actuarial Liabilities were \$11.335 Billion.
- The Policemen's Annuity and Benefit Fund of Chicago lowered its actuarial assumption on the future investment rate of return from 7.75% to 7.50% annually as of the most recent valuation, i.e., FY 2014.

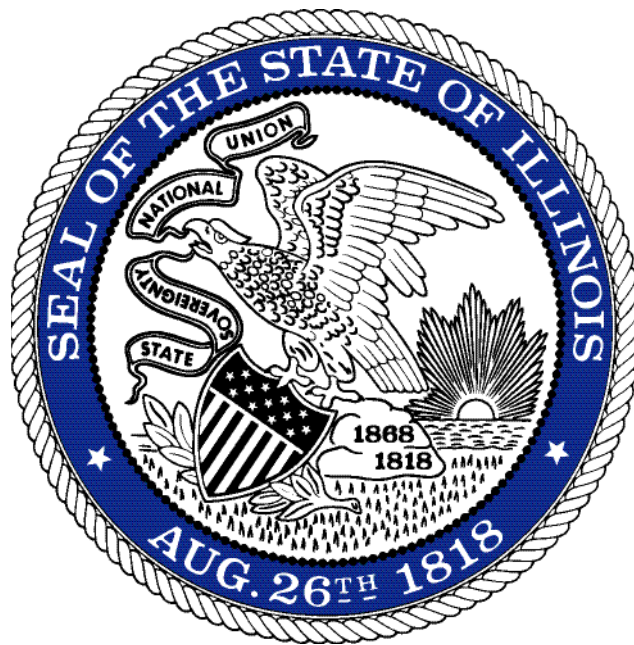


- The Public School Teachers' Pension and Retirement Fund of Chicago covers certified teachers and employees of the Chicago public schools. At the end of FY 2014 there were 30,654 active employees and 24,251 employee annuitants. Total Actuarial Assets of the system on that date were \$10.046 Billion and Total Actuarial Liabilities were \$19.504 Billion.
- The Public School Teachers' Pension and Retirement Fund of Chicago headcount has dropped by approximately 4,030 employees since FY 2006. This is due to early retirements and teachers opting to retire under the Pension Enhancement Program (PEP), which allows teachers to sell a portion of unused sick days back to the employer.
- Most of the retirement systems profiled in this report have provided CGFA staff with multi-year funding projections performed by the systems' actuaries. Unless otherwise noted, all long-term funding projections are based upon the retirement system's Fiscal Year or Calendar Year 2014 actuarial valuation. The statutory funding requirements differ for each system and are outlined at the beginning of each system's chapter under the heading "Required Employer Contributions". In cases where a recent legislative enactment has changed a particular system's funding requirement, the Public Act number is displayed in the tables showing multi-year funding projections.
- Pension Reform Legislation was passed in the most recent legislative session that made changes to funding provisions, contribution levels, and made various other changes to the Park Employees' Annuity and Benefit Fund of Chicago, the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, and the Municipal Employees' Annuity and Benefit Fund of Chicago. A summary of changes made can be found in Section I of this report.
- The following page contains a summary of the financial condition of the Chicago Retirement Systems. Based upon the actuarial value of assets, the total unfunded liabilities for the city of Chicago's retirement systems are \$32.104 Billion. Please note that this amount does not include IMRF, Cook County Employees', or Cook County Forest Preserve Pension Funds.

**Summary of Financial Condition**  
**Chicago Retirement Systems Combined (Excludes IMRF and Cook County Funds)**  
**FY 2014**  
**(\$ in Millions)**

System	Annual Payroll	Actuarial Liabilities	Actuarial Assets	Unfunded Liabilities	Funded Ratio
Chicago Transit Authority	564.8	3,186.2	1,855.9	1,330.3	58.2%
Firemen's Annuity & Benefit Fund	460.2	4,343.6	988.1	3,355.5	23.0%
Laborers' Annuity and Benefit Fund	202.7	2,111.7	1,357.5	754.3	64.3%
Metropolitan Water Fund	176.2	2,296.4	1,263.3	1,033.1	55.0%
Municipal Employees' Annuity and Benefit Fund	1,603.0	12,324.6	5,039.3	7,285.3	40.9%
Park Employees' Annuity and Benefit Fund	119.0	900.8	393.8	507.0	43.7%
Policemen's Annuity and Benefit Fund	1,074.3	11,334.8	2,954.3	8,380.5	26.1%
Public School Teachers' Pension Fund	2,233.3	19,503.9	10,045.5	9,458.4	51.5%
<b>TOTAL</b>	<b>6,433.5</b>	<b>56,002.0</b>	<b>23,897.7</b>	<b>32,104.4</b>	<b>42.7%</b>

# I. Recent Pension Legislation





# **Public Act 96-0889**

## **Senate Bill 1946 – Cullerton (Madigan)**

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### **I. Overview of Key Provisions of Public Act 96-0889 (SB 1946)**

#### **Effective Date**

- January 1, 2011

#### **Systems Impacted**

- IMRF, Chicago Municipal, Cook County, Cook County Forest Preserve, Chicago Laborers, Chicago Park District, Metropolitan Water, SERS, SURS, TRS, Chicago Teachers (Judges and GA separate; CTA, Police, and Fire excluded)

#### **Retirement Eligibility – Except State Policemen, Firefighters, and Correctional Guards**

- Normal Retirement: 67 years old with 10 years of service
- Early Retirement: 62 years old with 10 years of service with a 6% per year reduction in benefits for each year age is under 67
- Annuity based on highest 8 years out of last 10 years of service
- Annual Final Average Salary may not exceed \$106,800, as automatically increased by the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year

#### **Retirement Eligibility – State Policemen, Firefighters, and Correctional Guards**

- Normal Retirement: 60 years old with 20 years of service
- State Policemen, Firefighters, DOC Guards are still eligible for Alternative Formula

#### **Annual Increases in Annuity**

- Increases begin at the later of the first anniversary of retirement or at age 67
- Increases equal to the lesser of 3% or one-half the annual increase in the CPI-U during the preceding 12-month calendar year; if increase in CPI is zero or if there is a decrease in CPI, then no COLA is payable
- Increase not compounded

#### **Survivor Benefits**

- 66.7% of the earned retirement benefit at death
- Increased by the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year
- Increases not compounded

**“Double Dipping” Prohibited**

- Prohibition on simultaneously collecting a pension and a salary with public employer.

**Chicago Teachers’ Extension of Funding Plan**

- Contributions specified in Fiscal Years 2011 – 2016
- New Goal: CTPF must reach 90% by 2059

**Retirement Eligibility – Judges and General Assembly**

- Normal Retirement: 67 years old with 8 years of service
- Early Retirement: 62 years old with 8 years of service

**Change in Benefit Formula – Judges and General Assembly**

- 3% of Final Average Salary for each year of service
- Maximum annuity 60% of Final Average Salary
- Retirement annuity based on highest 8 out of final 10 years of service

**Annual Increase in Annuity – Judges and General Assembly**

- Increases begin after attainment of age 67
- Increases equal to the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year
- Increases compounded

**Annual Increase in Survivor’s Annuity – Judges and General Assembly**

- 66.7% of the earned retirement benefit at death
- Increased by the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year
- Increases compounded



# **Public Act 96-1495**

## **Senate Bill 3538 – Link (McCarthy)**

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### **I. Overview of Key Provisions of Public Act 96-1495 (SB 3538)**

#### **Effective Date**

- New employees beginning service after January 1, 2011

#### **Systems Impacted**

- IMRF (Sheriff's Law Enforcement Employees), Chicago Police, Chicago Firefighters, Downstate Police, Downstate Firefighters

#### **Retirement Eligibility**

- Normal Retirement: 55 years old with 10 years of service
- Early Retirement: 50 years old with 10 years of service with a 0.5% per month reduction in benefits for each month age is under 55
- Annuity based on highest 8 years out of last 10 years of service
- Annual Final Average Salary may not exceed \$106,800, as automatically increased by the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year

#### **Annual Increases in Annuity**

- Increases begin at the later of the first anniversary of retirement or at age 60
- Increases equal to the lesser of 3% or one-half the annual increase in the CPI-U during the preceding 12-month calendar year; if increase in CPI is zero or if there is a decrease in CPI, then no COLA is payable
- Increase not compounded

#### **Survivor Benefits**

- 66.7% of the earned retirement benefit at death
- Increased by the lesser of 3% or one-half of the annual increase in the CPI-U during the preceding 12-month calendar year
- Increases not compounded

#### **Funding Requirements**

- Downstate and Chicago municipal contributions must be sufficient to achieve a 90% funded ratio by FY 2040 using a level percentage of payroll contribution rate
- Whenever city contributions are not sufficient to achieve this funding goal, the retirement system will notify the Illinois State Comptroller
- Upon receiving this notification, the Comptroller will divert funds owed by the State to the City in a sufficient amount to eliminate the shortfall in contributions

- The State may divert all of the funds owed to the city beginning in FY2018. The diversion limit in FY 2016 is 33.3% and is 66.7% in FY 2017

**Calculation of the Funded Ratio**

- Asset Market Values equal Asset Actuarial Values on March 30, 2011
- Thereafter, Asset Actuarial Values will be used for all funded ratios
- Income smoothing will be used after March 30, 2011 to calculate Asset Actuarial Values. A 5 year period (20% per year rate) will be used to recognize all investment revenues and losses

**Pension Calculations**

- Retirement annuities are calculated to equal 2.5% of final average salary times the total years of service
- Total retirement annuities are limited to 75% of final average salary

# **Public Act 98-0622**

## **Senate Bill 1523 – Cullerton (Madigan)**

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### **I. Overview of Key Provisions of Public Act 98-0622 (SB 1523)**

#### **Effective Date**

- January 1, 2015

#### **Systems Impacted**

- Park Employees' Annuity and Benefit Fund of Chicago

#### **Funding Schedule**

- Employer contributions will be made according to a 30-year Actuarial Required Contribution (ARC) funding plan with a goal of achieving 90% funded status by the end of FY 2050.
- The employer contribution multiplier is increased on a graduated scale to 1.7 in FY 2015, 2.3 in FY 2017, and 2.9 in FY 2019. Once the Fund is 90% funded, the multiplier is the lesser of 2.9, or the amount needed maintain a 90% funded ratio.
- Additionally, there will be supplemental contributions of \$12.5 Million in FY 2015 and 2017, and \$50 Million in FY 2019. These supplemental contributions will not decrease the employer's Actuarially Required Contribution in the respective fiscal year.

#### **Retirement Eligibility**

- Tier 1 employees – For employees age 45 or younger on January 1, 2015, the minimum retirement age is increased from 50 to 58.
- Tier 2 employees – The age for normal retirement decreased from 67 to 65; and the age for early retirement decreased from 62 to 60.

#### **Annual Increases in Annuity**

- Increases equal to the lesser of 3% of one-half the annual increase in the CPI-U during the preceding 12-month calendar year; if increase in CPI is zero or if there is a decrease in CPI, then no COLA is payable.
- Increase not compounded.
- Payment of annual increase suspended in FY 2015, 2017, and 2019.

#### **Employee Contributions**

- Currently, employee contributions are set at 9%.
  - Beginning January 1, 2015: employee contributions will increase to 10%.
  - Beginning January 1, 2017: employee contributions will increase to 11%.
  - Beginning January 1, 2019: employee contributions will increase to 12%.

- For any duration of time that the funded ratio is over 90%, employee contribution rates will fall to 10.5%, but will increase back to 12% if the funded ratio falls below 90%.

# **Public Act 98-0641**

## **Senate Bill 1922 – Raoul (Madigan)**

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\*On July 24, 2015, the Act was declared unconstitutional by the Circuit Court of Cook County because it violates the public pension protection clause of the Illinois constitution. On July 29, 2015, decision was appealed to the Illinois Supreme Court and the Supreme Court has agreed to hear the case in November of 2015.

### **I. Overview of Key Provisions of Public Act 98-0641 (SB 1922)**

#### **Effective Date**

- January 1, 2015

#### **Systems Impacted**

- Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, Municipal Employees' Annuity and Benefit Fund of Chicago

#### **Funding Schedule**

- Employer contributions will be made according to a 40-year Actuarial Required Contribution (ARC) funding plan with a goal of achieving 90% funded status by the end of FY 2055.
- The City contribution multiplier is increased for both systems beginning in FY 2016 through 2020 as follows:
  - LABF: 1.60, 1.90, 2.20, 2.50, and 2.80.
  - MEABF: 1.85, 2.15, 2.45, 2.75, and 3.05.
- Beginning in FY 2021 and all years thereafter, City contributions will be made based on an actuarial funding schedule to reach 90% funded status by FY 2055.

#### **Retirement Eligibility**

- Tier 1 employees – For employees age 45 or younger on January 1, 2015, the minimum retirement age is increased from 50 to 58.
- Tier 2 employees – The age for normal retirement decreased from 67 to 65; and the age for early retirement decreased from 62 to 60.

#### **Annual Increases in Annuity**

- Increases equal to the lesser of 3% of one-half the annual increase in the CPI-U during the preceding 12-month calendar year; if increase in CPI is zero or if there is a decrease in CPI, then no COLA is payable.
- Increase not compounded.
- Payment of annual increase suspended in FY 2017, 2019, and 2025.

#### **Employee Contributions**

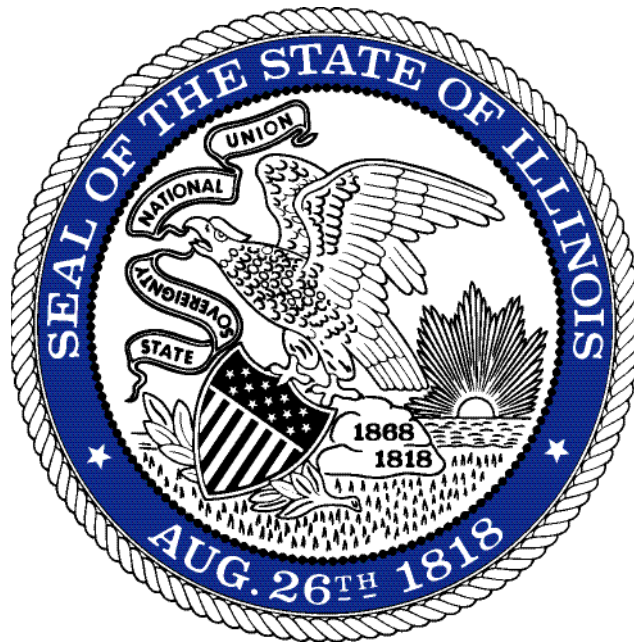
- Beginning January 1, 2015: For both systems, employee contributions will increase to 9% from 8.5% of salary and will increase by .5% per year, settling at 11% in 2019.

- For any duration of time that the funded ratio is over 90%, employee contributions will decrease to 9.75%, but will increase back to 11% if the funded ratio falls below 90%.



## II. Chicago Transit Authority Retirement Fund

- **Plan Summary**
- **Active Employees**
- **Employee Annuitants**
- **Average Salaries**
- **Average Retirement Annuity**
- **Funded Ratios**
- **Change in Unfunded Liabilities**
- **Investment Income**
- **Investment Rates of Return**
- **System Projections**
- **Systems Experience**
- **Changes in Net Assets**



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# Chicago Transit Authority Pension Fund

## Plan Summary

### Retirement Age

---

- Normal Retirement Age for CTA employees is 65.
- Employees hired before January 18, 2008 may retire early at age 55 with 3 years of continuous service, or after completion of 25 years of continuous service. (Employees who have at least 25 years of service do not have their annuities reduced by 5% for each year younger than 65, regardless of age). Employees hired after September 5, 2001 may retire with unreduced benefits after attaining age 55 and completing 25 years of service.
- For employees hired after January 18, 2008, an employee may retire with unreduced benefits upon attainment of age 64 with 25 years of service. An employee may retire with a reduced benefit upon attainment of age 55 with 10 years of service (reduction of 5% for each year or fraction younger than age 65).

### Retirement Formula

---

- 2.15% of final average salary for each year of service for employees retiring on or after January 1, 2001.

### Maximum Annuity

---

- 70% of final average salary.

### Salary Used to Calculate Pension

---

- Highest average compensation over any four calendar years out of the final 10 years of service prior to normal retirement.

### Annual COLA

---

- Made on an ad-hoc basis; most recent increase of \$40 per month for members who retired after 1/1/91 but before 1/1/00

### Employee Contributions

---

- 10.125% of salary (FY 2014-2040)

### Employer Contributions

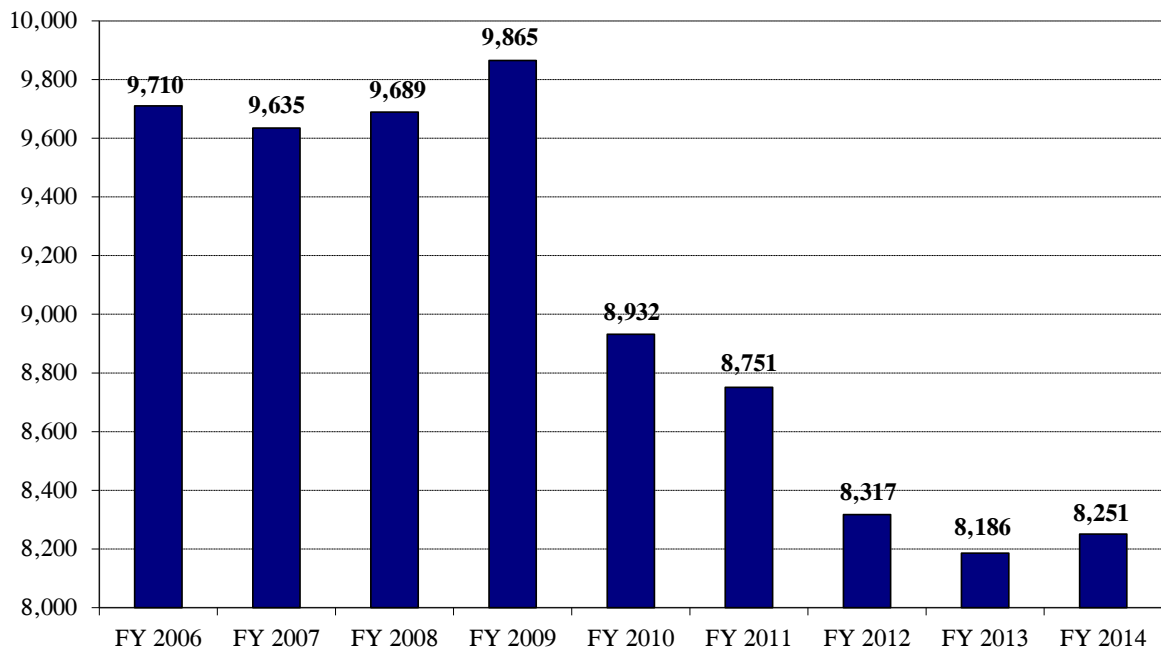
---

- 14.250% of salary (FY 2014-2040)

Pursuant to P.A. 95-0708, the CTA Article of the Pension Code provides for a minimum contribution by the CTA, determined either by the CTA Pension Board of Trustees or the Auditor General, to bring the funded ratio of the Plan up to or no less than 90% by Dec. 31, 2059.

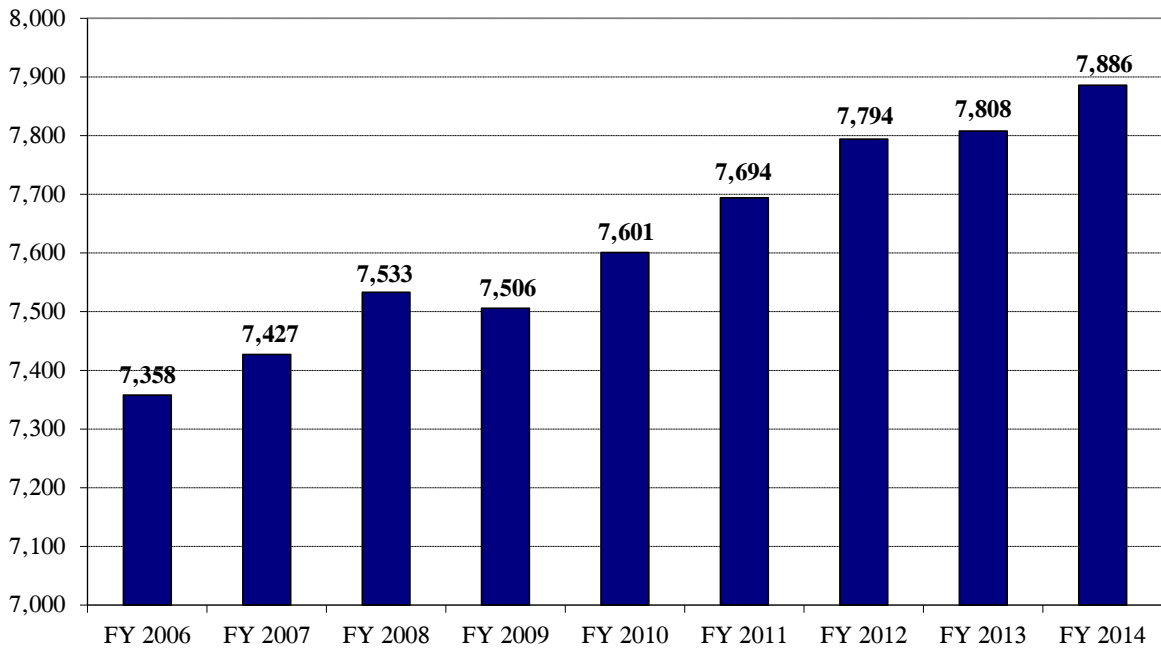
**CHART 1**

**CHICAGO TRANSIT AUTHORITY PENSION FUND  
Active Employees**



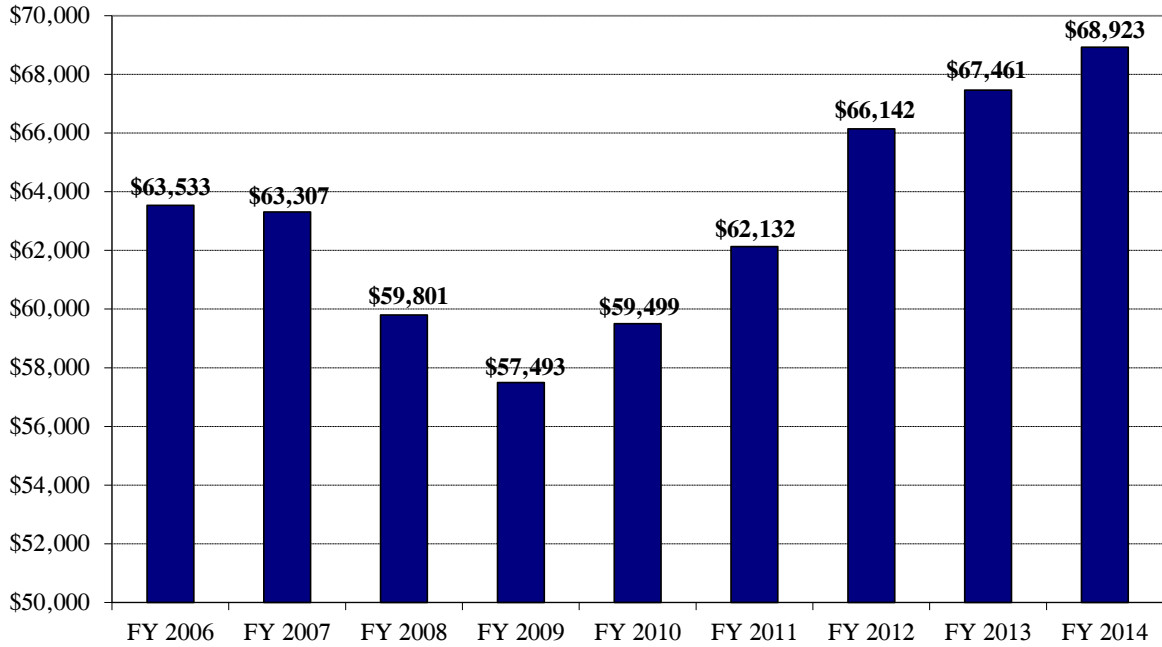
**CHART 2**

**CHICAGO TRANSIT AUTHORITY PENSION FUND  
Employee Annuitants**



### CHART 3

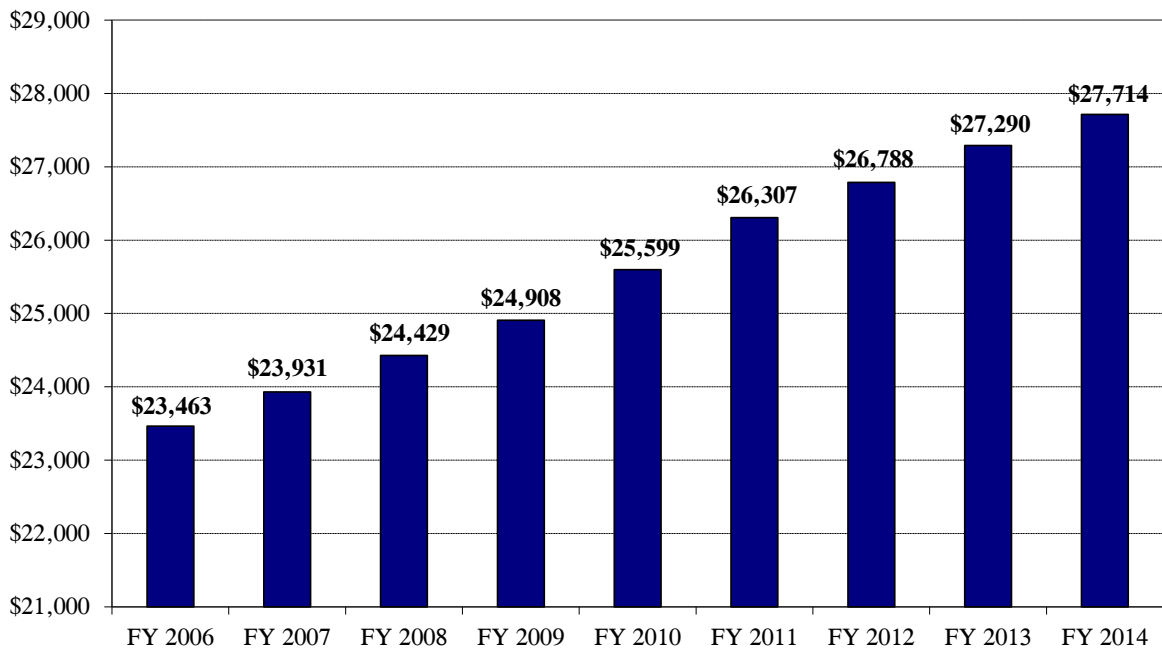
#### CHICAGO TRANSIT AUTHORITY PENSION FUND Average Employee Salaries



*Note: Average Employee Salaries dropped in FY 2008 and FY 2009 following the financial crisis due to wage reductions and furlough days.*

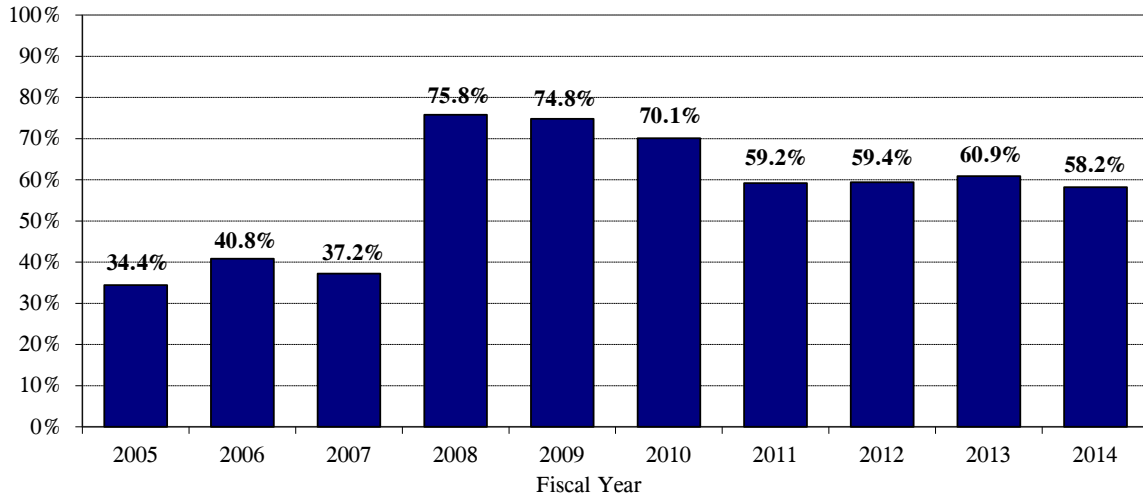
### CHART 4

#### CHICAGO TRANSIT AUTHORITY PENSION FUND Average Retirement Annuities



**CHART 5**

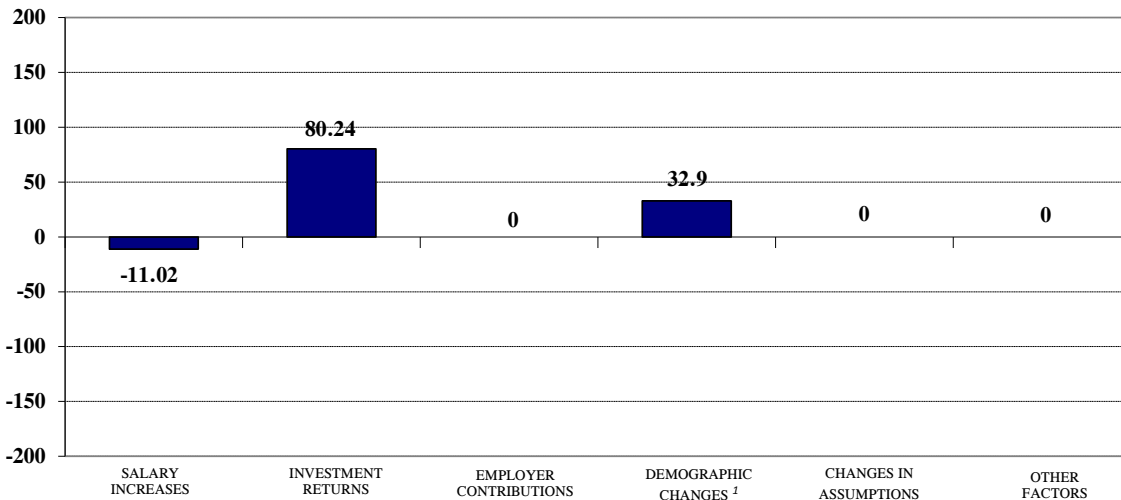
**CHICAGO TRANSIT AUTHORITY PENSION FUND  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 6**

**CHICAGO TRANSIT AUTHORITY PENSION FUND  
Analysis of Actuarial (Gains) and Losses  
FY 2014  
(\$ in Millions)**

TOTAL ACTUARIAL LOSSES  
EQUALS \$102.12 MIL

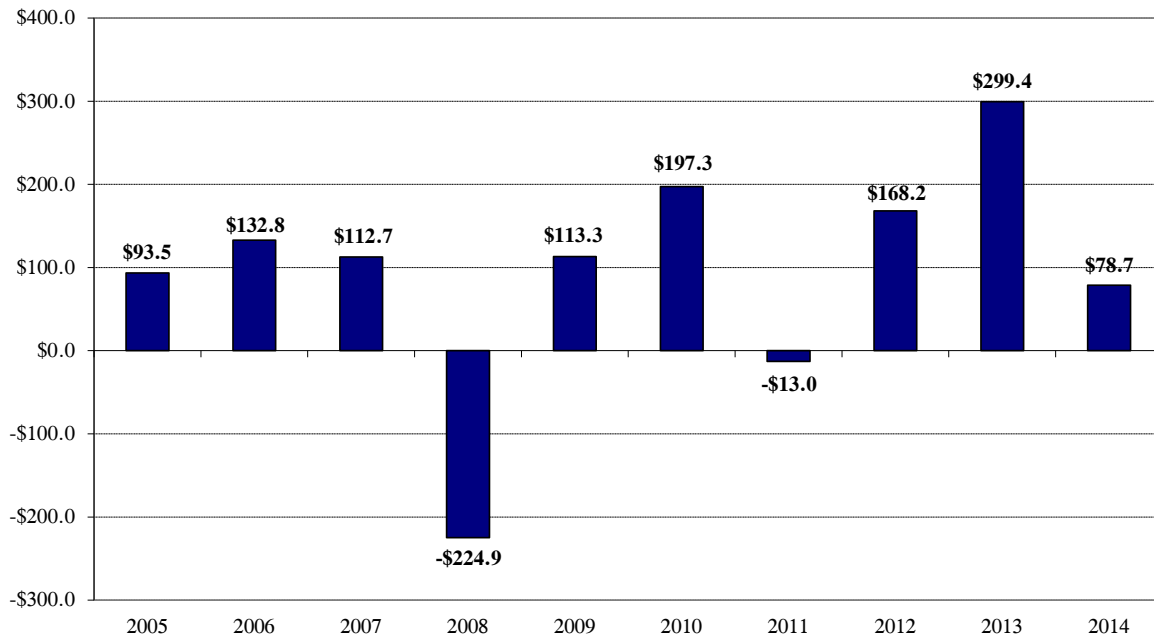


<sup>1</sup> Unexpected participant pick-up, unexpected data change for decrementing actives, and miscellaneous cause the most actuarial losses among items in demographic changes.



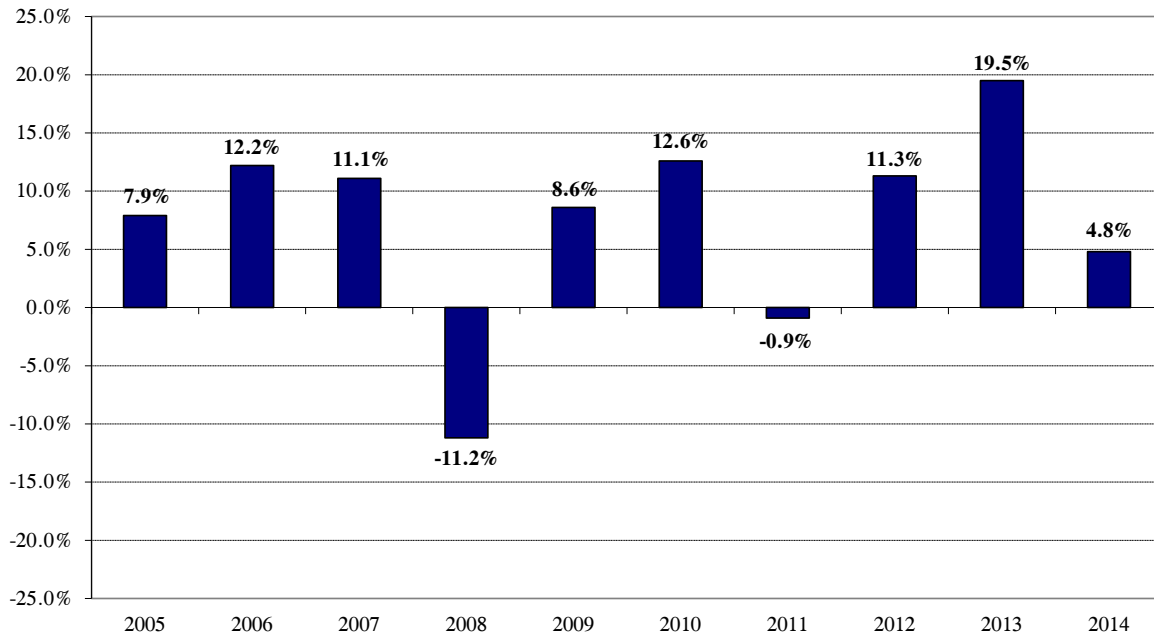
**CHART 7**

**CHICAGO TRANSIT AUTHORITY PENSION FUND**  
**Investment Income FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return : 8.25%  
 (\$ in Millions)



**CHART 8**

**CHICAGO TRANSIT AUTHORITY PENSION FUND**  
**Rate of Return FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return : 8.25%



**TABLE 1**

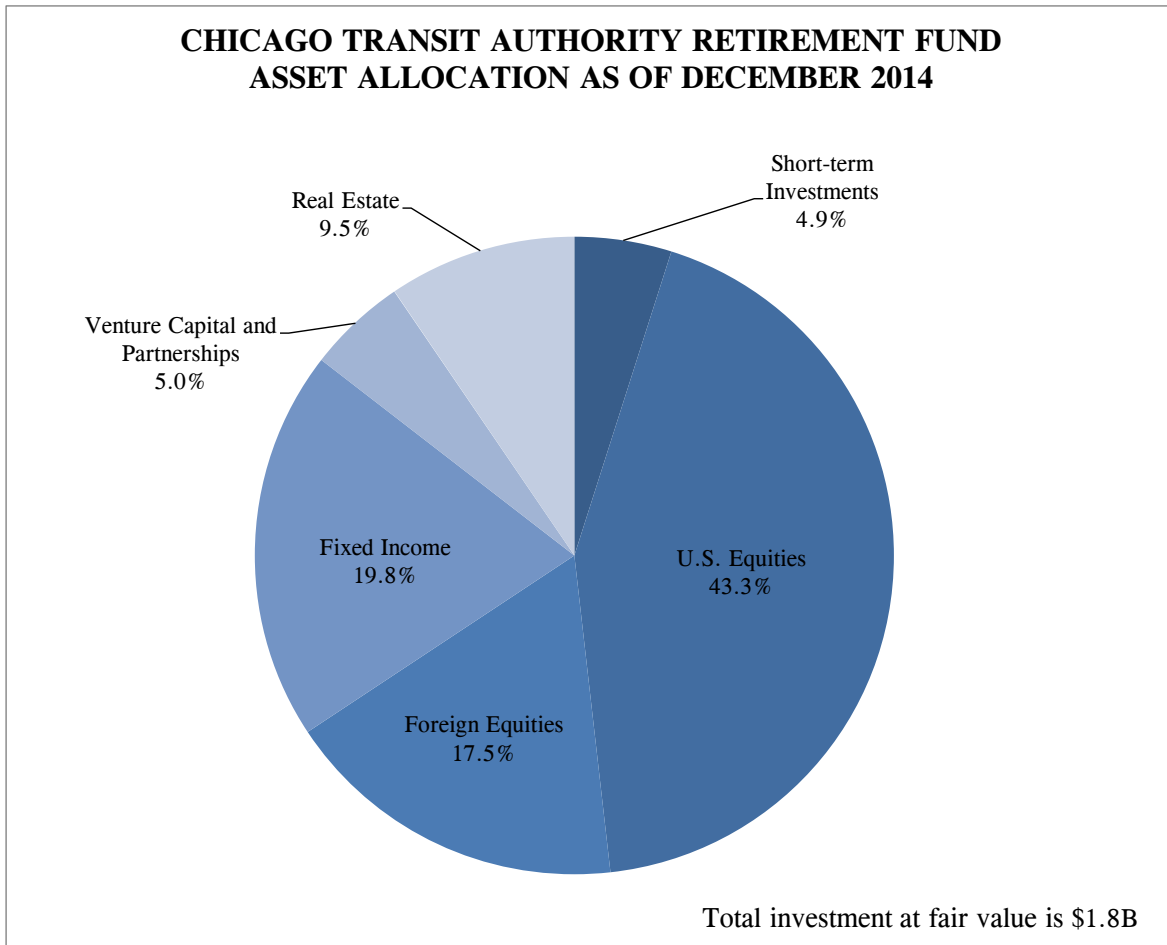
<b>CHICAGO TRANSIT AUTHORITY PENSION FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	564.8	3,186.2	1,855.9	1,330.3	58.2%
2013	550.6	3,105.6	1,892.7	1,212.9	60.9%
2012	548.5	2,867.3	1,702.8	1,164.5	59.4%
2011	541.4	2,808.2	1,662.2	1,146.0	59.2%
2010	528.3	2,724.2	1,910.0	814.2	70.1%
2009	567.2	2,588.4	1,936.8	651.6	74.8%
2008	594.1	2,632.4	1,996.0	636.4	75.8%
2007	571.3	2,531.4	941.9	1,589.5	37.2%
2006	562.5	2,466.1	1,007.3	1,458.8	40.8%
2005	547.5	2,354.1	810.3	1,543.8	34.4%
2004	544.4	2,291.2	902.1	1,389.1	39.4%
2003	486.6	2,189.7	1,062.4	1,127.3	48.5%

*Note: The above figures do not include healthcare liabilities.*

**TABLE 2**

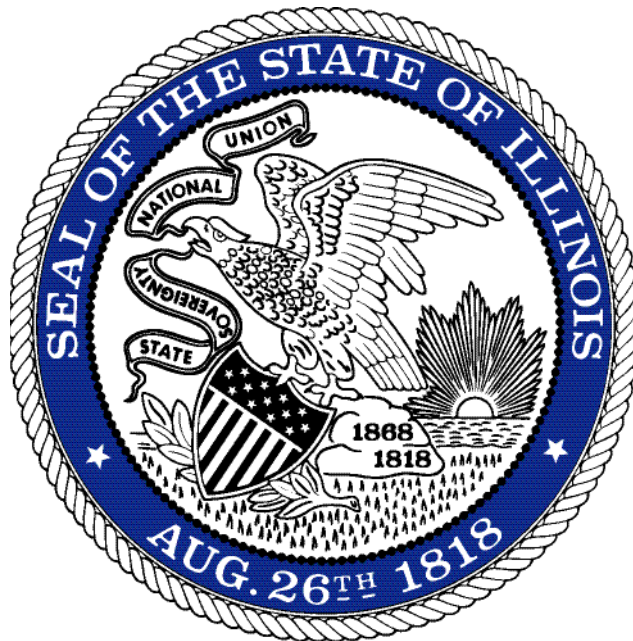
<b>CHICAGO TRANSIT AUTHORITY PENSION FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
Fiscal Years	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Additions to Assets</b>									
Employer	82.3	79.5	62.8	60.3	56.3	41.4	68.5	33.8	35.7
Employees	58.6	56.8	48.4	47.2	45.3	35.0	34.3	16.9	17.8
Net Investment Income	78.7	299.4	168.2	-13.0	197.2	113.3	-224.9	112.7	132.8
Other - Bonds	0.0	0.0	0.0	0.0	0.0	0.0	1,110.5	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>219.5</b>	<b>435.7</b>	<b>279.4</b>	<b>94.5</b>	<b>298.8</b>	<b>189.7</b>	<b>988.4</b>	<b>163.4</b>	<b>186.3</b>
<b>Deductions from Assets</b>									
Benefits	246.0	238.7	232.7	222.2	216.2	212.6	263.5	256.9	246.2
Refunds	7.1	4.9	4.0	2.9	2.2	2.1	1.8	1.4	1.4
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	3.1	2.1	2.1	2.0	2.0	2.2	2.4	2.3	2.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>256.3</b>	<b>245.7</b>	<b>238.8</b>	<b>227.1</b>	<b>220.4</b>	<b>216.9</b>	<b>267.7</b>	<b>260.6</b>	<b>250.4</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-36.8</b>	<b>190.0</b>	<b>40.6</b>	<b>-132.6</b>	<b>78.4</b>	<b>-27.2</b>	<b>720.7</b>	<b>-97.2</b>	<b>-64.1</b>

**CHART 9**



### III. Cook County Employees' Pension Fund

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# Cook County Employees' Pension Fund

## Tier 1 Plan Summary

---

### Retirement Age

---

- Age 50 with 10 years of service.

### Retirement Formula

---

- 2.4% of final average salary for each year of service.

### Maximum Annuity

---

- 80% of final average salary.

### Salary Used to Calculate Pension

---

- Highest average monthly salary for any 48 consecutive months within the final 10 years of service.

### Annual COLA

---

- 3% compounded.

### Employee Contributions

---

- 8.5% of salary.

