

Park Employees' Annuity and Benefit Fund of Chicago

Actuarial Valuation and Review as of
December 31, 2014





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May 18, 2015

Board of Trustees
Park Employees' Annuity and Benefit Fund of Chicago
55 East Monroe Street, Suite 2720
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Dear Board Members:

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

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

The actuarial assumptions and methods are set by the Board of Trustees, based upon recommendation made by the Fund's actuary. The assumptions and methods used for the December 31, 2014 actuarial valuation were based on an experience analysis covering the five-year period ending June 30, 2012 and were adopted by the Board, effective for the December 31, 2012 valuation. These actuarial assumptions and methods comply with the parameters for disclosure in GASB Statement No. 67. Further, in our opinion, the assumptions as approved by the Board are reasonable related to the experience of the Fund.

The funding policy of the Fund is to have contributions sufficient to amortize the unfunded liability over the 30-year period ending December 31, 2042. For Fiscal 2015, employer contributions come from a property tax levied by the District 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 1.7. The 1.7 factor is known as the tax multiple.

The tax multiple increases to 2.3 for 2017 and 2018, and to 2.9 for 2019 and thereafter. Once the funded ratio reaches 90%, the employer contribution will be the lesser of 2.9 times the employee contributions for the fiscal year two years prior, or the amount needed to maintain a funded ratio of 90%. Additional employer contributions will be made in the amounts of \$12,500,000 in 2015, \$12,500,000 in 2016 and \$50,000,000 in 2019.

This report includes the schedules for the actuarial section of the Comprehensive Annual Financial Report, as listed in the Comprehensive Annual Financial Report's table of contents.

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

- Schedule of Funding Progress
- Schedule of Employer Contributions

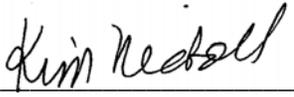
The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

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

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

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

By: 

Kim Nicholl, FSA, MAAA, EA, FCA
Senior Vice President and Actuary



Matthew A. Strom, FSA, MAAA, EA
Vice President and Actuary

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

Purpose

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

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

Significant Issues in Valuation Year

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

1. The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 67 is effective with the fiscal year ending December 31, 2014, for Plan reporting. Statement 68 is effective with the fiscal year ending December 31, 2015, for employer reporting. The information contained in this valuation is intended to be used (along with other information) in order to comply with both Statements 67 and 68 (when applicable).
2. The net pension liability (NPL) is equal to the difference between the TPL and the Plan's fiduciary net position. The Plan's fiduciary net position is equal to the market value of assets. The NPL as of December 31, 2014, is \$487,418,901.
3. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of December 31, 2014, is 43.7%, compared to 45.5% as of December 31, 2013. This ratio is a measure of funding status, its history is a measure of funding progress. Using the market value of assets, the funded ratio as of December 31, 2014, is 45.9%, compared to 49.1% as of December 31, 2013.

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

4. Employer contributions to the Fund come from a tax levied upon all taxable property in the City of Chicago. The amount of tax that is levied is 1.10 times the amount of employee contributions made two years prior. The 1.10 factor is known as the tax multiple and is scheduled to increase to 1.7 for 2015. As shown in Chart 13, for the fiscal year beginning January 1, 2015, the actuarially determined contribution amount (ADC) is \$36,273,994. Based on the 1.70 tax multiple, and using the Fund's assumption of 3% loss on collections, we have estimated the employer contribution for the fiscal year beginning January 1, 2015, to be \$17,436,105. Compared to the ADC of \$36,273,994, the contribution deficiency is \$18,837,889 as of January 1, 2015. Reflecting the additional fiscal 2015 scheduled contribution of \$12,500,000 lowers the deficiency to \$6,337,889. Each year of a contribution deficiency leads to an increased deficiency in all future years.
5. For the year ended December 31, 2014, Segal has determined that the asset return on a market value basis was 6.7%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 10.4%. This represents an experience gain when compared to the assumed rate of 7.50%. As of December 31, 2014, the actuarial value of assets (\$393.8 million) represents 95.2% of the market value (\$413.4 million).
6. The portion of deferred investment gains and losses recognized in the calculation of the December 31, 2014, actuarial value of assets resulted in a gain of \$10,929,182. Additionally, the demographic and liability experience resulted in a \$5,339,702 loss.
7. The total unrecognized investment gain as of December 31, 2014, is \$19,659,024. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment losses derived from future experience. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a **market value** basis will result in investment gains on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 7.50% rate and all other actuarial assumptions are met, the contribution requirements would decrease in each of the next few years.
8. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 95.2% of the market value of assets as of December 31, 2014. Guidelines in Actuarial Standard of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding market value. We believe the actuarial asset method currently complies with these guidelines.

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

9. In November 2014, the Society of Actuaries Retirement Plans Experience Committee published the RP-2014 Mortality Tables Report, which includes mortality experience covering the years 2004 through 2008. The current PEABF post-retirement mortality assumption was studied recently in 2012 as part of a five-year experience analysis. We considered whether the new RP-2014 mortality tables should be used in this December 31, 2014, actuarial valuation, but given that PEABF has experienced mortality gains over the past several years, we were inclined to evaluate the applicability of the RP-2014 tables relative to the Plan and in the context of all the other demographic assumptions as part of the experience study planned for 2017.
10. This actuarial report as of December 31, 2014, is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the cost of the plan, while increases in asset values (in excess of expected) will decrease the cost of the plan.

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

Summary of Key Valuation Results

	2015	2014
Contributions for fiscal year beginning:		
Actuarially determined contribution requirement	\$36,273,994	\$35,307,186
Estimated employer contributions (provided by the Fund, reflecting 3% loss on collections), including supplemental contribution of \$12,500,000 due in 2015	29,936,105	10,811,988
Actual employer contribution	--	11,225,438
Funding elements for fiscal year beginning:		
Normal cost, including administrative expenses	\$2,338,848	\$3,441,388
Market value of assets	413,421,716	435,768,679
Actuarial value of assets	393,762,692	404,292,435
Actuarial accrued liability	900,840,617	888,023,364
Unfunded actuarial accrued liability	507,077,925	483,730,929
Funded ratio	43.71%	45.53%
GASB Information:		
Discount rate	7.50%	7.50%
Total pension liability	\$900,840,617	\$888,023,364
Plan fiduciary net position	413,421,716	435,768,679
Net pension liability	487,418,901	452,254,685
Plan fiduciary net position as a percentage of total pension liability	45.89%	49.07%
Demographic data for plan year beginning:		
Number of retired participants and beneficiaries	2,891	2,904
Number of vested former participants	147	148
Number of active participants	2,973	3,076
Total salary supplied by the Fund	\$120,376,477	\$115,617,428
Average salary	40,490	37,587

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

A. MEMBER DATA

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

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

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

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

CHART 1
Member Population: 2006 – 2014

Census Date	Active Members	Vested Terminated Members*	Retirees and Beneficiaries	Ratio of Actives to Retirees and Beneficiaries
June 30, 2006	3,035	167	3,115	0.97
June 30, 2007	3,040	162	3,056	0.99
June 30, 2008	3,031	161	3,013	1.01
June 30, 2009	2,865	159	3,013	0.95
June 30, 2010	2,816	160	2,956	0.95
June 30, 2011	2,795	141	2,913	0.96
June 30, 2012	2,977	153	2,921	1.02
December 31, 2012	3,053	152	2,906	1.05
December 31, 2013	3,076	148	2,904	1.06
December 31, 2014	2,973	147	2,891	1.03

*Excludes terminated members due a refund of employee contributions

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

Active Members

Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 2,973 active members with an average age of 41.9, average years of service of 10.9 years and average salary of \$40,490. The 3,076 active participants in the prior valuation had an average age of 41.7, average years of service of 10.4 years and average salary of \$37,587.

Inactive Participants

In this year's valuation, there were 147 members with a vested right to a deferred or immediate vested benefit.

In addition, there were 3,876 members entitled to a return of their employee contributions.

