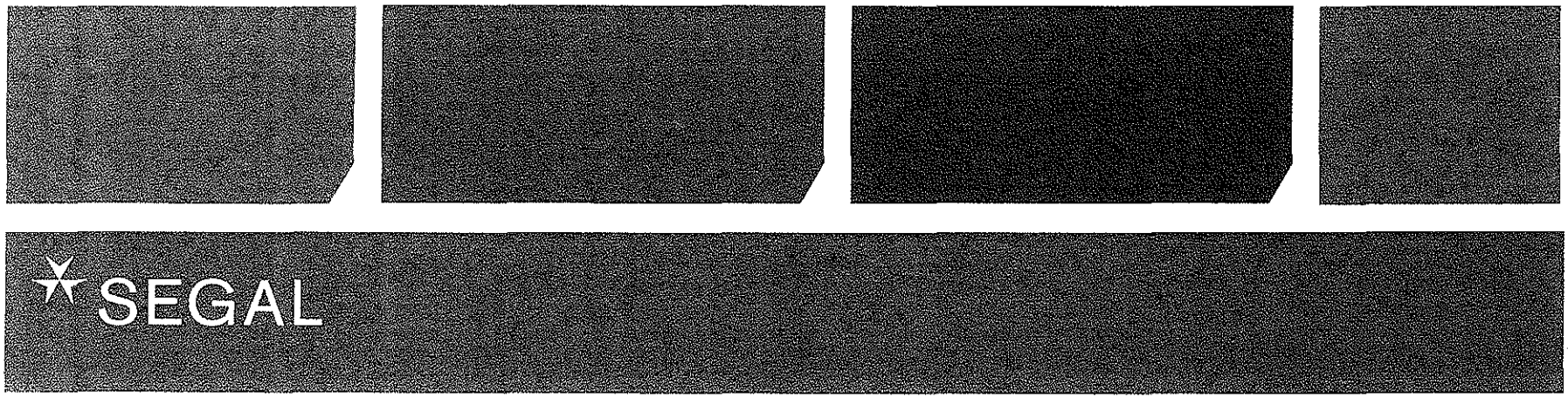
Public School Teachers' Pension and Retirement Fund of Chicago

Statutorily Required Funding
Valuation as of June 30, 2012



SEGAL

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February 5, 2013

Board of Trustees
Public School Teachers' Pension
and Retirement Fund of Chicago
203 North LaSalle Street, Suite 2600
Chicago, Illinois 60601

Dear Board Members:

We are pleased to submit this combined actuarial valuation as of June 30, 2012 of the pension and retiree health insurance benefits provided under the Fund. It summarizes the actuarial data used in the valuation, measures the overall funded status of the plan, and establishes the statutorily required contributions for the fiscal year ending June 30, 2014.

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

Since the effective date of the last actuarial valuation, the only modification to benefit provisions that impacted the actuarial liabilities of the Fund was the implementation of the pension overpayment settlement. The impact of the settlement is described on page i.

The actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the Fund's actuary. The assumptions and methods used for the June 30, 2012 actuarial valuation were based on an experience analysis covering the four-year period ending June 30, 2006 and were adopted by the Board, effective for the June 30, 2008 valuation. In our opinion, the assumptions as approved by the Board are reasonably related to the experience of the Fund.

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,

THE SEGAL COMPANY

By:

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

Matthew A. Strom, FSA, MAAA, EA
Consulting Actuary

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SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

SECTION 1: Valuation Summary for the Public School Teachers' Pension and Retirement Fund of Chicago

Purpose

This report has been prepared by The Segal Company to present a combined valuation of the pension and retiree health insurance benefits of the Public School Teachers' Pension and Retirement Fund of Chicago (CTPF) as of June 30, 2012. The valuation was performed to determine the overall funded status and contribution requirements of the Fund. The required contributions 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 June 30, 2012, provided by CTPF staff;
- The assets of the Plan as of June 30, 2012, provided by CTPF 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. Senate Bill 1946, which was signed into law on April 14, 2010, as Public Act 96-0889, revised the funding provisions that had previously been in effect. Public Act 96-0889 specifies that, for Fiscal Years 2014 through 2059, the Board of Education is to make annual contributions calculated as a level percent of payroll sufficient to bring the total assets of the fund up to 90% of the total actuarial liabilities of the fund by the end of Fiscal Year 2059. Based on our projection, we have determined that the Board of Education's required contribution for Fiscal Year 2014 is $600,009,000. In conjunction with the additional State contributions and additional Board of Education contributions of $11,903,000 and $12,691,000, respectively, Fiscal Year 2014 contributions will total $624,603,000.
2. The pension overpayment settlement resolved an issue that some pensioners' original benefits were miscalculated and the pensioners were being overpaid. The resolution reduces or eliminates the automatic annual increase for the effected pensioners for the next few years until their benefits are corrected. This lower annual increase for some pensioners lowered the actuarially accrued liability by about $69.3 million.

3. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of June 30, 2012 is 54.1%, compared to 59.9% as of June 30, 2011. This ratio is a measure of funding status; its history is a measure of funding progress.
4. For the year ended June 30, 2012, Segal has determined that the asset return on a market value basis was -0.4%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 1.0%. This represents an experience loss when compared to the assumed rate of 8%. As of June 30, 2012, the actuarial value of assets ($9.398 billion) represented 99.2% of the market value ($9.471 billion).
5. The portion of deferred investment gains and losses recognized in the calculation of the June 30, 2012 actuarial value of assets resulted in a loss of $685,743,831. Additionally, the demographic and liability experience resulted in a $34,067,791 loss.
6. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 99.2% of the market value of assets as of June 30, 2012. 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.
7. Given the Fund's current (and projected) financial situation, the current 8% investment return assumption appears to be at the high end of the reasonable range. We were unable to definitively judge the reasonableness of this assumption without performing a substantial amount of additional work that is beyond the scope of this report. Therefore, for purposes of this actuarial valuation, the 8% assumed rate was used to discount actuarial liabilities. We plan to work with the Board to study the investment return assumption further at a later date and modify the assumption, if necessary.
8. This actuarial valuation report as of June 30, 2012 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.

Summary of Key Valuation Results

	2013	2012	2011*
Contributions for fiscal year beginning July 1:			
Required Board of Education contributions	$600,009,000	$196,000,000	$192,000,000
Additional Board of Education contributions	$12,691,000	11,654,000	11,729,000
Additional State contributions	$11,903,000	10,931,000	11,001,000
Total employer contributions	$624,603,000	218,585,000	214,730,000
Actual employer contributions	--	--	203,729,011
Funding elements for fiscal year beginning July 1:			
Normal cost, including administrative expenses		$173,787,026	$188,442,067
Market value of assets		9,471,440,984	10,344,086,736
Actuarial value of assets		9,398,201,630	10,140,639,494
Actuarial accrued liability		17,375,660,369	16,940,626,445
Unfunded/(overfunded) actuarial accrued liability		7,977,458,739	6,799,986,951
Funded ratio		54.09%	59.86%
Demographic data for plan year beginning July 1:			
Number of retirees and beneficiaries		25,926	25,199
Number of vested former participants		4,245	4,253
Number of active members		30,366	30,133
Total salary supplied by the Fund		$2,118,235,482	$2,090,131,858
Average salary		69,757	69,364

** 2011 results shown here and throughout this report are based on the valuation performed by Goldstein & Associates.*

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 participant population has changed over the past ten valuations can be seen in this chart.

CHART 1

Member Population: 2003 – 2012

Year Ended June 30	Active Members	Vested Terminated Members	Retirees and Beneficiaries	Ratio Actives to Retirees and Beneficiaries
2003	36,548	1,444	18,565	1.97
2004	37,362	1,930	19,266	1.94
2005	37,521	2,059	20,954	1.79
2006	34,682	2,408	22,105	1.57
2007	32,968	2,752	23,623	1.40
2008	32,086	3,479	23,920	1.34
2009	31,905	3,056	24,218	1.32
2010	33,983	2,752	24,600	1.38
2011	30,133	4,253	25,199	1.20
2012	30,366	4,245	25,926	1.17

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 2

Determination of Actuarial Value of Assets for Years Ended June 30, 2012 and June 30, 2011

				2012		2011
1.	Actuarial value of assets as of prior June 30			$10,140,639,494		$10,952,274,725
2.	Employer and employee contributions and miscellaneous income			398,072,836		404,866,598
3.	Benefits and expenses			1,232,635,521		1,166,400,567
4.	Expected investment income			777,868,652		846,306,631
5.	Total investment income, including income for securities lending			-38,083,067		2,123,292,641
6.	Investment gain/(loss) for the year ended June 30: (5) – (4)			-815,951,719		1,276,986,010
7.	Expected actuarial value of assets: (1) + (2) - (3) + (4)			10,083,945,461		11,037,047,387
8.	Calculation of unrecognized return	Original Amount*	% Recognized		% Recognized	
	(a) Year ended June 30, 2012	-$815,951,719	25%	-$203,987,930		--
	(b) Year ended June 30, 2011	1,276,986,010	25%	319,246,503	25%	$319,246,503
	(c) Year ended June 30, 2010	205,750,306	25%	51,437,577	25%	51,437,577
	(d) Year ended June 30, 2009	-3,409,759,924	25%	-852,439,981	25%	-852,439,981
	(e) Year ended June 30, 2008	-1,658,607,968			25%	-414,651,992
	(f) Total recognized return			-685,743,831		-896,407,893
9.	Total actuarial value of assets as of June 30: (7) + (8f)			$9,398,201,630		$10,140,639,494