### Employer Contributions

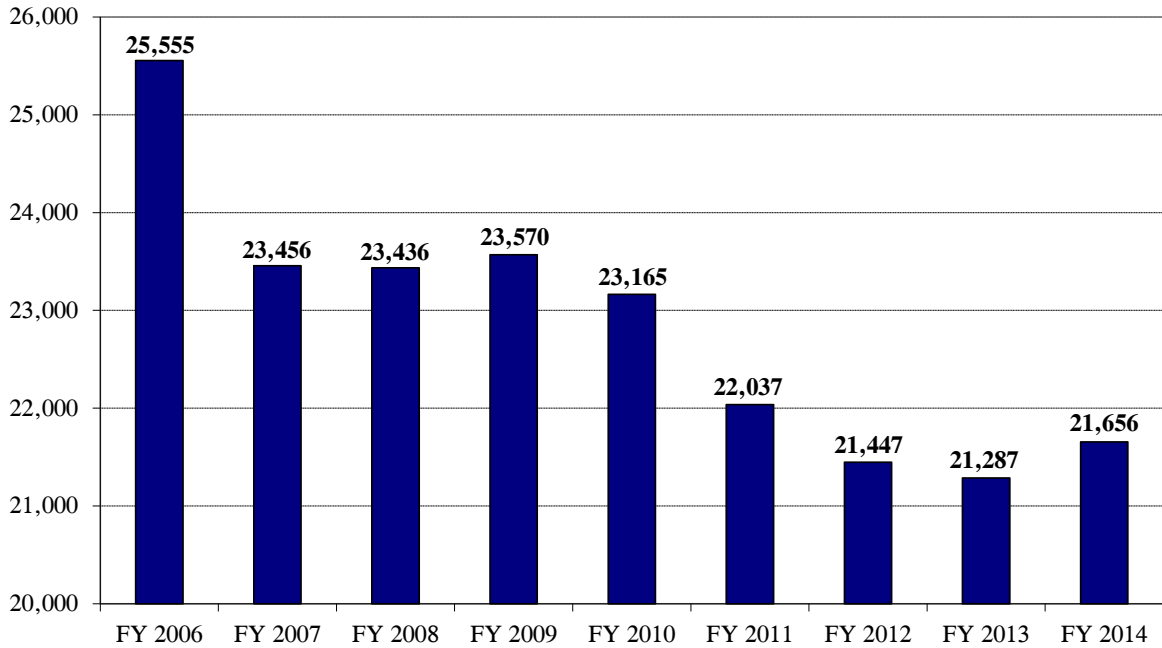
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The County levies a tax annually equal to the total amount of contributions made by employees in the calendar year two years prior to the year of the levy, multiplied by 1.54.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

**CHART 10**

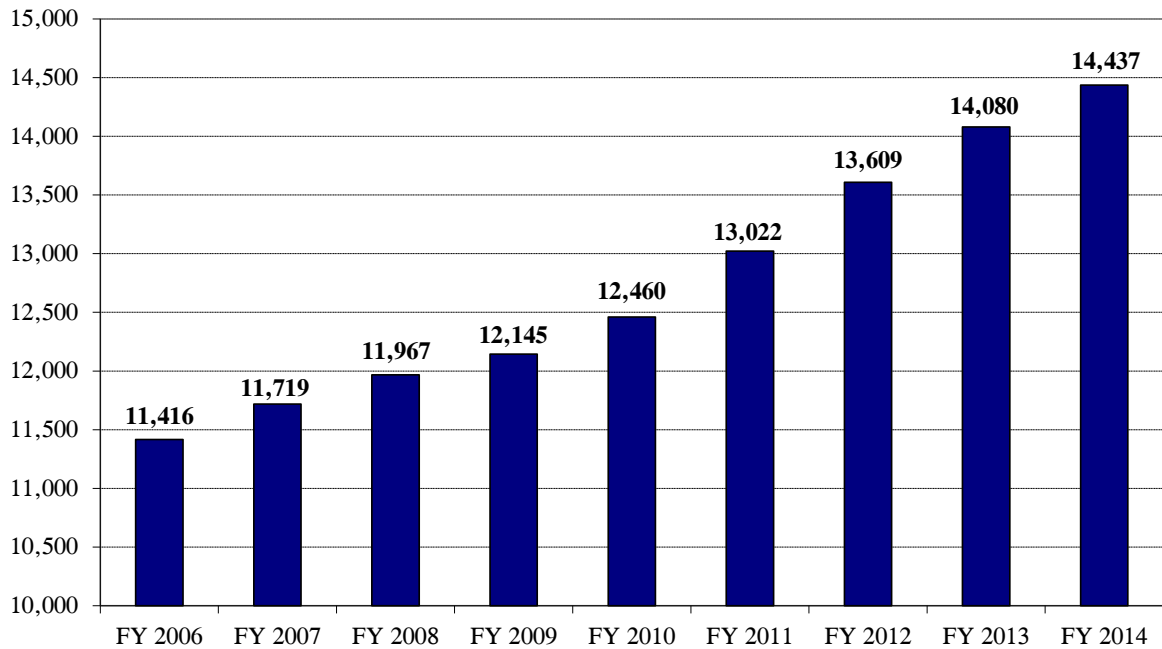
**COOK COUNTY EMPLOYEES' PENSION FUND  
Active Employees**



*NOTE: The reduction of active employees from FY 2006 to FY 2007 can be attributed to the Alternative Retirement Cancellation Payment Option offered to Cook County Employees in 2007, pursuant to P.A. 95-0369.*

**CHART 11**

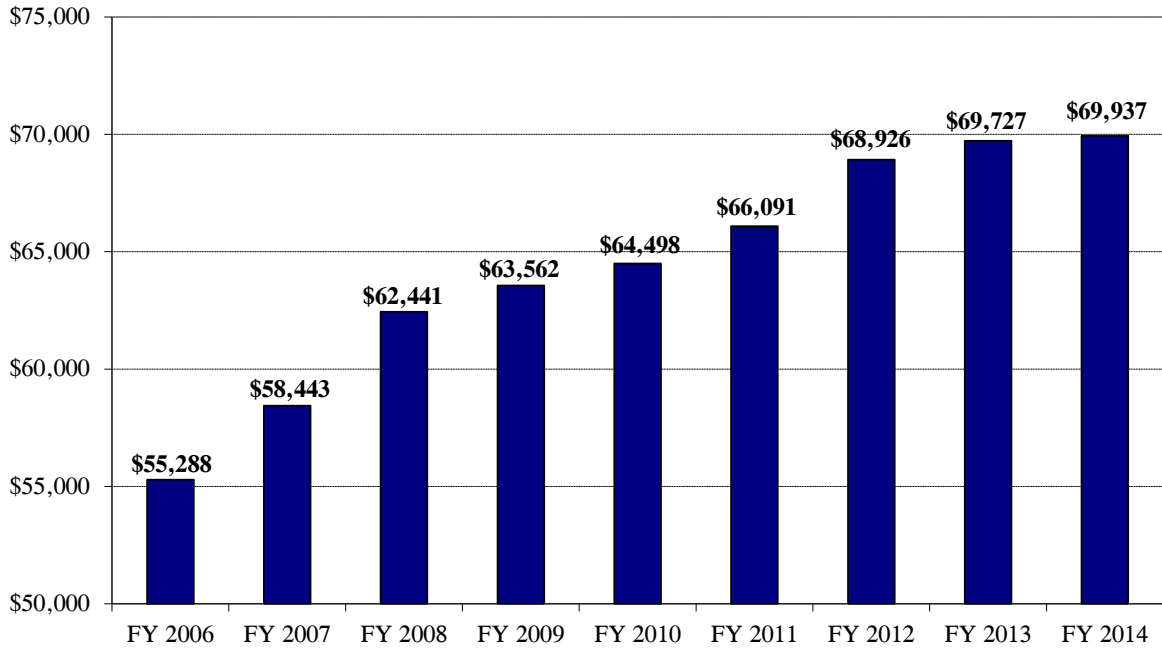
**COOK COUNTY EMPLOYEES' PENSION FUND  
Employee Annuitants**





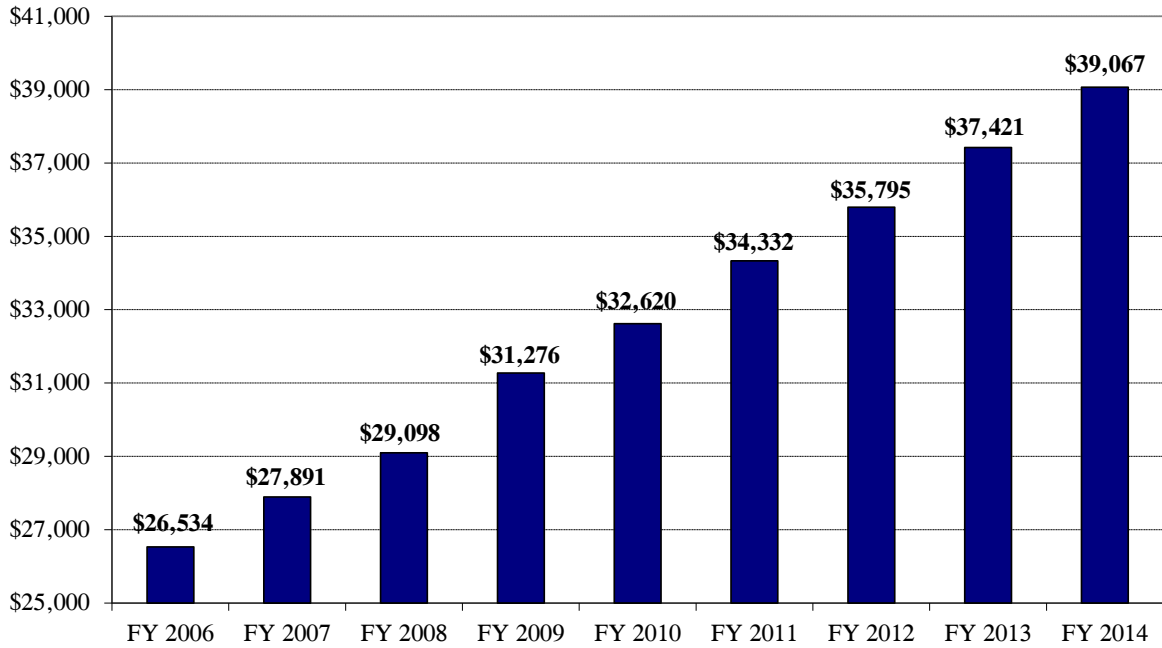
**CHART 12**

**COOK COUNTY EMPLOYEES' PENSION FUND  
Average Employee Salaries**



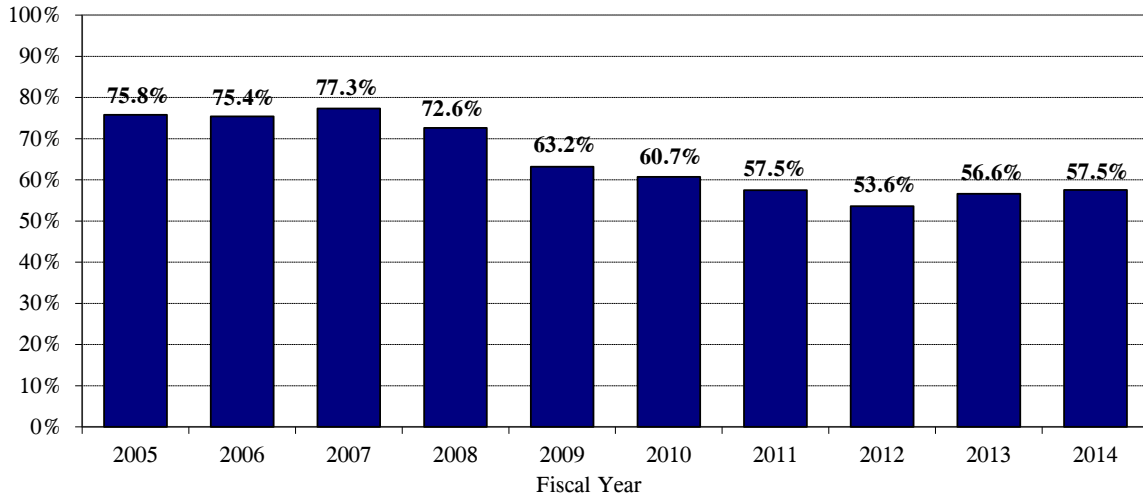
**CHART 13**

**COOK COUNTY EMPLOYEES' PENSION FUND  
Average Retirement Annuities**



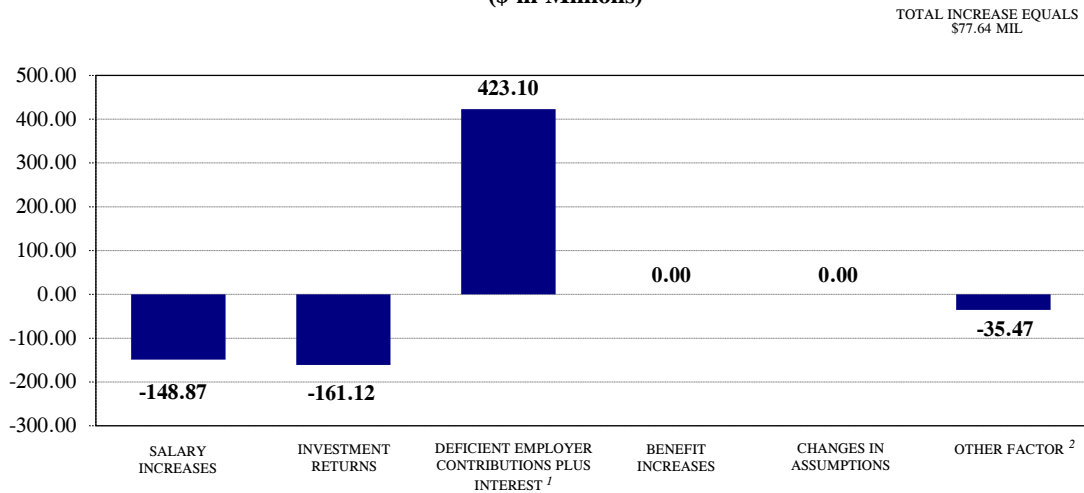
**CHART 14**

**COOK COUNTY EMPLOYEES' PENSION FUND  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 15**

**COOK COUNTY EMPLOYEES' PENSION FUND  
Change in Unfunded Liabilities  
FY 2014  
(\$ in Millions)**

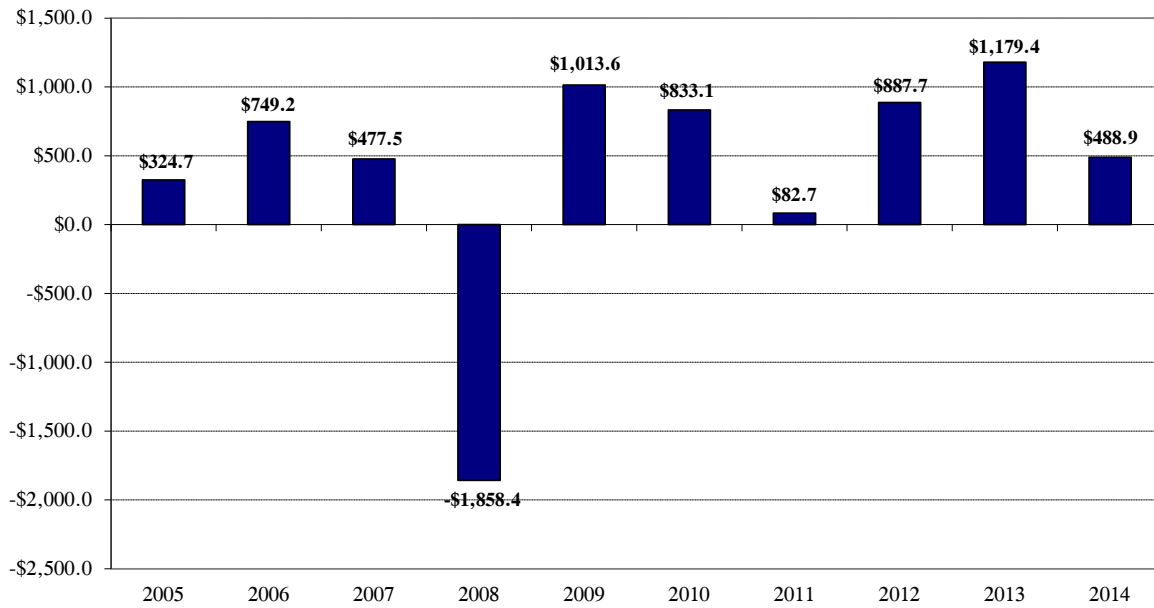


<sup>1</sup> Unfunded liability increases due to employer contribution plus interest being less than normal cost plus interest.

<sup>2</sup> Other Factors include gains resulting from retirements, terminations, and rates of mortality.

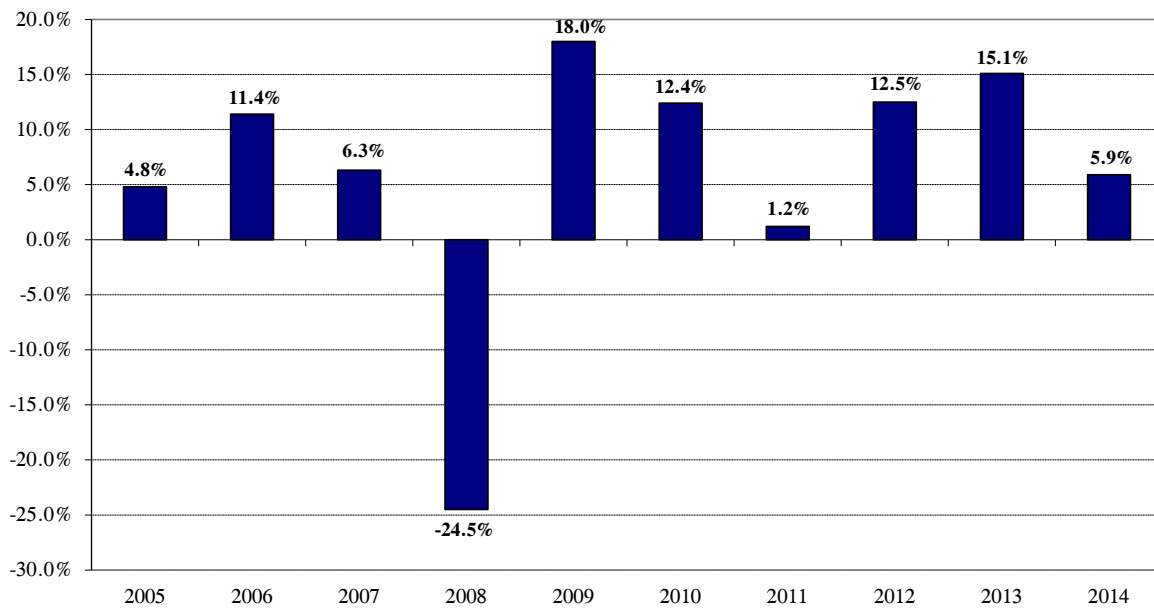
**CHART 16**

**COOK COUNTY EMPLOYEES' PENSION FUND**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.5%**  
**(\$ in Millions)**



**CHART 17**

**COOK COUNTY EMPLOYEES' PENSION FUND**  
**Rate of Return FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.5%**



**TABLE 3**

<b>COOK COUNTY EMPLOYEES' PENSION FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
Fiscal Year	Annual Payroll	Actuarial Liabilities	Actuarial Assets	Unfunded Liabilities	Funded Ratio
2014	1,514.6	14,140.6	8,810.5	5,330.0	62.3%
2013	1,484.3	13,636.6	8,381.4	5,255.1	61.5%
2012	1,478.3	14,630.3	7,833.9	6,796.4	53.6%
2011	1,456.4	13,724.0	7,897.1	5,826.9	57.5%
2010	1,494.1	13,142.1	7,982.3	5,159.8	60.7%
2009	1,498.2	12,575.5	7,945.6	4,629.9	63.2%
2008	1,463.4	11,073.2	8,036.1	3,037.1	72.6%
2007	1,370.8	10,423.7	8,059.9	2,363.8	77.3%
2006	1,412.9	9,904.6	7,462.7	2,441.9	75.4%
2005	1,387.5	9,269.9	7,027.5	2,242.4	75.8%
2004	1,371.5	9,450.8	6,700.8	2,750.0	70.9%

*NOTE: The above FY 2006 - FY 2013 figures include healthcare assets/liabilities.*

**TABLE 4**

<b>COOK COUNTY EMPLOYEES' PENSION FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	190.0	187.8	190.7	195.3	181.5	183.7	183.9	258.1	221.2
Employees	129.3	127.6	130.6	127.6	129.4	127.8	123.8	123.1	121.7
Net Investment Income	488.9	1,179.4	887.7	82.9	833.1	1,013.6	-1,858.4	477.5	749.2
Other	9.7	8.5	10.2	17.4	12.8	11.8	7.1	10.0	9.3
<b>Total Asset Additions (A)</b>	<b>818.0</b>	<b>1,503.4</b>	<b>1,219.2</b>	<b>423.2</b>	<b>1,156.8</b>	<b>1,336.9</b>	<b>-1,543.7</b>	<b>868.7</b>	<b>1,101.4</b>
<b>Deductions from Assets</b>									
Benefits	645.6	601.8	563.1	523.4	482.5	452.0	427.5	398.7	365.6
Refunds	26.347	29.873	33.1	29.1	25.0	20.4	24.7	66.6	24.9
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	5.0	4.3	4.3	4.1	4.1	4.3	4.6	4.5	4.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>677.0</b>	<b>636.0</b>	<b>600.5</b>	<b>556.6</b>	<b>511.6</b>	<b>476.7</b>	<b>456.8</b>	<b>469.8</b>	<b>394.5</b>
<b>Change in Net Assets (A-B=C)</b>	<b>141.0</b>	<b>867.4</b>	<b>618.7</b>	<b>-133.4</b>	<b>645.2</b>	<b>860.2</b>	<b>-2,000.4</b>	<b>398.9</b>	<b>706.9</b>

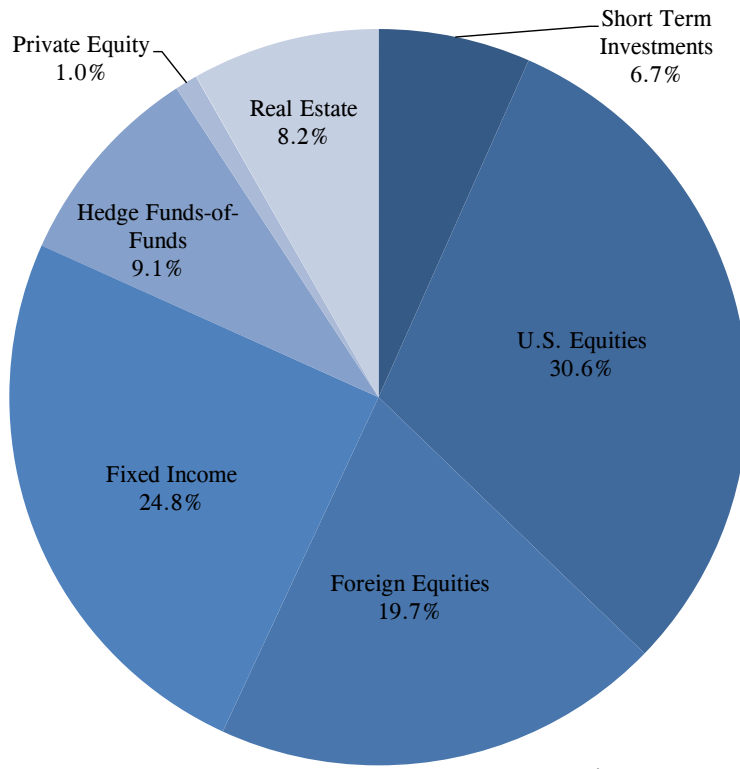
Table 5 below contains funding projections provided to CGFA by the Cook County Employees' Pension Fund based upon the December 31, 2014 actuarial valuation. As shown in the table below, under the current funding laws the Cook County Employees' Pension Fund is projected to run out of assets by 2039.

**TABLE 5**

Cook County Employees' Pension Fund Actuarial Valuation Projection Results as of December 31, 2014 (\$ in Millions)								
Fiscal Year	Capped Payroll	Total County Contribution	County Contribution As % of Payroll	Total Employee Contribution	Accrued Liability	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2015	1,488.4	194.7	13.1%	128.9	15,318.8	8,810.5	6,508.3	57.5%
2016	1,540.2	190.6	12.4%	131.1	15,987.0	9,126.2	6,860.8	57.1%
2017	1,586.6	187.9	11.8%	135.0	16,661.3	9,507.8	7,153.5	57.1%
2018	1,633.8	195.8	12.0%	139.0	17,341.9	9,791.4	7,550.5	56.5%
2019	1,679.6	201.7	12.0%	142.9	18,024.7	9,926.3	8,098.4	55.1%
2020	1,728.4	207.7	12.0%	147.1	18,702.9	10,056.5	8,646.4	53.8%
2021	1,779.8	213.5	12.0%	151.5	19,379.4	10,144.0	9,235.4	52.3%
2022	1,833.4	219.7	12.0%	156.0	20,058.0	10,189.1	9,868.9	50.8%
2023	1,884.2	226.3	12.0%	160.3	20,733.1	10,185.9	10,547.2	49.1%
2024	1,939.1	233.1	12.0%	165.0	21,402.0	10,127.3	11,274.7	47.3%
2025	1,997.3	239.5	12.0%	170.0	22,061.7	10,009.5	12,052.2	45.4%
2026	2,057.9	246.5	12.0%	175.1	22,718.7	9,829.2	12,889.5	43.3%
2027	2,120.2	253.9	12.0%	180.4	23,377.7	9,589.1	13,788.6	41.0%
2028	2,185.2	261.6	12.0%	186.0	24,033.6	9,282.0	14,751.6	38.6%
2029	2,252.0	269.5	12.0%	191.6	24,687.6	8,903.1	15,784.5	36.1%
2030	2,321.6	277.8	12.0%	197.6	25,332.9	8,442.6	16,890.3	33.3%
2031	2,395.8	286.3	12.0%	203.9	25,977.9	7,902.6	18,075.3	30.4%
2032	2,470.6	295.1	11.9%	210.3	26,625.8	7,279.8	19,346.0	27.3%
2033	2,549.7	304.6	11.9%	217.0	27,265.8	6,559.1	20,706.7	24.1%
2034	2,629.8	314.1	11.9%	223.8	27,904.5	5,740.0	22,164.5	20.6%
2035	2,712.5	324.1	11.9%	230.8	28,535.1	4,809.8	23,725.3	16.9%
2036	2,799.6	334.3	11.9%	238.2	29,167.1	3,770.1	25,397.0	12.9%
2037	2,886.9	344.8	11.9%	245.7	29,804.6	2,616.4	27,188.2	8.8%
2038	2,976.1	355.9	12.0%	253.3	30,438.2	1,331.8	29,106.4	4.4%
<b>2039</b>	<b>3,064.9</b>	<b>367.0</b>	<b>12.0%</b>	<b>260.8</b>	<b>31,076.9</b>	<b>-84.7</b>	<b>31,161.6</b>	<b>-0.3%</b>
2040	3,154.6	378.3	12.0%	268.5	31,713.4	-1,649.9	33,363.3	-5.2%
2041	3,244.9	389.6	12.0%	276.1	32,359.4	-3,363.5	35,722.9	-10.4%
2042	3,332.8	401.0	12.0%	283.6	33,014.5	-5,237.9	38,252.4	-15.9%
2043	3,422.2	412.5	12.1%	291.2	33,675.9	-7,288.7	40,964.6	-21.6%
2044	3,510.8	423.7	12.1%	298.8	34,351.3	-9,522.0	43,873.3	-27.7%
2045	3,599.2	435.0	12.1%	306.3	35,042.3	-11,951.3	46,993.6	-34.1%
2046	3,686.9	446.3	12.1%	313.8	35,755.5	-14,586.5	50,342.0	-40.8%
2047	3,772.5	457.5	12.1%	321.0	36,485.1	-17,450.9	53,936.0	-47.8%
2048	3,858.9	468.7	12.1%	328.4	37,233.1	-20,561.8	57,794.9	-55.2%
2049	3,944.1	479.6	12.2%	335.6	38,003.1	-23,935.8	61,938.9	-63.0%
2050	4,028.6	490.6	12.2%	342.8	38,792.1	-27,598.3	66,390.4	-71.1%
2051	4,113.4	501.4	12.2%	350.0	39,605.2	-31,567.9	71,173.1	-79.7%
2052	4,197.5	512.1	12.2%	357.2	40,432.2	-35,880.1	76,312.3	-88.7%
2053	4,282.6	522.9	12.2%	364.4	41,278.1	-40,557.7	81,835.8	-98.3%
2054	4,368.0	533.6	12.2%	371.7	42,143.8	-45,629.2	87,773.0	-108.3%

**CHART 18**

**COOK COUNTY EMPLOYEES' PENSION FUND ASSET ALLOCATION AS OF DECEMBER 2014**



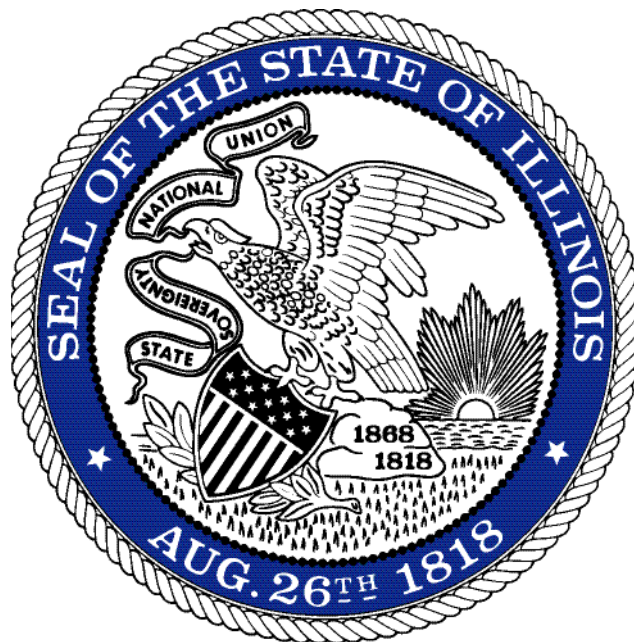
Total investment at fair value is \$8.8B





## IV. Cook County Forest Preserve Employees' Pension Fund

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections



**Note:** All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.



# Cook County Forest Preserve Employees' Pension Fund Tier 1 Plan Summary

---

## Retirement Age

---

- Age 50 with 10 years of service.

## Retirement Formula

---

- 2.4% of final average salary for each year of service.

## Maximum Annuity

---

- 80% of final average salary.

## Salary Used to Calculate Pension

---

- Highest average monthly salary for any 48 consecutive months within the final 10 years of service.

## Annual COLA

---

- 3% compounded.

## Employee Contributions

---

- 8.5% of salary.

## Employer Contributions

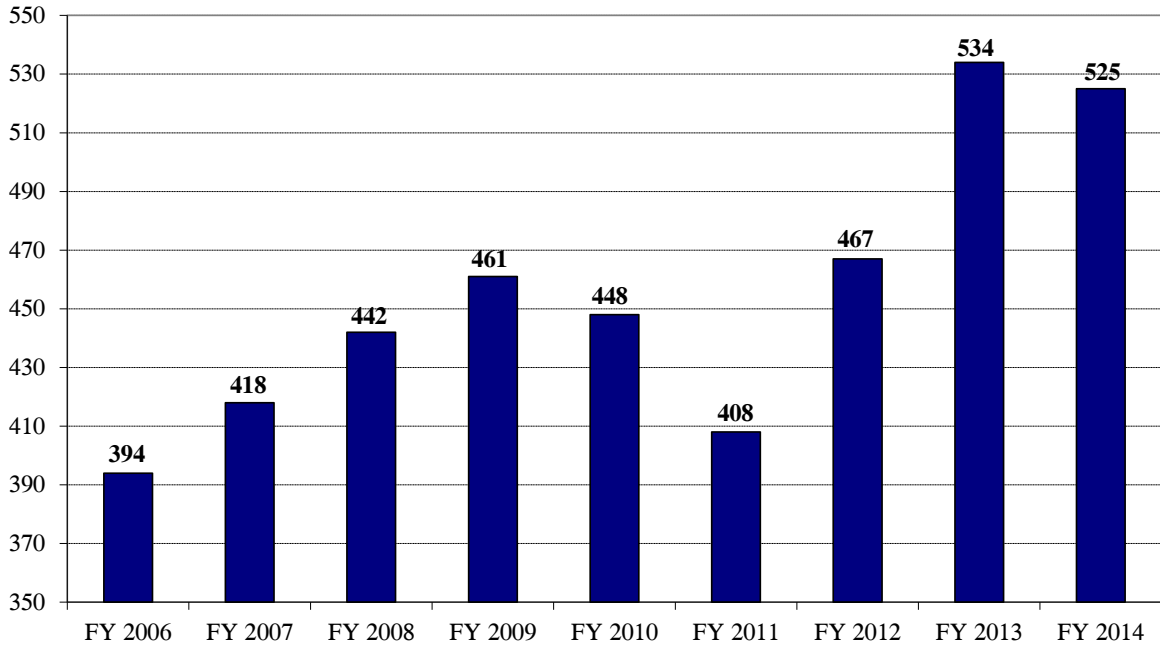
---

The Forest Preserve District levies a tax annually equal to the total amount of contributions made by employees in the calendar year two years prior to the year of the levy, multiplied by 1.30.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

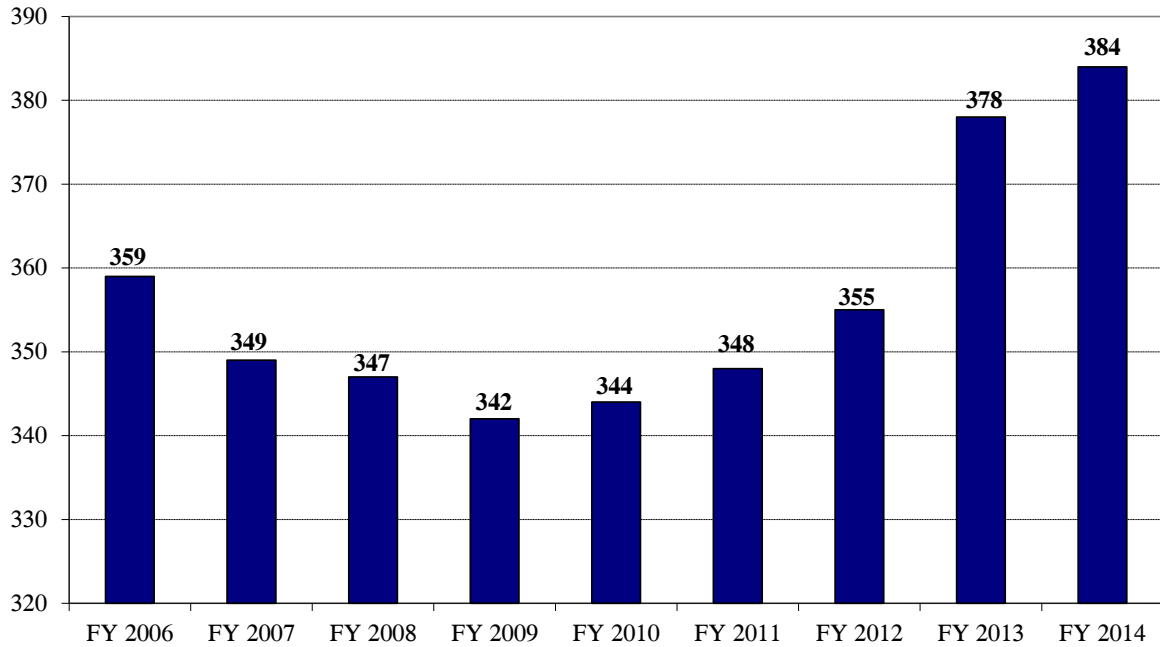
**CHART 19**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Active Employees**



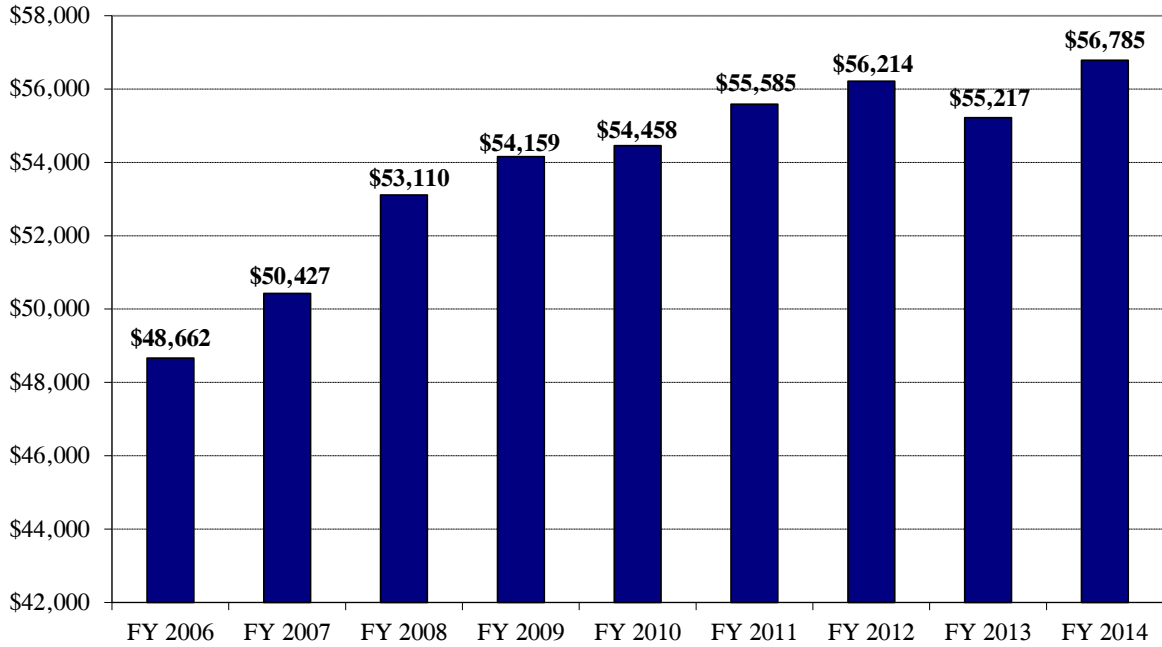
**CHART 20**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Employee Annuitants**



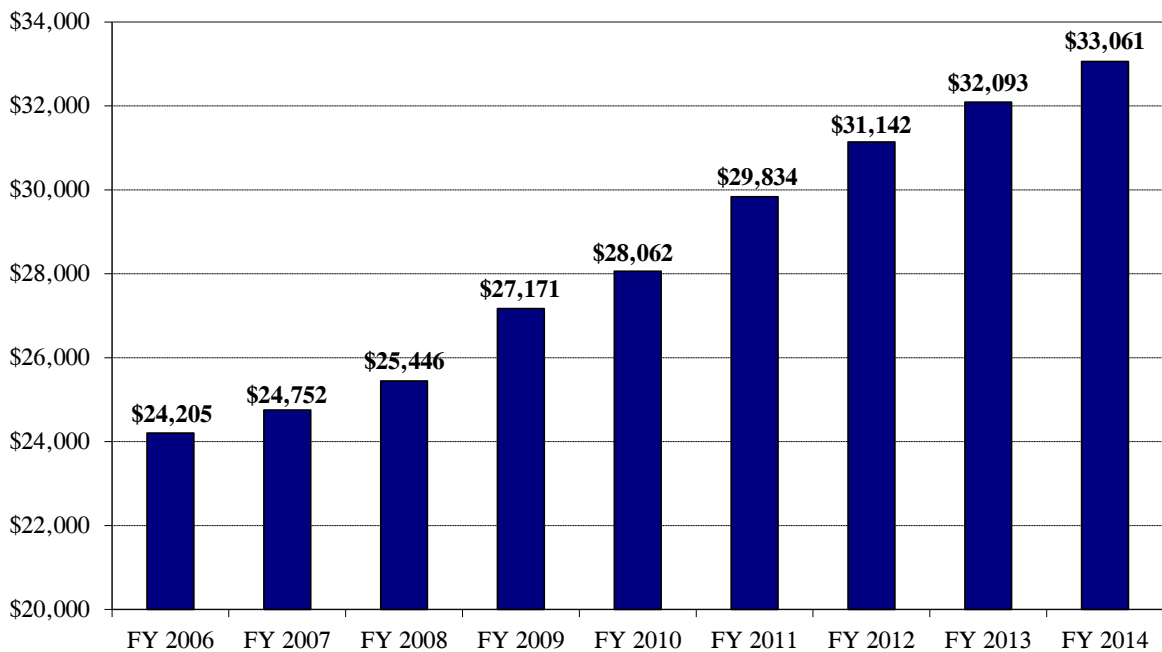
**CHART 21**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Average Employee Salaries**



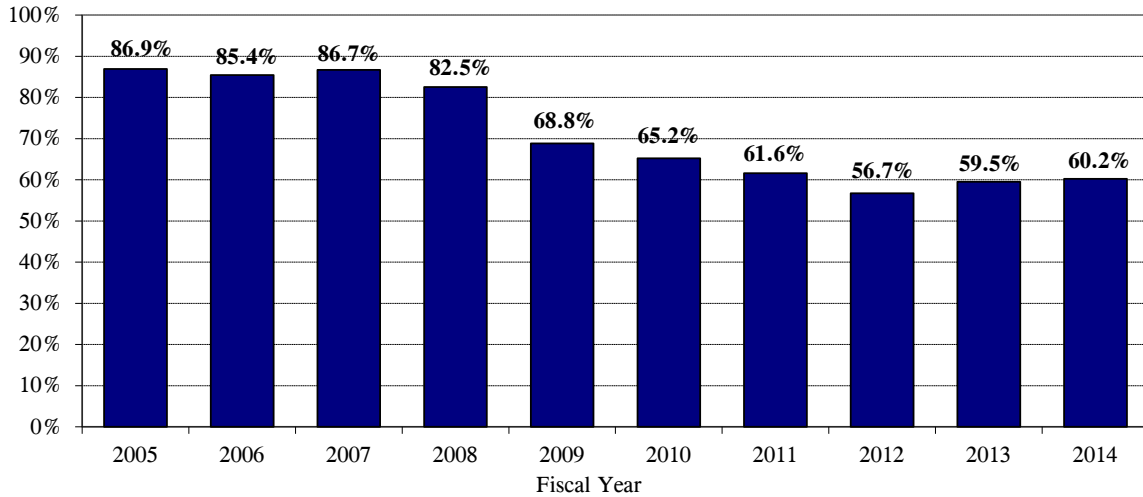
**CHART 22**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Average Retirement Annuities**



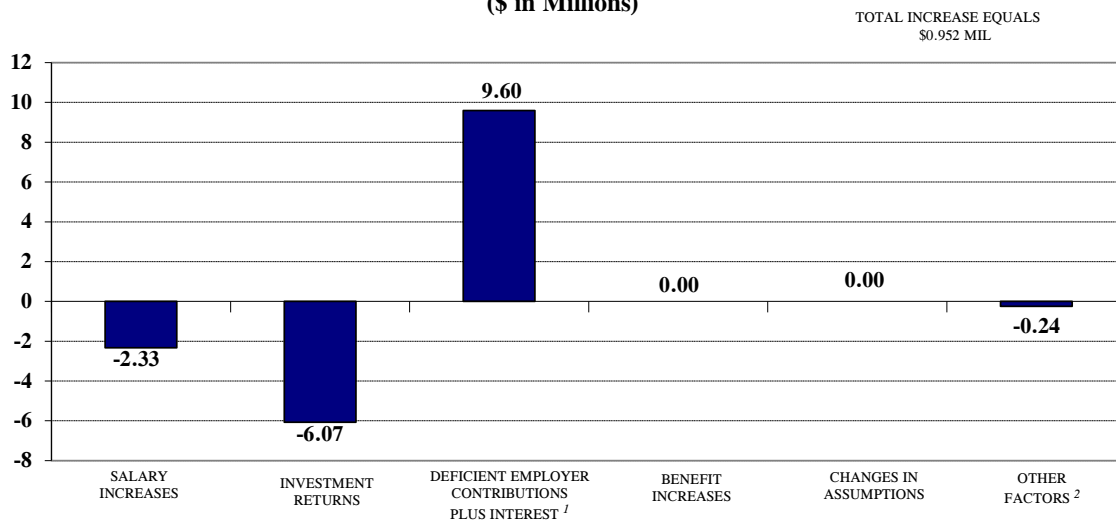
**CHART 23**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 24**

**COOK COUNTY FOREST PRESERVE PENSION FUND  
Change in Unfunded Liabilities  
FY 2014  
(\$ in Millions)**

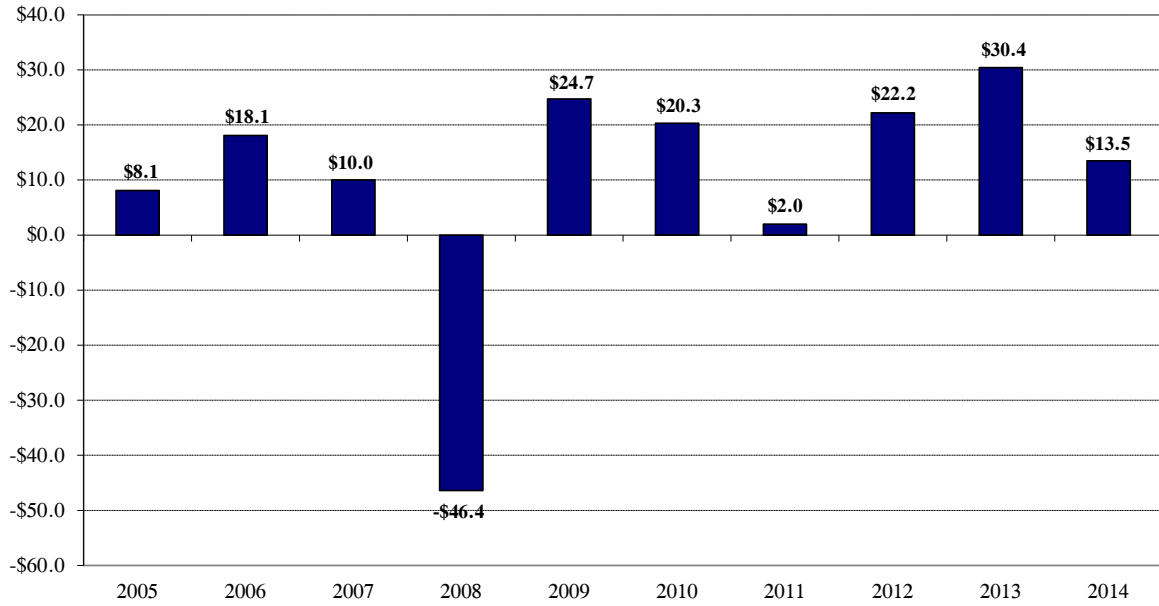


<sup>1</sup> It is calculated from the sum of the difference between normal cost and employer contributions and interest cost.