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

CHART 2

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

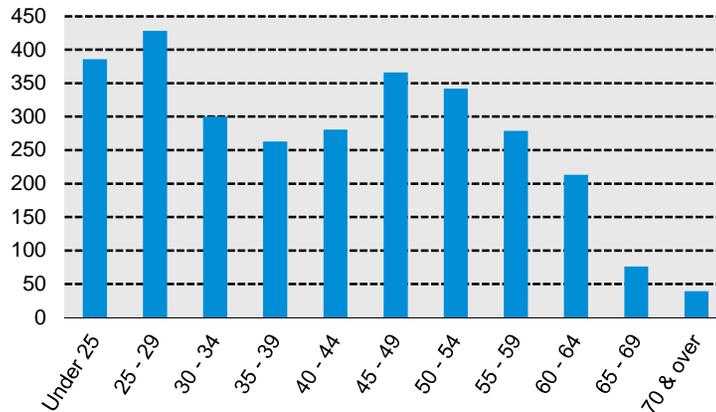
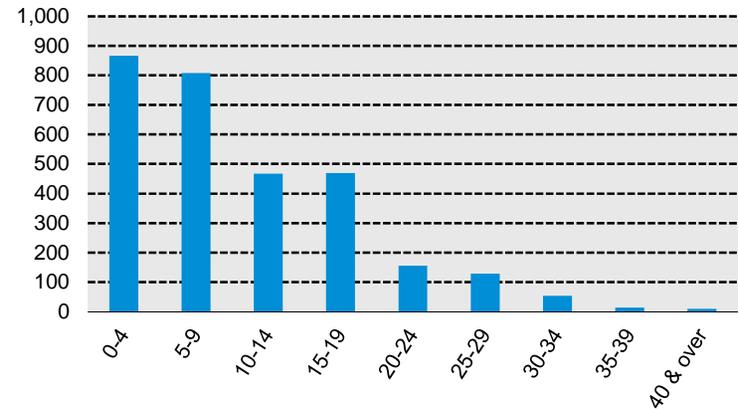


CHART 3

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



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

Retirees and Beneficiaries

As of December 31, 2014, 2,101 retirees, 773 beneficiaries, and 17 dependent children were receiving total monthly benefits of \$5,689,318. For comparison, in the previous valuation, there were 2,102 retirees, 786 beneficiaries, and 16 dependent children receiving monthly benefits of \$5,582,253.

These graphs show a distribution of the current retirees based on their monthly amount and age.

CHART 4
Distribution of Retirees by Monthly Amount as of December 31, 2014

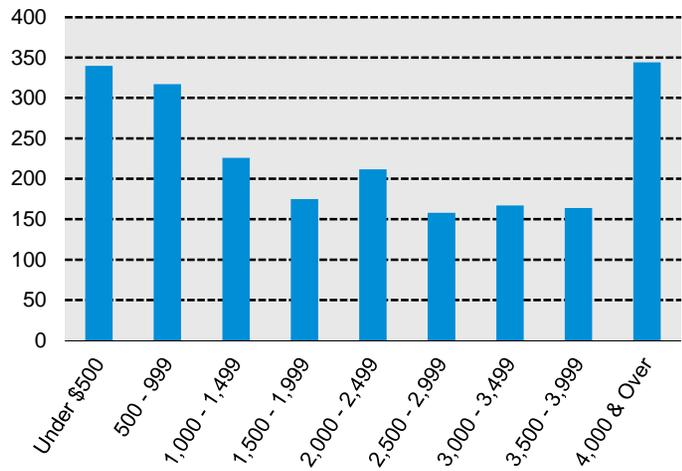
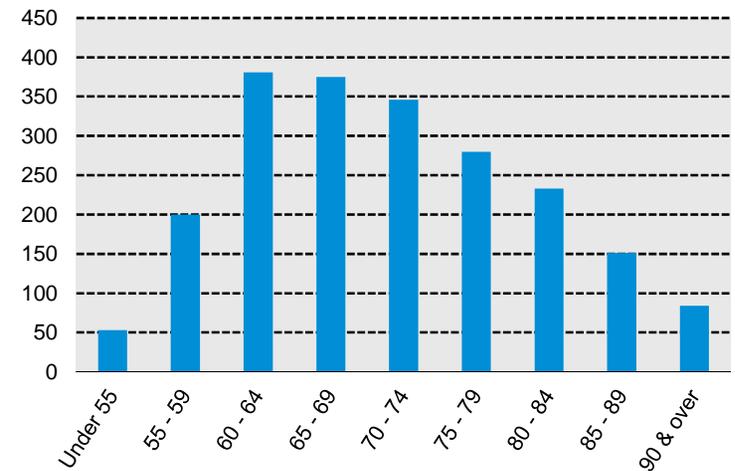


CHART 5
Distribution of Retirees by Age as of December 31, 2014



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

B. FINANCIAL INFORMATION

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

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

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

CHART 6

Determination of Actuarial Value of Assets for Fiscal Years Ended December 31

		2014		2013	
1.	Actuarial value of assets as of prior valuation date		\$404,292,435		\$421,448,001
2.	Employer and employee contributions and other income		22,085,614		26,440,544
3.	Benefits and expenses		71,994,873		69,703,410
4.	Expected investment income		28,450,335		29,986,243
5.	Total investment income, including income for securities lending		27,562,296		66,642,528
6.	Investment gain/(loss): (5) – (4)		-888,039		36,656,285
7.	Expected actuarial value of assets: (1) + (2) - (3) + (4)		382,833,511		408,171,378
8.	Calculation of unrecognized return		%		%
		<u>Original Amount*</u>	<u>Recognized</u>	<u>Recognized</u>	
(a)	Year ended December 31, 2014	-\$888,039	20% -\$177,608	--	--
(b)	Year ended December 31, 2013	36,656,285	20% 7,331,257	20%	\$7,331,257
(c)	6-month period ended December 31, 2012	7,796,423	20% 1,559,285	20%	1,559,285
(d)	Year ended June 30, 2012	-33,453,504	20% -6,690,701	20%	-6,690,701
(e)	Year ended June 30, 2011	45,124,290	20% 9,024,858	20%	9,024,858
(f)	Year ended June 30, 2010	-1,179,100	10% ** <u>-117,910</u>	20%	-235,820
(g)	Year ended June 30, 2009	-148,678,220		10% **	<u>-14,867,822</u>
(h)	Total recognized return		<u>10,929,181</u>		<u>-3,878,943</u>
9.	Actuarial value of assets as of current valuation date: (7) + (8h)		<u>\$393,762,692</u>		<u>\$404,292,435</u>

* Total return minus expected return on actuarial value

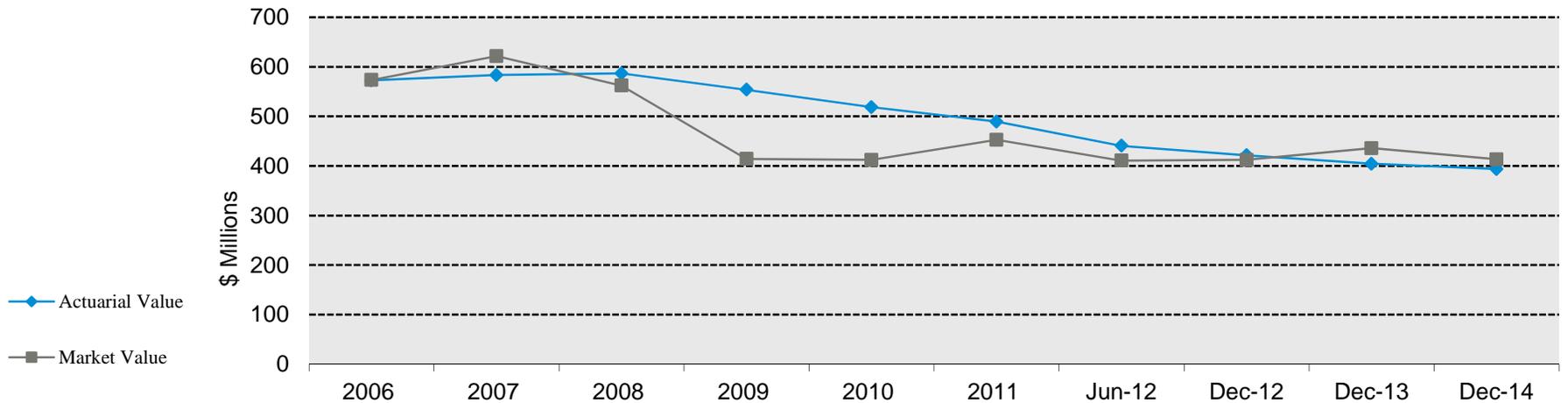
** 10% was recognized, instead of 20%, due to the short fiscal year ended December 31, 2012 in order to maintain a 5-year smoothing period.

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

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

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

CHART 7
Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2006 – December 31, 2014



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

C. ACTUARIAL EXPERIENCE

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

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

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

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

The total gain is \$5,620,106: \$10,929,182 from investment gains and \$5,309,076 in losses from all other sources. The net experience variation from individual sources other than investments was 0.6% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

CHART 8
Actuarial Experience for Year Ended December 31, 2014

1. Net gain from investments*	\$10,929,182
2. Net gain from administrative expenses	30,626
3. Net loss from other experience**	<u>-5,339,702</u>
4. Net experience gain: (1) + (2) + (3)	\$5,620,106

* Details in Chart 9

** Details in Chart 12

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

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the PEABF's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.50%. The actual rate of return on an actuarial basis for the year ended December 31, 2014, was 10.38%.

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

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

CHART 9

Actuarial Value Investment Experience for Year Ended December 31, 2014

1. Actual return	\$39,379,517
2. Average value of assets	379,337,805
3. Actual rate of return: (1) ÷ (2)	10.38%
4. Assumed rate of return	7.50%
5. Expected return: (2) x (4)	\$28,450,335
6. Actuarial gain: (1) – (5)	<u>\$10,929,182</u>

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

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

Chart 10
Investment Return

Fiscal Year Ended	Market Value	Actuarial Value
June 30, 2006	7.4%	5.3%
June 30, 2007	16.2%	9.3%
June 30, 2008	-3.0%	8.1%
June 30, 2009	-18.6%	2.0%
June 30, 2010	11.3%	1.5%
June 30, 2011	21.0%	3.1%
June 30, 2012	0.9%*	-0.6%*
December 31, 2012	6.3%*	1.0%*
December 31, 2013	16.9%**	6.5%*
December 31, 2014	6.9%**	10.4%*
Average Returns		
Last 5 valuation years:	11.3%	4.5%
Last 10 valuation years:	6.2%	4.8%

* As determined by Segal

**As determined by Investment Consultant

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

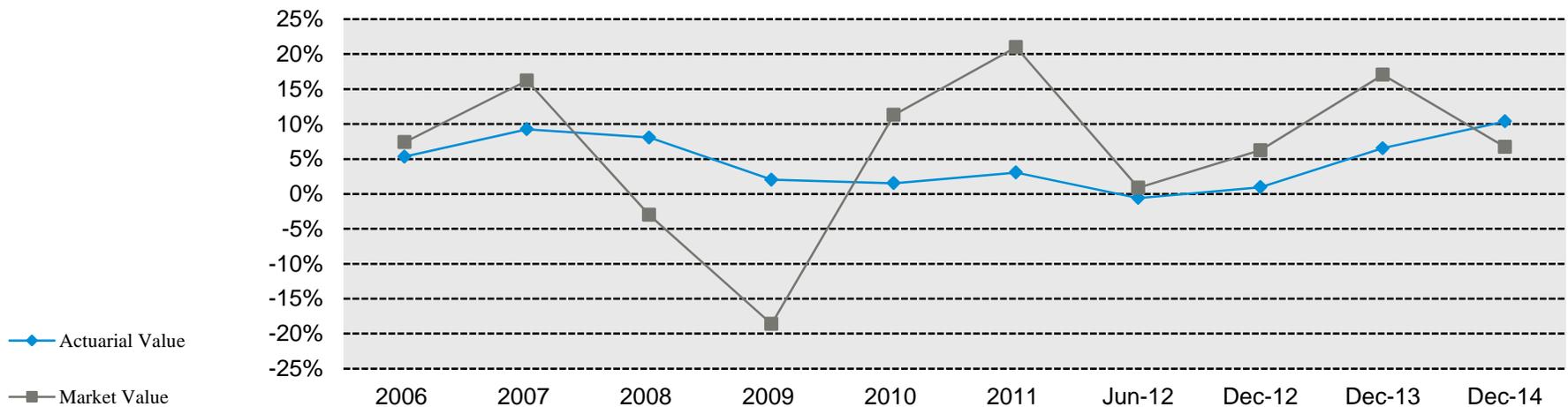
Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling the actuarially required contribution.

Administrative Expenses

Administrative expenses for the year ended December 31, 2014 totaled \$1,458,831 compared to the assumption of \$1,435,815. This resulted in a gain of \$30,626 for the year when adjusted for timing.

This chart illustrates how this leveling effect has actually worked over the years 2006 - 2014.

CHART 11
Market and Actuarial Rates of Return for Years Ended June 30, 2006 – December 31, 2014



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

Other Experience

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

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

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

The net loss from this other experience for the year ended December 31, 2014, amounted to \$5,339,702, which is 0.6% of the actuarial accrued liability.

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

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

CHART 12

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

1. Turnover	-\$1,125,544
2. Retirement	-3,582,736
3. Deaths among retired members and beneficiaries	4,710,456
4. Salary/service increase for continuing actives	-4,595,515
5. Other	<u>-746,363</u>
6. Total	-\$5,339,702

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

D. DEVELOPMENT OF EMPLOYER COSTS

The amount of actuarially determined contribution is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the actuarially determined contribution of 29.06% of payroll.

The actuarially determined contribution had been based on a 30-year, level percentage of pay amortization of the unfunded actuarial accrued liability. In April 2013, the Board of Trustees elected to close the 30-year amortization period, which ends on December 31, 2042. As of January 1, 2015, there are 28 years remaining on the amortization period.

The chart compares this valuation's actuarially determined contribution with the prior valuation.

CHART 13
Actuarially Determined Contribution

	Year Beginning January 1			
	2015		2014	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$13,417,795	10.75%	\$12,975,774	10.78%
2. Administrative expenses	1,531,772	1.22%	1,435,815	1.19%
3. Expected employee contributions	<u>-12,610,719</u>	<u>-10.10%</u>	<u>-10,970,201</u>	<u>-9.11%</u>
4. Employer normal cost: (1) + (2) + (3)	\$2,338,848	1.87%	\$3,441,388	2.86%
5. Employer normal cost, adjusted for timing*	2,424,445	1.94%	3,567,335	2.96%
6. Actuarial accrued liability	900,840,617		888,023,364	
7. Actuarial value of assets	<u>393,762,692</u>		<u>404,292,435</u>	
8. Unfunded actuarial accrued liability: (6) - (7)	\$507,077,925		\$483,730,929	
9. Payment on unfunded actuarial accrued liability	33,849,549	27.12%	31,739,851	26.36%
10. Actuarially determined contribution, adjusted for timing*: (5) + (9)	<u>\$36,273,994</u>	<u>29.06%</u>	<u>\$35,307,186</u>	<u>29.32%</u>
11. Projected payroll	\$124,822,858		\$120,414,647	

*Recommended contributions are assumed to be paid at the middle of every month.