<sup>2</sup> Other Factors include losses resulting from retirements, terminations, and rates of mortality.

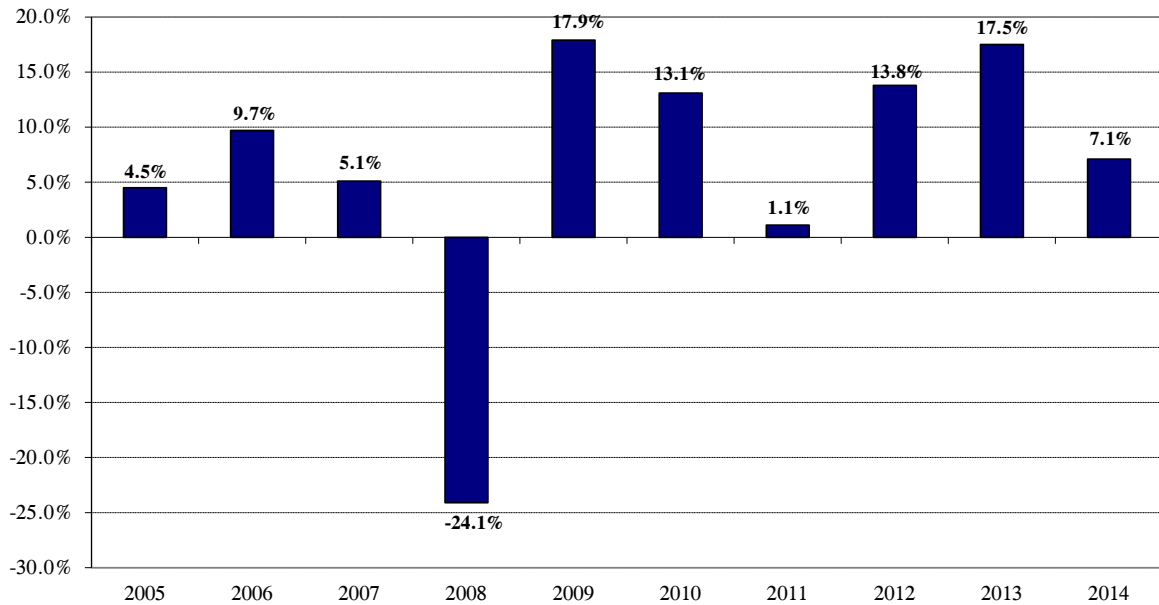
**CHART 25**

**COOK COUNTY FOREST PRESERVE PENSION FUND**  
**Investment Income FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return: 7.5%  
 (\$ in Millions)



**CHART 26**

**COOK COUNTY FOREST PRESERVE PENSION FUND**  
**Rate of Return FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return: 7.5%



**TABLE 6**

<b>COOK COUNTY FOREST PRESERVE PENSION FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	29.7	315.2	189.9	125.3	60.2%
2013	26.3	306.9	182.6	124.4	59.5%
2012	26.3	304.5	172.6	131.9	56.7%
2011	22.7	289.3	178.1	111.2	61.6%
2010	24.4	282.4	184.1	98.3	65.2%
2009	25.0	274.0	188.4	85.6	68.8%
2008	23.5	237.9	196.3	41.6	82.5%
2007	21.1	234.1	203.0	31.1	86.7%
2006	19.2	226.6	193.5	33.1	85.4%
2005	18.1	217.6	189.1	28.5	86.9%
2004	16.6	245.3	186.6	58.7	76.1%

*NOTE: The above FY 2004 - FY 2012 figures include healthcare assets/liabilities.*



**TABLE 7**

<b>COOK COUNTY FOREST PRESERVE PENSION FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
Fiscal Years	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Additions to Assets</b>									
Employer	3.1	2.9	3.1	3.3	2.7	2.6	2.0	3.3	2.7
Employees	2.6	2.7	2.5	2.3	2.4	2.4	2.1	2.0	1.7
Net Investment Income	13.5	30.4	22.2	2.0	20.3	24.7	-46.4	10.0	18.1
Other	0.2	0.2	0.2	0.5	0.2	0.2	0.1	0.2	0.2
<b>Total Asset Additions (A)</b>	<b>19.5</b>	<b>36.1</b>	<b>28.0</b>	<b>8.1</b>	<b>25.6</b>	<b>29.9</b>	<b>-42.1</b>	<b>15.5</b>	<b>22.7</b>
<b>Deductions from Assets</b>									
Benefits	16.7	15.7	14.2	13.6	13.0	12.4	12.2	11.9	11.5
Refunds	1.0	1.0	1.2	0.6	0.4	0.5	0.5	0.5	0.4
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other	0.2	-0.1	0.2	-0.3	0.3	0.1	-0.1	0.1	0.3
<b>Total Asset Deductions (B)</b>	<b>17.9</b>	<b>16.6</b>	<b>15.7</b>	<b>14.0</b>	<b>13.8</b>	<b>13.1</b>	<b>12.7</b>	<b>12.6</b>	<b>12.3</b>
<b>Change in Net Assets (A-B=C)</b>	<b>1.6</b>	<b>19.5</b>	<b>12.3</b>	<b>-5.9</b>	<b>11.8</b>	<b>16.8</b>	<b>-54.8</b>	<b>2.9</b>	<b>10.4</b>

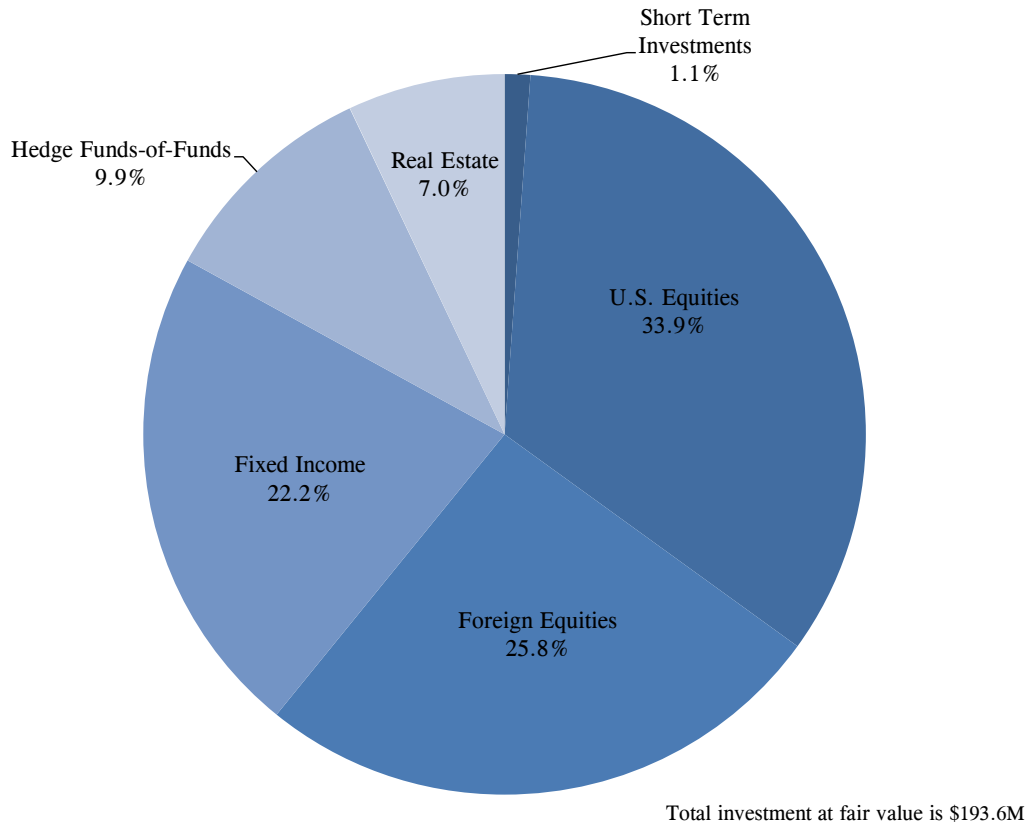
Table 8 below contains funding projections provided to CGFA by the Cook County Forest Preserve Pension Fund based upon the December 31, 2014 actuarial valuation. As shown in the table below, under the current funding laws the Cook County Forest Preserve Pension Fund is projected to run out of assets by 2037.

**TABLE 8**

Cook County Forest Preserve Pension Fund Actuarial Valuation Projection Results as of December 31, 2014 (\$ in Millions)								
Fiscal Year	Capped Payroll	Total County Contribution	County Contribution As % of Payroll	Total Employee Contribution	Accrued Liability	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2015	29.7	3.2	10.8%	2.4	315.2	189.9	125.3	60.2%
2016	30.8	3.5	11.4%	2.6	325.7	194.8	130.9	59.8%
2017	31.9	2.8	8.8%	2.7	336.5	201.6	134.9	59.9%
2018	33.0	3.3	10.0%	2.8	347.5	205.1	142.4	59.0%
2019	34.2	3.4	9.9%	2.9	358.5	204.8	153.7	57.1%
2020	35.3	3.5	9.9%	3.0	369.6	203.9	165.7	55.2%
2021	36.4	3.7	10.2%	3.1	380.8	202.2	178.6	53.1%
2022	37.7	3.8	10.1%	3.2	392.1	199.5	192.6	50.9%
2023	38.9	3.9	10.0%	3.3	403.4	195.9	207.5	48.6%
2024	40.0	4.0	10.0%	3.4	414.7	191.1	223.6	46.1%
2025	41.2	4.2	10.2%	3.5	426.0	185.2	240.8	43.5%
2026	42.5	4.3	10.1%	3.6	437.5	178.2	259.3	40.7%
2027	43.8	4.4	10.0%	3.7	449.1	169.8	279.3	37.8%
2028	45.1	4.6	10.2%	3.8	460.8	160.0	300.8	34.7%
2029	46.6	4.7	10.1%	4.0	472.8	148.9	323.9	31.5%
2030	48.0	4.8	10.0%	4.1	484.9	136.2	348.7	28.1%
2031	49.6	5.0	10.1%	4.2	497.3	121.9	375.4	24.5%
2032	51.1	5.2	10.2%	4.3	510.0	105.9	404.1	20.8%
2033	52.7	5.3	10.1%	4.5	523.0	88.1	434.9	16.8%
2034	54.4	5.5	10.1%	4.6	536.4	68.5	467.9	12.8%
2035	56.1	5.7	10.2%	4.8	550.3	46.9	503.4	8.5%
2036	57.9	5.8	10.0%	4.9	564.6	23.3	541.3	4.1%
<b>2037</b>	<b>59.7</b>	<b>6.0</b>	<b>10.1%</b>	<b>5.1</b>	<b>579.4</b>	<b>-2.9</b>	<b>582.3</b>	<b>-0.5%</b>
2038	61.6	6.2	10.1%	5.2	594.7	-31.6	626.3	-5.3%
2039	63.5	6.4	10.1%	5.4	610.3	-63.2	673.5	-10.4%
2040	65.5	6.6	10.1%	5.6	626.3	-98.0	724.3	-15.6%
2041	67.6	6.8	10.1%	5.8	642.6	-136.2	778.8	-21.2%
2042	69.7	7.0	10.0%	5.9	659.5	-177.8	837.3	-27.0%
2043	72.0	7.3	10.1%	6.1	676.7	-223.6	900.3	-33.0%

**CHART 27**

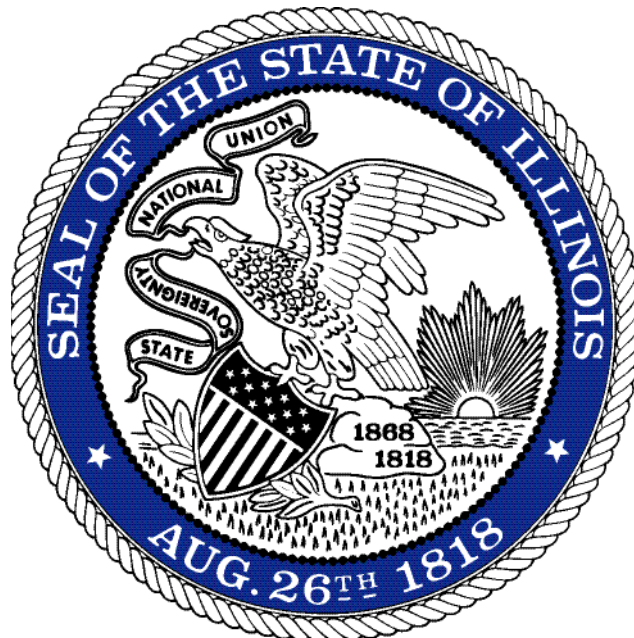
**COOK COUNTY FOREST PRESERVE EMPLOYEES' PENSION  
FUND ASSET ALLOCATION AS OF DECEMBER 2014**





## V. Firemen's Annuity and Benefit Fund of Chicago

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections
- Normal Cost Projections



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# Firemen's Annuity and Benefit Fund of Chicago

## Tier 1 Plan Summary

---

### Retirement Age

---

- Age 50 with 20 years of service.
- Age 50 with 10 years of service (accumulated annuity).

### Retirement Formula

---

- For employees with 20 or more years of service, 50% of final average salary plus 2.5% of final average salary for each year in excess of 20.

### Maximum Annuity

---

- 75% of final average salary.

### Salary Used to Calculate Pension

---

- Average of 4 highest consecutive years within final 10 years of service.

### Annual COLA

---

- 3% non-compounded with no limit at age 60, or age 55 if born before 1/1/55.
- 1.5% non-compounded if born after 1/1/55 with 30% maximum.

### Employee Contributions

---

- 9.125% of salary.

### Required Employer Contributions

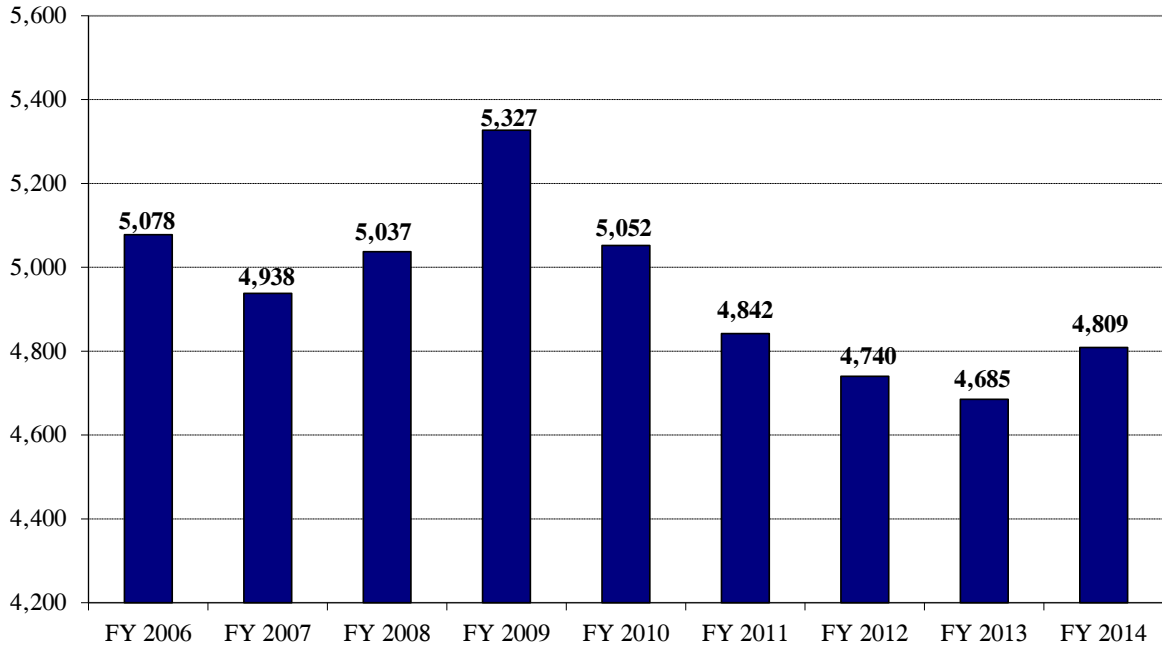
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Pursuant to P.A. 96-1495, annual actuarially determined employer contributions will be calculated and required. Such actuarially determined contributions will be established with a funding goal of 90% by the end of FY 2040, based upon the actuarial value of fund assets and application of required actuarial assumptions and methodologies. Failure of the employer to remit the required contributions can result in withholding of certain grants owed by the State of Illinois.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date for P.A. 96-1495. See P.A. 96-1495 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

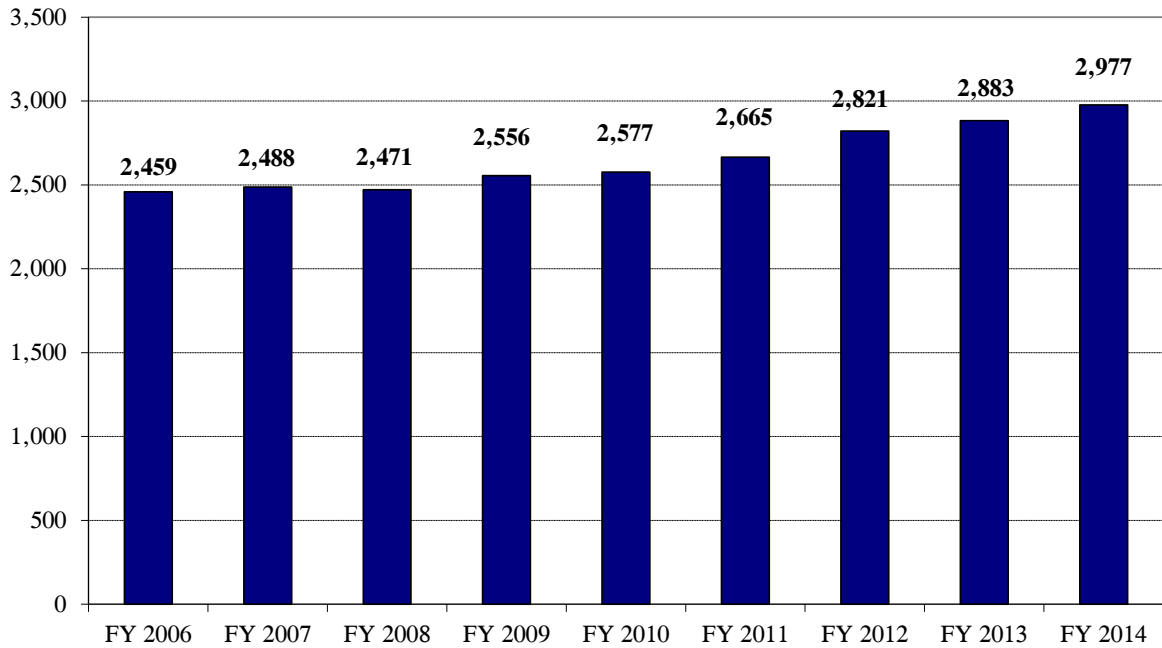
**CHART 28**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO  
Active Employees**



**CHART 29**

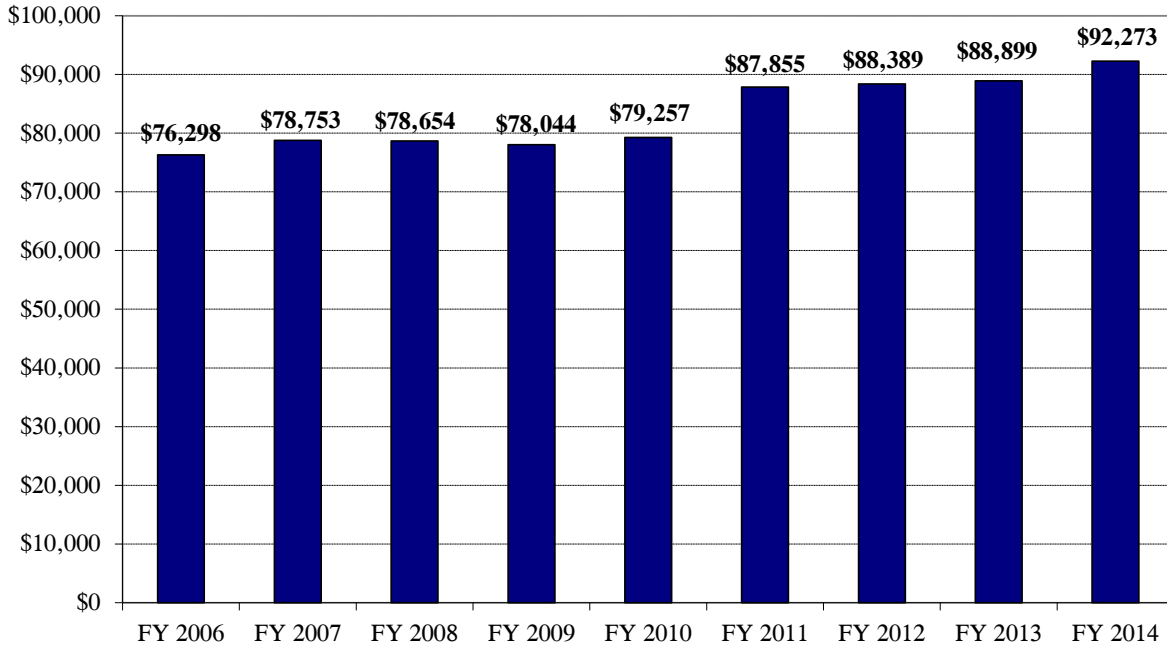
**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO  
Employee Annuitants**





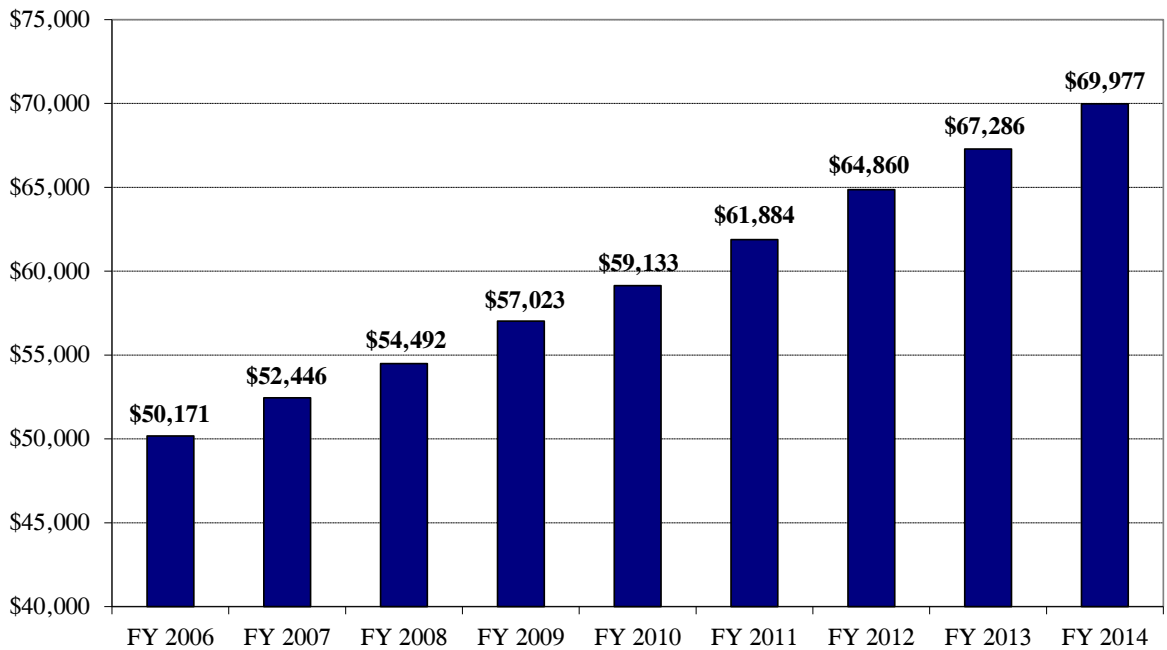
**CHART 30**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO**  
**Average Employee Salaries**



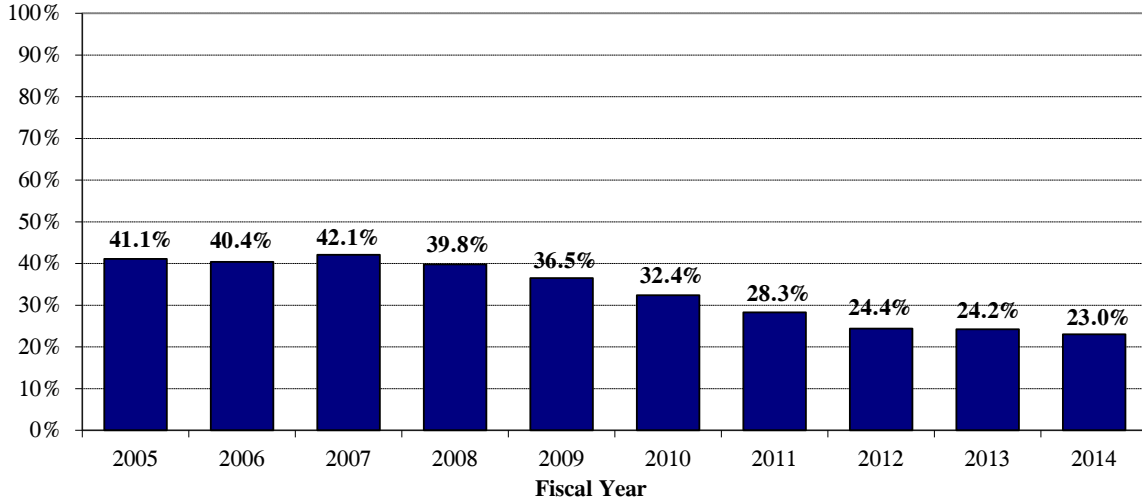
**CHART 31**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO**  
**Average Retirement Annuity**



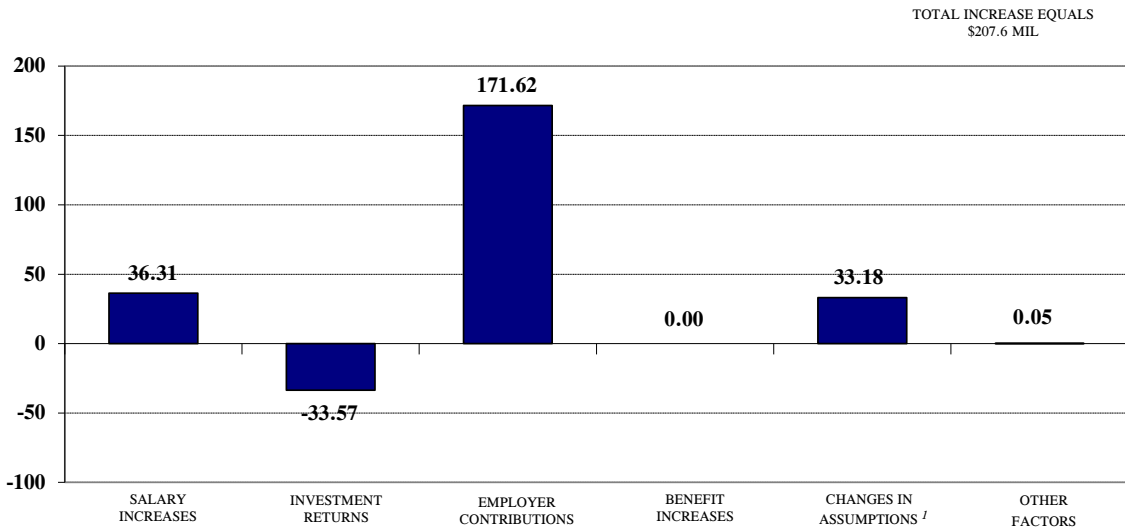
**CHART 32**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 33**

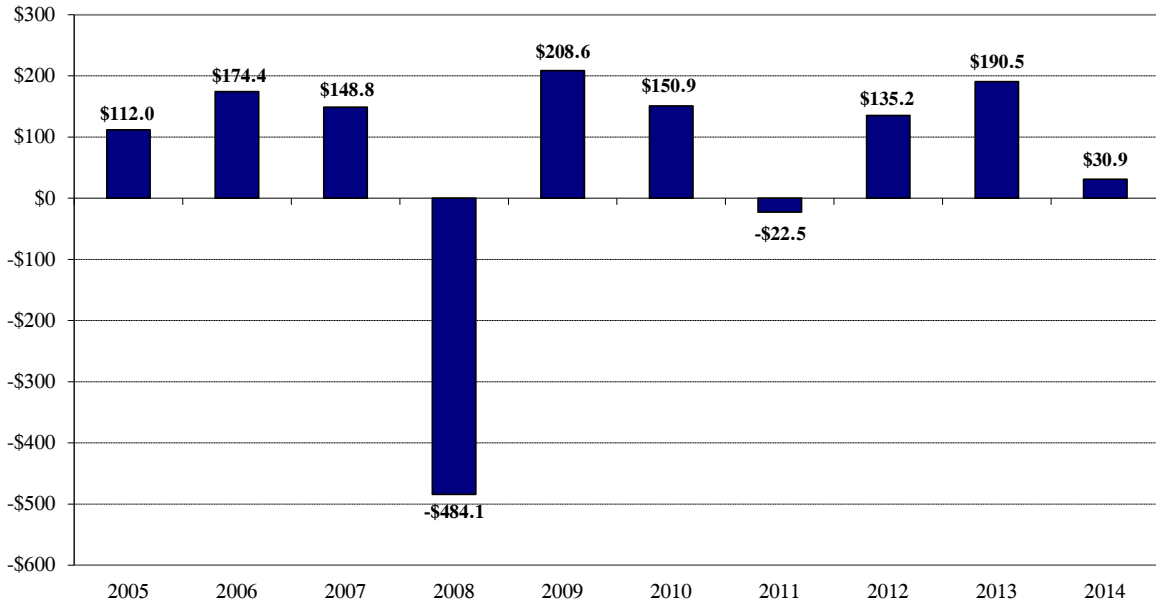
**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO  
Change in Unfunded Liabilities  
FY 2014  
(\$ in Millions)**



<sup>1</sup> Changes in Assumptions are based on an actuarial experience study that covered the period 2003-2010, in which the pension fund adopted new assumptions which included mortality tables, rates of retirement, and other Demographic Assumptions.

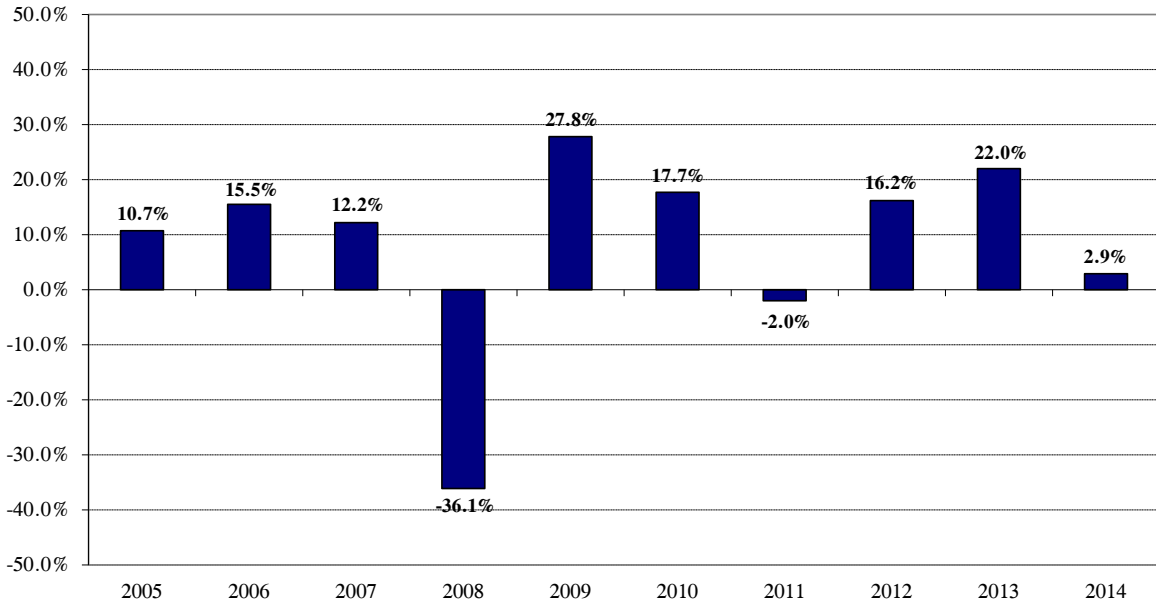
**CHART 34**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 8.00%**  
**(\$ in Millions)**



**CHART 35**

**FIREMEN'S ANNUITY & BENEFIT FUND OF CHICAGO**  
**Rate of Return Earned FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 8.00%**



**TABLE 9**

<b>FIREMEN'S ANNUITY &amp; BENEFIT FUND OF CHICAGO</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	460.2	4,343.6	988.1	3,355.5	23.0%
2013	416.5	4,136.4	991.2	3,145.2	24.2%
2012	419.0	4,066.3	993.3	3,073.0	24.4%
2011	425.4	3,898.9	1,101.7	2,797.2	28.3%
2010	400.4	3,703.2	1,198.1	2,505.1	32.4%
2009	400.9	3,476.8	1,269.2	2,207.6	36.5%
2008	396.2	3,338.6	1,335.7	2,002.9	39.8%
2007	389.1	3,263.0	1,375.0	1,888.0	42.1%
2006	387.4	3,133.1	1,264.5	1,868.6	40.4%
2005	341.3	2,927.2	1,203.7	1,723.5	41.1%
2004	334.4	2,793.5	1,182.6	1,610.9	42.3%

*NOTE: The above FY 2004 - FY 2014 figures include healthcare assets/liabilities.*

**TABLE 10**

<b>FIREMEN'S ANNUITY &amp; BENEFIT FUND OF CHICAGO</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	109.8	106.2	84.1	85.5	83.6	91.8	83.7	74.3	79.0
Employees	48.1	42.5	53.3	51.9	41.7	41.6	40.5	41.1	44.2
Net Investment Income	30.9	190.5	135.2	-22.4	150.9	208.6	-484.1	148.8	174.4
Other	0.0	-0.1	3.5	0.0	0.0	0.0	0.1	0.2	0.1
<b>Total Asset Additions (A)</b>	<b>188.7</b>	<b>339.2</b>	<b>276.1</b>	<b>115.0</b>	<b>276.2</b>	<b>342.0</b>	<b>-359.8</b>	<b>264.4</b>	<b>297.7</b>
<b>Deductions from Assets</b>									
Benefits	264.0	249.6	231.2	221.5	215.8	199.0	190.0	181.6	176.6
Refunds	2.3	2.2	2.6	2.1	1.8	2.1	2.7	1.7	1.6
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	3.1	3.1	2.5	2.5	3.1	3.0	2.9	3.1	2.7
Other	0.0	0.0	1.1	1.2	1.1	0.4	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>269.4</b>	<b>254.9</b>	<b>237.4</b>	<b>227.3</b>	<b>221.8</b>	<b>204.5</b>	<b>195.6</b>	<b>186.4</b>	<b>180.9</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-80.7</b>	<b>84.3</b>	<b>38.7</b>	<b>-112.3</b>	<b>54.4</b>	<b>137.5</b>	<b>-555.4</b>	<b>78.0</b>	<b>116.8</b>

Table 11 below contains funding projections provided to CGFA by the Fireman’s Annuity and Benefit Fund of Chicago based upon the December 31, 2014 actuarial valuation.

**TABLE 11**

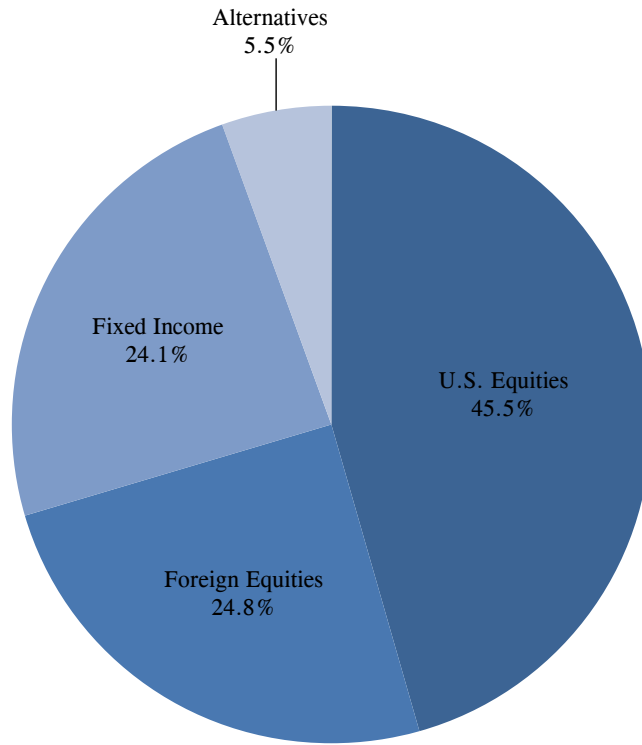
Firemen's Annuity and Benefit Fund of Chicago Actuarial Valuation Projection Results as of December 31, 2014 (\$ in Millions)								
Fiscal Year	Capped Payroll	Total City Contribution	Total City Contribution As % of Payroll	Total Employee Contribution	Accrued Liability	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	428.8	109.8	25.6%	48.1	4,293.7	988.1	3,305.6	23.0%
2015	474.3	246.1	51.9%	43.0	4,434.9	1,085.1	3,349.8	24.5%
2016	488.2	284.1	58.2%	46.4	4,577.3	1,216.4	3,360.9	26.6%
2017	502.5	292.4	58.2%	47.8	4,722.3	1,342.5	3,379.8	28.4%
2018	518.5	301.8	58.2%	49.2	4,866.7	1,451.7	3,415.0	29.8%
2019	534.8	311.2	58.2%	50.8	5,009.7	1,577.2	3,432.5	31.5%
2020	551.5	321.0	58.2%	52.4	5,150.4	1,708.4	3,442.0	33.2%
2021	568.0	330.5	58.2%	54.0	5,288.6	1,845.6	3,443.0	34.9%
2022	585.2	340.5	58.2%	55.6	5,423.5	1,989.1	3,434.4	36.7%
2023	604.6	351.9	58.2%	57.3	5,555.2	2,141.2	3,414.0	38.5%
2024	624.2	363.2	58.2%	59.2	5,682.4	2,301.9	3,380.4	40.5%
2025	643.7	374.6	58.2%	61.1	5,804.3	2,471.6	3,332.7	42.6%
2026	662.7	385.6	58.2%	62.9	5,921.0	2,650.8	3,270.1	44.8%
2027	679.8	395.6	58.2%	64.6	6,033.7	2,840.7	3,193.1	47.1%
2028	696.8	405.5	58.2%	66.1	6,144.2	3,043.4	3,100.8	49.5%
2029	711.7	414.1	58.2%	67.6	6,253.4	3,259.9	2,993.6	52.1%
2030	721.9	421.8	58.4%	68.9	6,362.3	3,491.0	2,871.3	54.9%
2031	734.7	427.6	58.2%	70.0	6,469.1	3,734.5	2,734.6	57.7%
2032	743.9	432.9	58.2%	70.9	6,573.9	3,990.8	2,583.1	60.7%
2033	753.0	438.2	58.2%	71.8	6,676.8	4,261.1	2,415.7	63.8%
2034	760.2	442.4	58.2%	72.5	6,777.4	4,545.0	2,232.4	67.1%
2035	767.0	446.4	58.2%	73.2	6,877.2	4,844.5	2,032.7	70.4%
2036	773.3	450.0	58.2%	73.7	6,976.6	5,160.9	1,815.7	74.0%
2037	780.5	454.2	58.2%	74.3	7,077.7	5,498.0	1,579.7	77.7%
2038	788.3	458.7	58.2%	74.9	7,181.4	5,858.4	1,323.0	81.6%
2039	796.5	463.5	58.2%	75.6	7,288.8	6,244.9	1,043.8	85.7%
2040	805.3	468.6	58.2%	76.4	7,401.5	6,661.4	740.2	90.0%
2041	813.4	473.5	58.2%	77.2	7,518.6	7,078.7	439.9	95.0%

**TABLE 12**

<b>Firemen's Annuity and Benefit Fund of Chicago Projected Normal Cost as of December 31, 2014 (\$ in Millions)</b>						
<b>Fiscal Year</b>	<b>Employer's Normal Cost</b>	<b>Employer's Normal Cost as a % of Payroll</b>	<b>Employee Contributions</b>	<b>Employee Contributions as a % of Payroll</b>	<b>Total Normal Cost</b>	<b>Total Normal Cost as a % of Payroll</b>
2014	30.5	7.1%	48.1	11.2%	78.6	18.3%
2015	40.6	8.6%	43.0	9.1%	83.6	17.6%
2016	39.2	8.0%	46.4	9.5%	85.6	17.5%
2017	39.7	7.9%	47.8	9.5%	87.5	17.4%
2018	40.1	7.7%	49.2	9.5%	89.3	17.2%
2019	40.2	7.5%	50.8	9.5%	91.0	17.0%
2020	40.3	7.3%	52.4	9.5%	92.7	16.8%
2021	40.3	7.0%	54.0	9.4%	94.2	16.3%
2022	40.2	6.9%	55.6	9.5%	95.8	16.4%
2023	40.0	6.6%	57.3	9.5%	97.3	16.1%
2024	39.5	6.3%	59.2	9.5%	98.7	15.8%
2025	39.0	6.1%	61.1	9.5%	100.0	15.5%
2026	38.6	5.8%	62.9	9.5%	101.5	15.3%
2027	38.6	5.7%	64.6	9.5%	103.2	15.2%
2028	39.0	5.6%	66.1	9.5%	105.1	15.1%
2029	39.6	5.6%	67.6	9.5%	107.2	15.1%
2030	40.4	5.6%	68.9	9.5%	109.3	15.1%
2031	41.1	5.6%	70.0	9.5%	111.1	15.1%
2032	42.1	5.7%	70.9	9.5%	113.0	15.2%
2033	43.2	5.7%	71.8	9.5%	115.0	15.3%
2034	44.6	5.9%	72.5	9.5%	117.1	15.4%
2035	46.3	6.0%	73.2	9.5%	119.5	15.6%
2036	48.2	6.2%	73.7	9.5%	121.9	15.8%
2037	50.4	6.5%	74.3	9.5%	124.7	16.0%
2038	52.6	6.7%	74.9	9.5%	127.5	16.2%
2039	54.9	6.9%	75.6	9.5%	130.5	16.4%
2040	57.3	7.1%	76.4	9.5%	133.7	16.6%
2041	59.4	7.3%	77.2	9.5%	136.5	16.8%

**CHART 36**

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
ASSET ALLOCATION AS OF DECEMBER 2014**

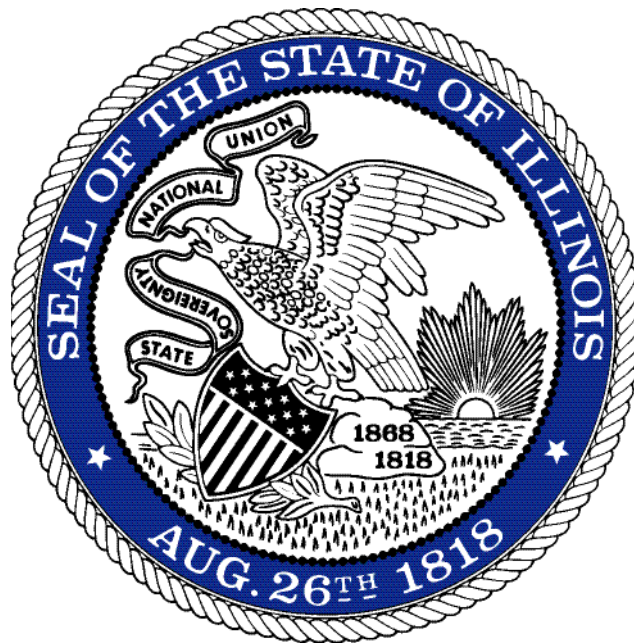


Total investment at fair value is \$921.69M



## VI. Illinois Municipal Retirement Fund

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets



**Note:** All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.



# Illinois Municipal Retirement Fund – Regular Formula Tier 1 Plan Summary

---

## Retirement Age

---

- Age 60 with 8 or more years of service.
- Age 55 with 35 or more years of service.

## Retirement Formula

---

- 1.67% of final average salary for each of the first 15 years of service, plus
- 2.0% of final average salary for each year of service in excess of 15.

## Maximum Annuity

---

- 75% of final average salary.

## Salary Used to Calculate Pension

---

- Average of the 4 highest consecutive years within the final 10 years.

## Annual COLA

---

- 3% non-compounded.

## Employee Contributions

---

- 4.5% of salary. In addition, IMRF members contribute to Social Security.

## Employer Contributions

---

Each IMRF employer makes contributions to individual accounts which, when combined with member contributions and investment income, will be sufficient to provide future benefits for its own employees. In 2009, IMRF employers contributed, on average, 9.27% of payroll to fund regular IMRF benefits. In addition, they contribute to Social Security.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P. A. 96-0889. See P. A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

# Illinois Municipal Retirement Fund

## Elected County Officers Plan (ECO)

### Tier 1 Plan Summary

---

\*The ECO Plan has been closed to new participants on August 8, 2011, the effective date of P.A. 97-0272.

#### Retirement Age

---

- Age 55 with 8 or more years of service.

#### Retirement Formula

---

- 3% of final earnings for the first 8 years of service, plus
- 4% of final earnings for each of the next 4 years of service, plus
- 5% of final earnings for each year over 12 years of service.

#### Maximum Annuity

---

- 80% of final average salary.

#### Salary Used to Calculate Pension

---

- Annual salary rate at the date of termination or retirement.

#### Annual COLA

---

- 3% non-compounded.

#### Employee Contributions

---

- 7.5% of salary.

#### Employer Contributions

---

Each IMRF employer makes contributions to individual accounts which, when combined with member contributions and investment income, will be sufficient to provide future benefits for its own employees. In 2009, IMRF employers contributed, on average, 42.77% of payroll to fund ECO benefits.

# Illinois Municipal Retirement Fund

## Sheriff's Law Enforcement Personnel Plan (SLEP)

### Plan Summary

---

#### Retirement Age

---

- Age 50 with 20 or more years of service.

#### Retirement Formula

---

- 2.5% of final rate of earnings for each year of service.

#### Maximum Annuity

---

- 80% of final average salary.

#### Salary Used to Calculate Pension

---

- Average of the 4 highest consecutive years within the final 10 years.

#### Annual COLA

---

- 3% non-compounded.

#### Employee Contributions

---

- 7.5% of salary.

#### Employer Contributions

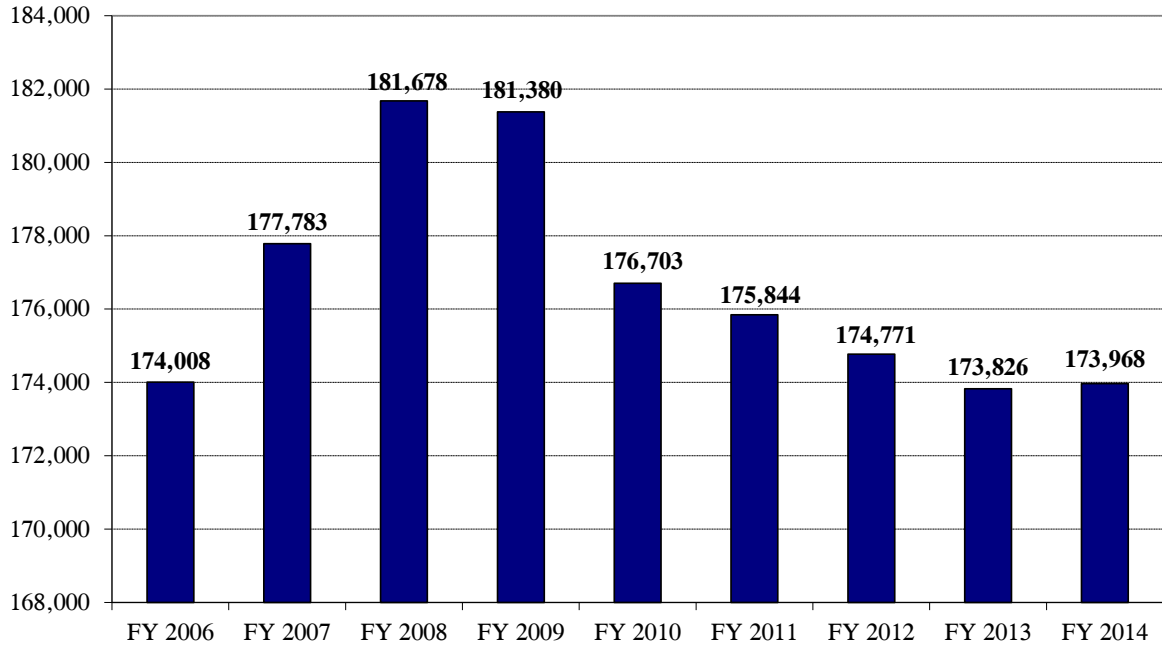
---

Each IMRF employer makes contributions to individual accounts which, when combined with member contributions and investment income, will be sufficient to provide future benefits for its own employees. In 2009, IMRF employers contributed, on average, 18.65% of payroll to fund SLEP benefits.

**Note: Benefits shown are for employees hired prior to January 1, 2011, the effective date of P.A. 96-0889 and P.A. 06-1495. See P.A. 96-0889 & P.A. 96-1495 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

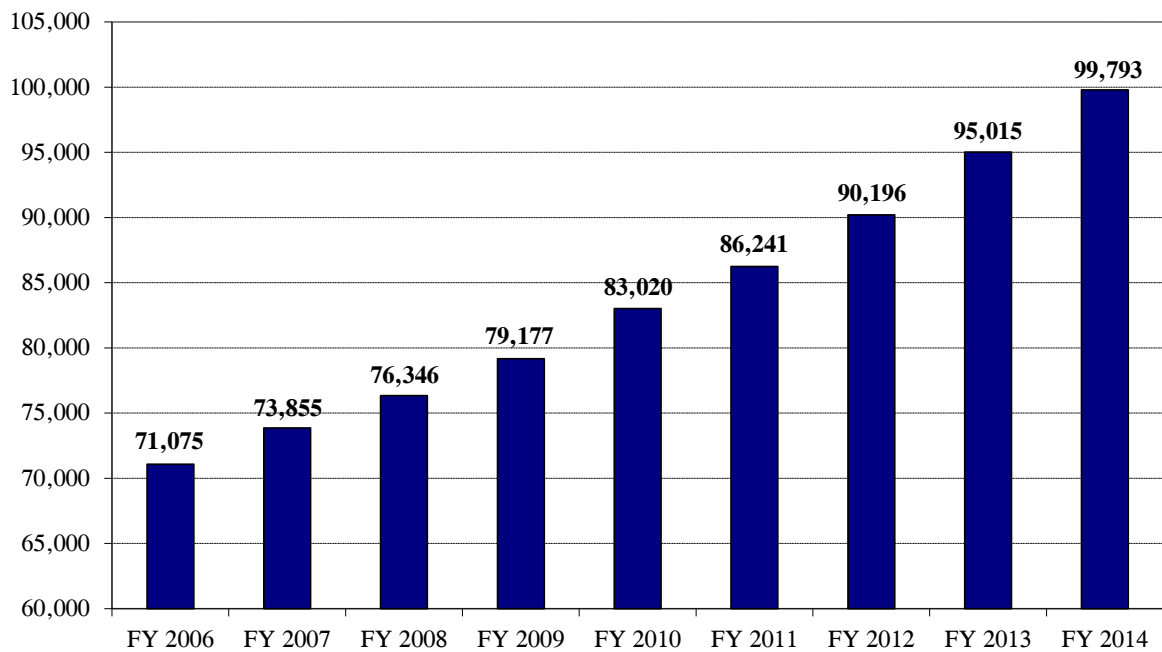
**CHART 37**

**ILLINOIS MUNICIPAL RETIREMENT FUND  
Active Employees**



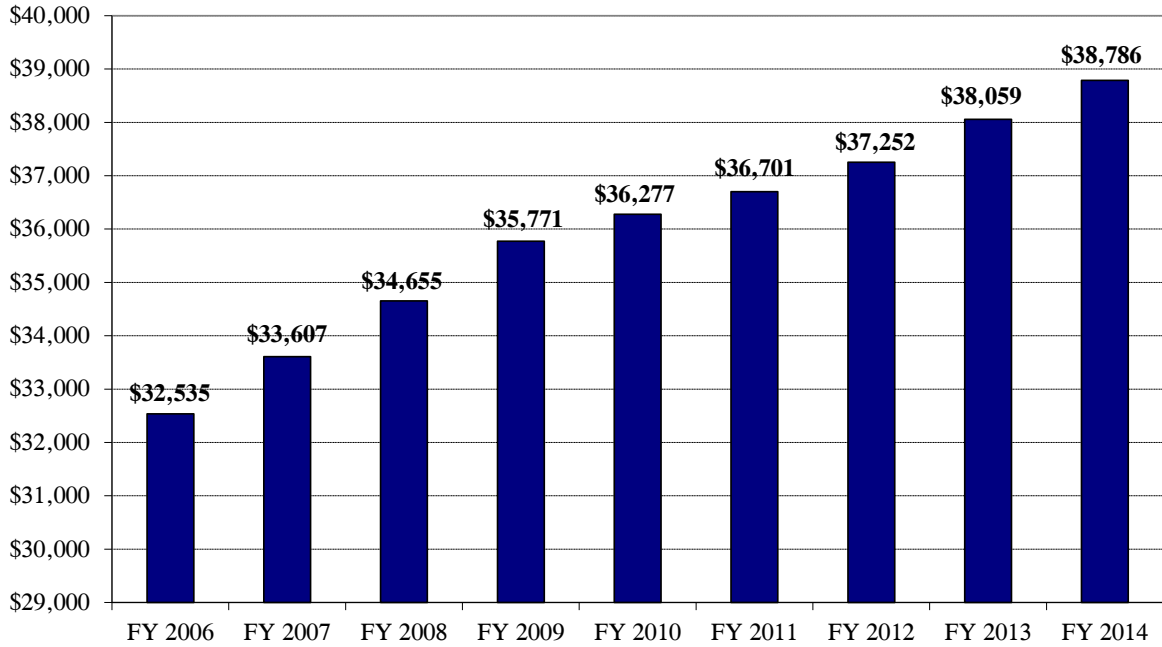
**CHART 38**

**ILLINOIS MUNICIPAL RETIREMENT FUND  
Employee Annuitants**



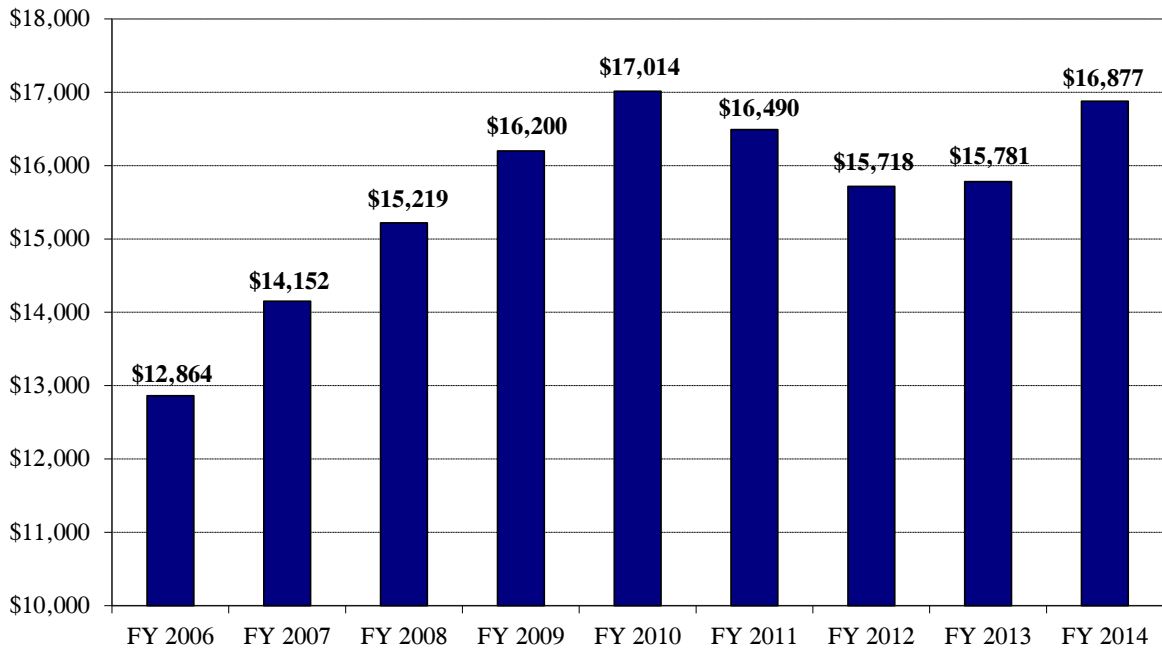
**CHART 39**

**ILLINOIS MUNICIPAL RETIREMENT FUND  
Average Employee Salaries**



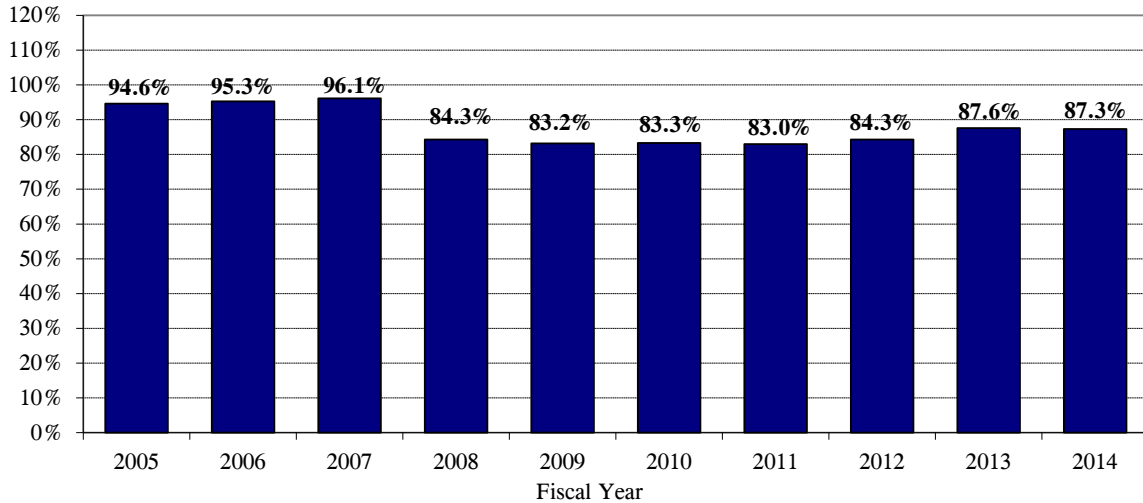
**CHART 40**

**ILLINOIS MUNICIPAL RETIREMENT FUND  
Average Retirement Annuity**



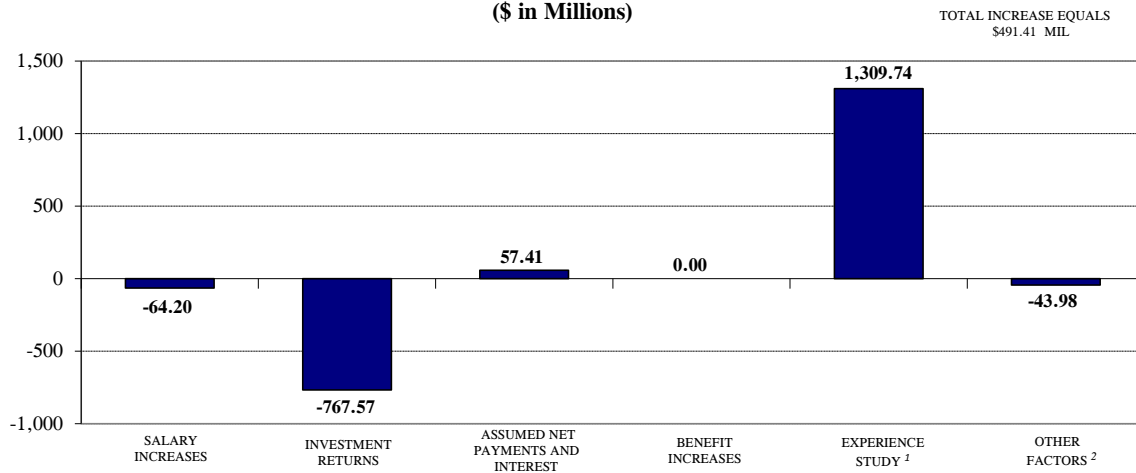
**CHART 41**

**ILLINOIS MUNICIPAL RETIREMENT FUND**  
**Funded Ratio**  
**FY 2005 - FY 2014**



**CHART 42**

**ILLINOIS MUNICIPAL RETIREMENT FUND**  
**Change in Unfunded Liabilities**  
**FY 2014**  
**(\$ in Millions)**



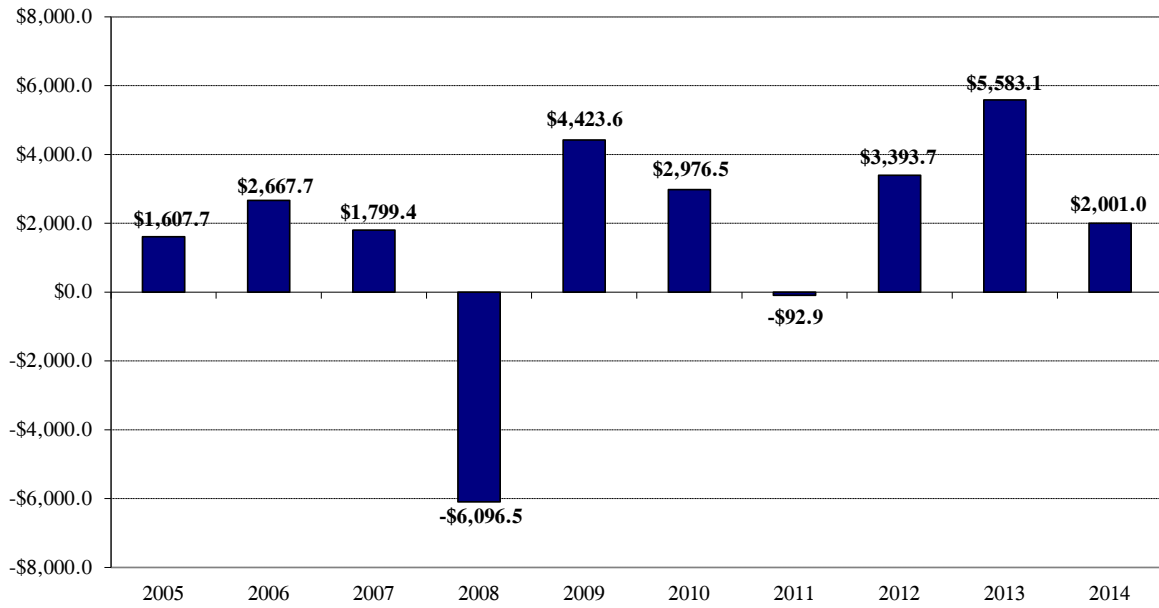
<sup>1</sup> The changes are due to the triennial experience study done in 2014. The most significant factor was a change in the mortality table.

<sup>2</sup> Other Factors include gains resulting from retirements, terminations, and rates of mortality.



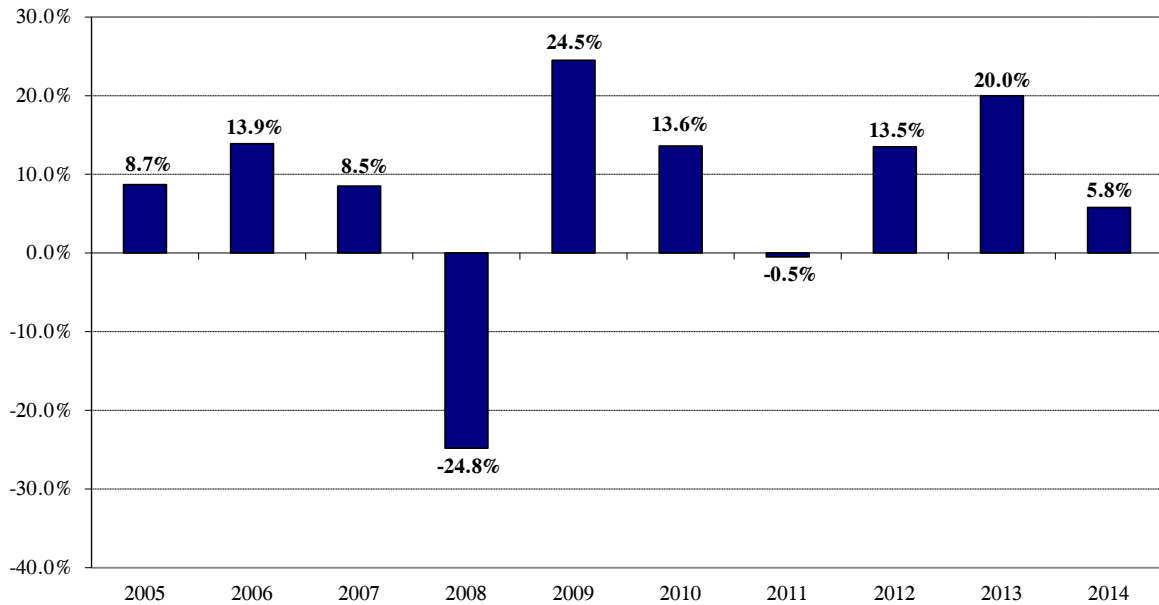
**CHART 43**

**ILLINOIS MUNICIPAL RETIREMENT FUND**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.50%**  
**(\$ in Millions)**



**CHART 44**

**ILLINOIS MUNICIPAL RETIREMENT FUND**  
**Rate of Return FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.50%**



**TABLE 13**

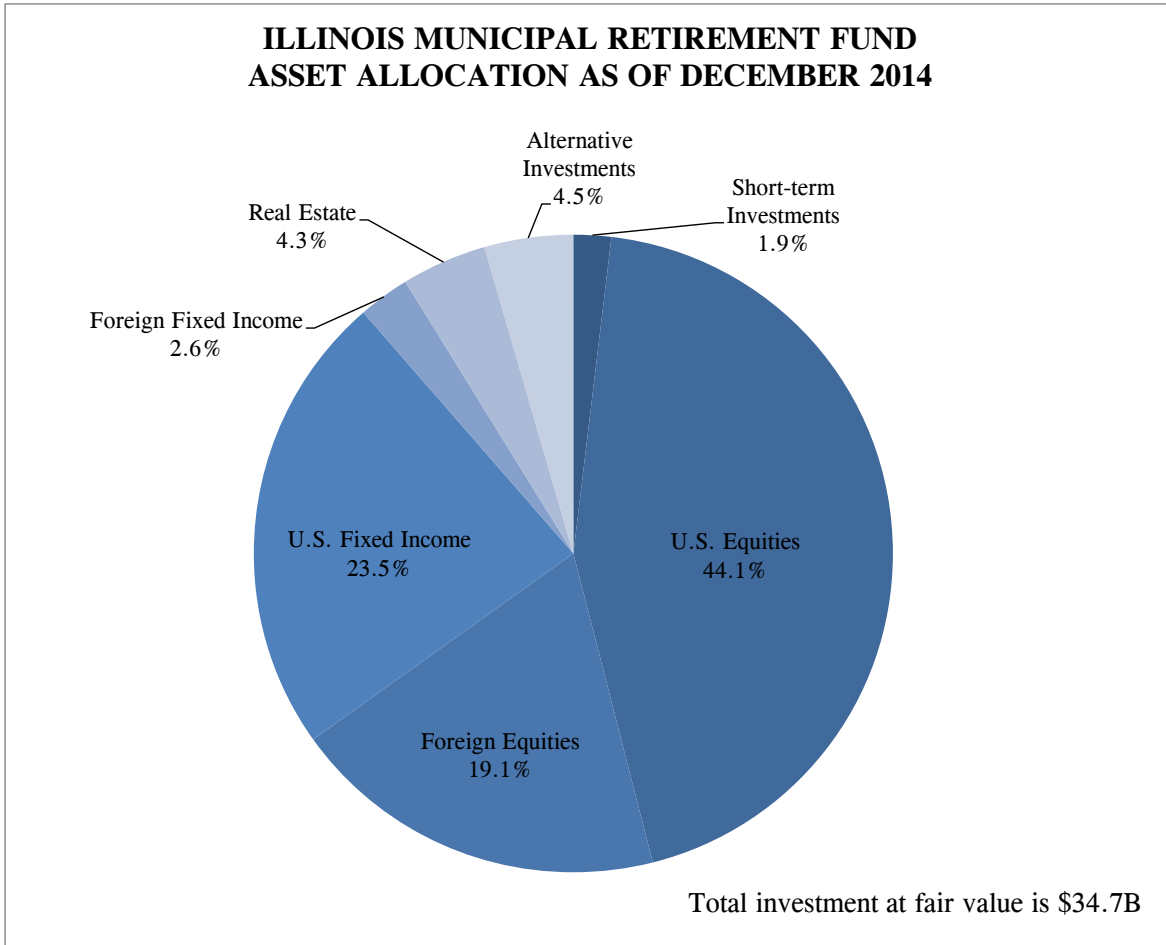
<b>ILLINOIS MUNICIPAL RETIREMENT FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	6,732.5	37,465.1	32,700.2	4,764.9	87.3%
2013	6,602.5	34,356.6	30,083.0	4,273.5	87.6%
2012	6,496.1	32,603.2	27,491.8	5,111.4	84.3%
2011	6,431.3	30,962.8	25,711.3	5,251.5	83.0%
2010	6,391.2	29,129.2	24,251.1	4,878.1	83.3%
2009	6,461.7	27,345.1	22,754.8	4,590.3	83.2%
2008	6,259.3	25,611.2	21,601.1	4,010.1	84.3%
2007	5,931.4	24,221.5	23,274.4	947.1	96.1%
2006	5,630.7	22,488.2	21,427.1	1,061.1	95.3%
2005	5,374.6	20,815.1	19,698.4	1,108.7	94.6%
2004	5,161.1	19,424.7	18,316.0	1,108.7	94.3%

**TABLE 14**

<b>ILLINOIS MUNICIPAL RETIREMENT FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
Fiscal Years	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Additions to Assets</b>									
Employer	923.4	931.0	883.2	800.8	770.2	660.4	631.1	600.8	602.8
Employees	351.1	338.9	330.8	327.7	324.9	324.1	314.0	296.7	281.0
Total Investment Income <sup>1</sup>	2001.4	5,583.1	3,393.7	-92.9	2,976.5	4,423.6	-6,096.5	1,799.4	2,667.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>3,275.9</b>	<b>6,853.0</b>	<b>4,607.7</b>	<b>1,035.6</b>	<b>4,071.6</b>	<b>5,408.0</b>	<b>-5,151.4</b>	<b>2,696.9</b>	<b>3,551.5</b>
<b>Deductions from Assets</b>									
Benefits	1626.8	1,503.4	1,389.8	1,284.4	1,178.0	1,077.8	997.5	924.0	856.2
Refunds	39.2	36.9	34.1	32.9	32.2	27.4	31.9	36.2	40.1
Rebates	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	26.4	25.5	24.5	23.1	22.3	22.0	20.7	20.8	20.3
Other	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>1,692.4</b>	<b>1,565.8</b>	<b>1,448.4</b>	<b>1,340.4</b>	<b>1,232.5</b>	<b>1,127.2</b>	<b>1,050.1</b>	<b>981.0</b>	<b>916.6</b>
<b>Change in Net Assets (A-B=C)</b>	<b>1,583.5</b>	<b>5,287.2</b>	<b>3,159.3</b>	<b>-304.8</b>	<b>2,839.1</b>	<b>4,280.8</b>	<b>-6,201.4</b>	<b>1,715.9</b>	<b>2,634.9</b>

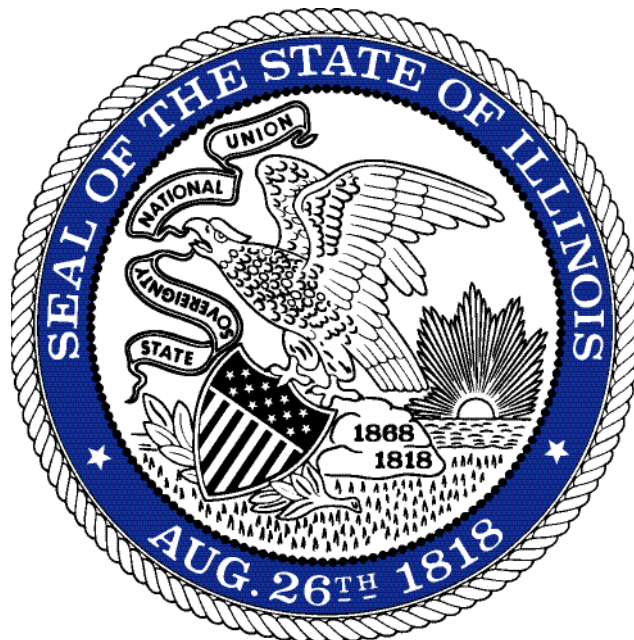
<sup>1</sup> Total investment income consists of gains from investment activity and security lending activity after taking off related expenses.

**CHART 45**



## VII. Laborers' Annuity and Benefit Fund of Chicago

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections
- Normal Cost Projections



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# **Laborers' Annuity and Benefit Fund of Chicago**

## **Tier 1 Plan Summary (as modified by P.A. 98-0641)**

---

\* P.A. 98-0641 has been declared unconstitutional by the Cook County Circuit Court on July 24, 2015. Please refer to page 9 for more information.

### **Retirement Age**

---

- Age 60 with 10 years of service.
- Age 55 with 20 years of service.
- Age 50 with at least 30 years of service.
- Age 55 with 10 years of service (money purchase).

### **Retirement Formula**

---

- 2.4% of final average salary for each year of service.

### **Maximum Annuity**

---

- 80% of final average salary.

### **Salary Used to Calculate Pension**

---

- Average of 4 highest consecutive years within final 10 years of service.

### **Annual COLA**

---

- The lesser of 3% simple or ½ the CPI-U.

### **Employee Contributions**

---

- Currently 8.5% of salary.
- Pursuant to P.A. 98-0641: Beginning January 1, 2015: employee contributions will increase to 9% and will increase by .5% per year, settling at 11% in 2019. This applies to all active employees.

### **Required Employer Contributions**

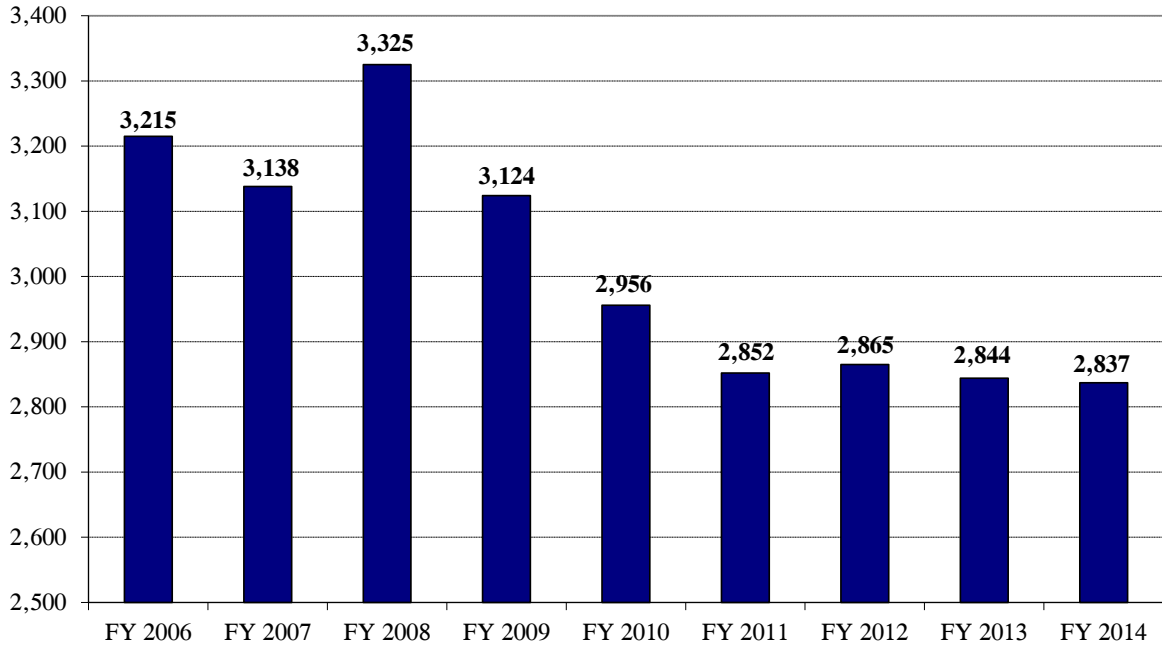
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Currently, the City of Chicago is required to contribute an amount equal to the employee contributions to the fund two years prior to the year in which the tax is levied, multiplied by 1.00. Beginning in 2016, this multiplier will increase to 1.6 and will increase by .3 per year, settling at 2.8 in 2020.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0899 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

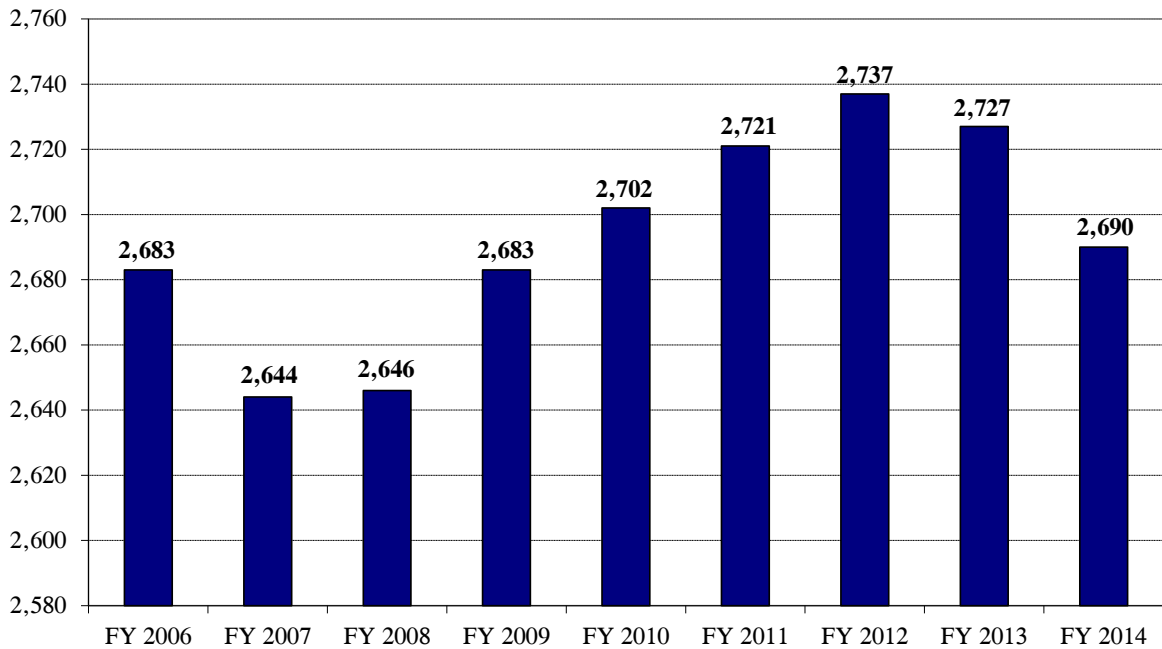
**CHART 46**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO  
Active Employees**



**CHART 47**

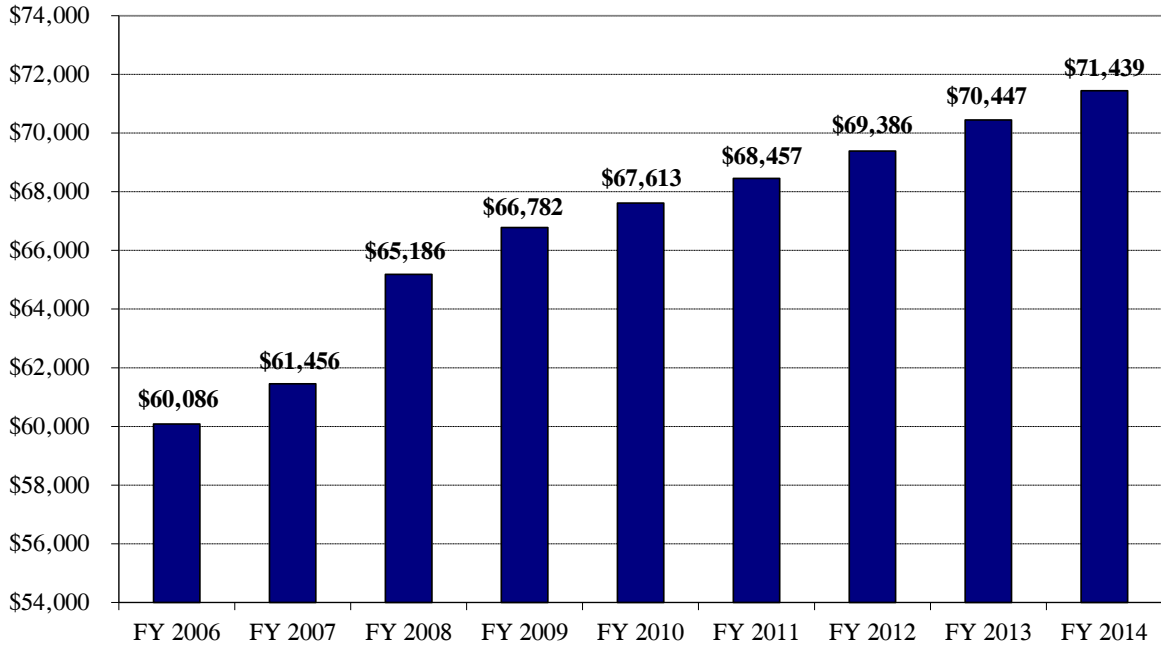
**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO  
Employee Annuitants**





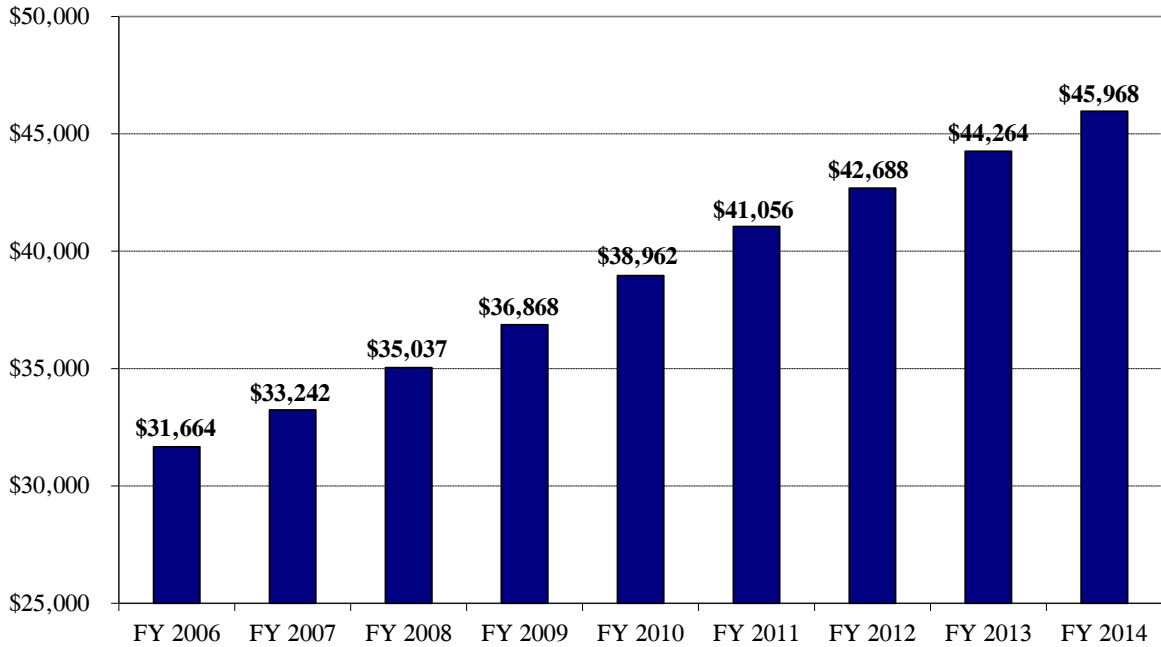
**CHART 48**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO  
Average Employee Salaries**



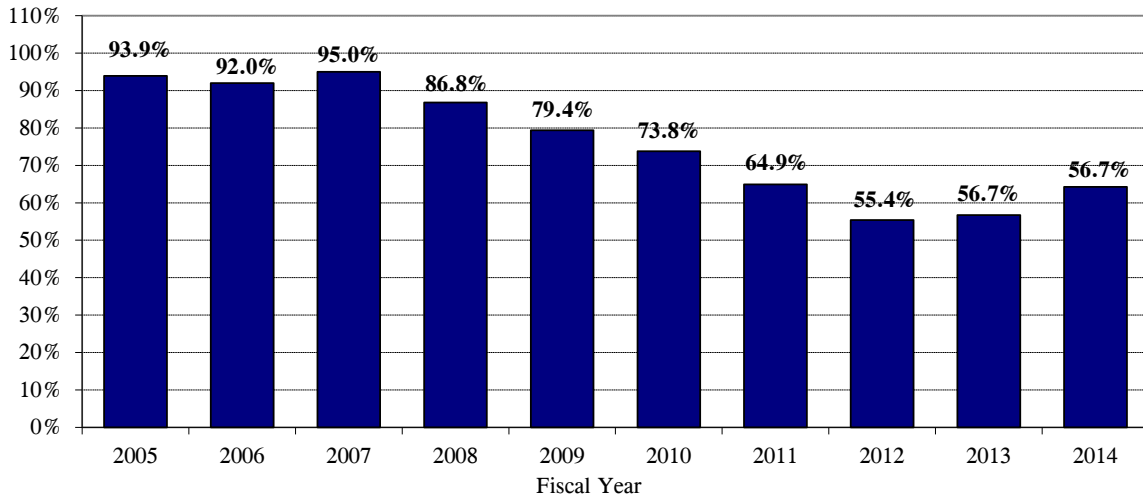
**CHART 49**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO  
Average Retirement Annuities**



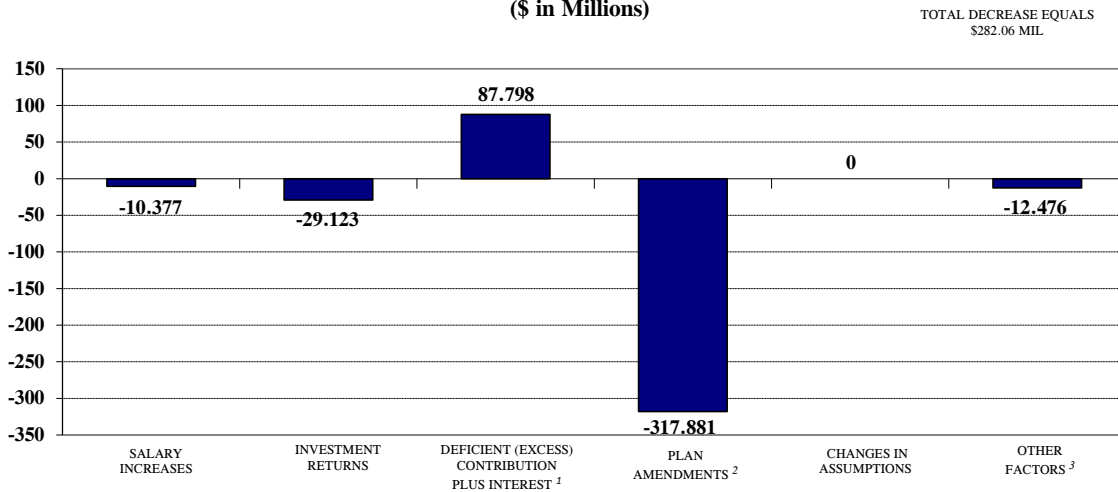
**CHART 50**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Funded Ratio**  
**FY 2005 - FY 2014**



**CHART 51**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Change in Unfunded Liabilities**  
**FY 2014**  
**(\$ in Millions)**



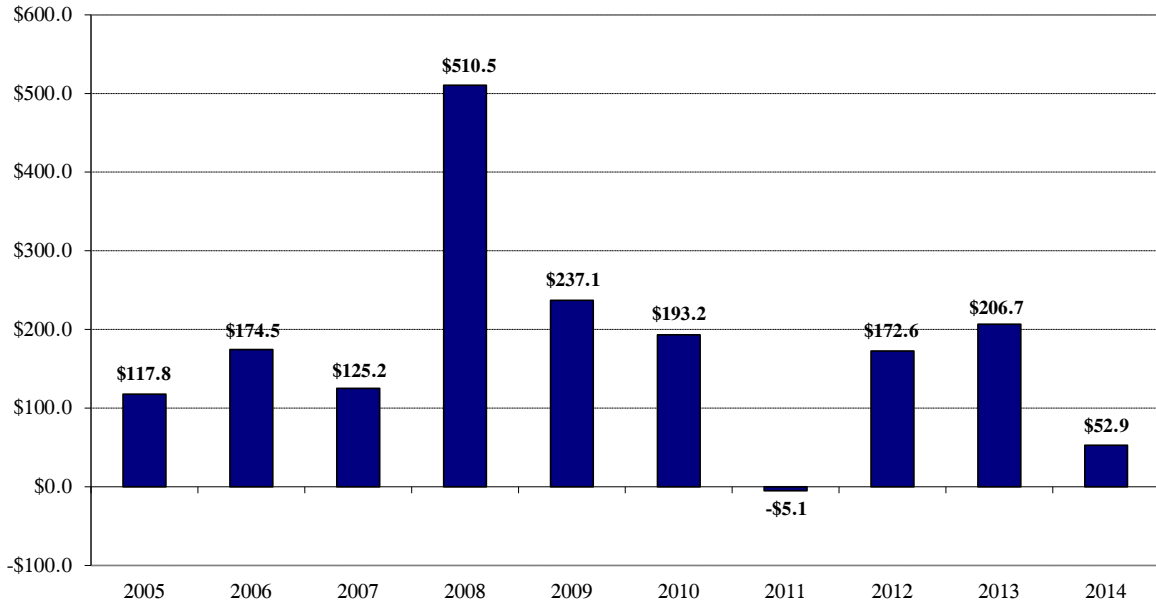
<sup>1</sup> It is calculated from the sum of the difference between normal cost and total contributions and interest cost.