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

The actuarially determined contribution as of January 1, 2015, is based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

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

CHART 14

Reconciliation of Actuarially Determined Contribution from January 1, 2014 to January 1, 2015

Actuarially Determined Contribution as of January 1, 2014	\$35,307,186
Effect of plan amendment(s)	-\$1,293,911
Effect of expected change in amortization payment due to payroll growth	872,846
Effect of change in administrative expense assumption	99,469
Effect of change in other actuarial assumptions	0
Effect of contributions less than recommended contribution	1,633,586
Effect of investment gain	-697,331
Effect of other gains and losses on accrued liability	338,743
Effect of net other changes	<u>13,406</u>
Total change	<u>\$966,808</u>
Actuarially Determined Contribution as of January 1, 2015	\$36,273,994

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

EXHIBIT A

Table of Plan Coverage

Category	December 31		Change From Prior Year
	2014	2013	
Active members in valuation:			
Number	2,973	3,076	-3.3%
Average age	41.9	41.7	N/A
Average years of service	10.9	10.4	N/A
Total salary supplied by the Fund	\$120,376,477	\$115,617,428	4.1%
Average salary	\$40,490	\$37,587	7.7%
Total active vested members with at least 10 years of service	1,280	1,284	-0.3%
Vested terminated members	147	148	-0.7%
Non-vested terminated members eligible for a return of contributions	3,876	3,788	2.3%
Service retirees:			
Number in pay status	2,101	2,102	-0.0%
Average age	71.1	71.3	N/A
Average monthly benefit	\$2,238	\$2,183	2.5%
Beneficiaries (including children) in pay status:			
Number in pay status	790	802	-1.5%
Average age	76.9	76.8	N/A
Average monthly benefit	\$1,230	\$1,186	3.7%
Total number of members	9,887	9,916	-0.3%

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

EXHIBIT B

**Participants in Active Service as of December 31, 2014
By Age, Years of Service, and Average Payroll**

Age	Years of Service									
	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	386	247	139	--	--	--	--	--	--	--
	\$19,015	\$18,510	\$19,913	--	--	--	--	--	--	--
25 - 29	427	205	193	29	--	--	--	--	--	--
	26,953	28,607	25,336	\$26,015	--	--	--	--	--	--
30 - 34	301	104	106	79	12	--	--	--	--	--
	38,690	35,088	40,587	40,293	\$42,599	--	--	--	--	--
35 - 39	263	96	73	45	48	1	--	--	--	--
	45,090	45,216	42,965	44,950	47,936	\$57,711	--	--	--	--
40 - 44	281	59	74	67	64	17	--	--	--	--
	48,496	41,720	43,051	55,728	50,893	58,188	--	--	--	--
45 - 49	366	51	73	91	92	39	19	1	--	--
	47,344	37,548	41,434	43,629	54,196	54,942	\$63,595	\$80,976	--	--
50 - 54	342	38	61	61	101	32	40	8	1	--
	50,949	35,702	35,814	51,577	54,260	66,571	62,190	74,706	\$41,342	--
55 - 59	279	35	40	50	61	28	34	25	6	--
	48,389	32,123	40,906	43,670	50,468	51,846	61,595	62,496	61,626	--
60 - 64	213	19	38	24	66	26	22	8	6	4
	50,435	34,573	41,571	43,644	50,669	64,313	63,971	53,322	60,095	\$61,979
65 - 69	76	12	7	15	16	8	6	10	--	2
	43,848	30,514	41,014	42,022	45,862	42,695	53,847	55,282	--	48,781
70 & over	39	1	3	6	9	5	8	2	1	4
	53,022	89,027	63,231	50,088	59,126	24,611	54,360	70,029	59,094	49,846
Total	2,973	867	807	467	469	156	129	54	14	10
	\$40,490	\$30,445	\$33,686	\$44,909	\$51,651	\$57,105	\$61,670	\$62,231	\$59,340	\$54,486

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

EXHIBIT C

Reconciliation of Member Data

	Active Members	Inactive Members	Retirees	Beneficiaries	Total
Number as of December 31, 2013	3,076	3,936	2,102	802	9,916
New participants	245	N/A	N/A	N/A	245
Terminations	(137)	137	0	0	0
Retirements	(63)	(22)	85	N/A	0
New disabilities	0	0	N/A	N/A	0
Died with beneficiary	(1)	0	(36)	37	0
Died without beneficiary	(3)	(2)	(54)	(47)	(106)
Refunds	(149)	(35)	0	0	(184)
Rehire	5	(5)	0	N/A	0
Certain period expired	N/A	N/A	0	(2)	(2)
Data adjustments	0	14	4	0	18
Number as of December 31, 2014	2,973	4,023	2,101	790	9,887

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

EXHIBIT D

Schedule of Pensioners and Beneficiaries Added to and Removed from Rolls

<u>Fiscal Year</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls – End of Year</u>		<u>% Increase in Avg. Annual Allowances</u>	<u>Average Annual Allowances</u>
	<u>Number</u>	<u>Annual Allowances</u>	<u>Number</u>	<u>Annual Allowances</u>	<u>Number*</u>	<u>Annual Allowances</u>		
2005	118	\$2,771,265	174	\$2,211,151	3,159	\$55,414,481	2.8	\$17,542
2006	117	3,304,140	184	2,631,780	3,092	56,086,841	3.4	18,139
2007	112	3,487,985	159	1,927,814	3,045	56,974,652	3.2	18,711
2008	127	3,714,283	177	2,321,096	2,995	58,367,839	4.2	19,488
2009	137	4,920,931	136	2,637,590	2,996	60,651,180	3.9	20,244
2010	113	3,442,389	167	2,903,979	2,942	61,189,590	2.7	20,799
2011	124	3,735,377	167	2,828,495	2,899	62,096,472	3.0	21,420
6/2012	167	4,681,195	158	2,797,326	2,908	63,980,341	2.7	22,001
12/2012	71	2,470,960	91**	1,290,060	2,888	65,161,241	2.6	22,563
12/2013	147	4,594,883	147	2,788,285	2,888	66,967,839	2.8	23,188
12/2014	126	4,085,581	138	2,781,597	2,876	68,271,823	2.4	23,738

* Does not include child beneficiaries receiving a pension.

** Includes removal of 17 QDROs for participant count purposes.

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

EXHIBIT E

Summary Statement of Income and Expenses on a Market Value Basis at Fiscal Year Ended December 31

	2014	2013
Net assets at market value at the beginning of the year	\$435,768,679	\$412,389,017
Contribution income:		
Employer contributions	\$11,225,438	\$15,707,814
Employee contributions	10,831,434	10,732,730
Less administrative expenses	<u>-1,458,831</u>	<u>-1,367,443</u>
Net contribution income	20,598,041	25,073,101
Securities lending income	71,776	84,866
Investment income:		
Interest, dividends and other income	\$5,232,109	\$4,901,014
Asset appreciation	24,707,166	64,005,779
Less investment and administrative fees	<u>-2,420,013</u>	<u>-2,349,131</u>
Net investment income	<u>27,519,262</u>	<u>66,557,662</u>
Total income available for benefits	\$48,189,079	\$91,715,629
Less benefit payments:		
Annuity payments	-\$67,206,100	-\$65,597,821
Disability & death	-600,551	-621,983
Refund of contributions	<u>-2,729,391</u>	<u>-2,116,163</u>
Net benefit payments	-\$70,536,042	-\$68,335,967
Change in reserve for future benefits	-\$22,346,963	\$23,379,662
Net assets at market value at the end of the year	\$413,421,716	\$435,768,679

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

EXHIBIT F

Summary Statement of Plan Assets at Fiscal Year Ended December 31

	2014	2013
Accounts receivable	\$12,297,043	\$11,957,786
Investments, at fair value:		
Short-term investments	\$22,968,749	\$7,119,889
Bonds	59,457,724	60,699,443
Common and preferred stocks	60,342,493	62,603,187
Collective investment funds	100,312,592	109,217,323
Mutual funds	12,613,552	13,697,643
Pooled separate accounts	10,500,415	11,448,270
Private equity partnerships	<u>131,857,439</u>	<u>155,689,466</u>
Total investments at market value	398,052,964	420,475,221
Invested securities lending collateral	45,579,952	42,261,762
Prepaid annuity benefits	4,190,601	4,084,760
Furniture and fixtures, net	40,335	39,253
Prepaid expenses	<u>60,721</u>	<u>73,235</u>
Total assets	\$460,221,616	\$478,892,017
Less accounts payable:		
Accounts payable	-\$334,969	-\$374,840
Accrued benefits payable	-725,214	-255,906
Securities lending collateral	-45,579,952	-42,261,762
Due to broker	-72,743	-135,837
Deferred rent	<u>-87,022</u>	<u>-94,993</u>
Total accounts payable	-\$46,799,900	-\$43,123,338
Net assets at market value	<u>\$413,421,716</u>	<u>\$435,768,679</u>
Net assets at actuarial value	<u>\$393,762,692</u>	<u>\$404,292,435</u>