<sup>2</sup> P.A. 98-0641 changed the funding policy and method to recognize the actuarial value of investments gains, and created new benefit provisions for current, inactive, and retired members. This change in the Fund provisions decreased actuarial liabilities by \$317.9 Million.

<sup>3</sup> Other Factors include gains resulting from retirements, terminations, and mortalities.

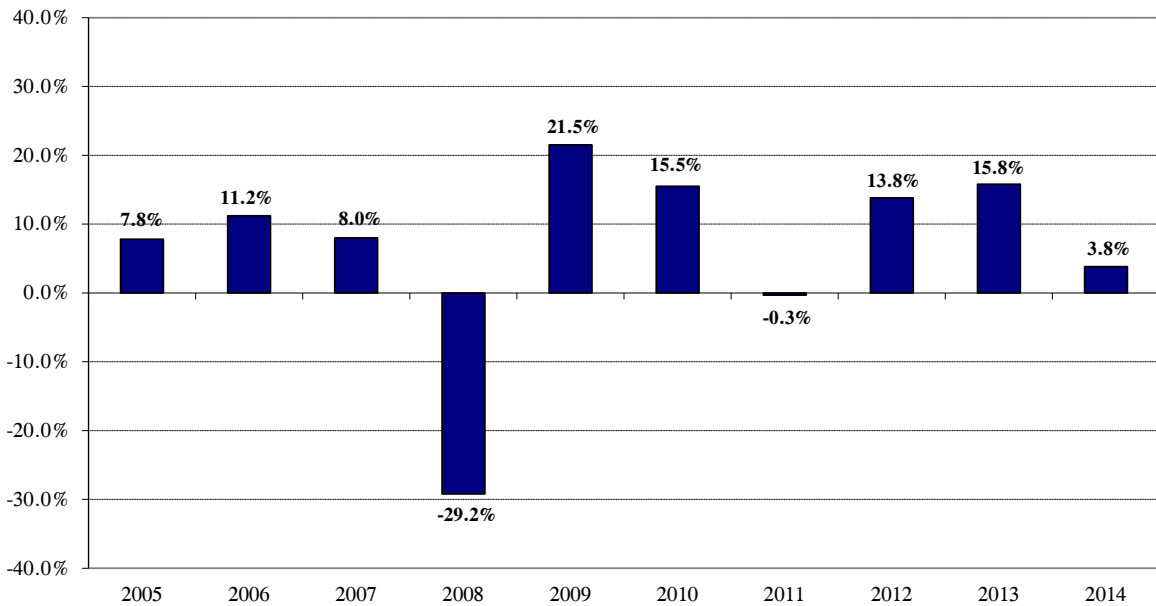
### CHART 52

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return:7.50%**  
**(\$ in Millions)**



### CHART 53

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Rate of Return FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return:7.50%**



**TABLE 15**

<b>LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	202.7	2,111.7	1,357.5	754.3	64.3%
2013	200.4	2,390.6	1,354.3	1,036.3	56.7%
2012	198.8	2,374.8	1,315.9	1,058.9	55.4%
2011	195.2	2,191.2	1,422.4	768.8	64.9%
2010	199.9	2,071.4	1,529.4	542.0	73.8%
2009	208.6	2,017.5	1,601.4	416.1	79.4%
2008	216.7	1,957.4	1,698.4	259.0	86.8%
2007	192.8	1,849.7	1,757.7	92.0	95.0%
2006	193.2	1,809.3	1,664.1	145.2	92.0%
2005	182.8	1,742.3	1,635.6	106.7	93.9%
2004	171.5	1,674.6	1,650.0	24.6	98.5%

*NOTE: The above FY 2004 - FY 2014 figures include healthcare assets/liabilities.*

**TABLE 16**

<b>LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	14.5	14.1	14.4	15.3	18.0	17.2	17.6	15.5	0.1
Employees	16.4	16.4	16.6	16.1	16.3	17.5	19.4	18.4	18.8
Net Investment Income	52.9	206.7	172.6	-5.1	193.2	237.1	-510.5	125.2	174.5
Other	0.5	0.0	0.8	0.6	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>84.3</b>	<b>237.2</b>	<b>204.4</b>	<b>26.9</b>	<b>227.5</b>	<b>271.8</b>	<b>-473.5</b>	<b>159.1</b>	<b>193.4</b>
<b>Deductions from Assets</b>									
Benefits	147.9	144.3	139.7	133.5	127.0	121.0	113.7	108.8	106.9
Refunds	2.1	2.9	2.6	3.0	2.3	2.8	3.5	3.7	3.1
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	3.8	4.1	4.7	4.0	3.9	3.7	3.6	3.4	2.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>153.9</b>	<b>151.3</b>	<b>147.0</b>	<b>140.5</b>	<b>133.2</b>	<b>127.5</b>	<b>120.8</b>	<b>115.9</b>	<b>112.8</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-69.6</b>	<b>85.9</b>	<b>57.4</b>	<b>-113.6</b>	<b>94.3</b>	<b>144.3</b>	<b>-594.3</b>	<b>43.2</b>	<b>80.6</b>

*Note: the benefits include health insurance supplement*

Table 17 below contains funding projections provided to CGFA by the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago based upon the December 31, 2014 actuarial valuation. This table reflects projections based on P.A. 98-0641.

**TABLE 17**

<b>Laborers' Annuity and Benefit Fund of Chicago</b> <b>Actuarial Valuation Projection Results as of December 31, 2014</b> <b>Projections based on P.A. 98-0641 <sup>1</sup></b> <b>(\$ in Millions)</b>								
Fiscal Year	Capped Payroll	Total Employer Contribution	Employer Contribution As % of Payroll	Total Employee Contribution	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2014	202.7	14.5	7.2%	16.4	2,111.7	1,357.5	754.3	64.3%
2015	207.0	14.5	7.0%	18.6	2,145.1	1,335.7	809.3	62.3%
2016	212.9	24.0	11.3%	20.0	2,175.6	1,340.8	834.8	61.6%
2017	219.4	28.5	13.0%	21.7	2,209.0	1,335.8	873.2	60.5%
2018	226.3	37.8	16.7%	23.5	2,241.2	1,314.7	926.5	58.7%
2019	233.6	46.3	19.8%	25.4	2,273.7	1,311.0	962.6	57.7%
2020	241.4	56.1	23.2%	26.2	2,304.5	1,313.1	991.4	57.0%
2021	249.7	68.5	27.4%	27.0	2,333.5	1,324.2	1,009.3	56.7%
2022	258.3	70.4	27.2%	28.0	2,360.6	1,334.0	1,026.6	56.5%
2023	267.2	72.3	27.1%	28.9	2,385.4	1,342.2	1,043.2	56.3%
2024	276.5	74.3	26.9%	29.9	2,407.5	1,348.7	1,058.9	56.0%
2025	286.2	76.4	26.7%	31.0	2,429.7	1,356.2	1,073.5	55.8%
2026	296.0	78.5	26.5%	32.1	2,449.6	1,362.6	1,087.0	55.6%
2027	306.0	80.6	26.3%	33.2	2,466.6	1,367.4	1,099.3	55.4%
2028	316.2	82.7	26.2%	34.3	2,480.7	1,370.6	1,110.1	55.3%
2029	326.4	84.8	26.0%	35.4	2,491.8	1,372.4	1,119.4	55.1%
2030	336.5	86.9	25.8%	36.6	2,500.1	1,372.9	1,127.2	54.9%
2031	346.7	89.1	25.7%	37.7	2,506.0	1,372.8	1,133.1	54.8%
2032	357.0	91.2	25.6%	38.8	2,510.1	1,372.9	1,137.2	54.7%
2033	367.4	93.5	25.4%	40.0	2,513.0	1,373.8	1,139.2	54.7%
2034	377.6	95.6	25.3%	41.2	2,515.7	1,376.7	1,139.0	54.7%
2035	386.7	97.6	25.2%	42.3	2,518.7	1,381.9	1,136.7	54.9%
2036	395.5	99.4	25.1%	43.3	2,522.3	1,390.1	1,132.3	55.1%
2037	404.1	101.3	25.1%	44.3	2,527.4	1,401.9	1,125.6	55.5%
2038	412.3	103.1	25.0%	45.3	2,534.2	1,417.8	1,116.4	55.9%
2039	420.8	104.9	24.9%	46.2	2,543.0	1,438.2	1,104.7	56.6%
2040	429.2	106.8	24.9%	47.1	2,554.4	1,464.2	1,090.2	57.3%
2041	437.8	108.7	24.8%	48.1	2,569.3	1,496.7	1,072.6	58.3%
2042	446.4	110.7	24.8%	49.1	2,588.0	1,536.3	1,051.7	59.4%
2043	455.2	112.7	24.8%	50.0	2,611.1	1,583.7	1,027.3	60.7%
2044	464.1	114.7	24.7%	51.0	2,638.7	1,639.6	999.1	62.1%
2045	473.0	116.8	24.7%	52.0	2,671.0	1,704.3	966.6	63.8%
2046	482.1	118.9	24.7%	53.0	2,708.0	1,778.3	929.7	65.7%
2047	491.3	121.1	24.7%	54.0	2,750.0	1,862.1	887.9	67.7%
2048	500.8	123.4	24.6%	55.1	2,796.8	1,956.0	840.9	69.9%
2049	510.4	125.7	24.6%	56.1	2,848.4	2,060.3	788.1	72.3%
2050	520.2	128.0	24.6%	57.2	2,904.4	2,175.3	729.1	74.9%
2051	530.2	130.4	24.6%	58.3	2,964.2	2,300.8	663.4	77.6%
2052	540.4	132.9	24.6%	59.4	3,027.3	2,436.8	590.5	80.5%
2053	550.4	135.4	24.6%	60.5	3,093.1	2,583.3	509.8	83.5%
2054	559.9	137.7	24.6%	61.7	3,161.5	2,740.6	421.0	86.7%
2055	569.3	140.0	24.6%	62.7	3,232.3	2,908.9	323.3	90.0%
2056	578.6	39.4	6.8%	56.5	3,304.6	2,974.1	330.5	90.0%
2057	588.0	40.0	6.8%	57.5	3,378.2	3,040.4	337.8	90.0%
2058	597.3	40.8	6.8%	58.4	3,452.9	3,107.6	345.3	90.0%
2059	606.8	41.7	6.9%	59.3	3,528.4	3,175.5	352.8	90.0%
2060	616.3	42.7	6.9%	60.3	3,604.4	3,244.0	360.4	90.0%
2061	625.9	43.6	7.0%	61.2	3,680.8	3,312.7	368.1	90.0%
2062	635.6	44.6	7.0%	62.2	3,757.3	3,381.6	375.7	90.0%
2063	645.3	45.7	7.1%	63.1	3,833.8	3,450.4	383.4	90.0%

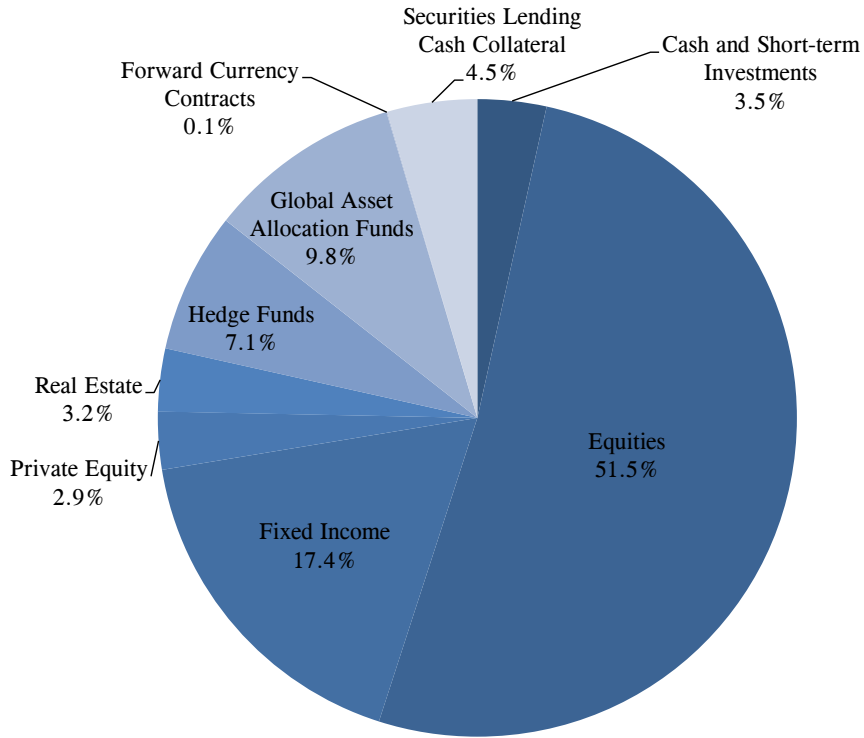
<sup>1</sup> On July 24th, 2015, the Circuit Court of Cook County ruled P.A. 98-0641 unconstitutional.

**TABLE 18**

<b>Laborers' Annuity and Benefit Fund of Chicago                      Projected Normal Cost as of December 31, 2014                      (\$ in Millions)</b>						
Fiscal Year	Employer's Normal Cost	Employer's Normal Cost as a % of Payroll	Total Employee Contributions	Employee Contributions as a % of Payroll	Total Normal Cost	Total Normal Cost as a % of Payroll
2014	21.4	10.6%	16.4	8.1%	37.8	18.6%
2015	17.2	8.3%	18.6	9.0%	35.8	17.3%
2016	16.1	7.6%	20.0	9.4%	36.1	17.0%
2017	15.0	6.8%	21.7	9.9%	36.7	16.7%
2018	13.9	6.2%	23.5	10.4%	37.4	16.5%
2019	12.8	5.5%	25.4	10.9%	38.1	16.3%
2020	12.7	5.3%	26.2	10.8%	38.9	16.1%
2021	12.6	5.1%	27.0	10.8%	39.7	15.9%
2022	12.6	4.9%	28.0	10.8%	40.6	15.7%
2023	12.5	4.7%	28.9	10.8%	41.5	15.5%
2024	12.4	4.5%	29.9	10.8%	42.4	15.3%
2025	12.3	4.3%	31.0	10.8%	43.3	15.1%
2026	12.2	4.1%	32.1	10.8%	44.3	15.0%
2027	12.1	3.9%	33.2	10.8%	45.2	14.8%
2028	11.9	3.8%	34.3	10.8%	46.2	14.6%
2029	11.8	3.6%	35.4	10.9%	47.2	14.5%
2030	11.6	3.5%	36.6	10.9%	48.2	14.3%
2031	11.5	3.3%	37.7	10.9%	49.2	14.2%
2032	11.4	3.2%	38.8	10.9%	50.2	14.1%
2033	11.2	3.1%	40.0	10.9%	51.2	13.9%
2034	11.1	2.9%	41.2	10.9%	52.3	13.8%
2035	11.0	2.8%	42.3	10.9%	53.3	13.8%
2036	10.9	2.8%	43.3	11.0%	54.3	13.7%
2037	10.8	2.7%	44.3	11.0%	55.2	13.7%
2038	10.8	2.6%	45.3	11.0%	56.1	13.6%
2039	10.8	2.6%	46.2	11.0%	57.0	13.5%
2040	10.7	2.5%	47.1	11.0%	57.9	13.5%
2041	10.7	2.5%	48.1	11.0%	58.8	13.4%
2042	10.8	2.4%	49.1	11.0%	59.8	13.4%
2043	10.8	2.4%	50.0	11.0%	60.8	13.4%
2044	10.9	2.3%	51.0	11.0%	61.9	13.3%
2045	11.0	2.3%	52.0	11.0%	63.0	13.3%
2046	11.1	2.3%	53.0	11.0%	64.1	13.3%
2047	11.2	2.3%	54.0	11.0%	65.2	13.3%
2048	11.3	2.3%	55.1	11.0%	66.4	13.3%
2049	11.5	2.2%	56.1	11.0%	67.6	13.2%
2050	11.6	2.2%	57.2	11.0%	68.8	13.2%
2051	11.8	2.2%	58.3	11.0%	70.1	13.2%
2052	12.0	2.2%	59.4	11.0%	71.4	13.2%
2053	12.2	2.2%	60.5	11.0%	72.7	13.2%
2054	12.4	2.2%	61.7	11.0%	74.0	13.2%
2055	12.6	2.2%	62.7	11.0%	75.3	13.2%
2056	20.0	3.5%	56.5	9.8%	76.6	13.2%
2057	20.3	3.5%	57.5	9.8%	77.8	13.2%
2058	20.7	3.5%	58.4	9.8%	79.1	13.2%
2059	21.1	3.5%	59.3	9.8%	80.4	13.2%
2060	21.5	3.5%	60.3	9.8%	81.7	13.3%
2061	21.9	3.5%	61.2	9.8%	83.1	13.3%
2062	22.3	3.5%	62.2	9.8%	84.4	13.3%
2063	22.7	3.5%	63.1	9.8%	85.8	13.3%

**CHART 54**

**LABORERS' ANNUITY AND BENEFIT FUND OF CHICAGO  
ASSET ALLOCATION AS OF DECEMBER 2014**

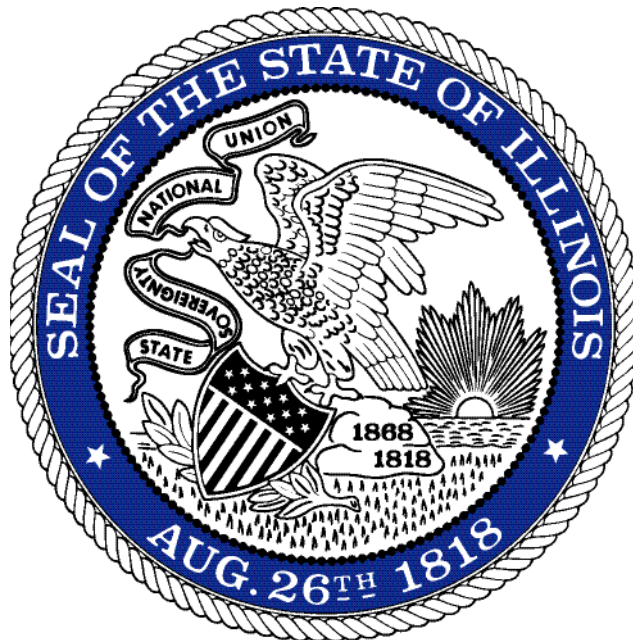


Total investment at fair value is \$1.4B



## VIII. Metropolitan Water Reclamation District Retirement Fund

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# Metropolitan Water Reclamation District Retirement Fund - Tier 1 Plan Summary

## Retirement Age

---

- Age 60 with 5 years of service.
- Age 50 with 10 years of service (Age 55 if hired after 6/13/97).

## Retirement Formula

---

- 2.2% of final average salary for the first 20 years of service, plus
- 2.4% of final average salary for each year in excess of 20.

## Maximum Annuity

---

- 80% of final average salary.

## Salary Used to Calculate Pension

---

- Any 52 consecutive pay periods within the final 10 years of service.

## Annual COLA

---

- 3% compounded.

## Employee Contributions (as modified by P.A. 97-0894)

---

- Tier 1 employees currently contribute 11% of their salary toward pension benefits. Beginning on January 1, 2015, the employee contribution rate will increase to 12% of salary, where it will remain until the MWRD pension fund reaches a 90% funded ratio. Upon attainment of a 90% funding ratio, the member contribution rate will revert back to 9%. These changes to the Tier 1 employee contribution rate were made by HB 4513 (P.A. 97-0894), which became effective on August 3rd, 2012. Tier 2 employees contribute 9.0% of salary (unchanged by P.A. 97-0894).

## Employer Contributions (as modified by P.A. 97-0894)

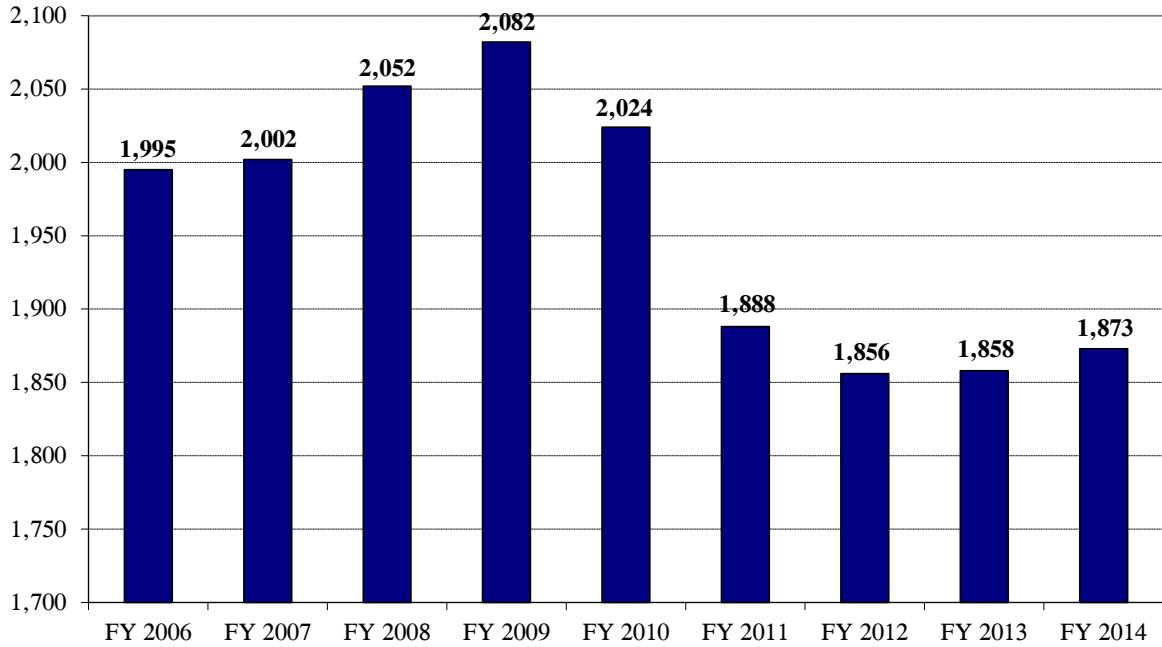
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The District levies a tax annually that is the level percentage of payroll necessary to reach a 90% funding level by FY2050. However, no annual levy shall exceed the total amount of contributions made by employees in the calendar year 2 years prior to the year of the levy, multiplied by 4.19.

**Note: Benefits shown on this page are for employees hired prior to January 1, 2011 (Tier 1 employees). Tier 1 and Tier 2 employee contribution rates are shown here so as to distinguish the changes made to Tier 1 contribution rates as a result of P.A. 97-0894. For a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees), see P.A. 96-0889 in Section I.**

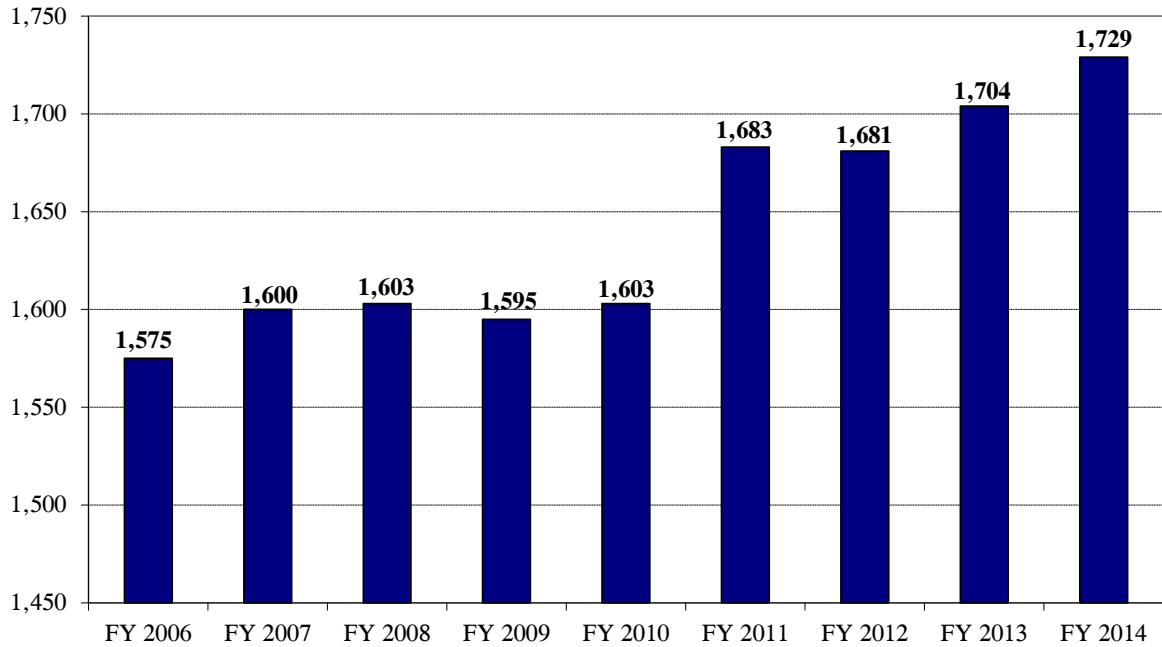
**CHART 55**

**METROPOLITAN WATER PENSION FUND  
Active Employees**



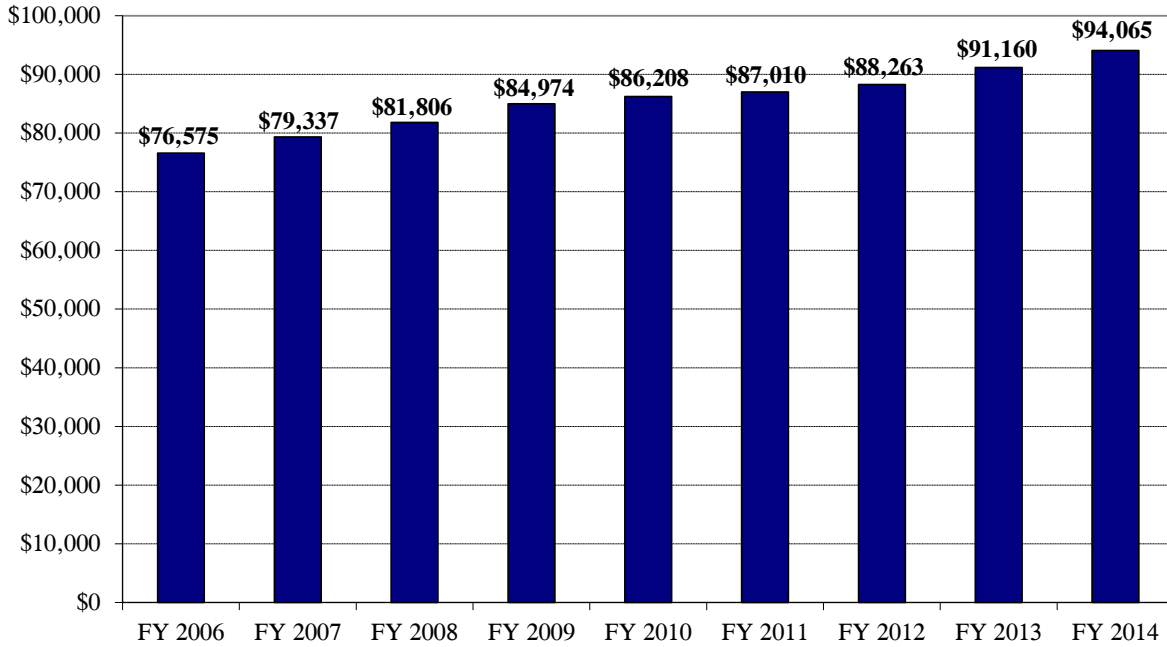
**CHART 56**

**METROPOLITAN WATER PENSION FUND  
Employee Annuitants**



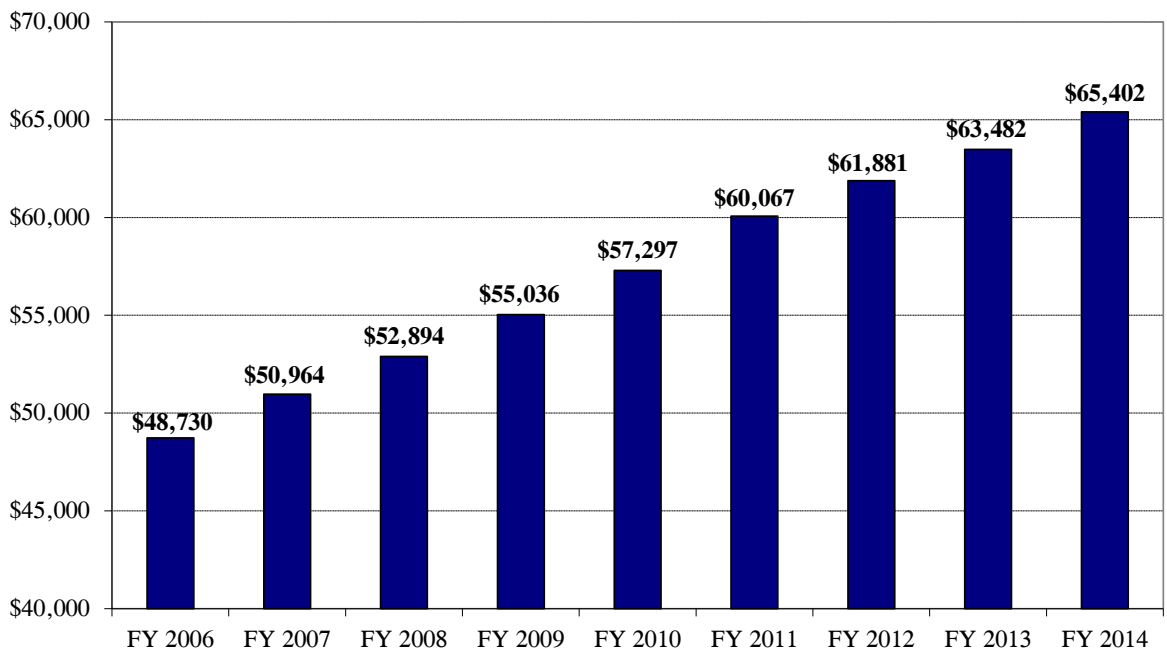
**CHART 57**

**METROPOLITAN WATER PENSION FUND  
Average Employee Salaries**



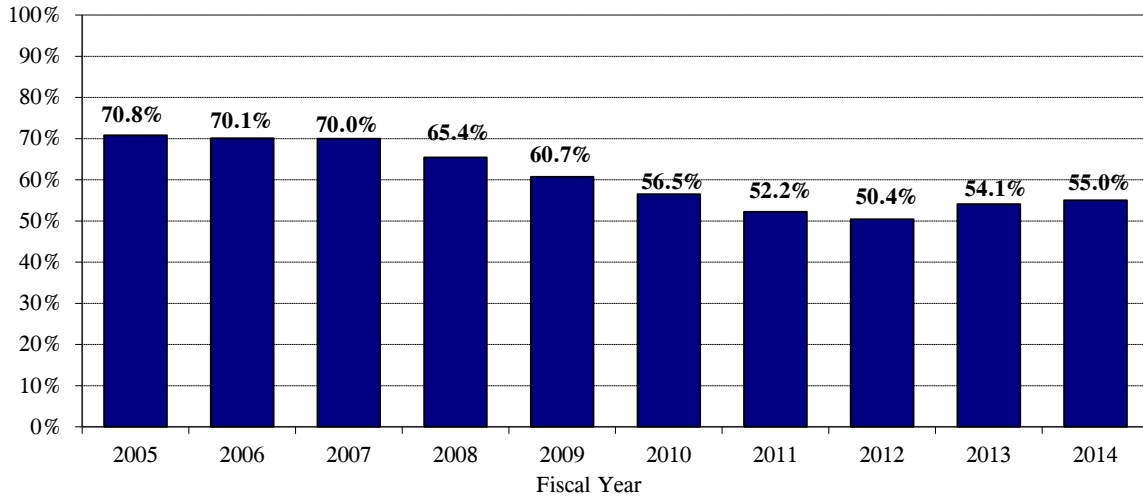
**CHART 58**

**METROPOLITAN WATER PENSION FUND  
Average Retirement Annuity**



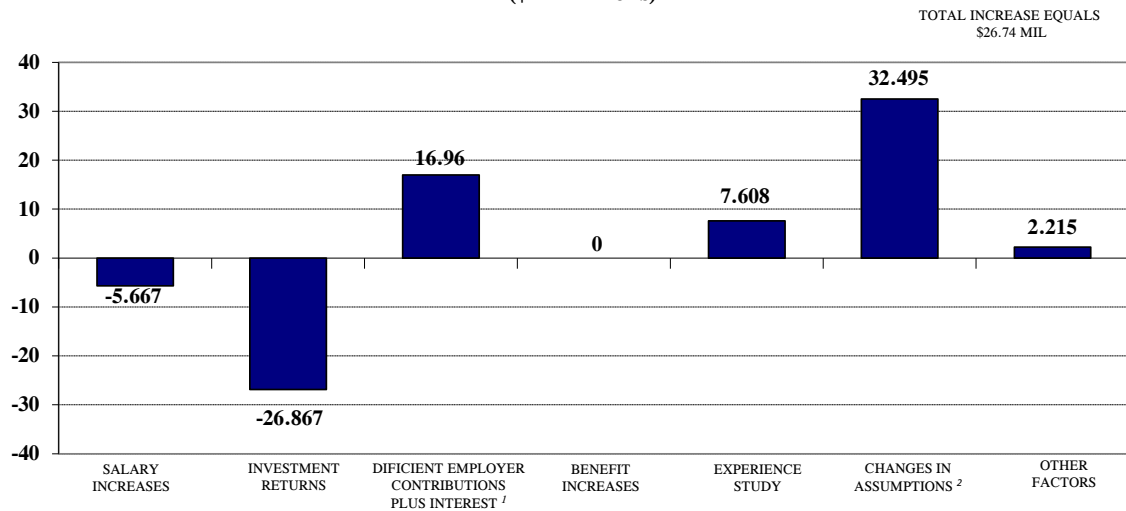
**CHART 59**

**METROPOLITAN WATER PENSION FUND  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 60**

**METROPOLITAN WATER PENSION FUND  
Change in Unfunded Liabilities  
FY 2014  
(\$ in Millions)**

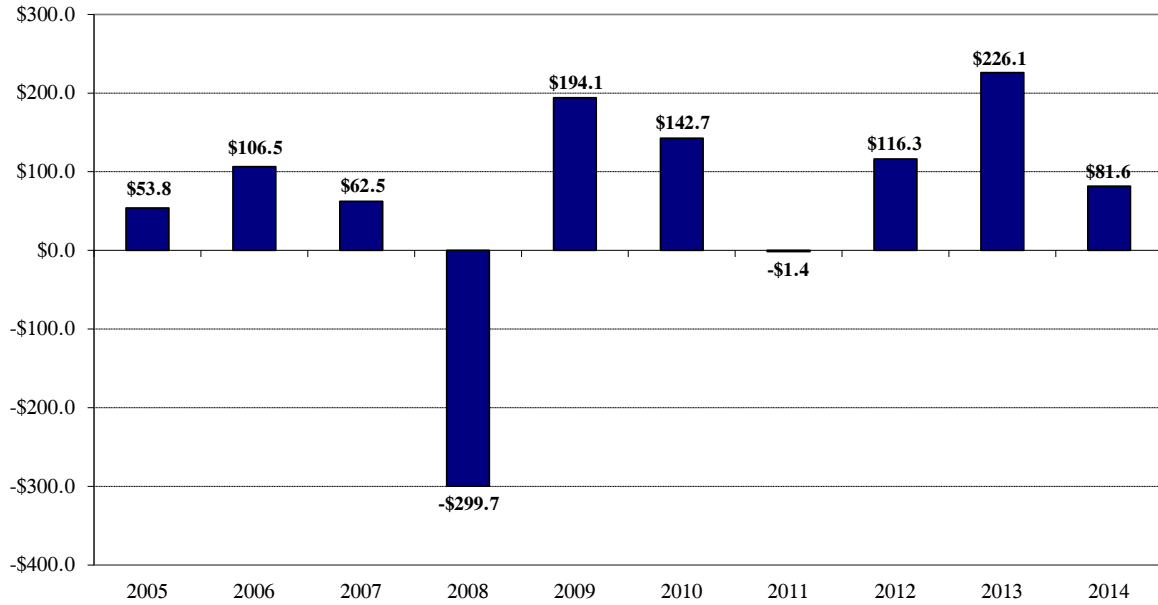


<sup>1</sup> Unfunded liabilities increase due to employer contributions less than normal cost plus interest.

<sup>2</sup> Reduction in assumed investment rate of return mostly increases unfunded liabilities. Other changed assumptions are mortality rates, retirement rates, termination rates, etc.

## CHART 61

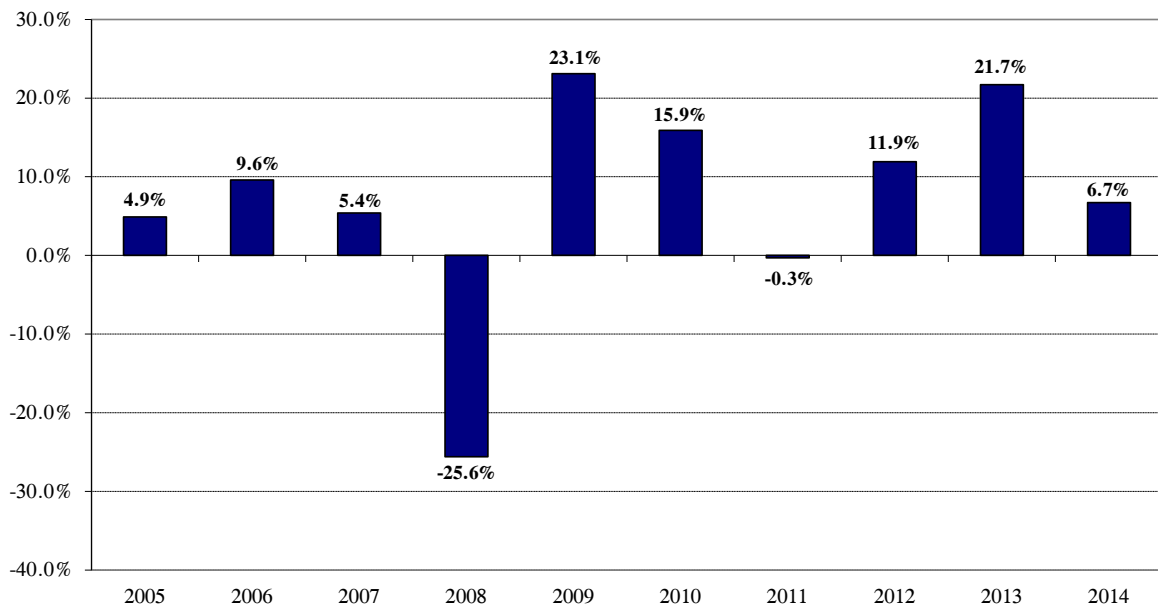
**METROPOLITAN WATER PENSION FUND**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.5% <sup>1</sup>**  
**(\$ in Millions)**



<sup>1</sup> The actuarially assumed rate of return changed from 7.75% to 7.5% on 2014

## CHART 62

**METROPOLITAN WATER PENSION FUND**  
**Rate of Return FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.5% <sup>1</sup>**



<sup>1</sup> The actuarially assumed rate of return changed from 7.75% to 7.5% on 2014

**TABLE 19**

<b>METROPOLITAN WATER PENSION FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	176.2	2,296.4	1,263.3	1,033.1	55.0%
2013	169.4	2,194.9	1,188.5	1,006.4	54.1%
2012	163.8	2,136.5	1,076.7	1,059.8	50.4%
2011	164.3	2,101.3	1,097.4	1,003.9	52.2%
2010	174.5	2,036.7	1,151.6	885.1	56.5%
2009	176.9	1,939.2	1,177.8	761.4	60.7%
2008	167.9	1,852.3	1,211.8	640.5	65.4%
2007	158.8	1,795.2	1,256.9	538.3	70.0%
2006	152.8	1,724.7	1,209.6	515.1	70.1%
2005	149.2	1,654.2	1,171.8	482.4	70.8%
2004	146.4	1,578.4	1,161.8	416.6	73.6%

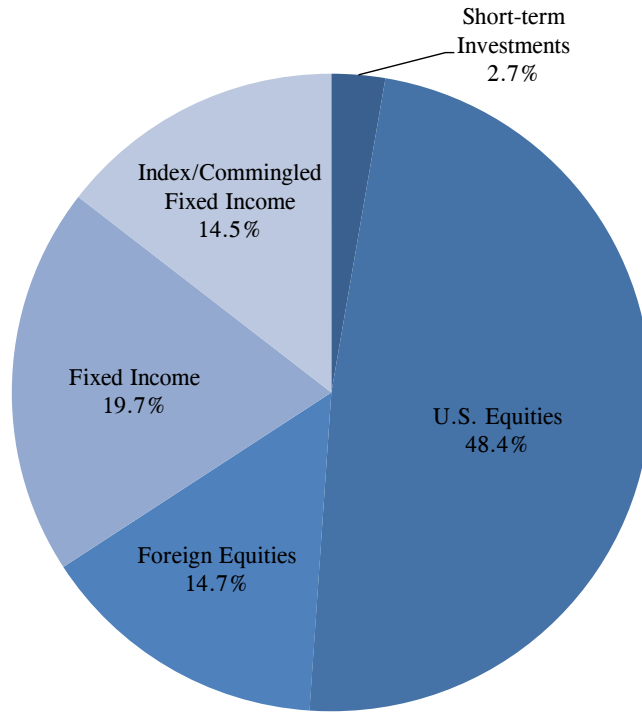


**TABLE 20**

<b>METROPOLITAN WATER PENSION FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
Fiscal Years	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Additions to Assets</b>									
Employer	73.9	92.9	65.1	37.4	29.9	32.1	33.4	28.0	34.5
Employees	19.0	16.9	14.7	15.0	15.9	15.7	14.8	15.6	15.0
Net Investment Income	81.6	226.1	116.3	-1.4	142.7	194.1	-299.7	62.5	106.5
Other	0.0	0.0	0.0	0.0	0.2	0.0	0.6	0.2	0.0
<b>Total Asset Additions (A)</b>	<b>174.5</b>	<b>335.9</b>	<b>196.1</b>	<b>51.0</b>	<b>188.7</b>	<b>241.9</b>	<b>-251</b>	<b>106.3</b>	<b>156.0</b>
<b>Deductions from Assets</b>									
Benefits	132.914	127.2	122.7	118.1	108.2	103.4	100.1	94.8	89.1
Refunds	1.0	1.1	1.2	2.7	1.4	1.2	1	1.2	1.4
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.5	1.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>135.3</b>	<b>129.7</b>	<b>125.2</b>	<b>122.2</b>	<b>110.9</b>	<b>105.9</b>	<b>102.4</b>	<b>97.5</b>	<b>92.0</b>
<b>Change in Net Assets (A-B=C)</b>	<b>39.2</b>	<b>206.2</b>	<b>70.9</b>	<b>-71.2</b>	<b>77.8</b>	<b>136.0</b>	<b>-353.3</b>	<b>8.8</b>	<b>64.0</b>

**CHART 63**

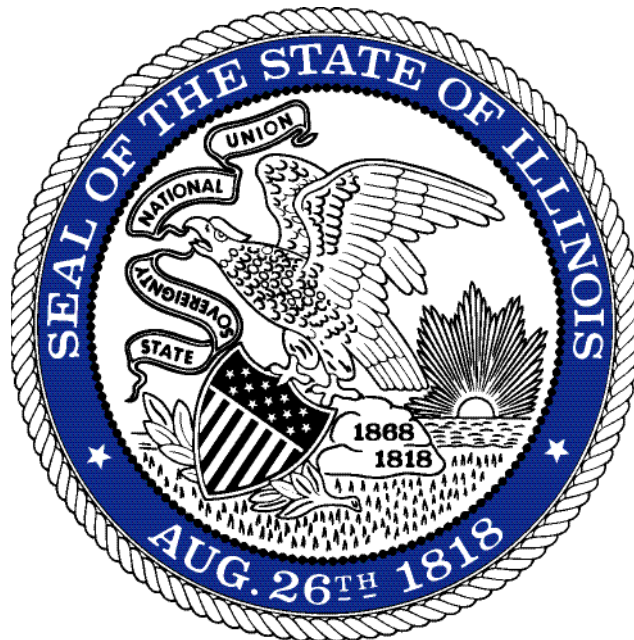
**METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND  
ASSET ALLOCATION AS OF DECEMBER 2014**



Total investment at market value is \$1.28B

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

- **Plan Summary**
- **Active Employees**
- **Employee Annuitants**
- **Average Salaries**
- **Average Retirement Annuity**
- **Funded Ratios**
- **Change in Unfunded Liabilities**
- **Investment Income**
- **Investment Rates of Return**
- **Systems Experience**
- **Changes in Net Assets**



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# **Municipal Employees' Annuity and Benefit Fund of Chicago – Tier 1 Plan Summary (as modified by P.A. 98-0641)**

---

\* P.A. 98-0641 has been declared unconstitutional by the Cook County Circuit Court on July 24, 2015. Please refer to page 9 for more information.