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

EXHIBIT G

Development of the Fund Through December 31, 2014

Fiscal Year Ended	Employer Contributions	Employee Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
June 30, 2006	\$5,173,860	\$9,117,032	\$30,196,992	\$1,231,485	\$58,371,413	\$572,659,129
June 30, 2007	9,594,593	9,719,082	51,140,015	1,237,899	58,578,971	583,295,949
June 30, 2008	8,998,687	10,264,805	45,344,625	1,289,579	59,938,455	586,676,032
June 30, 2009	9,667,765	10,141,146	11,549,827	1,335,180	62,945,073	553,754,517
June 30, 2010	10,829,339	9,829,998	8,194,551	1,465,562	62,560,242	518,582,601
June 30, 2011	10,981,419	9,791,650	15,218,630	1,498,905	63,704,890	489,370,505
June 30, 2012	10,868,361	10,404,827	-2,804,426	1,644,603	65,502,658	440,692,006
December 31, 2012	5,268,363	5,371,084	4,121,362	723,802	33,281,012	421,448,001
December 31, 2013	15,707,814	10,732,730	26,107,300	1,367,443	68,335,967	404,292,435
December 31, 2014	11,225,438	10,831,434	39,408,258	1,458,831	70,536,042	393,762,692

* On an actuarial basis, net of investment fees

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

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability

	Plan Year Ended December 31	
	2014	2013
1. Unfunded actuarial accrued liability at beginning of year	\$483,730,929	\$550,359,221
2. Normal cost at beginning of year	14,411,589	16,905,616
3. Total contributions	22,056,872	26,440,544
4. Interest		
(a) Unfunded actuarial accrued liability and normal cost	\$37,360,689	\$42,544,863
(b) Total contributions	<u>748,304</u>	<u>897,026</u>
(c) Total interest: (4a) – (4b)	<u>36,612,385</u>	<u>41,647,837</u>
5. Expected unfunded actuarial accrued liability: (1) + (2) – (3) + (4c)	\$512,698,031	\$582,472,130
6. Changes due to (gain)/loss from:		
(a) Investments	-\$10,929,182	\$3,878,943
(b) Demographics and other	<u>5,309,076</u>	<u>6,793,720</u>
(c) Total changes due to (gain)/loss: (6a) + (6b)	-\$5,620,106	\$10,672,663
7. Change to due plan amendments	<u>0</u>	<u>-109,413,864</u>
8. Unfunded accrued liability at end of year: (5) + (6c) + (7)	<u>\$507,077,925</u>	<u>\$483,730,929</u>

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

EXHIBIT I

Definitions of Pension Terms

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

Actuarial Accrued Liability

For Actives:

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

Actuarial Accrued Liability

For Pensioners:

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

Actuarial Cost Method:

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

Actuarial Gain or Actuarial Loss:

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

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

Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	<p>The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:</p> <ol style="list-style-type: none">Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, andDiscounted according to an assumed rate (or rates) of return to reflect the time value of money.
Actuarial Present Value of Future Plan Benefits:	<p>The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.</p>
Actuarial Valuation:	<p>The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).</p>
Actuarial Value of Assets:	<p>The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.</p>

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

Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Assumptions or Actuarial Assumptions:	<p>The estimates on which the cost of the Fund is calculated including:</p> <ul style="list-style-type: none">(a) <u>Investment return</u> - the rate of investment yield that the Fund will earn over the long-term future;(b) <u>Mortality rates</u> - the death rates of employees and pensioners; life expectancy is based on these rates;(c) <u>Retirement rates</u> - the rate or probability of retirement at a given age;(d) <u>Turnover rates</u> - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;(e) <u>Salary increase rates</u> - the rates of salary increase due to inflation and productivity growth.

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

Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA.

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

GASB:	Governmental Accounting Standards Board.
GASB 67 and GASB 68:	Governmental Accounting Standards Board Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment Return:	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL):	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period with level percentage of payroll is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never decrease, but will become smaller each year, in relation to covered payroll, if the actuarial assumptions are realized.

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

Plan Fiduciary Net Position:	Market value of assets.
Total Pension Liability (TPL):	The actuarially accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date

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

EXHIBIT I

Summary of Actuarial Valuation Results

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

1. Pensioners as of the valuation date (including 773 beneficiaries and 17 dependent children)		2,891
2. Members inactive as of the valuation date with vested rights		147
3. Members active as of the valuation date		2,973
Fully vested	1,280	
Not vested	1,693	
4. Other non-vested inactive members as of the valuation date		3,876

The actuarial factors as of the valuation date are as follows:

1. Employer normal cost, including administrative expenses		\$2,338,848
2. Actuarial accrued liability		900,840,617
Retirees and beneficiaries	\$625,641,580	
Inactive members with vested rights	22,534,348	
Active members	252,664,689	
3. Actuarial value of assets (\$413,421,716 at market value)		393,762,692
4. Unfunded actuarial accrued liability		\$507,077,925
5. Funded ratio: (3) ÷ (2)		43.7%

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

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the actuarially determined contribution is as follows:

1. Total normal cost	\$13,417,795
2. Administrative expenses	1,531,772
3. Expected employee contributions	<u>-12,610,719</u>
4. Employer normal cost: (1) + (2) + (3)	\$2,338,848
5. Employer normal cost projected, adjusted for timing	2,424,445
6. Payment on projected unfunded/(overfunded) actuarial accrued liability	33,849,549
7. Total actuarially determined contribution: (5) + (6), adjusted for timing	<u>\$36,273,994</u>
8. Estimated employer contributions provided by the Fund, reflecting 3% loss on collections and supplemental contribution of \$12,500,000 due in 2015	29,936,105
9. Projected payroll	\$124,822,858
10. Total actuarially determined contribution as a percentage of projected payroll: (7) ÷ (9)	29.06%

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

EXHIBIT II

Comparison of Employer Contribution to Actuarially Determined Contribution

Fiscal Year Ended	Actuarially Determined Contribution (ADC)*	Actual Contributions	Percentage Contributed
June 30, 2006	\$16,436,993	\$5,173,860	31.5%
June 30, 2007	14,571,540	9,594,593	65.8%
June 30, 2008	16,073,257	8,998,687	56.0%
June 30, 2009	18,285,474	9,667,765	52.9%
June 30, 2010	22,399,740	10,829,339	48.3%
June 30, 2011	25,319,145	10,981,419	43.4%
June 30, 2012	28,051,528	10,868,361	38.7%
December 31, 2012	16,786,671	5,268,636	31.4%
December 31, 2013	41,834,857	15,707,814	37.5%
December 31, 2014	35,307,186	11,225,438	31.8%
December 31, 2015	36,273,994	--	--

**Prior to 2015, this amount was the Annual Required Contribution (ARC)*

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

EXHIBIT III

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
06/30/2006	\$572,659,129	\$745,244,239	\$172,585,110	76.84%	\$101,058,024	170.78%
06/30/2007	583,295,949	767,930,632	184,634,683	75.96%	106,601,982	173.20%
06/30/2008	586,676,032	795,379,129	208,703,097	73.76%	111,698,366	186.85%
06/30/2009	553,754,517	823,896,936	270,142,419	67.21%	108,882,742	248.10%
06/30/2010	518,582,601	833,025,948	314,443,347	62.25%	107,361,021	292.88%
06/30/2011	489,370,505	843,943,240	354,572,735	57.99%	107,686,693	329.26%
06/30/2012	440,692,006	866,370,565	425,678,559	50.87%	114,223,909	372.67%
12/31/2012	421,448,001	971,807,222	550,359,221	43.37%	58,231,511	472.56%**
12/31/2013	404,292,435	888,023,364	483,730,929	45.53%	117,781,596	410.70%
12/31/2014	393,762,692	900,840,617	507,077,925	43.71%	118,987,507	426.16%