## **Retirement Age**

---

- Age 60 with 10 years of service.
- Age 55 with 20 years of service.
- Age 50 with at least 30 years of service.
- Age 55 with 10 years of service (money purchase).

## **Retirement Formula**

---

- 2.4% of final average salary for each year of service.

## **Maximum Annuity**

---

- 80% of final average salary.

## **Salary Used to Calculate Pension**

---

- Average of 4 highest consecutive years within final 10 years of service.

## **Annual COLA**

---

- The lesser of 3% simple or ½ the CPI-U.

## **Employee Contributions**

---

- Currently 8.5% of salary.
- Pursuant to P.A. 98-0641: Beginning January 1, 2015: employee contributions will increase to 9% and will increase by .5% per year, settling at 11% in 2019. This applies to all active employees.

## **Required Employer Contributions**

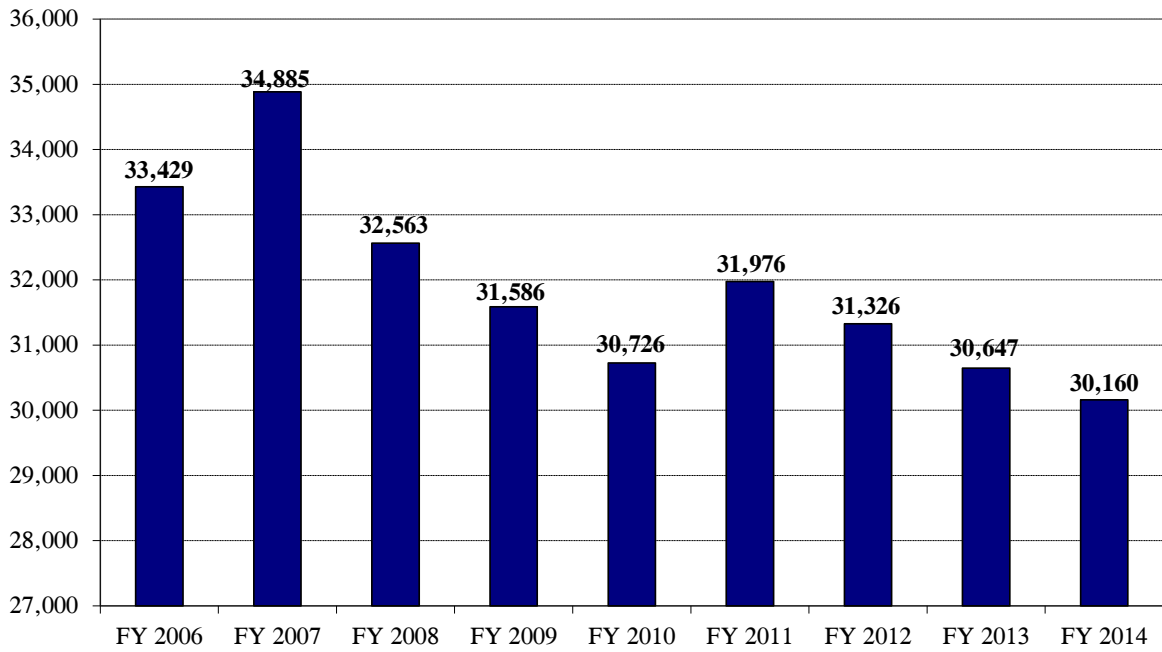
---

The City of Chicago is required to contribute an amount equal to the employee contributions to the fund two years prior to the year in which the tax is levied, multiplied by 1.25. Beginning in 2016, this multiplier will increase to 1.85 and will increase by .3 per year, settling at 3.05 in 2020.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

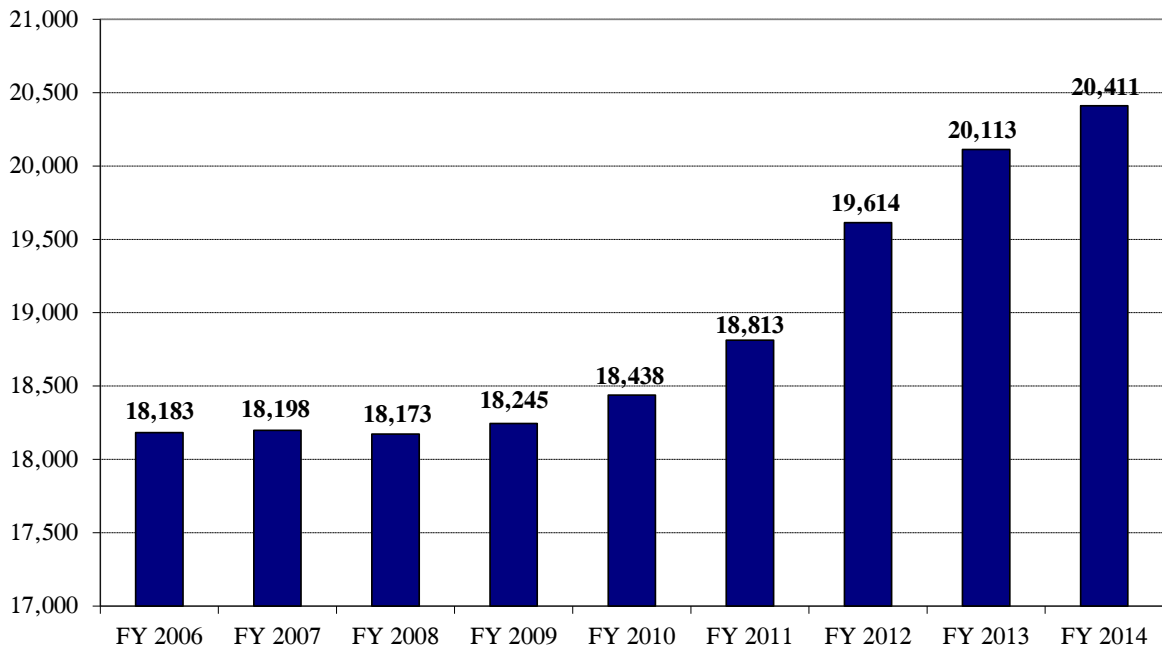
### CHART 64

MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO  
Active Employees



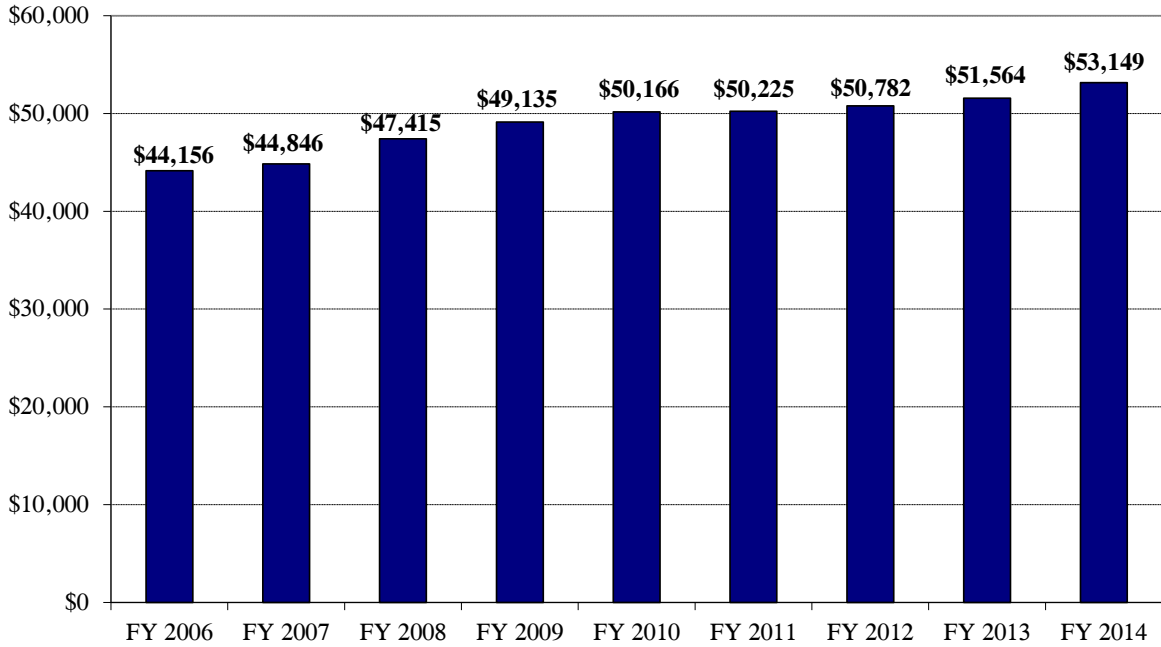
### CHART 65

MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO  
Employee Annuitants



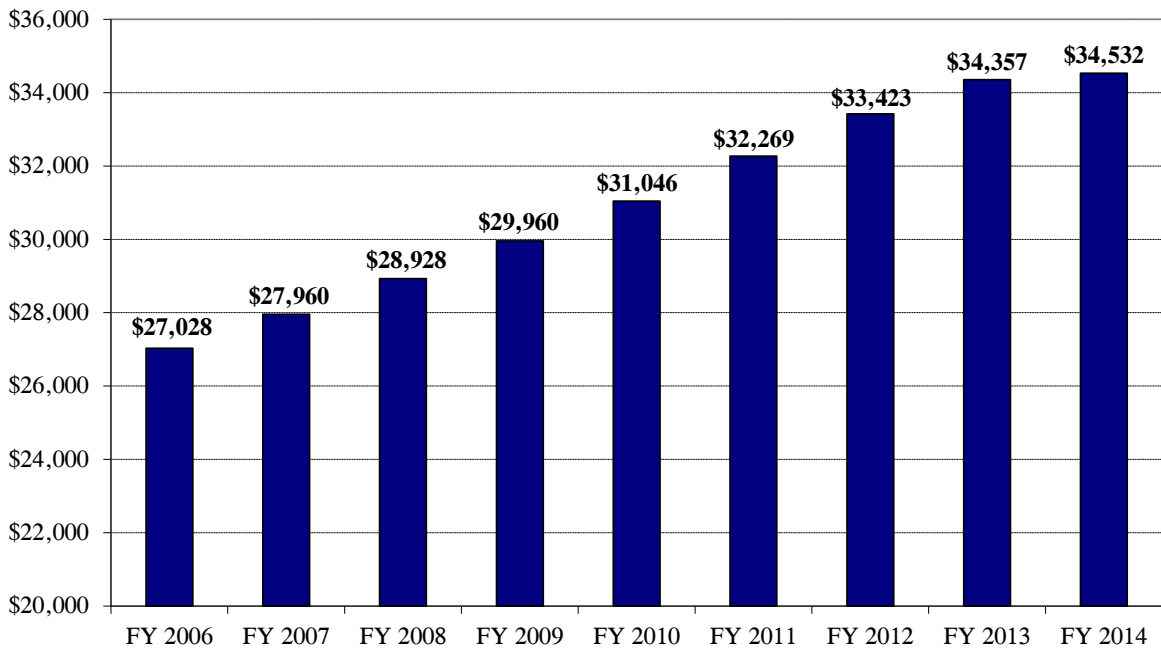
**CHART 66**

**MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Average Employee Salaries**



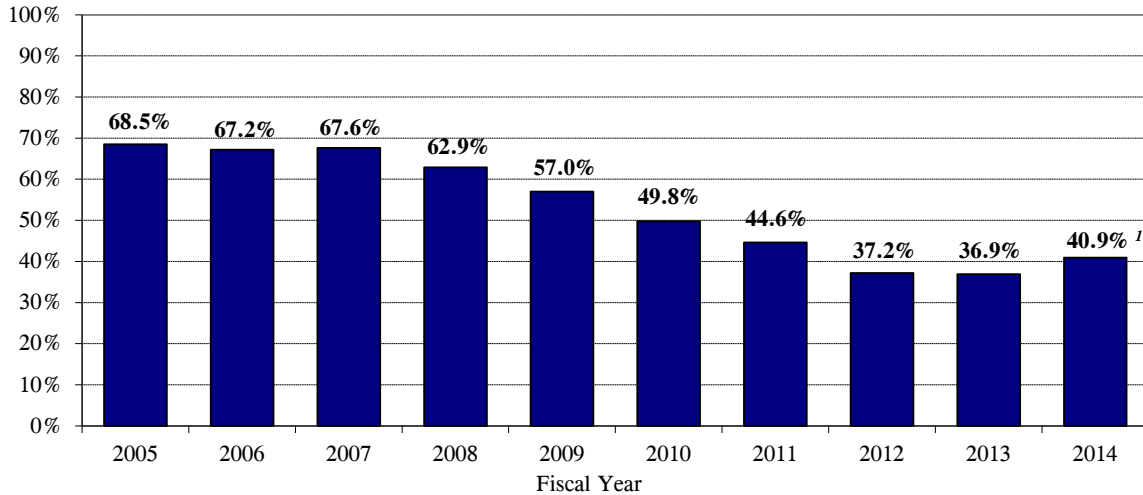
**CHART 67**

**MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Average Retirement Annuities**



**CHART 68**

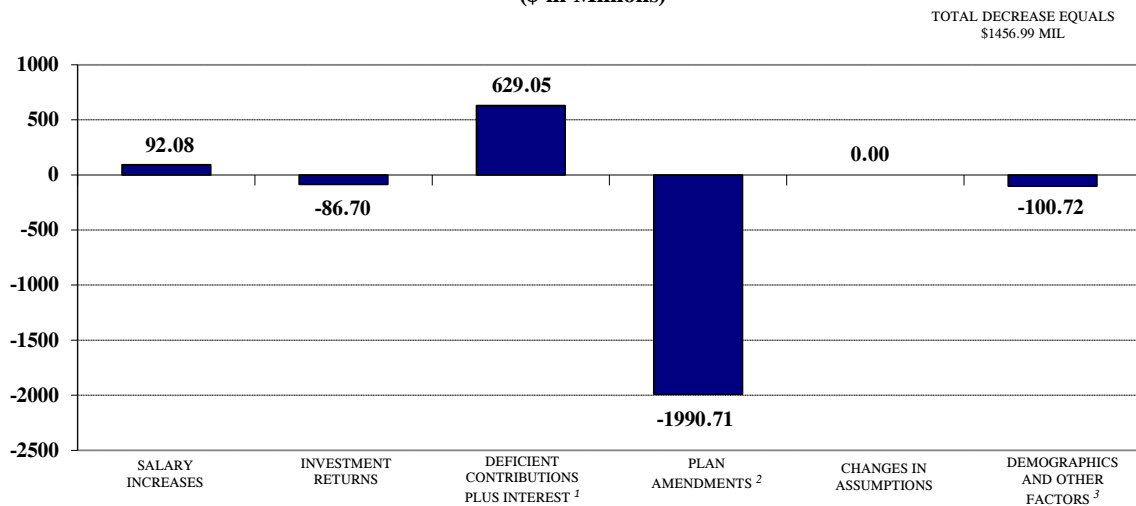
**MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Funded Ratio**  
**FY 2005 - FY 2014**



<sup>1</sup> The 2014 ratio reflected the benefit provision changes by P.A. 98-0641. Prior to reflecting the benefit provision changes, the 2014 ratio is 35.2%.

**CHART 69**

**MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Change in Unfunded Liabilities**  
**FY 2014**  
**(\$ in Millions)**



<sup>1</sup> Unfunded liability increases due to contributions being less than normal cost plus interest cost.

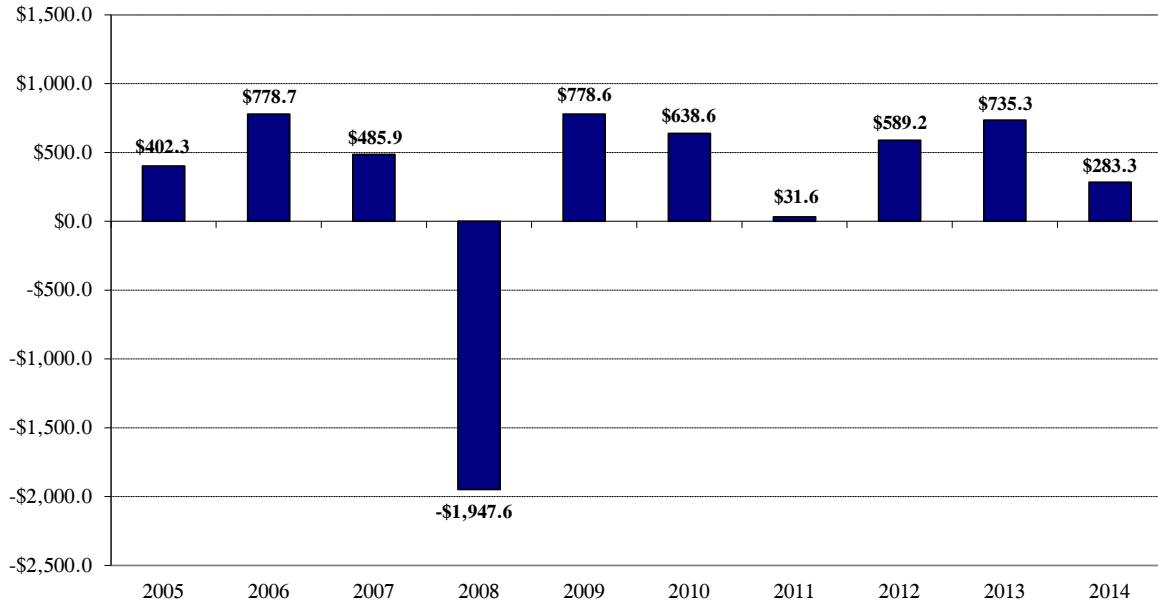
<sup>2</sup> P.A. 98-0641 changed the funding policy and plan's benefit, and increased employer contributions multiple and employee contributions. These changes decrease unfunded liabilities by \$1,990.71 million.

<sup>3</sup> Demographics and other factors consist of gains from Salary/service increase and deaths among retirees and beneficiaries, as well as losses from Retirement, Turnover, and change in software/actuary.



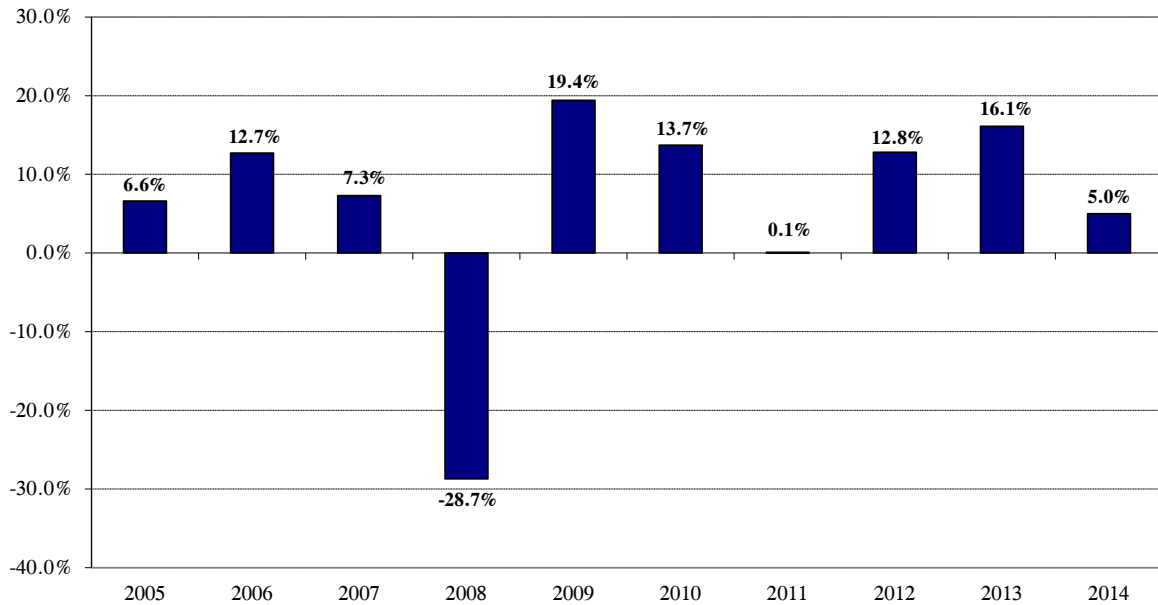
### CHART 70

MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO  
Investment Income FY 2005 - FY 2014  
Actuarially Assumed Rate of Return: 7.50%  
(\$ in Millions)



### CHART 71

MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO  
Rate of Return FY 2005 - FY 2014  
Actuarially Assumed Rate of Return: 7.50%



**TABLE 21**

<b>MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	1,603.0	12,324.6	5,039.3	7,285.3	40.9%
2013	1,580.3	13,856.5	5,114.2	8,742.3	36.9%
2012	1,590.8	13,637.5	5,073.3	8,564.2	37.2%
2011	1,606.0	12,456.2	5,552.3	6,903.9	44.6%
2010	1,541.4	12,052.2	6,003.4	6,048.8	49.8%
2009	1,552.0	11,054.3	6,295.8	4,758.5	57.0%
2008	1,544.0	10,605.8	6,669.5	3,936.3	62.9%
2007	1,564.5	10,186.6	6,890.5	3,296.1	67.6%
2006	1,475.9	9,692.0	6,509.1	3,182.9	67.2%
2005	1,407.3	9,250.2	6,332.4	2,917.8	68.5%
2004	1,303.1	8,808.5	6,343.1	2,465.4	72.0%

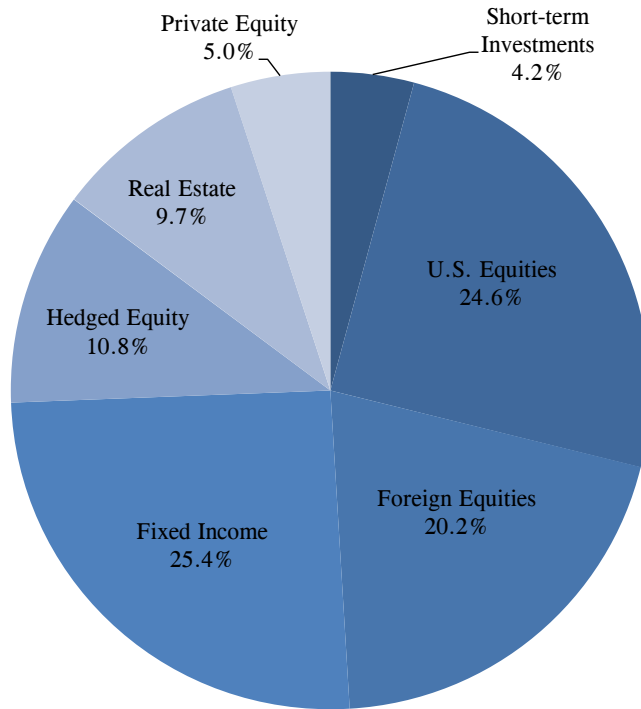
*NOTE: The above FY 2004 - FY 2014 figures include healthcare assets/liabilities.*

**TABLE 22**

<b>MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	158.8	157.7	158.4	156.5	164.3	157.7	155.8	148.1	157.1
Employees	130.0	131.5	130.2	132.6	133.3	131.0	137.7	132.5	129.5
Net Investment Income	283.3	735.3	589.2	31.6	638.6	778.6	-1,947.6	485.9	778.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>572.1</b>	<b>1,024.5</b>	<b>877.8</b>	<b>320.7</b>	<b>936.2</b>	<b>1,067.3</b>	<b>-1,654.1</b>	<b>766.5</b>	<b>1,065.3</b>
<b>Deductions from Assets</b>									
Benefits	775.4	745.5	704.7	663.5	630.1	604.8	582.7	562.5	547.4
Refunds	32.3	33.5	36.9	32.1	29.9	28.1	25.5	28.0	27.2
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	6.6	6.5	6.8	7.4	6.8	7.8	7.7	7.5	6.4
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
<b>Total Asset Deductions (B)</b>	<b>814.3</b>	<b>785.5</b>	<b>748.4</b>	<b>703.0</b>	<b>666.8</b>	<b>640.7</b>	<b>615.9</b>	<b>598.1</b>	<b>581.0</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-242.2</b>	<b>239.0</b>	<b>129.4</b>	<b>-382.3</b>	<b>269.4</b>	<b>426.6</b>	<b>-2,270.0</b>	<b>168.4</b>	<b>484.3</b>

**CHART 72**

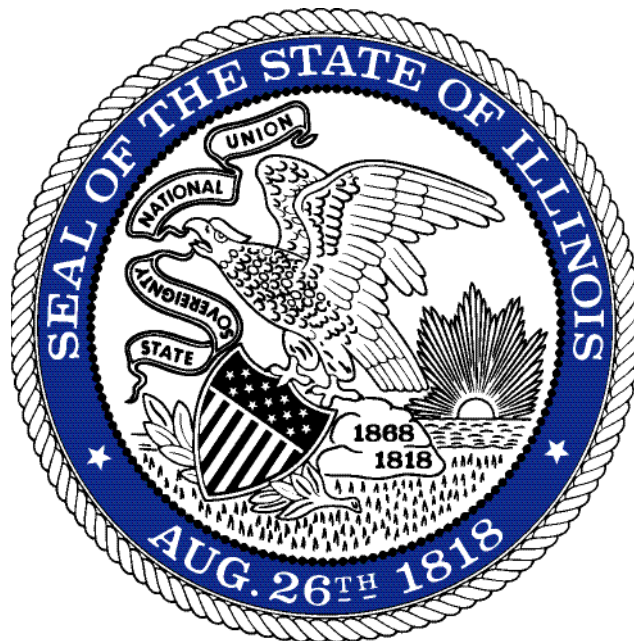
**MUNICIPAL EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO  
ASSET ALLOCATION AS OF DECEMBER 2014**



Total investment at fair value is \$5.07B

## X. Park Employees' Annuity and Benefit Fund of Chicago

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections
- Normal Cost Projections



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.**



# **Park Employees' Annuity and Benefit Fund of Chicago Tier 1 Plan Summary (as modified by P.A. 98-0622)**

---

## **Retirement Age**

---

- Age 50 with 10 years of service. (If 45 years of age or older as of 1/1/15)
- Age 58 with 10 years of service. (If under 45 years of age as of 1/1/15)

## **Retirement Formula**

---

- 2.4% of final average salary.

## **Maximum Annuity**

---

- 80% of final average salary.

## **Salary Used to Calculate Pension**

---

- Average of 4 highest consecutive years within final 10 years of service.

## **Annual COLA**

---

- Lesser of 3% or ½ the CPI-U. COLA will be suspended in FY 2015, FY 2017, and FY 2019.

## **Employee Contributions**

---

- Beginning 1/1/15: 10% of salary.
- Beginning 1/1/17: 11% of salary.
- Beginning 1/1/19: 12% of salary.
- For any duration of time that the funded ratio is over 90%, employees will pay 10.5% of salary as contributions. If under 90% funded, contributions will be 12%.

## **Employer Contributions**

---

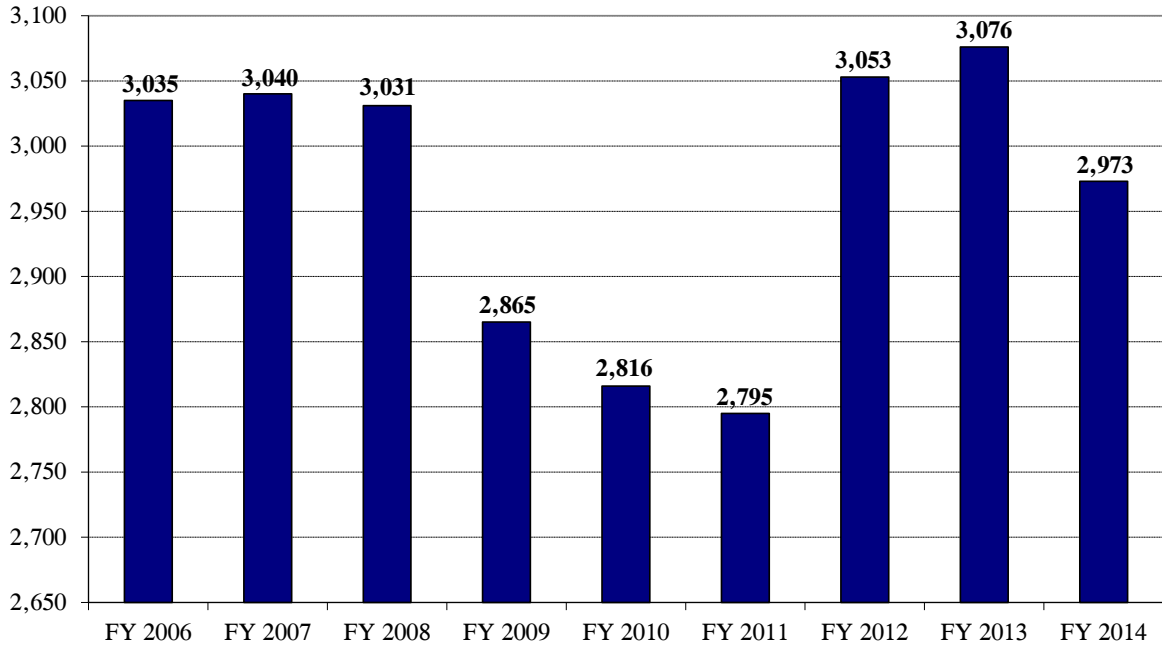
The Board of Park Commissioners is required to contribute an amount equal to the employee contributions during the fiscal year two years prior to the year the tax is levied, multiplied by 1.10.

- Beginning 1/1/15: multiplied by 1.70.
- Beginning 1/1/17: multiplied by 2.30.
- Beginning 1/1/19: multiplied by 2.90.
- Additionally, there will be supplemental contributions of \$12.5 million in FY 2015 & 2016, and \$50 million in FY 2019.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011.**

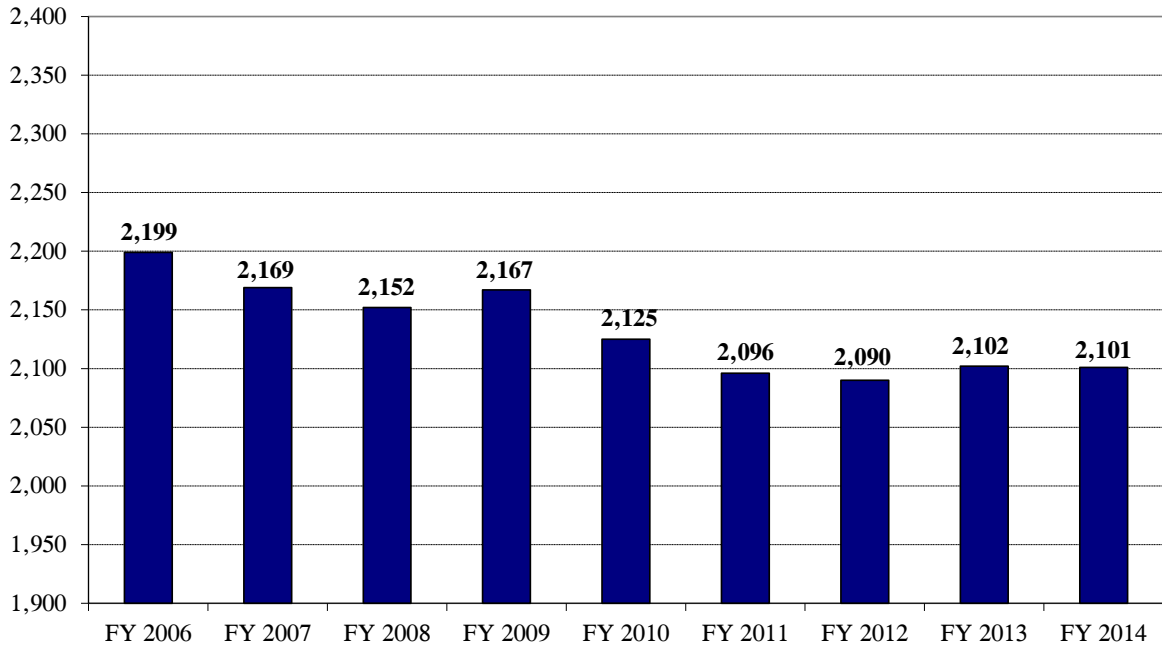
**CHART 73**

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Active Employees**



**CHART 74**

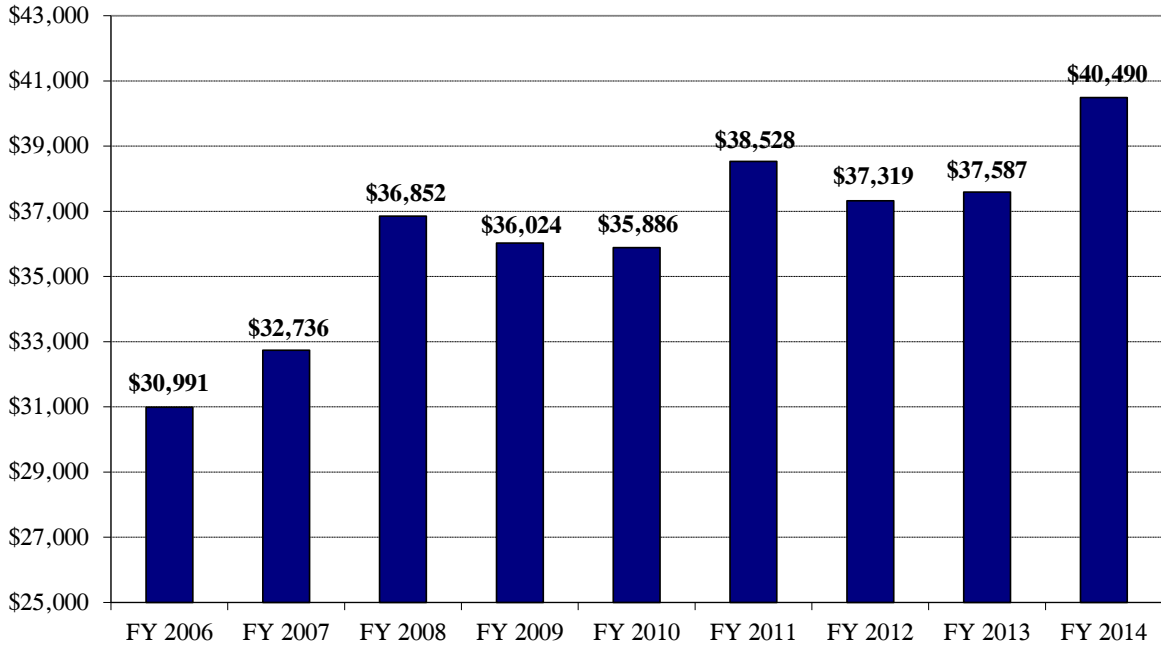
**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Employee Annuitants**





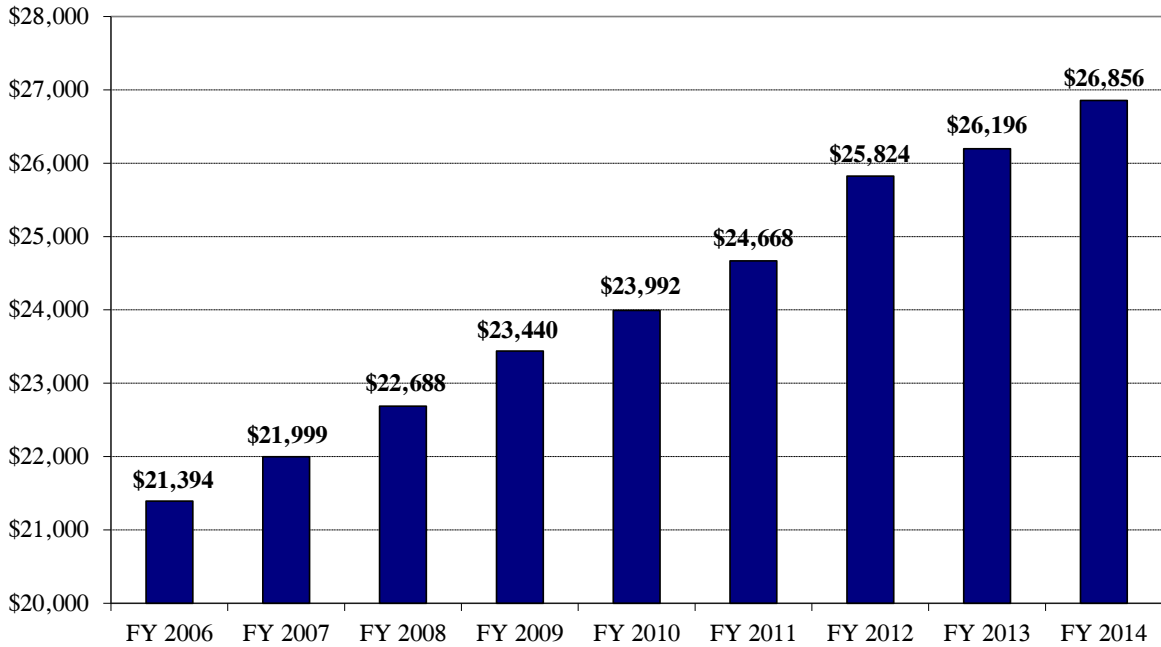
**CHART 75**

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Average Employee Salaries**



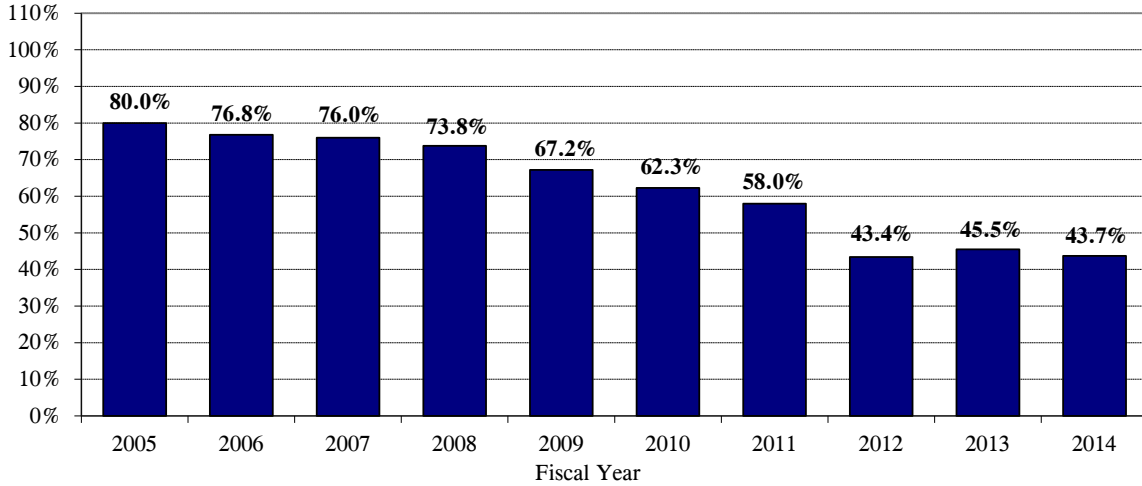
**CHART 76**

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Average Retirement Annuities**



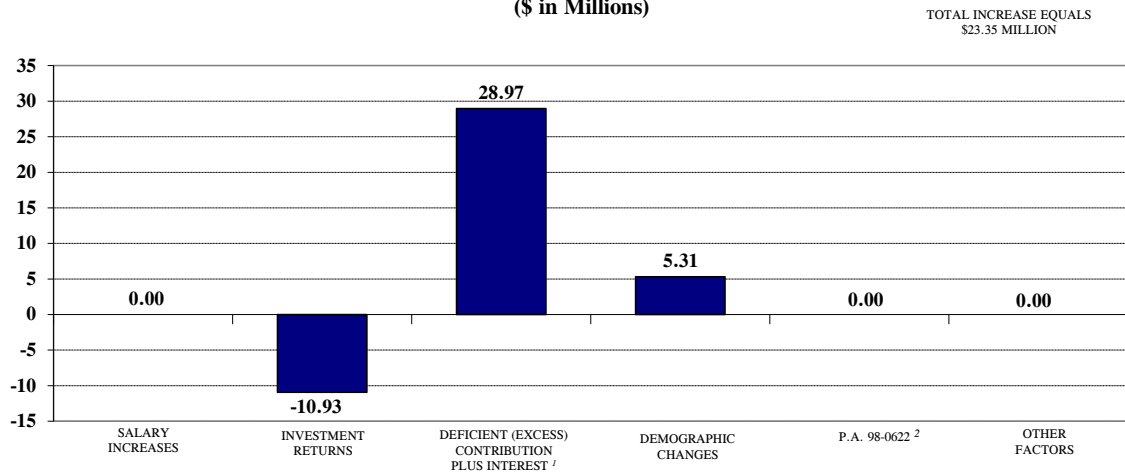
**CHART 77**

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Funded Ratio**  
**FY 2005 - FY 2014**



**CHART 78**

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Change in Unfunded Liabilities**  
**FY 2014**  
**(\$ in Millions)**

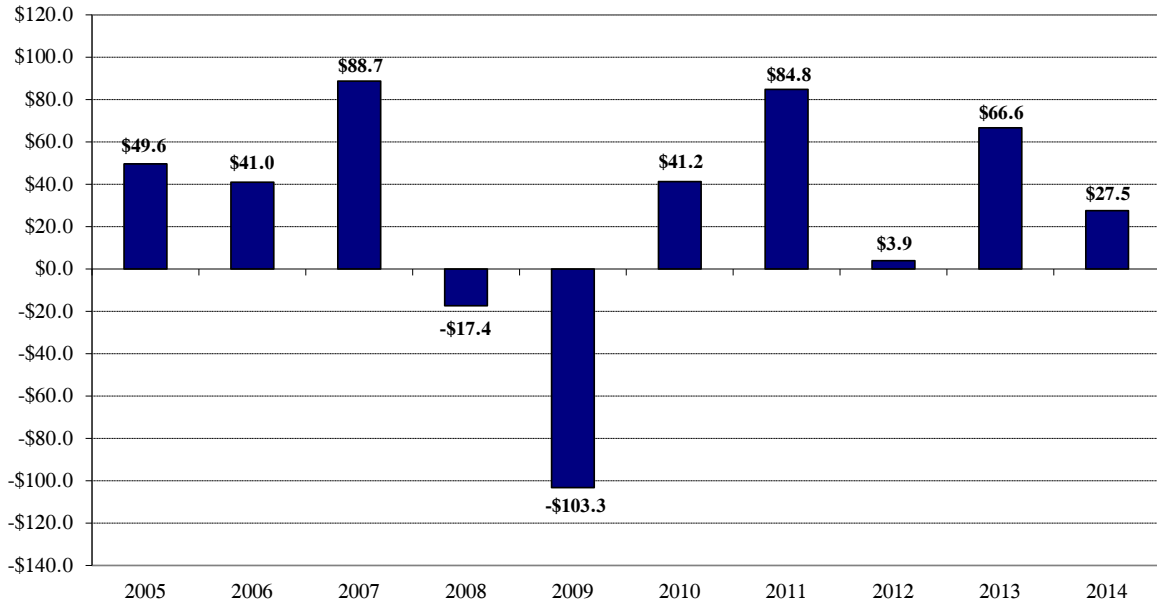


<sup>1</sup> Unfunded liability increases due to contributions being less than normal cost plus interest cost.