* Not less than zero

** Adjusted for annualized covered payroll

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

EXHIBIT IV

Solvency Test at December 31

	12/31/2014	12/31/2013	12/31/2012	06/30/2012	06/30/2011	06/30/2010
1. Actuarial accrued liability (AAL)						
a. Active member contributions	\$169,952,178	\$171,065,449	\$166,554,660	\$158,144,793	\$151,828,106	\$143,117,073
b. Retirees and beneficiaries	625,641,580	621,827,982	662,153,615	599,353,146	583,999,785	578,549,458
c. Active and inactive members (employer financed)	<u>105,246,859</u>	<u>95,129,933</u>	<u>143,098,947</u>	<u>108,872,626</u>	<u>108,115,349</u>	<u>111,359,417</u>
d. Total	\$900,840,617	\$888,023,364	\$971,807,222	\$866,370,565	\$843,943,240	\$833,025,948
2. Actuarial value of assets	393,762,692	404,292,435	421,448,001	440,692,006	489,370,505	518,582,601
3. Cumulative portion of AAL covered						
a. Active member contribution	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
b. Retirees and beneficiaries	35.8%	37.5%	38.5%	47.1%	57.8%	64.9%
c. Active and inactive members (employer financed)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

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

EXHIBIT V

Projection of Contributions, Liabilities, and Assets

Based on the results of the December 31, 2014, actuarial valuation, we have projected valuation results for a 40-year period commencing with Fiscal Year 2015.

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

In order to determine projected contributions, liabilities, and assets, certain calculations needed to be made that are not normally required in a regular actuarial valuation. Benefit payout requirements, actuarial liabilities, and payroll were estimated over the 40-year period from 2015 through 2053 by projecting the membership of the Fund over the 40-year period, taking into account the impact of new entrants into the Fund over the 40-year period.

To make the required projections, assumptions needed to be made regarding the age and salary distribution of new entrants as well as the size of the active membership of the Fund. The assumptions regarding the profile of new entrants to the Fund were based on the recent experience of the Fund with regard to new entrants. The size of the active membership of the Fund was assumed to remain constant over the 40-year projection period. The results of our projections are shown on the following pages.

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

EXHIBIT V (continued)

Projection of Contributions, Liabilities, and Assets

Fiscal Year	Employee Contributions	Employer Contributions	Supplemental Contributions	Payroll	Normal Cost	Benefit Payouts	Estimated Expenses	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2014								900,840.6	393,762.7	507,077.9	43.7%
2015	12,610.7	17,436.1	12,500.0	124,822.9	13,417.8	72,807.5	1,531.8	907,290.0	397,140.9	510,149.1	43.8%
2016	12,401.9	17,877.1	12,500.0	122,734.8	13,238.3	72,546.2	1,608.4	914,301.3	400,251.4	514,049.9	43.8%
2017	13,442.9	28,159.9	0.0	121,040.5	13,113.1	72,979.7	1,688.8	921,254.0	404,549.7	516,704.3	43.9%
2018	13,287.8	27,693.6	0.0	119,630.4	13,018.0	72,864.4	1,773.2	928,745.6	400,471.3	528,274.3	43.1%
2019	14,344.6	37,848.9	50,000.0	118,467.8	12,904.1	73,328.4	1,861.9	936,195.3	459,217.6	476,977.7	49.1%
2020	14,246.5	37,412.2	0.0	117,650.3	12,849.5	73,349.9	1,955.0	944,122.7	469,535.8	474,586.8	49.7%
2021	14,166.6	40,387.6	0.0	116,984.8	12,783.5	73,739.7	2,052.7	952,169.2	482,916.0	469,253.2	50.7%
2022	14,123.1	40,111.4	0.0	116,622.5	12,746.4	74,063.6	2,155.4	960,443.2	496,384.6	464,058.6	51.7%
2023	14,091.9	39,886.6	0.0	116,362.2	12,708.1	74,524.6	2,263.1	968,818.5	509,984.2	458,834.3	52.6%
2024	14,058.7	39,764.2	0.0	116,085.4	12,644.7	74,942.8	2,376.3	977,319.7	523,872.5	453,447.2	53.6%
2025	14,029.0	39,676.2	0.0	115,838.3	12,571.4	75,431.9	2,495.1	985,872.3	538,040.2	447,832.0	54.6%
2026	14,009.6	39,582.7	0.0	115,676.7	12,487.6	76,015.5	2,619.9	994,370.7	552,414.2	441,956.5	55.6%
2027	13,988.3	39,499.2	0.0	115,498.6	12,363.3	76,442.9	2,750.8	1,002,929.5	567,176.6	435,752.9	56.6%
2028	14,000.5	39,444.6	0.0	115,600.9	12,317.7	76,758.3	2,888.4	1,011,754.0	582,531.4	429,222.6	57.6%
2029	14,039.3	39,384.4	0.0	115,923.7	12,292.5	77,526.0	3,032.8	1,020,416.8	598,068.9	422,347.9	58.6%
2030	14,070.6	39,419.0	0.0	116,184.5	12,244.8	78,254.9	3,184.4	1,028,921.7	613,926.4	414,995.4	59.7%
2031	14,110.5	39,528.1	0.0	116,516.8	12,211.1	78,988.3	3,343.7	1,037,267.5	630,201.5	407,066.0	60.8%
2032	14,163.1	39,616.2	0.0	116,955.8	12,186.3	79,655.2	3,510.9	1,045,520.5	646,977.9	398,542.7	61.9%
2033	14,229.3	39,728.5	0.0	117,507.4	12,168.6	80,198.8	3,686.4	1,053,809.5	664,451.5	389,358.0	63.1%
2034	14,312.3	39,876.8	0.0	118,198.9	12,165.5	80,620.9	3,870.7	1,064,354.0	684,921.6	379,432.4	64.4%
2035	14,395.5	40,063.1	0.0	118,892.5	12,151.6	79,148.7	4,064.2	1,075,126.8	706,458.2	368,668.6	65.7%
2036	14,493.3	40,296.8	0.0	119,706.9	12,146.9	79,622.6	4,267.5	1,086,210.8	729,251.2	356,959.5	67.1%
2037	14,591.3	40,531.1	0.0	120,523.9	12,145.6	80,066.6	4,480.8	1,097,664.0	753,416.6	344,247.4	68.6%
2038	14,699.6	40,806.3	0.0	121,426.5	12,154.5	80,237.5	4,704.9	1,109,808.5	779,382.5	330,426.0	70.2%
2039	14,840.9	41,082.3	0.0	122,603.8	12,202.3	80,498.9	4,940.1	1,122,643.9	807,213.4	315,430.5	71.9%
2040	14,988.4	41,387.3	0.0	123,832.7	12,250.2	80,688.3	5,187.1	1,136,297.1	837,148.4	299,148.6	73.7%
2041	15,141.3	41,785.0	0.0	125,107.1	12,298.7	80,903.7	5,446.5	1,150,802.8	869,407.3	281,395.5	75.5%
2042	15,319.3	42,200.2	0.0	126,590.3	12,376.2	80,888.8	5,718.8	1,166,495.3	904,433.9	262,061.4	77.5%
2043	15,517.6	42,630.8	0.0	128,243.4	12,480.0	80,599.4	6,004.7	1,183,776.6	942,743.7	241,032.9	79.6%
2044	15,737.2	43,131.9	0.0	130,072.7	12,591.4	80,388.5	6,305.0	1,202,692.5	984,581.7	218,110.8	81.9%
2045	15,973.0	43,690.4	0.0	132,038.4	12,715.1	79,994.1	6,620.2	1,223,569.3	1,030,463.8	193,105.5	84.2%

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

EXHIBIT V (continued)