<sup>2</sup> P.A. 98-0622 required the Park Employees' Annuity and Benefit Fund of Chicago to reach a 90% funded ratio by FY 2050 and made various other changes that be found in the beginning of this section.

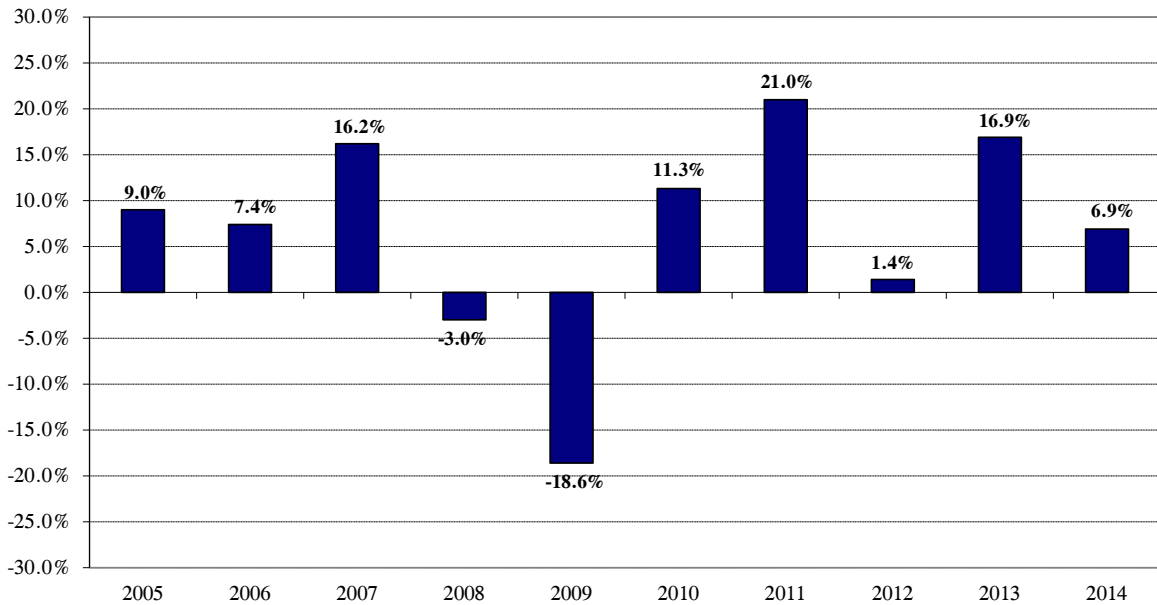
### CHART 79

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Investment Income FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.50%**  
**(\$ in Millions)**



### CHART 80

**PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Rate of Return FY 2005 - FY 2014**  
**Actuarially Assumed Rate of Return: 7.50%**



**TABLE 23**

<b>PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	119.0	900.8	393.8	507.0	43.7%
2013	117.8	888.0	404.3	483.7	45.5%
2012	114.2	866.4	440.7	425.7	50.9%
2011	107.7	843.9	489.4	354.5	58.0%
2010	107.4	833.0	518.6	314.4	62.3%
2009	108.9	823.9	553.8	270.1	67.2%
2008	111.7	795.4	586.7	208.7	73.8%
2007	106.6	767.9	583.3	184.6	76.0%
2006	101.1	745.3	572.7	172.6	76.8%
2005	95.7	734.4	587.8	146.6	80.0%
2004	87.8	738.6	610.3	128.3	82.6%

**TABLE 24**

<b>PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	11.2	15.8	10.8	11.0	10.8	9.7	9.0	9.6	5.2
Employees	10.8	10.7	10.4	9.8	9.8	10.1	10.3	9.7	9.1
Net Investment Income	27.6	66.6	3.8	84.8	41.5	-103.5	-17.4	88.7	41.0
Other	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>49.6</b>	<b>93.2</b>	<b>25.1</b>	<b>105.6</b>	<b>62.1</b>	<b>-83.7</b>	<b>1.9</b>	<b>108.0</b>	<b>55.3</b>
<b>Deductions from Assets</b>									
Benefits	67.8	66.2	63.5	62.0	61.2	60.3	58.0	56.8	56.3
Refunds	2.7	2.1	2.0	1.7	1.4	2.7	2.0	1.8	2.1
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	1.5	1.5	1.6	1.5	1.4	1.3	1.3	1.2	1.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>72.0</b>	<b>69.8</b>	<b>67.1</b>	<b>65.2</b>	<b>64.0</b>	<b>64.3</b>	<b>61.2</b>	<b>59.8</b>	<b>59.6</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-22.3</b>	<b>23.4</b>	<b>-42.0</b>	<b>40.4</b>	<b>-1.9</b>	<b>-148.0</b>	<b>-59.4</b>	<b>48.2</b>	<b>-4.3</b>

Table 25 below contains funding projections provided to CGFA by the Park Employees' Annuity and Benefit Fund of Chicago based upon the December 31, 2014 actuarial valuation.

**TABLE 25**

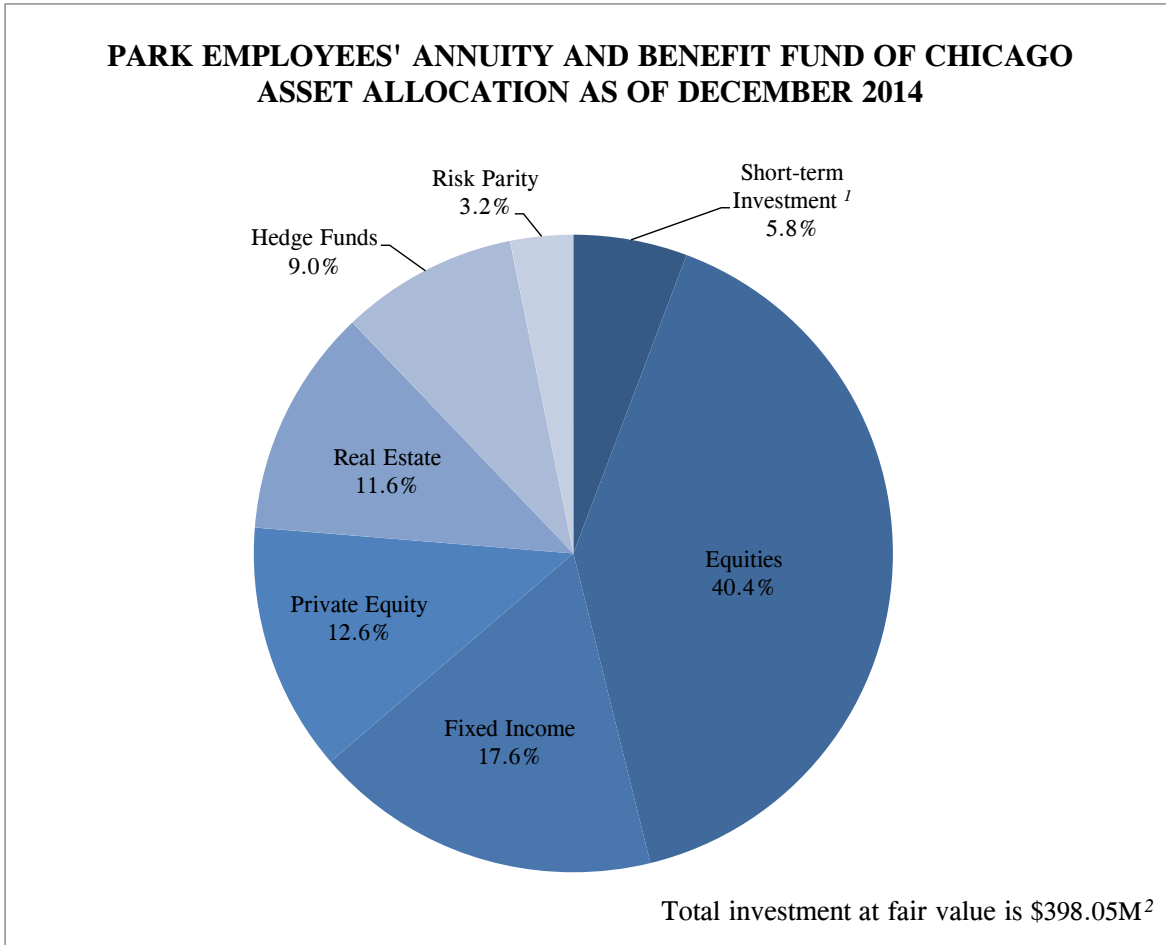
<b>Park Employees' Annuity and Benefit Fund of Chicago</b> <b>Actuarial Valuation Projection Results as of December 31, 2014</b> <b>Funding Impact of P.A. 98-0622</b> <b>(\$ in Millions)</b>								
Fiscal Year	Capped Payroll	Total City Contribution <sup>1</sup>	Total City Contribution As % of Payroll	Total Employee Contribution	Accrued Liability	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2015	124.8	17.4	14.0%	12.6	907.3	397.1	510.1	43.8%
2016	122.7	17.9	14.6%	12.4	914.3	400.3	514.0	43.8%
2017	121.0	28.2	23.3%	13.4	921.3	404.5	516.7	43.9%
2018	119.6	27.7	23.1%	13.3	928.7	400.5	528.3	43.1%
2019	118.5	37.8	31.9%	14.3	936.2	459.2	477.0	49.1%
2020	117.7	37.4	31.8%	14.2	944.1	469.5	474.6	49.7%
2021	117.0	40.4	34.5%	14.2	952.2	482.9	469.3	50.7%
2022	116.6	40.1	34.4%	14.1	960.4	496.4	464.1	51.7%
2023	116.4	39.9	34.3%	14.1	968.8	510.0	458.8	52.6%
2024	116.1	39.8	34.3%	14.1	977.3	523.9	453.4	53.6%
2025	115.8	39.7	34.3%	14.0	985.9	538.0	447.8	54.6%
2026	115.7	39.6	34.2%	14.0	994.4	552.4	442.0	55.6%
2027	115.5	39.5	34.2%	14.0	1,002.9	567.2	435.8	56.6%
2028	115.6	39.4	34.1%	14.0	1,011.8	582.5	429.2	57.6%
2029	115.9	39.4	34.0%	14.0	1,020.4	598.1	422.3	58.6%
2030	116.2	39.4	33.9%	14.1	1,028.9	613.9	415.0	59.7%
2031	116.5	39.5	33.9%	14.1	1,037.3	630.2	407.1	60.8%
2032	117.0	39.6	33.9%	14.2	1,045.5	647.0	398.5	61.9%
2033	117.5	39.7	33.8%	14.2	1,053.8	664.5	389.4	63.1%
2034	118.2	39.9	33.7%	14.3	1,064.4	684.9	379.4	64.4%
2035	118.9	40.1	33.7%	14.4	1,075.1	706.5	368.7	65.7%
2036	119.7	40.3	33.7%	14.5	1,086.2	729.3	357.0	67.1%
2037	120.5	40.5	33.6%	14.6	1,097.7	753.4	344.2	68.6%
2038	121.4	40.8	33.6%	14.7	1,109.8	779.4	330.4	70.2%
2039	122.6	41.1	33.5%	14.8	1,122.6	807.2	315.4	71.9%
2040	123.8	41.4	33.4%	15.0	1,136.3	837.1	299.1	73.7%
2041	125.1	41.8	33.4%	15.1	1,150.8	869.4	281.4	75.5%
2042	126.6	42.2	33.3%	15.3	1,166.5	904.4	262.1	77.5%
2043	128.2	42.6	33.2%	15.5	1,183.8	942.7	241.0	79.6%
2044	130.1	43.1	33.2%	15.7	1,202.7	984.6	218.1	81.9%
2045	132.0	43.7	33.1%	16.0	1,223.6	1,030.5	193.1	84.2%
2046	134.1	44.3	33.0%	16.2	1,246.6	1,080.8	165.8	86.7%
2047	136.4	45.0	33.0%	16.5	1,272.2	1,136.2	136.0	89.3%
2048	138.9	45.7	32.9%	16.8	1,300.6	1,197.1	103.6	92.0%
2049	141.5	0.0	0.0%	15.0	1,332.0	1,213.5	118.6	91.1%
2050	144.2	0.0	0.0%	15.3	1,366.8	1,231.8	135.0	90.1%
2051	147.3	12.1	8.2%	15.6	1,405.2	1,264.7	140.5	90.0%
2052	150.4	14.1	9.4%	15.9	1,447.7	1,302.9	144.8	90.0%
2053	153.8	14.4	9.4%	16.3	1,494.7	1,345.2	149.5	90.0%

<sup>1</sup> Employer Contributions do not include supplemental contributions of \$12.5 Million in Fiscal Years 2015 and 2017 or \$50 Million in Fiscal Year 2019.

**TABLE 26**

<b>Park Employees' Annuity and Benefit Fund of Chicago</b> <b>Projected Normal Cost Reflecting P.A. 98-0622 as of December 31, 2014</b> <b>(\$ in Millions)</b>						
Fiscal Year	Employer's Normal Cost	Employer's Normal Cost as a % of Payroll	Employee Contributions	Employee Contributions as a % of Payroll	Total Normal Cost	Total Normal Cost as a % of Payroll
2015	0.8	0.6%	12.6	10.1%	13.4	10.7%
2016	0.8	0.7%	12.4	10.1%	13.2	10.8%
2017	-0.3	-0.3%	13.4	11.1%	13.1	10.8%
2018	-0.3	-0.2%	13.3	11.1%	13.0	10.9%
2019	-1.4	-1.2%	14.3	12.1%	12.9	10.9%
2020	-1.4	-1.2%	14.2	12.1%	12.8	10.9%
2021	-1.4	-1.2%	14.2	12.1%	12.8	10.9%
2022	-1.4	-1.2%	14.1	12.1%	12.7	10.9%
2023	-1.4	-1.2%	14.1	12.1%	12.7	10.9%
2024	-1.4	-1.2%	14.1	12.1%	12.6	10.9%
2025	-1.5	-1.3%	14.0	12.1%	12.6	10.9%
2026	-1.5	-1.3%	14.0	12.1%	12.5	10.8%
2027	-1.6	-1.4%	14.0	12.1%	12.4	10.7%
2028	-1.7	-1.5%	14.0	12.1%	12.3	10.7%
2029	-1.7	-1.5%	14.0	12.1%	12.3	10.6%
2030	-1.8	-1.6%	14.1	12.1%	12.2	10.5%
2031	-1.9	-1.6%	14.1	12.1%	12.2	10.5%
2032	-2.0	-1.7%	14.2	12.1%	12.2	10.4%
2033	-2.1	-1.8%	14.2	12.1%	12.2	10.4%
2034	-2.1	-1.8%	14.3	12.1%	12.2	10.3%
2035	-2.2	-1.9%	14.4	12.1%	12.2	10.2%
2036	-2.3	-2.0%	14.5	12.1%	12.1	10.1%
2037	-2.4	-2.0%	14.6	12.1%	12.1	10.1%
2038	-2.5	-2.1%	14.7	12.1%	12.2	10.0%
2039	-2.6	-2.2%	14.8	12.1%	12.2	10.0%
2040	-2.7	-2.2%	15.0	12.1%	12.3	9.9%
2041	-2.8	-2.3%	15.1	12.1%	12.3	9.8%
2042	-2.9	-2.3%	15.3	12.1%	12.4	9.8%
2043	-3.0	-2.4%	15.5	12.1%	12.5	9.7%
2044	-3.1	-2.4%	15.7	12.1%	12.6	9.7%
2045	-3.3	-2.5%	16.0	12.1%	12.7	9.6%
2046	-3.4	-2.5%	16.2	12.1%	12.8	9.6%
2047	-3.5	-2.6%	16.5	12.1%	13.0	9.5%
2048	-3.6	-2.6%	16.8	12.1%	13.2	9.5%
2049	-1.6	-1.1%	15.0	10.6%	13.4	9.5%
2050	-1.6	-1.1%	15.3	10.6%	13.6	9.4%
2051	-1.7	-1.2%	15.6	10.6%	13.9	9.4%
2052	-1.8	-1.2%	15.9	10.6%	14.1	9.4%
2053	-1.9	-1.2%	16.3	10.6%	14.4	9.4%

**CHART 81**



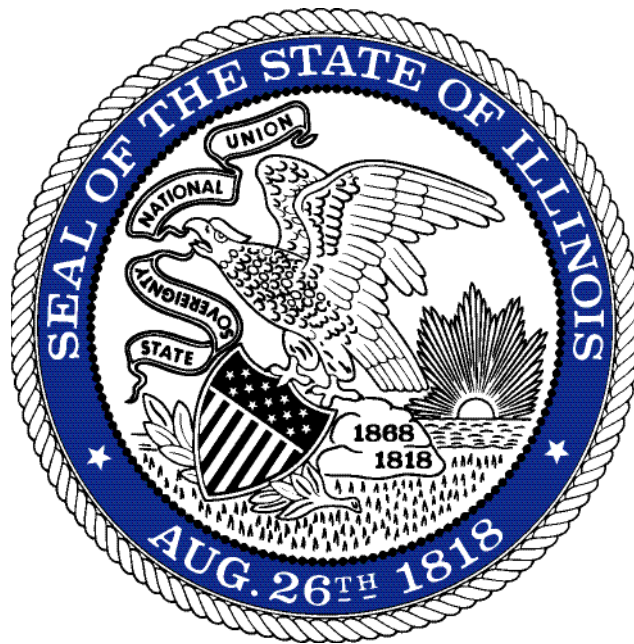
<sup>1</sup> The Fund's investment policy discourages the use of cash equivalents, except to meet liquidity needs.

<sup>2</sup> Total investments at fair value could be different with total assets value due to other items such as securities lending collateral, prepaid annuity benefits, etc.



## XI. Policemen's Annuity and Benefit Fund of Chicago

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections
- Normal Cost Projections



**Note:** All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of December 31, 2014.



# Policemen's Annuity and Benefit Fund of Chicago

## Tier 1 Plan Summary

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### Retirement Age

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- Age 50 with 20 years of service.
- Age 50 with 10 years of service (accumulated annuity).
- Mandatory retirement at age 63.

### Retirement Formula

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- For employees with 20 or more years of service, 50% of final average salary plus 2.5% of final average salary for each year in excess of 20.

### Maximum Annuity

---

- 75% of final average salary.

### Salary Used to Calculate Pension

---

- Average of 4 highest consecutive years within final 10 years of service.

### Annual COLA

---

- 3% non-compounded with no limit if born before 1/1/55.
- 1.5% non-compounded if born after 1/1/55, subject to 30% maximum.

### Employee Contributions

---

- 9.0% of salary.

### Employer Contributions

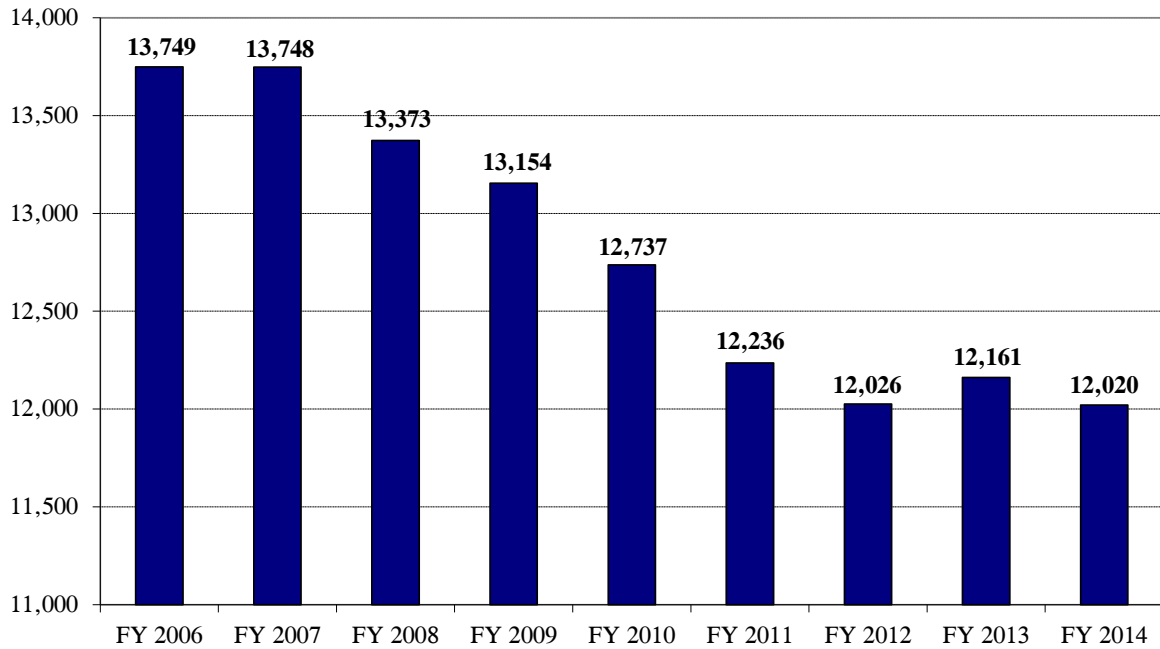
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Pursuant to P.A. 96-1495, annual actuarially determined employer contributions will be calculated and required. Such actuarially determined contributions will be established with a funding goal of 90% by the end of FY 2040, based upon the actuarial value of fund assets and application of required actuarial assumptions and methodologies. Failure of the employer to remit the required contributions can result in withholding of certain grants owed by the State of Illinois.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-1495. See P.A. 96-1495 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

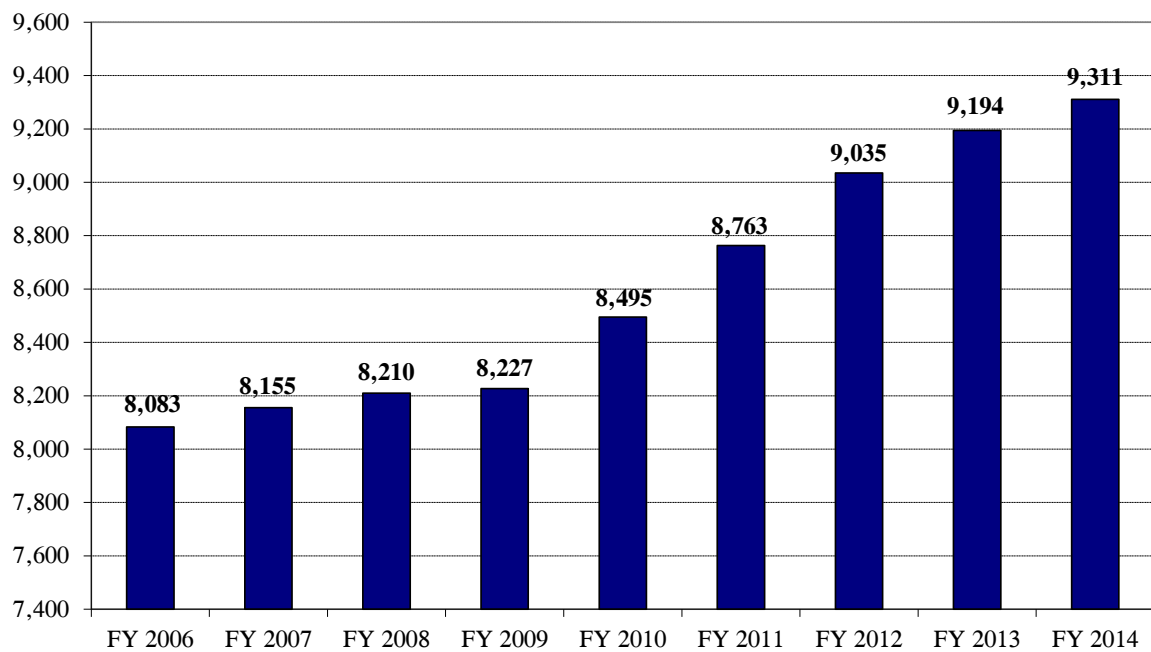
**CHART 82**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Active Employee**



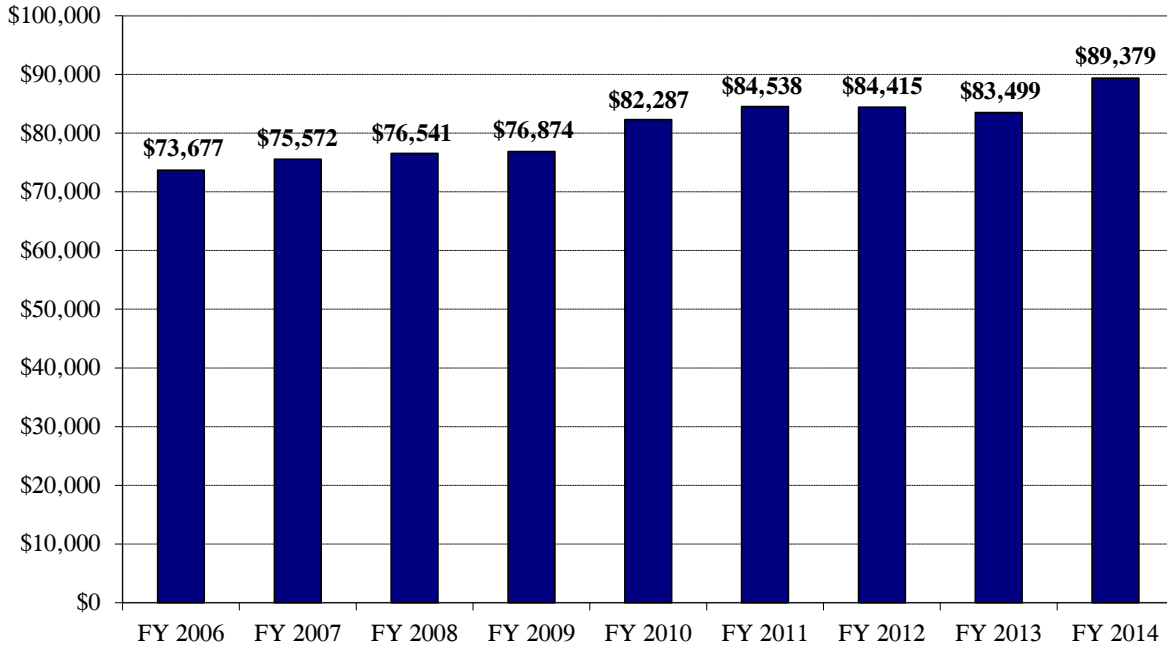
**CHART 83**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Employee Annuitants**



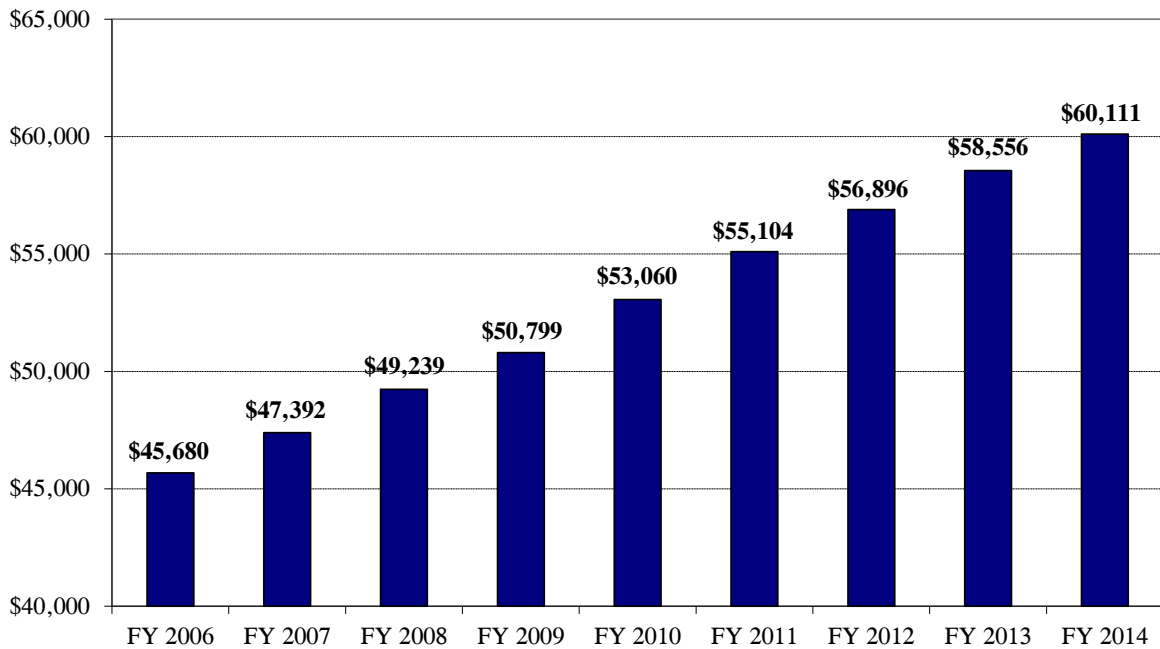
**CHART 84**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
Average Employee Salaries**



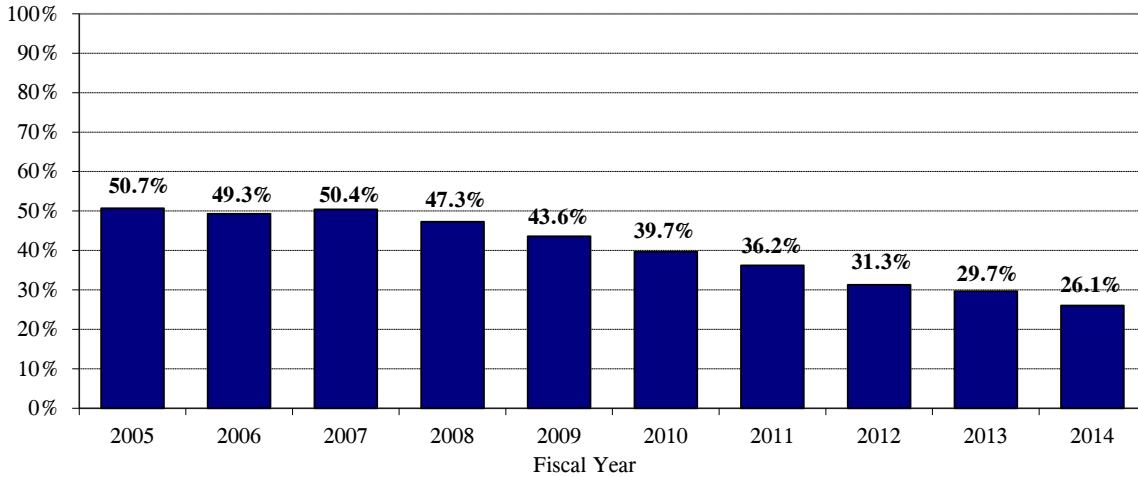
**CHART 85**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
Average Retirement Annuity**



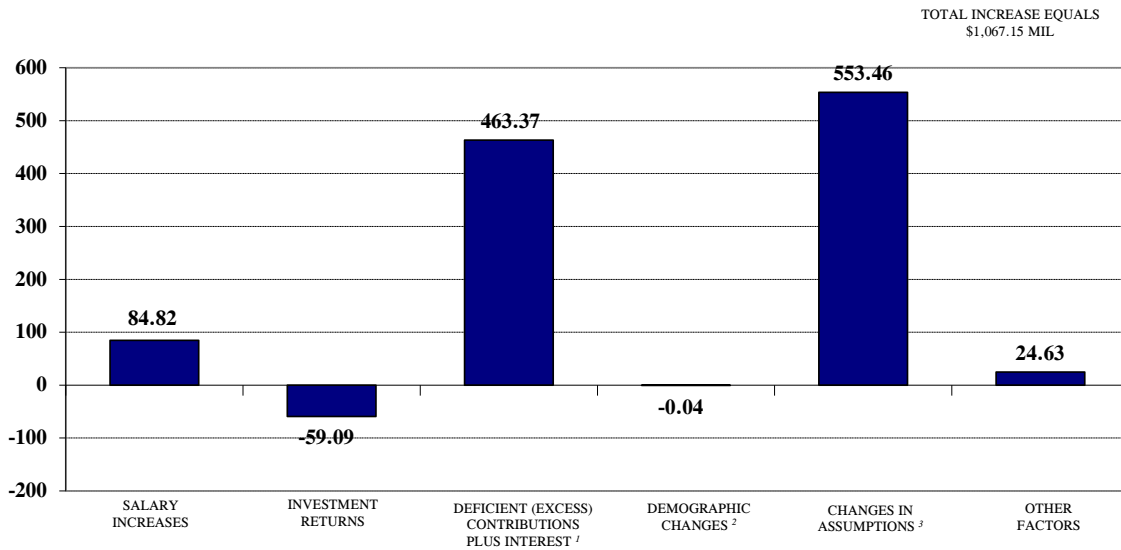
**CHART 86**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 87**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
Change in Unfunded Liabilities  
FY 2014  
(\$ in Millions)**



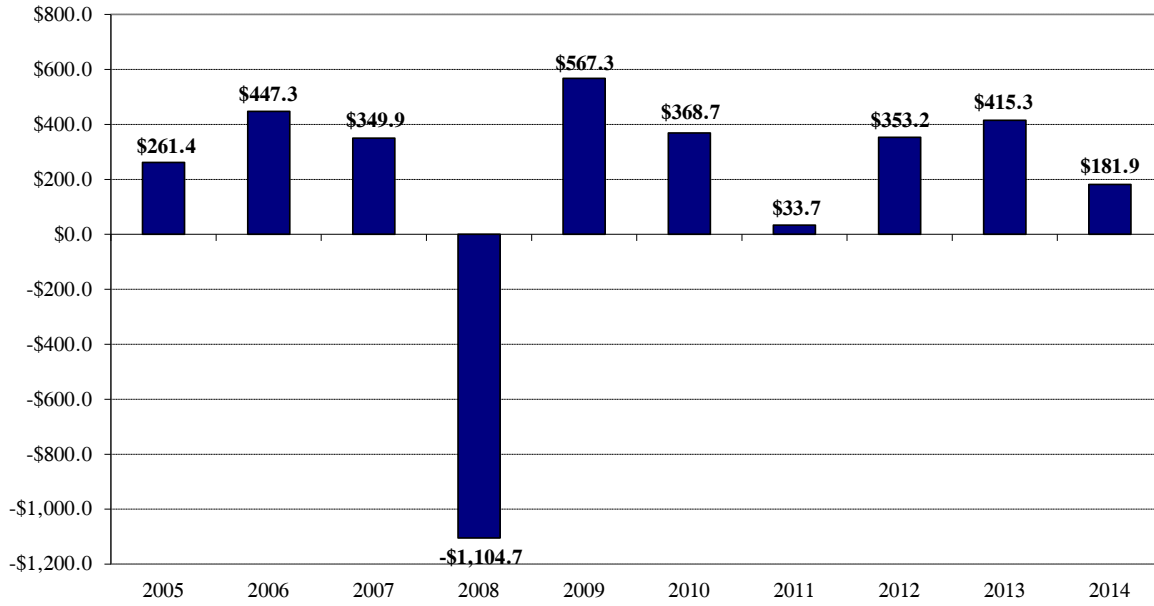
<sup>1</sup> Unfunded liability increases due to total contributions being less than normal cost plus interest cost.

<sup>2</sup> The effect of gains from mortality, disability, and new entrants is similar to, but slightly larger than the effect of losses from retirement and turnover, which led to a decrease in unfunded liabilities.

<sup>3</sup> Unfunded liabilities increased mostly due to lowering the assumed investment rate of return from 7.75% to 7.5%.

**CHART 88**

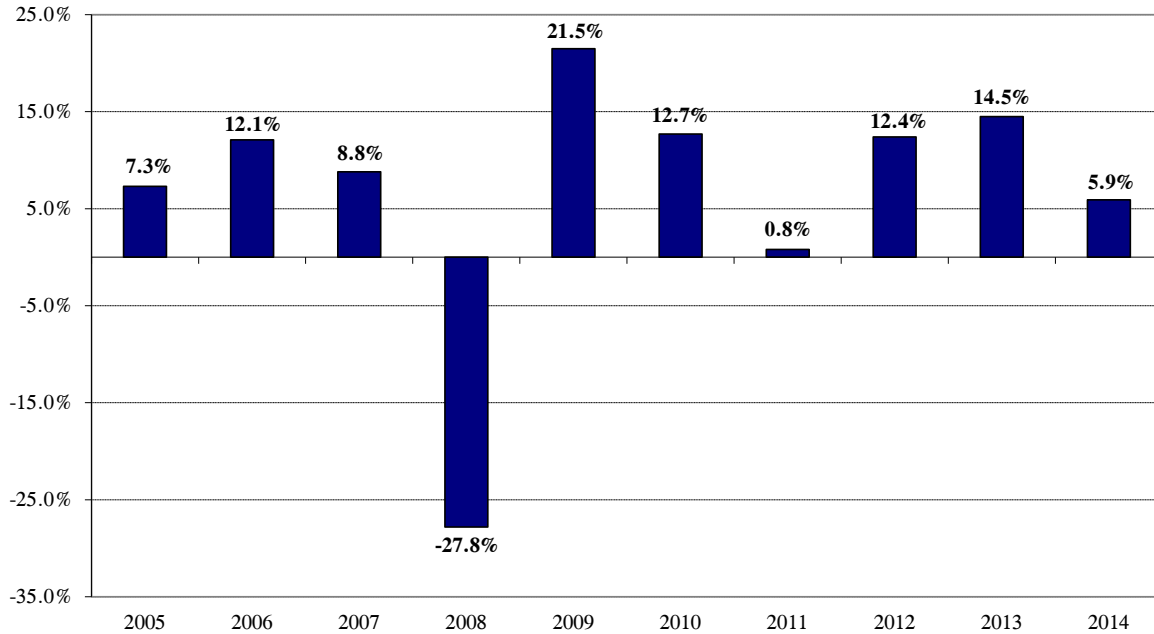
**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Investment Income FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return :7.5% <sup>1</sup>  
 (\$ in Millions)



<sup>1</sup> The actuarially assumed rate of return decreased from 7.75% to 7.5%.

**CHART 89**

**POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**Rate of Return FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return :7.5% <sup>1</sup>



<sup>1</sup> The actuarially assumed rate of return decreased from 7.75% to 7.5%.

**TABLE 27**

<b>POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
<b>Fiscal Year</b>	<b>Annual Payroll</b>	<b>Actuarial Liabilities</b>	<b>Actuarial Assets</b>	<b>Unfunded Liabilities</b>	<b>Funded Ratio</b>
2014	1,074.3	11,334.8	2,954.3	8,380.5	26.1%
2013	1,015.4	10,282.3	3,053.9	7,228.5	29.7%
2012	1,015.2	10,051.8	3,148.9	6,902.9	31.3%
2011	1,034.4	9,522.4	3,444.7	6,077.7	36.2%
2010	1,048.1	9,374.9	3,719.0	5,655.9	39.7%
2009	1,011.2	8,900.9	3,885.0	5,015.9	43.6%
2008	1,023.6	8,652.6	4,093.7	4,558.9	47.3%
2007	1,039.0	8,399.4	4,231.7	4,167.7	50.4%
2006	1,013.0	7,939.6	3,998.0	3,941.6	49.3%
2005	949.0	7,722.7	3,914.4	3,808.3	50.7%
2004	874.3	7,034.3	3,933.0	3,101.3	55.9%
2003	887.6	6,581.4	4,039.7	2,541.7	61.4%

*NOTE: The above FY 2007 - FY 2013 figures include healthcare assets/liabilities.*



**TABLE 28**

<b>POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
<b>Fiscal Years</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Additions to Assets</b>									
Employer	187.1	188.9	207.2	183.5	183.8	180.5	181.5	178.7	158.7
Employees	95.7	93.3	95.9	98.2	108.4	95.6	93.2	93.3	92.0
Net Investment Income	181.9	415.3	353.2	33.7	368.7	567.3	-1,104.9	349.9	447.3
Other	0.7	0.5	0.4	0.1	0.9	0.8	0.2	0.0	0.0
<b>Total Asset Additions (A)</b>	<b>465.4</b>	<b>698.0</b>	<b>656.7</b>	<b>315.5</b>	<b>661.8</b>	<b>844.2</b>	<b>-830.0</b>	<b>621.9</b>	<b>698.0</b>
<b>Deductions from Assets</b>									
Benefits	655.3	633.8	602.7	568.0	536.3	508.5	491.6	471.5	452.8
Refunds	9.0	8.1	11.2	7.3	8.0	6.4	6.4	6.2	5.3
Rebates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Expenses	4.2	4.3	4.9	4.4	3.9	4.3	4.2	3.1	2.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>668.5</b>	<b>646.2</b>	<b>618.8</b>	<b>579.7</b>	<b>548.2</b>	<b>519.2</b>	<b>502.2</b>	<b>480.8</b>	<b>460.8</b>
<b>Change in Net Assets (A-B=C)</b>	<b>-203.1</b>	<b>51.8</b>	<b>37.9</b>	<b>-264.2</b>	<b>113.6</b>	<b>325.0</b>	<b>-1,332.2</b>	<b>141.1</b>	<b>237.2</b>

Table 29 below contains funding projections provided to CGFA by the Policemen’s Annuity and Benefit Fund of Chicago based upon the December 31, 2014 actuarial valuation.

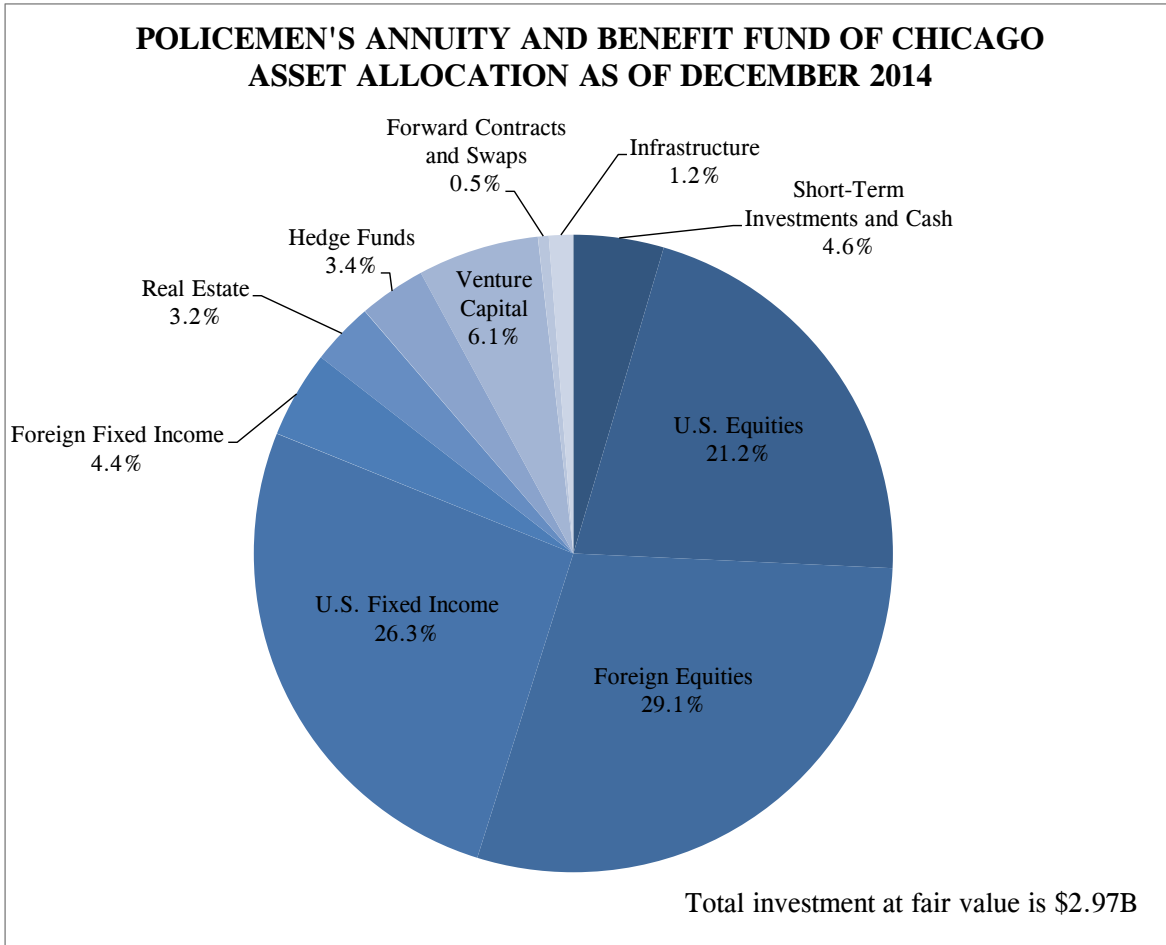
**TABLE 29**

Policemen's Annuity and Benefit Fund of Chicago Actuarial Valuation Projection Results as of December 31, 2014 (\$ in Millions)								
Fiscal Year	Capped Payroll	Total City Contribution	Total City Contribution As % of Payroll	Total Employee Contribution	Accrued Liability	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	1,074.3	187.8	17.5%	95.7	11,048.2	2,954.3	8,093.9	26.7%
2015	1,103.0	592.9	53.7%	98.8	11,411.8	3,217.9	8,193.9	28.2%
2016	1,135.7	675.8	59.5%	109.0	11,781.1	3,559.5	8,221.6	30.2%
2017	1,168.1	695.1	59.5%	112.1	12,163.6	3,900.7	8,262.9	32.1%
2018	1,199.5	713.8	59.5%	115.2	12,548.8	4,219.0	8,329.8	33.6%
2019	1,230.4	732.2	59.5%	118.3	12,933.7	4,560.3	8,373.4	35.3%
2020	1,263.8	752.1	59.5%	121.6	13,316.6	4,914.6	8,402.1	36.9%
2021	1,297.3	772.0	59.5%	124.9	13,696.3	5,282.0	8,414.3	38.6%
2022	1,331.9	792.6	59.5%	128.2	14,071.4	5,663.6	8,407.8	40.2%
2023	1,367.1	813.5	59.5%	131.7	14,440.0	6,059.8	8,380.2	42.0%
2024	1,402.2	834.4	59.5%	135.1	14,799.9	6,470.3	8,329.6	43.7%
2025	1,439.2	856.5	59.5%	138.7	15,148.1	6,896.0	8,252.1	45.5%
2026	1,477.0	878.9	59.5%	142.4	15,481.8	7,337.2	8,144.6	47.4%
2027	1,516.2	902.3	59.5%	146.1	15,799.4	7,795.8	8,003.6	49.3%
2028	1,555.8	925.8	59.5%	149.8	16,100.4	8,274.0	7,826.4	51.4%
2029	1,598.2	951.1	59.5%	153.6	16,385.9	8,777.1	7,608.8	53.6%
2030	1,644.6	978.7	59.5%	157.9	16,656.5	9,311.3	7,345.2	55.9%
2031	1,693.4	1,007.7	59.5%	162.4	16,913.4	9,882.5	7,031.0	58.4%
2032	1,739.2	1,035.0	59.5%	166.6	17,157.5	10,492.8	6,664.7	61.2%
2033	1,776.1	1,056.9	59.5%	170.0	17,389.6	11,140.7	6,248.9	64.1%
2034	1,804.1	1,073.6	59.5%	172.5	17,611.5	11,825.2	5,786.3	67.1%
2035	1,830.9	1,089.6	59.5%	174.8	17,826.2	12,551.5	5,274.7	70.4%
2036	1,855.5	1,104.2	59.5%	177.0	18,036.2	13,323.9	4,712.3	73.9%
2037	1,879.4	1,118.7	59.5%	179.1	18,244.3	14,148.3	4,096.0	77.5%
2038	1,903.8	1,132.9	59.5%	181.2	18,452.5	15,030.2	3,422.3	81.5%
2039	1,927.3	1,146.9	59.5%	183.2	18,662.6	15,974.8	2,687.7	85.6%
2040	1,950.7	1,160.8	59.5%	185.2	18,875.4	16,987.5	1,888.0	90.0%
2041	1,974.7	284.1	14.4%	187.1	19,092.9	17,183.6	1,909.3	90.0%

**TABLE 30**

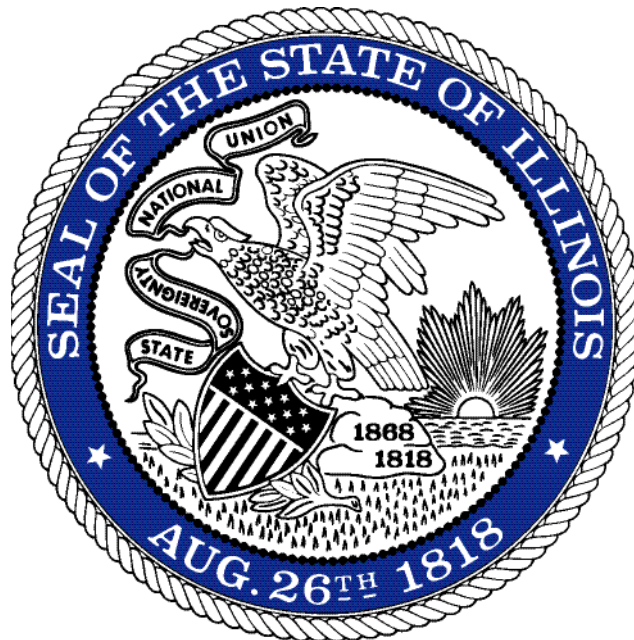
<b>Policemen's Annuity and Benefit Fund of Chicago</b> <b>Projected Normal Cost as of December 31, 2014</b> <b>(\$ in Millions)</b>						
Fiscal Year	Employer's Normal Cost	Employer's Normal Cost as a % of Payroll	Employee Contributions	Employee Contributions as a % of Payroll	Total Normal Cost	Total Normal Cost as a % of Payroll
2014	102.8	9.6%	95.7	8.9%	198.5	18.5%
2015	117.6	10.7%	98.8	9.0%	216.4	19.6%
2016	112.8	9.9%	109.0	9.6%	221.8	19.5%
2017	115.3	9.9%	112.1	9.6%	227.4	19.5%
2018	117.3	9.8%	115.2	9.6%	232.5	19.4%
2019	118.8	9.7%	118.3	9.6%	237.1	19.3%
2020	120.0	9.5%	121.6	9.6%	241.6	19.1%
2021	120.4	9.3%	124.9	9.6%	245.3	18.9%
2022	120.6	9.1%	128.2	9.6%	248.8	18.7%
2023	120.3	8.8%	131.7	9.6%	252.0	18.4%
2024	119.6	8.5%	135.1	9.6%	254.7	18.2%
2025	117.9	8.2%	138.7	9.6%	256.6	17.8%
2026	115.7	7.8%	142.4	9.6%	258.1	17.5%
2027	113.0	7.5%	146.1	9.6%	259.1	17.1%
2028	110.4	7.1%	149.8	9.6%	260.2	16.7%
2029	107.8	6.7%	153.6	9.6%	261.4	16.4%
2030	105.1	6.4%	157.9	9.6%	263.0	16.0%
2031	102.6	6.1%	162.4	9.6%	265.0	15.6%
2032	100.6	5.8%	166.6	9.6%	267.2	15.4%
2033	99.7	5.6%	170.0	9.6%	269.7	15.2%
2034	100.0	5.5%	172.5	9.6%	272.5	15.1%
2035	100.9	5.5%	174.8	9.5%	275.7	15.1%
2036	102.4	5.5%	177.0	9.5%	279.4	15.1%
2037	104.3	5.5%	179.1	9.5%	283.4	15.1%
2038	106.7	5.6%	181.2	9.5%	287.9	15.1%
2039	109.4	5.7%	183.2	9.5%	292.6	15.2%
2040	112.4	5.8%	185.2	9.5%	297.6	15.3%
2041	115.8	5.9%	187.1	9.5%	302.9	15.3%

**CHART 90**



## XII. Public School Teachers' Pension and Retirement Fund of Chicago

- Plan Summary
- Active Employees
- Employee Annuitants
- Average Salaries
- Average Retirement Annuity
- Funded Ratios
- Change in Unfunded Liabilities
- Investment Income
- Investment Rates of Return
- Systems Experience
- Changes in Net Assets
- System Projections



**Note: All data shown in this section is based upon the system's Actuarial Valuation and CAFR as of June 30, 2014.**



# Public School Teachers' Pension and Retirement Fund of Chicago - Tier 1 Plan Summary

## Retirement Age

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- Age 62 with 5 years of service.
- Age 55 with 20 years of service.

## Retirement Formula

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- 2.2% of final average salary for each year of service.

## Maximum Annuity

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- 75% of final average salary.

## Salary Used to Calculate Pension

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- Average of 4 highest consecutive years within final 10 years of service.

## Annual COLA

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- 3% compounded.

## Employee Contributions

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- 9.0% of salary.

## Employer Contributions

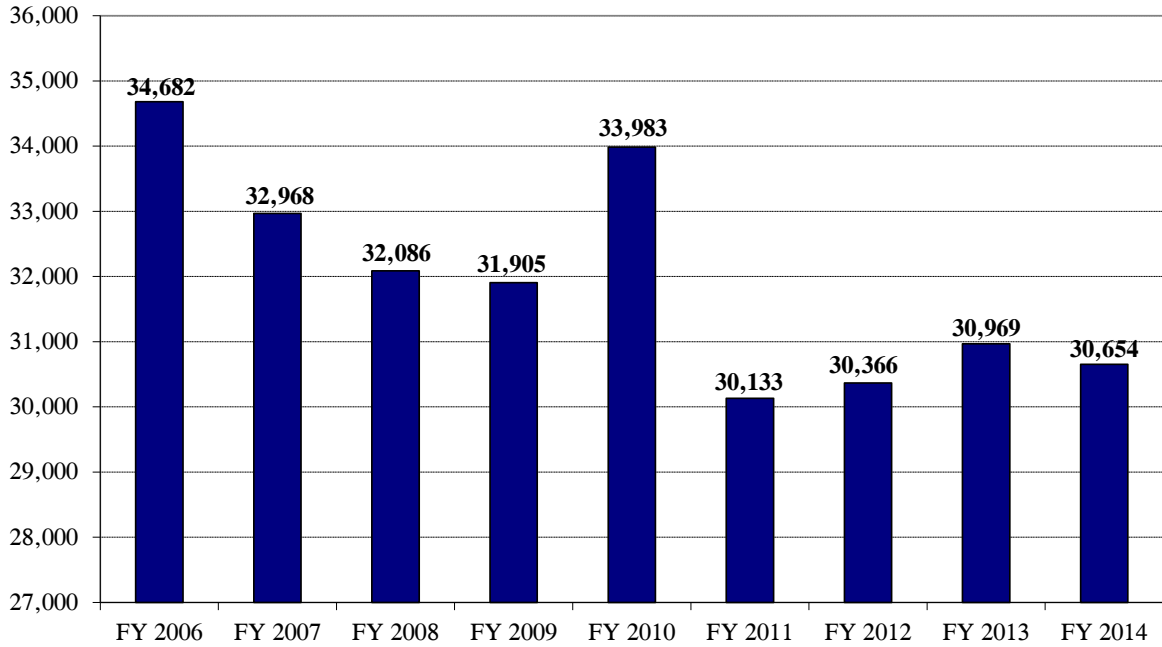
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For fiscal years 2014 through 2059 the employer is required to make contributions calculated as a level percentage of payroll sufficient to bring the fund's total assets up to 90% of the fund's total liabilities by the end of FY2059.

**Note: Benefits shown are for employees hired prior to January 1, 2011 (Tier 1 employees), the effective date of P.A. 96-0889. See P.A. 96-0889 in Section I for a summary of benefits for employees hired after January 1, 2011 (Tier 2 employees).**

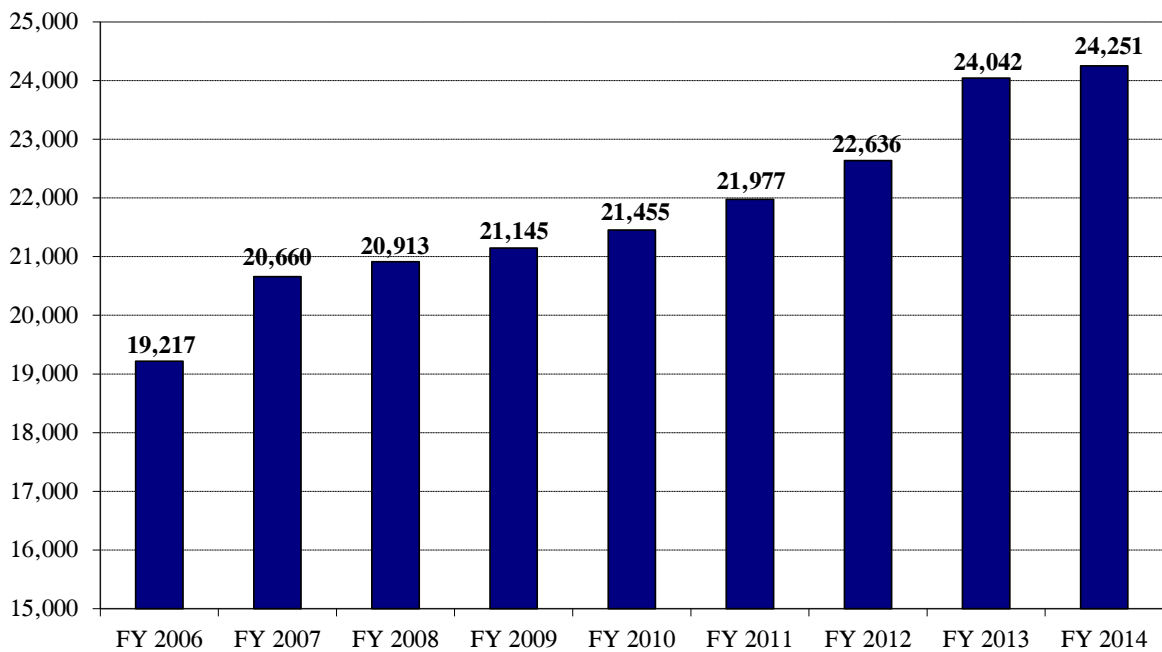
**CHART 91**

**CHICAGO TEACHERS' PENSION FUND  
Active Employees**



**CHART 92**

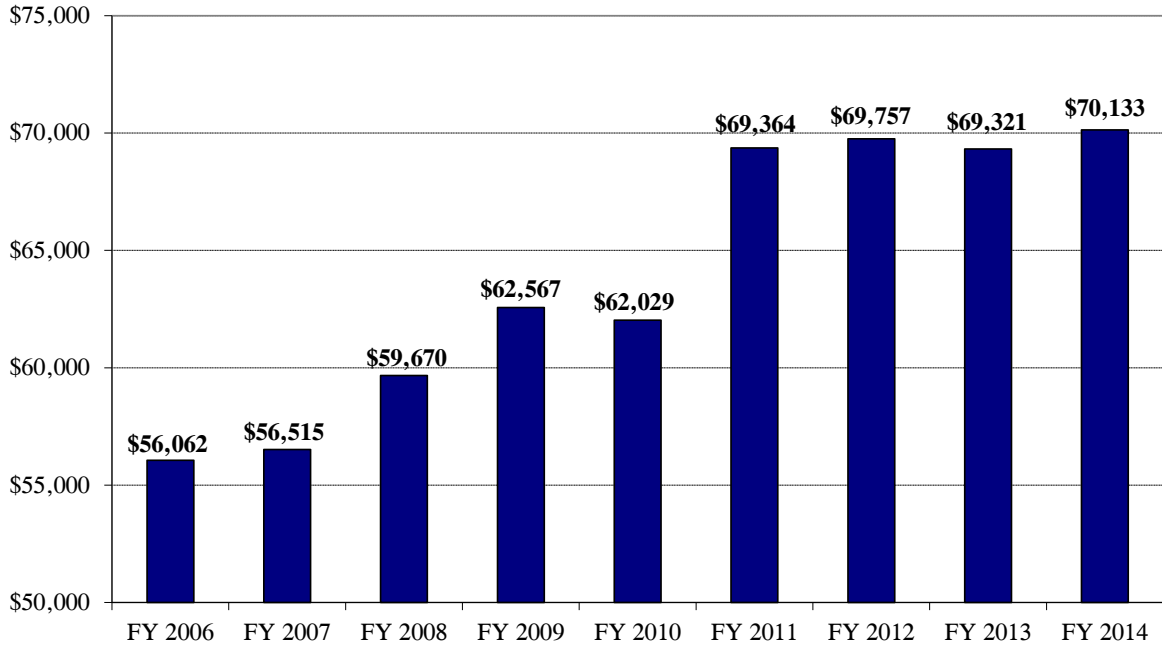
**CHICAGO TEACHERS' PENSION FUND  
Employee Annuitants**





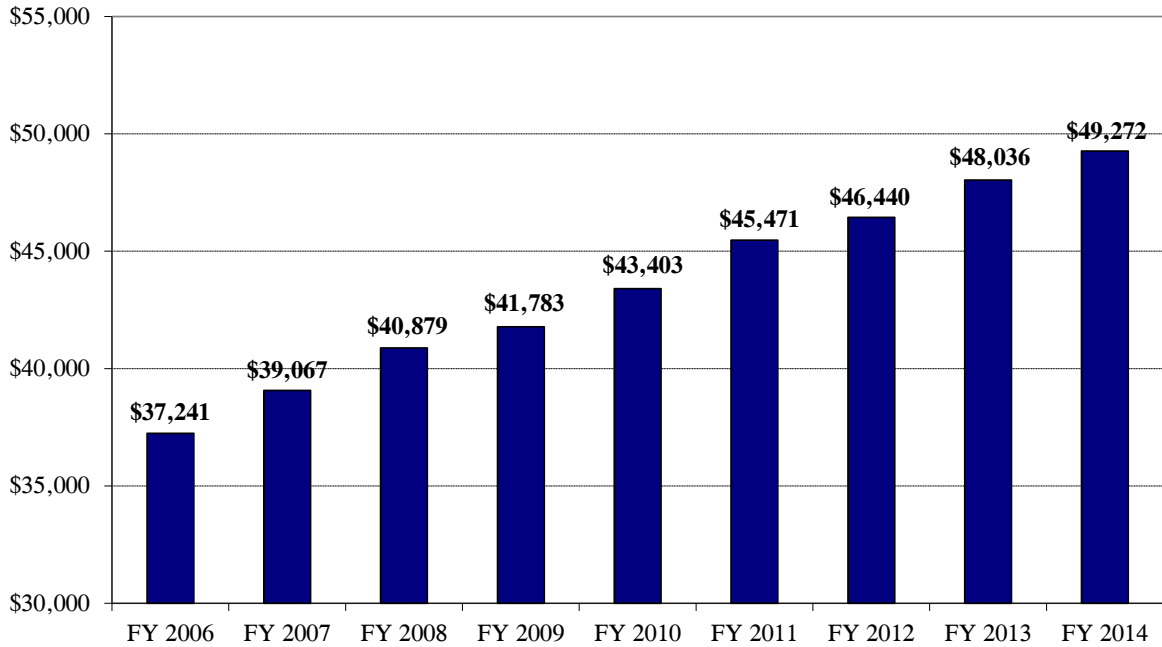
**CHART 93**

**CHICAGO TEACHERS' PENSION FUND  
Average Employee Salaries**



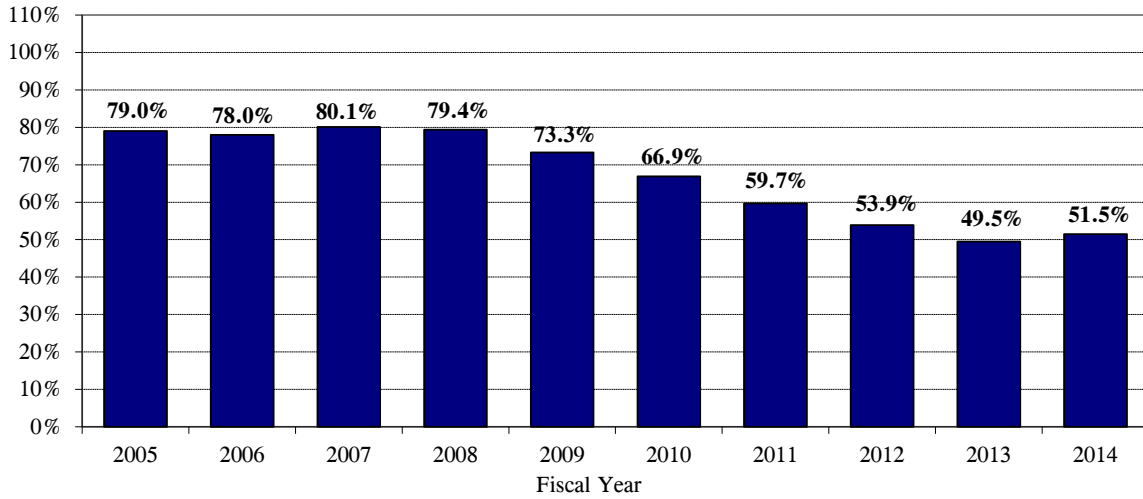
**CHART 94**

**CHICAGO TEACHERS' PENSION FUND  
Average Retirement Annuities**



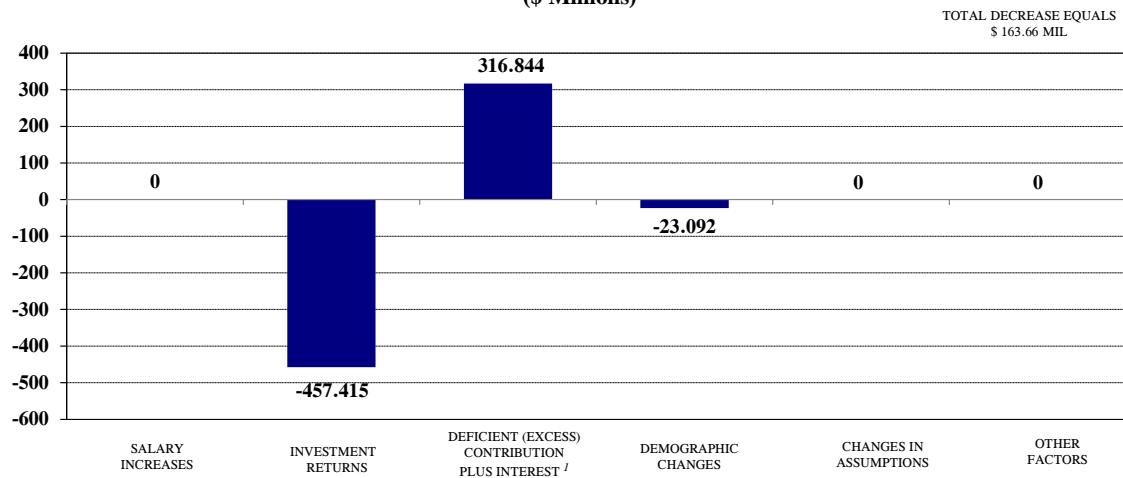
**CHART 95**

**CHICAGO TEACHERS' PENSION FUND  
Funded Ratio  
FY 2005 - FY 2014**



**CHART 96**

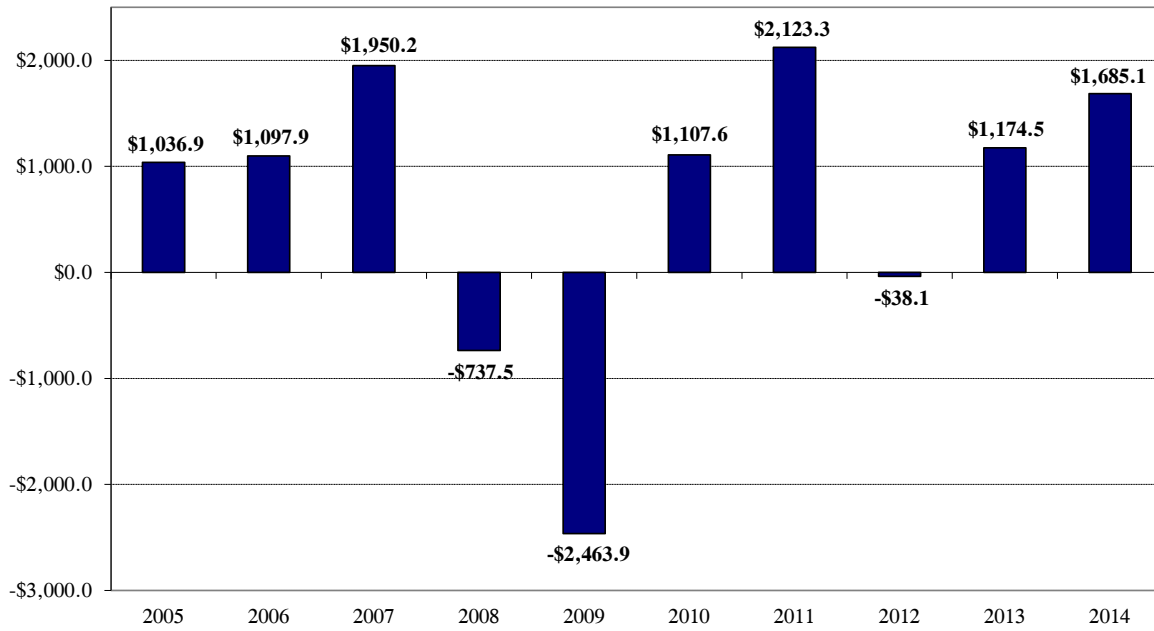
**CHICAGO TEACHERS PENSION FUND  
Change in Unfunded Liabilities  
FY 2014  
(\$ Millions)**



<sup>1</sup> Unfunded liability increases due to contributions being less than normal cost plus interest cost.

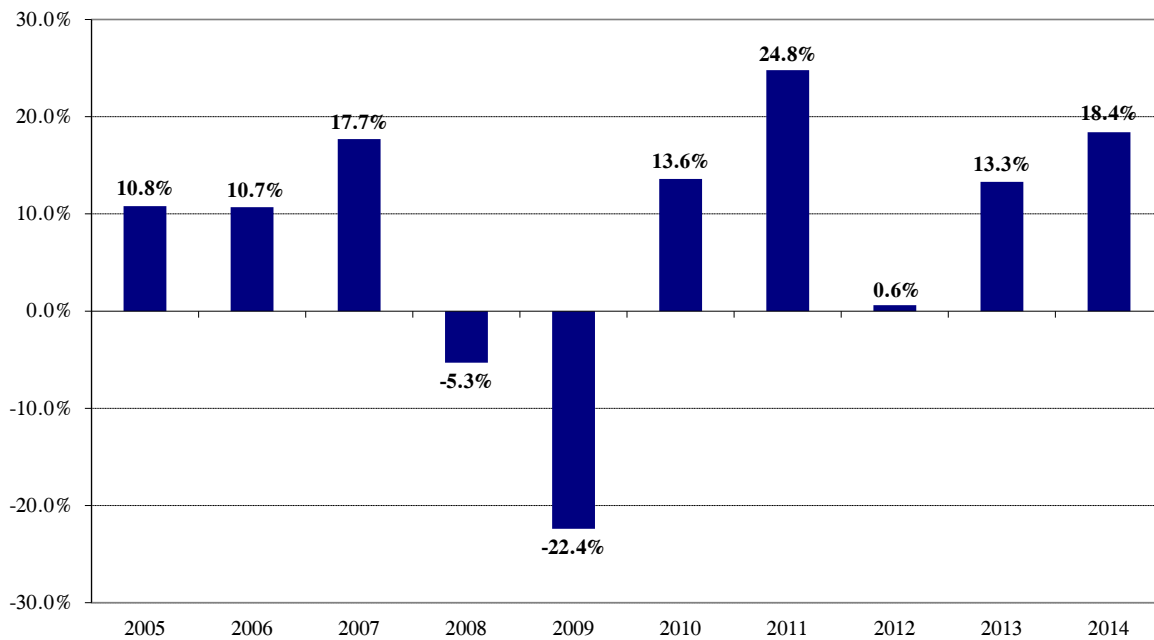
**CHART 97**

**CHICAGO TEACHERS' PENSION FUND**  
**Investment Income FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return : 7.75%  
 (\$ in Millions)



**CHART 98**

**CHICAGO TEACHERS' PENSION FUND**  
**Rate of Return FY 2005 - FY 2014**  
 Actuarially Assumed Rate of Return : 7.75%



**TABLE 31**

<b>CHICAGO TEACHERS PENSION FUND</b>					
<b>System Experience, FY 2004 - FY 2014</b>					
<b>(\$ in Millions)</b>					
Fiscal Year	Annual Payroll	Actuarial Liabilities	Actuarial Assets	Unfunded Liabilities	Funded Ratio
2014	2,233.3	19,503.9	10,045.5	9,458.4	51.5%
2013	2,239.3	19,044.5	9,422.5	9,622.0	49.5%
2012	2,224.9	17,375.7	9,364.1	8,011.6	53.9%
2011	2,090.1	16,940.3	10,109.3	6,831.0	59.7%
2010	2,107.9	16,319.7	10,917.4	5,402.3	66.9%
2009	1,996.2	15,683.2	11,493.3	4,189.9	73.3%
2008	1,914.6	15,203.7	12,069.4	3,134.3	79.4%
2007	1,863.2	14,677.2	11,759.7	2,917.5	80.1%
2006	1,944.4	14,035.6	10,948.0	3,087.6	78.0%
2005	1,968.6	13,295.9	10,506.5	2,789.4	79.0%
2004	1,767.6	12,105.7	10,392.2	1,713.5	85.8%

*NOTE: The above figures include only pension assets/liabilities except for 2004-2006.*

**TABLE 32**

<b>CHICAGO TEACHERS PENSION FUND</b>									
<b>Changes in Net Assets</b>									
<b>(\$ in Millions)</b>									
Fiscal Years	2014	2013	2012	2011 <sup>1</sup>	2010 <sup>1</sup>	2009 <sup>1</sup>	2008 <sup>1</sup>	2007 <sup>1</sup>	2006 <sup>1</sup>
<b>Additions to Assets</b>									
Employer	585.4	142.6	138.8	208.6	355.8	263.0	229.3	168.8	117.8
Employees	187.8	188.4	187.1	185.9	194.6	176.2	172.4	179.0	163.5
Net Investment Income	1,685.1	1,174.5	-38.1	2,123.3	1,107.6	-2,463.9	-737.5	1,950.2	1,097.9
Other	0.0	0.0	0.4	10.4	0.0	15.0	0.0	0.0	0.1
<b>Total Asset Additions (A)</b>	<b>2,458.3</b>	<b>1,505.5</b>	<b>288.2</b>	<b>2,528.2</b>	<b>1,658.0</b>	<b>-2,009.7</b>	<b>-335.8</b>	<b>2,298.0</b>	<b>1,379.3</b>
<b>Deductions from Assets</b>									
Benefits	1273.5	1232.3	1,117.2	1,050.9	991.4	944.5	907.6	800.7	721.1
Refunds	32.8	24.8	36.3	27.1	21.1	19.0	16.7	36.4	30.7
Rebates	0.0	0.0	0.0	0.0	0.0	75.8	68.7	61.0	58.3
Administrative Expenses	10.5	11.5	10.1	9.5	8.8	8.8	7.8	8.4	8.3
Other	0.0	0.0	0.0	78.9	80.0	0.0	0.0	0.0	0.0
<b>Total Asset Deductions (B)</b>	<b>1,316.8</b>	<b>1,268.6</b>	<b>1,163.6</b>	<b>1,166.4</b>	<b>1,101.3</b>	<b>1,048.1</b>	<b>1,000.8</b>	<b>906.5</b>	<b>818.4</b>
<b>Change in Net Assets (A-B=C)</b>	<b>1,141.5</b>	<b>236.9</b>	<b>-875.4</b>	<b>1,361.8</b>	<b>556.7</b>	<b>-3,057.8</b>	<b>-1,336.6</b>	<b>1,391.5</b>	<b>560.9</b>

<sup>1</sup> From year 2006 to year 2011, health insurance fund is included.

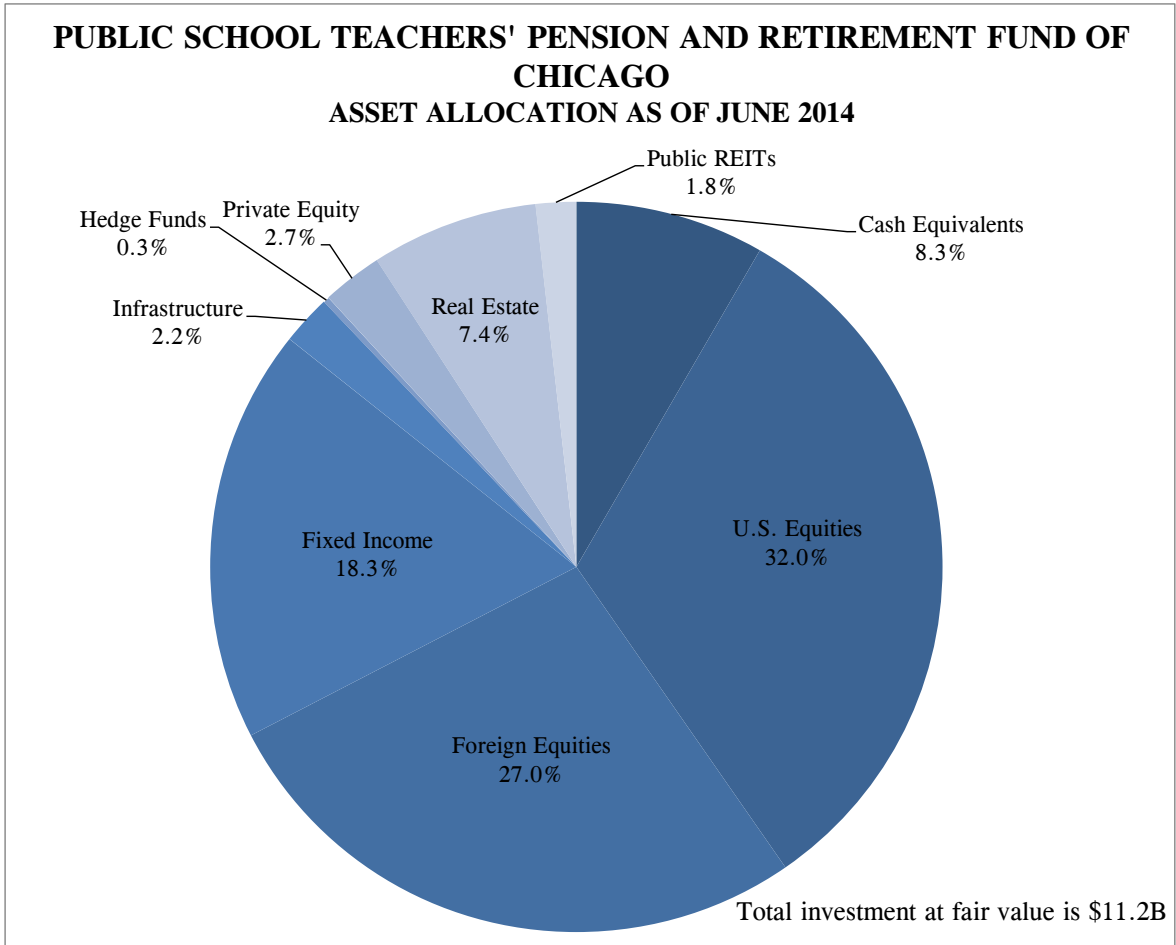
Table 33 below contains funding projections provided to CGFA by the Fireman's Annuity and Benefit Fund of Chicago based upon the December 31, 2013 actuarial valuation.

**TABLE 33**

Chicago Teachers' Pension Fund								
Actuarial Valuation Projection Results as of December 31, 2014								
Projections Based on P.A. 96-0889								
(\$ in Millions)								
Fiscal Year	Capped Payroll	Total Employer Contributions <sup>1</sup>	Employer Contribution As % of Payroll	Total Employee Contribution	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2015	2,315.6	708.7	30.6%	194.8	19,992.3	10,504.7	9,487.6	52.5%
2016	2,381.0	700.1	29.4%	200.3	20,495.9	11,150.2	9,345.7	54.4%
2017	2,451.0	720.7	29.4%	206.2	21,017.1	11,730.8	9,286.3	55.8%
2018	2,522.7	741.7	29.4%	212.2	21,556.8	12,101.9	9,454.9	56.1%
2019	2,596.8	763.5	29.4%	218.4	22,115.3	12,480.6	9,634.6	56.4%
2020	2,672.9	785.9	29.4%	224.8	22,693.0	12,869.9	9,823.1	56.7%
2021	2,750.8	808.8	29.4%	231.4	23,291.0	13,276.9	10,014.1	57.0%
2022	2,829.6	832.0	29.4%	238.0	23,910.9	13,708.4	10,202.4	57.3%
2023	2,909.0	855.3	29.4%	244.7	24,555.1	14,167.7	10,387.4	57.7%
2024	2,988.8	878.8	29.4%	251.4	25,223.9	14,655.8	10,568.2	58.1%
2025	3,066.5	901.6	29.4%	257.9	25,915.9	15,171.5	10,744.4	58.5%
2026	3,140.8	923.5	29.4%	264.2	26,631.3	15,715.0	10,916.4	59.0%
2027	3,213.3	944.8	29.4%	270.3	27,369.6	16,285.7	11,083.8	59.5%
2028	3,284.3	965.6	29.4%	276.2	28,130.7	16,884.3	11,246.4	60.0%
2029	3,354.5	986.3	29.4%	282.2	28,912.8	17,510.0	11,402.9	60.6%
2030	3,423.1	1,006.5	29.4%	287.9	29,714.2	18,162.1	11,552.1	61.1%
2031	3,490.4	1,026.3	29.4%	293.6	30,533.0	18,840.0	11,693.0	61.7%
2032	3,556.8	1,045.8	29.4%	299.2	31,367.3	19,543.0	11,824.3	62.3%
2033	3,622.2	1,065.0	29.4%	304.7	32,214.3	20,270.0	11,944.3	62.9%
2034	3,685.4	1,083.6	29.4%	310.0	33,070.7	21,018.9	12,051.8	63.6%
2035	3,745.9	1,101.4	29.4%	315.1	33,931.4	21,786.3	12,145.1	64.2%
2036	3,803.3	1,118.3	29.4%	319.9	34,790.2	22,567.8	12,222.4	64.9%
2037	3,857.2	1,134.1	29.4%	324.4	35,641.9	23,360.0	12,281.9	65.5%
2038	3,907.6	1,148.9	29.4%	328.7	36,479.7	24,158.2	12,321.5	66.2%
2039	3,954.4	1,162.7	29.4%	332.6	37,295.5	24,956.2	12,339.3	66.9%
2040	3,997.0	1,175.2	29.4%	336.2	38,081.8	25,747.9	12,333.9	67.6%
2041	4,036.5	1,186.8	29.4%	339.5	38,830.5	26,527.8	12,302.8	68.3%
2042	4,072.0	1,197.3	29.4%	342.5	39,532.3	27,288.5	12,243.8	69.0%
2043	4,103.9	1,206.6	29.4%	345.2	40,182.0	28,026.4	12,155.6	69.7%
2044	4,134.7	1,215.7	29.4%	347.8	40,778.1	28,741.1	12,037.0	70.5%
2045	4,168.1	1,225.5	29.4%	350.6	41,317.7	29,432.3	11,885.4	71.2%
2046	4,203.9	1,236.0	29.4%	353.6	41,803.3	30,103.8	11,699.4	72.0%
2047	4,245.2	1,248.2	29.4%	357.1	42,240.1	30,762.7	11,477.4	72.8%
2048	4,294.7	1,262.7	29.4%	361.2	42,637.2	31,420.4	11,216.8	73.7%
2049	4,353.7	1,280.1	29.4%	366.2	43,001.9	32,087.1	10,914.8	74.6%
2050	4,422.6	1,300.3	29.4%	372.0	43,341.5	32,774.1	10,567.4	75.6%
2051	4,499.8	1,323.0	29.4%	378.5	43,652.1	33,484.3	10,167.8	76.7%
2052	4,577.9	1,346.0	29.4%	385.1	43,936.5	34,223.8	9,712.7	77.9%
2053	4,659.8	1,370.1	29.4%	391.9	44,196.7	34,998.9	9,197.9	79.2%
2054	4,746.9	1,395.7	29.4%	399.3	44,429.8	35,811.3	8,618.4	80.6%
2055	4,839.9	1,423.0	29.4%	407.1	44,640.9	36,671.9	7,969.0	82.1%
2056	4,939.0	1,452.2	29.4%	415.4	44,830.7	37,588.7	7,242.0	83.8%
2057	5,038.9	1,481.5	29.4%	423.8	45,006.1	38,574.5	6,431.7	85.7%
2058	5,141.7	1,511.8	29.4%	432.5	45,174.2	39,642.9	5,531.3	87.8%
2059	5,246.6	1,542.6	29.4%	441.3	45,334.2	40,800.8	4,533.4	90.0%

<sup>1</sup>Total employer contributions include required board of education contributions, additional board of education contributions, and additional state contributions.

**CHART 99**







## **BACKGROUND**

**The Commission on Government Forecasting and Accountability (CGFA), a bipartisan, joint legislative commission, provides the General Assembly with information relevant to the Illinois economy, taxes and other sources of revenue and debt obligations of the State. The Commission's specific responsibilities include:**

- 1) Preparation of annual revenue estimates with periodic updates;
- 2) Analysis of the fiscal impact of revenue bills;
- 3) Preparation of "State Debt Impact Notes" on legislation which would appropriate bond funds or increase bond authorization;
- 4) Periodic assessment of capital facility plans;
- 5) Annual estimates of public pension funding requirements and preparation of pension impact notes;
- 6) Annual estimates of the liabilities of the State's group health insurance program and approval of contract renewals promulgated by the Department of Central Management Services;
- 7) Administration of the State Facility Closure Act.

The Commission also has a mandate to report to the General Assembly ". . . on economic trends in relation to long-range planning and budgeting; and to study and make such recommendations as it deems appropriate on local and regional economic and fiscal policies and on federal fiscal policy as it may affect Illinois. . . ." This results in several reports on various economic issues throughout the year.

**The Commission publishes several reports each year. In addition to a Monthly Briefing, the Commission publishes the "Revenue Estimate and Economic Outlook" which describes and projects economic conditions and their impact on State revenues. The "Illinois Bond Watcher" report examines the State's debt position as well as other issues directly related to conditions in the financial markets. The "Financial Conditions of the Illinois Public Retirement Systems" provides an overview of the funding condition of the State's retirement systems. Also published are an Annual Fiscal Year Budget Summary; Report on the Liabilities of the State Employees' Group Insurance Program; and Report of the Cost and Savings of the State Employees' Early Retirement Incentive Program. The Commission also publishes each year special topic reports that have or could have an impact on the economic well-being of Illinois. All reports are available on the Commission's website.**

These reports are available from:

Commission on Government Forecasting and Accountability  
703 Stratton Office Building  
Springfield, Illinois 62706  
(217) 782-5320  
(217) 782-3513 (FAX)

<http://cgfa.ilga.gov>