Projection of Contributions, Liabilities, and Assets

Fiscal Year	Employee Contributions	Employer Contributions	Supplemental Contributions	Payroll	Normal Cost	Benefit Payouts	Estimated Expenses	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2046	16,223.4	44,308.5	0.0	134,124.7	12,849.3	79,541.2	6,951.2	1,246,626.0	1,080,814.5	165,811.5	86.7%
2047	16,495.9	44,972.7	0.0	136,395.6	13,013.5	78,960.6	7,298.8	1,272,190.9	1,136,155.1	136,035.8	89.3%
2048	16,790.7	45,677.5	0.0	138,852.4	13,201.8	78,232.7	7,663.7	1,300,630.7	1,197,059.9	103,570.7	92.0%
2049	14,982.7	0.0	0.0	141,468.9	13,406.4	77,640.1	8,046.9	1,332,038.2	1,213,483.6	118,554.6	91.1%
2050	15,274.7	0.0	0.0	144,249.7	13,630.3	76,932.9	8,449.3	1,366,775.8	1,231,758.3	135,017.4	90.1%
2051	15,589.8	12,115.5	0.0	147,251.5	13,874.7	76,151.6	8,871.7	1,405,191.9	1,264,672.7	140,519.2	90.0%
2052	15,920.6	14,107.1	0.0	150,401.6	14,138.1	75,288.6	9,315.3	1,447,667.8	1,302,900.3	144,767.5	90.0%
2053	16,273.3	14,386.2	0.0	153,760.2	14,422.0	74,286.1	9,781.1	1,494,674.8	1,345,207.3	149,467.5	90.0%

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

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

The RP-2000 Combined Healthy Mortality Table, set forward 1 year for female participants with generational projection from 2003 using Scale AA (adopted December 31, 2012).

The mortality table specified above was determined to contain provision appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination:

Select and ultimate termination rates are based on recent experience of the Fund (adopted December 31, 2012). Ultimate rates applicable for members with eight or more years of service are shown for sample ages in the table on the next page. Select rates are as follows:

Years of Service	Rate (%)
0 - 0.99	15.0
1 - 1.99	13.5
2 - 2.99	12.0
3 - 3.99	11.0
4 - 4.99	10.0
5 - 5.99	9.0
6 - 6.99	8.5
7 - 7.99	8.0

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

Ultimate rates:

Age	Rate (%)
20	7.0
25	7.0
30	6.0
35	5.0
40	3.5
45	3.3
50	3.0
55	3.0

Retirement Rates:

For employees first hired prior to January 1, 2011, rates of retirement for each age from 50 to 75 based on the recent experience of the Fund were used (adopted December 31, 2012). Sample rates are shown below.

Age	Rate (%)	
	<30 Years of Service	30+ Years of Service
50	5.0	40.0
55	5.0	20.0
60	6.0	6.0
65	12.0	12.0
70	14.0	14.0
75	100.0	100.0

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

For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 75 were used (adopted June 30, 2011; revised December 31, 2013). Sample rates are shown below.

Age	Rate (%)
60	20.0
62	50.0
65	20.0
67	50.0
70	20.0
75	100.0

Salary Increases:

Assumed salary increases are based on the recent experience of the Fund were used (adopted December 31, 2012). Rates are shown below.

Years of Service	Rate (%)
0 - 0.99	15.00
1 - 1.99	7.50
2 - 2.99	3.75
3 - 3.99	3.25
4+	2.75

Valuation of Inactive Vested Participants:

The liability for an inactive member is equal to his or her existing account balance, or, if the participant has at least 10 years of service, twice the existing account balance.

Unknown Data for Participants:

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Spouses:

75% of participants were assumed to be married and females are assumed to be 2 years younger than males.

Disability Benefit Valuation:

Disability benefits are valued in normal cost by annualizing the actual monthly disability payment amounts for the month prior to the valuation date.

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

Net Investment Return:	7.50% per year (adopted December 31, 2012)
Inflation:	2.75% per year (adopted December 31, 2012)
Payroll Growth:	2.75% per year (adopted December 31, 2012)
Administrative Expenses:	Equal to actual expenses for the prior year, increased by 5%.
Actuarial Value of Assets:	The actuarial value of assets was determined by smoothing unexpected gains and losses over a period of 5 years. The gain or loss for a year is calculated as the total investment income on the market value of assets, minus expected investment return on the prior actuarial value of assets. The final actuarial value is equal to the expected actuarial value plus (or minus) 20% of the calculated gain (or loss) in the prior 5 years.
Actuarial Cost Method:	Entry Age Normal (adopted December 31, 2012). Under this method, a normal cost is calculated for each employee that is the level annual contribution as a percent of pay required to be made from the employee's date of hire for as long as he/she remains active so that sufficient assets will be accumulated to provide his/her benefit. The accrued liability is the difference between the present value of all future benefits and the present value of all future normal costs.

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

EXHIBIT VII

Summary of Plan Provisions

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

Membership:	Any person employed by the Chicago Park District in a position requiring service for 6 months or more in a calendar year is required to become a member of the Fund as a condition of employment.
Employee Contributions:	<p>All members of the Fund are required to contribute 10% of salary to the Fund as follows: 8% for the retirement pension, 1% for the spouse's pension, and 1% for the automatic increases in the retirement pension. In addition, employees are required to contribute \$3.60 per month toward the cost of the single sum death benefit.</p> <p>This 8% towards the retirement pension will increase to 9% in 2017 and 10% in 2019. This will decrease to 8.5% only if the funded ratio reaches 90%, but it will revert back to 10% if the funding ratio subsequently falls below 90%.</p>
Retirement Pension:	<p>a. Eligibility – An employee may retire at age 50 (age 58 for members younger than age 45 as of January 1, 2015) with at least 10 years of service or at age 60 with 4 years of service. If retirement occurs before age 60, the retirement pension is reduced $\frac{1}{4}$ of 1% of each month that the age of the member is below 60. However, there is no reduction if the employee has at least 30 years of service.</p> <p>b. Amount – The retirement pension is based on the average of the 4 highest consecutive years of salary within the last 10 years. For an employee who withdraws from service on or after December 31, 2003, the amount of the retirement pension is 2.4% of highest average salary for each year of service.</p> <p>The maximum pension payable is 80% of the highest annual salary.</p>

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

An employee who was a participant before July 1, 1971 is entitled to the pension provided under the money purchase formula if it provides a greater pension than that provided under the above fixed benefit formula.

An employee who first becomes a participant on or after January 1, 2011 is subject to the following provisions:

1. The highest salary for annuity purposes is equal to the average monthly salary obtained by dividing the participant's total salary during the 96 consecutive months of service within the last 120 months of service in which the total compensation was the highest by the number of months in that period.
2. For 2015, the annual salary is limited to \$111,571.63. Limitations for future years shall automatically be increased by the lesser of 3% or one-half the percentage change in the Consumer Price Index-U during the preceding calendar year.
3. A participant is eligible to retire with unreduced benefits after attainment of age 67 with at least 10 years of service credit. However, a participant may elect to retire at age 62 with at least 10 years of service credit and receive a retirement annuity reduced by ½ of 1% for each month that the age of the member is below 67. Effective January 1, 2015, the age 62 and 67 requirements become 60 and 65, respectively.

Post-Retirement Increase:

An employee retiring at age 60 or over, or an employee with 30 or more years of service, is entitled to automatic annual increases of 3% of the originally granted pension following one year's receipt of pension payments. In the case of an employee with less than 30 years of service who retires before age 60, the increases begin following the later of attainment of age 60 and receipt of one year's pension payments.

Automatic annual increases (AAI) in the retirement annuity for employees who first became a participant on or after January 1, 2011 are payable starting at age 65 effective January 1, 2015.

Automatic annual increases in the retirement annuity are equal to the lesser of 3% or one-half the annual change in the Consumer Price Index-U, whichever is less, based on the originally granted retirement annuity. No AAI is payable in 2015, 2017, or 2019.

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

Surviving Spouse's Pension:

A surviving spouse is entitled to a pension upon the death of an employee while in service or on retirement. If the surviving spouse is age 60 or over and the employee or retiree had at least 20 years of service, the minimum surviving spouse's pension is 50% of the deceased employee's or retired employee's pension at the date of death. If the age of the surviving spouse is less than 60, the pension is reduced ½ of 1% for each month the surviving spouse is under age 60. If the employee had less than 20 years of service, the surviving spouse is entitled to a pension under the money purchase formula, taking into account employee and employer contributions toward the surviving spouse's pension.

Surviving spouse's pensions are subject to annual increases of 3% per year based on the current amount of pension.

For employees who first become a participant on or after January 1, 2011, the initial survivor's annuity is equal to 66 2/3% of the participant's earned retirement annuity at the date of death, subject to automatic annual increases of the lesser of 3% or one-half of the increase in the Consumer Price Index-U during the preceding calendar year, based on the originally granted survivor's annuity.

Children's Pension:

Unmarried children of a deceased employee under the age of 18 are entitled to a children's pension. If either parent is living, the pension is \$100.00 per month. If no parent survives, the pension for each child is \$150.00 per month. The total amount payable to a spouse or children may not exceed 60% of the employee's final salary.

Single Sum Death Benefit:

A death benefit is payable upon the death of an employee in service in addition to any other benefits payable to the surviving spouse or minor children. The death benefit payable is as follows:

\$3,000 benefit during the first year of service,
\$4,000 benefit during the second year of service,
\$5,000 benefit during the third year of service,
\$6,000 benefit during the fourth through tenth year of service, and
\$10,000 benefit if death occurs after ten or more years of service.

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

Upon the death of a retired member with ten or more years of service, the \$10,000 maximum benefit is reduced to \$6,000 if death occurs during the first year of retirement. Thereafter, it is reduced by \$1,500 for each year or fraction of a year while on retirement, but shall not be less than \$3,000.

Ordinary Disability Benefit: An ordinary disability benefit is payable after eight consecutive days of absence for illness without pay. The amount of the benefit is 45% of salary. The benefit is payable for a period not to exceed $\frac{1}{4}$ of the length of service or five years, whichever is less.

Occupational Disability Benefit: Upon disability resulting from an injury incurred while on duty, an employee is entitled to a disability benefit of 74% of salary from the first day of absence without pay. The occupational disability benefit is decreased to 73% of salary in 2017 and 72% in 2019. The benefit is payable during the period of disability until the employee attains age 65 if disability is incurred before age 60, or for a period of five years if disability is incurred after age 60.

Occupational Death Benefit: Upon the death of an employee resulting from an accident incurred in the performance of duty, the surviving spouse is entitled to an occupational death benefit of 50% of salary. Each unmarried child under the age of 18 is entitled to a benefit of \$100 per month. The combined payments to a family may not exceed 75% of the employee's final salary. The total payments are reduced by Workmen's Compensation benefits.

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

Refunds:	An employee who terminates employment before qualifying for a pension is entitled to a refund of employee contributions. The refund is payable to any employee who withdraws before age 55, regardless of the length of service. It is also payable to an employee who withdraws between age 55 and 60 with less than 10 years of service, and to an employee who withdraws after age 60 with less than 5 years of service. An employee who is unmarried at date of retirement is entitled to a refund of the full amount contributed for the spouse's pension, without interest.
Plan Year:	January 1 through December 31. Prior to December 31, 2012, the plan year was July 1 through June 30.
Employer Contributions:	The tax multiple is 1.7 for 2015 and 2016, and increases to 2.3 for 2017 and 2018, and 2.9 for 2019 and thereafter. Once the funding ratio reaches 90%, the employer contribution will be the lesser of 2.9 times the employee contributions during the fiscal year two years prior, or the amount needed to maintain a funding ratio of 90%. Additional employer contributions will be made in the amounts of \$12,500,000 in 2015, \$12,500,000 in 2016, and \$50,000,000 in 2019.

SECTION 5: GASB Information for Park Employees' Annuity and Benefit Fund of Chicago

EXHIBIT 1

Net Pension Liability

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

Total pension liability	\$900,840,617
Plan fiduciary net position	413,421,716
Net pension liability	487,418,901
Plan fiduciary net position as a percentage of the total pension liability	45.89%

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

Inflation	2.75%
Salary increases	Service-based ranging from 15% to 2.75%
Investment rate of return	7.50%, net of pension plan investment expense, including inflation+
Cost of living adjustments	All retiree COLAs are the lesser of 3% and 1/2 of CPI of the original benefit. Beneficiary COLAs are 3% compounded. COLAs will not be granted during 2015, 2017, and 2019. (This does not affect COLAs for beneficiaries.)

For healthy members, mortality rates were based on the RP-2000 Combined Healthy Table, set forward 1 year for female participants, with generational projection from 2003 using Scale AA.

The actuarial assumptions used in the December 31, 2014, valuation were based on the results of an experience study for the period July 1, 2007 to June 30, 2012.

Discount rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that member and employer contributions will be made as specified by Public Act 98-0622. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan's

SECTION 5: GASB Information for Park Employees' Annuity and Benefit Fund of Chicago

fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Net pension liability as of December 31, 2014	\$583,269,549	\$487,418,901	\$406,811,238

SECTION 5: GASB Information for Park Employees' Annuity and Benefit Fund of Chicago

EXHIBIT 2

Schedule of Changes in Net Pension Liability

	2014
Total pension liability	
Service cost	\$12,975,774
Interest	64,929,834
Change of benefit term	0
Differences between expected and actual experience	5,447,687
Changes of assumptions	0
Benefit payments, including refunds of employee contributions	<u>-70,536,042</u>
Net change in total pension liability	<u>12,817,253</u>
Total pension liability – beginning	<u>888,023,364</u>
Total pension liability – ending (a)	<u>900,840,617</u>
Plan fiduciary net position	
Contributions – employer	11,225,438
Contributions – employee	10,831,434
Net investment income	27,490,520
Benefit payments, including refunds of employee contributions	-70,536,042
Administrative expense	-1,458,831
Other	<u>100,518</u>
Net change in plan fiduciary net position	<u>-22,346,963</u>
Plan fiduciary net position – beginning	<u>435,768,679</u>
Plan fiduciary net position – ending (b)	<u>413,421,716</u>
Fund’s net pension liability – ending (a) – (b)	<u>487,418,901</u>
Plan fiduciary net position as a percentage of the total pension liability	45.89%
Covered employee payroll	118,987,507
Fund’s net pension liability as percentage of covered employee payroll	409.64%

SECTION 5: GASB Information for Park Employees' Annuity and Benefit Fund of Chicago

EXHIBIT 3

Schedule of Employer Contribution – Last Ten Fiscal Years

Fiscal Year Ended	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
June 30, 2006	\$16,436,993	\$5,173,860	\$11,263,133	\$101,058,024	5.12%
June 30, 2007	14,571,540	9,594,593	4,976,947	106,601,982	9.00%
June 30, 2008	16,073,257	8,998,687	7,074,570	111,698,366	8.06%
June 30, 2009	18,285,474	9,667,765	8,617,709	108,882,742	8.88%
June 30, 2010	22,399,740	10,829,339	11,570,401	107,361,021	10.09%
June 30, 2011	25,319,145	10,981,419	14,337,726	107,686,693	10.20%
June 30, 2012	28,051,528	10,868,361	17,183,167	114,223,909	9.51%
December 31, 2012	16,786,671	5,268,363	11,518,308	58,231,511	9.05%
December 31, 2013	41,834,857	15,707,814	26,127,043	117,781,596	13.34%
December 31, 2014	35,307,186	11,225,438	24,081,748	118,987,507	9.43%

SECTION 5: GASB Information for Park Employees' Annuity and Benefit Fund of Chicago

Notes to EXHIBIT 3

Valuation date	Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year.
Methods and assumptions used to establish “actuarially determined contribution” rates:	
Actuarial cost method	Entry Age Actuarial cost method
Amortization method	28-year closed, level percentage of payroll amortization
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return	7.50%, net of investment expense
Projected salary increases	Service-based ranging from 15% to 2.75%
Mortality	Post-retirement mortality rates were based on the RP-2000 Combined Healthy Mortality Tables set forward 1 year for females with generational projection from 2003 using scale AA for mortality improvements. Pre-retirement mortality rates are the same as post-retirement rates.
Cost of living adjustments	All retiree COLAs are the lesser of 3% and 1/2 of CPI of the original benefit. Beneficiary COLAs are 3% compounded. COLAs will not be granted during 2015, 2017, and 2019. (This does not affect COLAs for beneficiaries.)
Other assumptions:	Same as those used in the December 31, 2014, actuarial funding valuations.

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