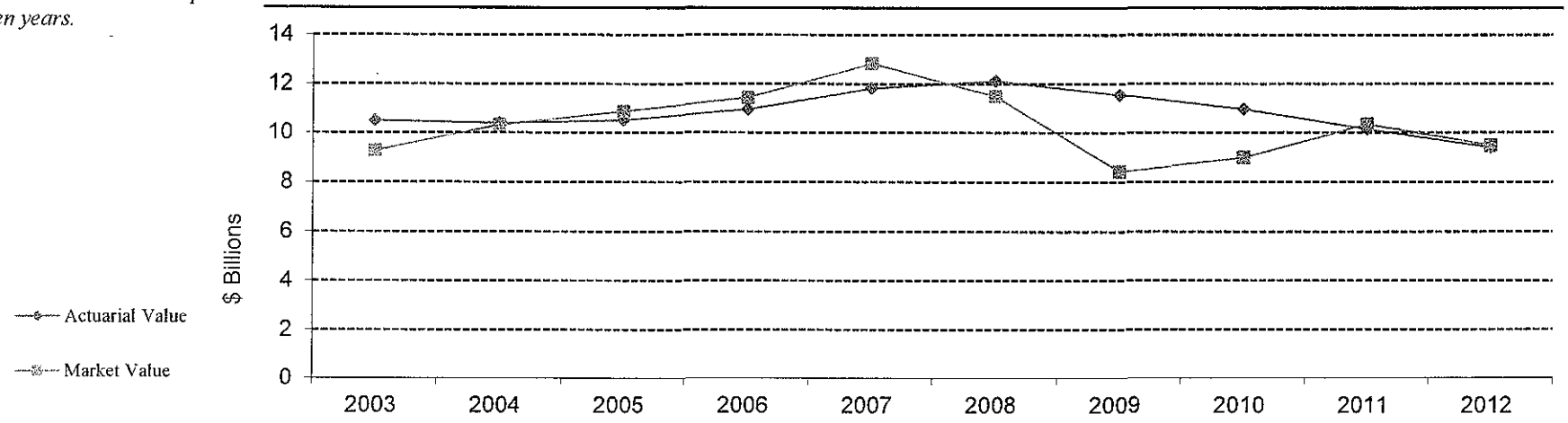
* *Total return minus expected return on actuarial value*

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

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

CHART 3

Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2003 – 2012



C. ACTUARIAL EXPERIENCE

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

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

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

The total loss is $714,424,102, $685,743,831 from investment losses and $28,680,271 in losses from all other sources. The net experience variation from individual sources other than investments was less than 0.2% 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 4

Actuarial Experience for Year Ended June 30, 2012

1.	Net gain/(loss) from investments*	-$685,743,831
2.	Net gain/(loss) from administrative expenses	-331,963
3.	Net gain/(loss) from retiree health insurance cash flows	5,719,483
4.	Net gain/(loss) from other experience**	-34,067,791
5.	Net experience gain/(loss): (1) + (2) + (3)	-$714,424,102

* *Details in Chart 5*

** *Details in Chart 8*

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 CTPF's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The actual rate of return on an actuarial basis for the 2012 plan year was 0.95%.

Since the actual return for the year was less than the assumed return, the CTPF experienced an actuarial loss during the year ended June 30, 2012 with regard to its investments.

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

CHART 5

Actuarial Value Investment Experience for Year Ended June 30, 2012

1.	Actual return	$92,124,821
2.	Average value of actuarial assets	9,723,358,152
3.	Actual rate of return: (1) ÷ (2)	0.95%
4.	Assumed rate of return	8.00%
5.	Expected return: (2) x (4)	$777,868,652
6.	Actuarial gain/(loss): (1) – (5)	-$685,743,831

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

Chart 6
Investment Return

Year Ended June 30	Market Value	Actuarial Value*
2003	4.0%	2.3%
2004	15.0%	3.2%
2005	10.8%	6.0%
2006	10.7%	9.6%
2007	17.7%	13.3%
2008	-5.3%	7.9%
2009	-22.4%	0.2%
2010	13.6%	-0.4%
2011	24.8%	-0.5%
2012	-0.4%*	1.0%
Average Returns		
Last 5 years:	0.0%	1.7%
Last 10 years:	5.9%	4.3%

** As determined by Segal*

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 June 30, 2012 totaled $10,120,434 compared to the assumption of $9,433,406. This resulted in a loss of $331,963 for the year, when adjusted for timing.

This chart illustrates how this leveling effect has actually worked over the years 2003 - 2012.

CHART 7

Market and Actuarial Rates of Return for Years Ended June 30, 2003 - 2012

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 June 30, 2012 amounted to $34,067,791, which is less than 0.2% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the CTPF for the year ended June 30, 2012 is shown in the chart below.

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

CHART 8

Experience Due to Changes in Demographics for Year Ended June 30, 2012

1.	Turnover	-$1,419,978
2.	Retirement	-89,792,642
3.	Deaths among retired members and beneficiaries	3,837,850
4.	Salary/service increase for continuing actives	1,401,162
5.	Miscellaneous	51,905,817
6.	Total	-$34,067,791

D. DEVELOPMENT OF EMPLOYER COSTS

Additional State Contributions

According to Section 17-127 of the Pension Code, the State shall make additional contributions of .544% of payroll to the Fund to offset a portion of the cost of benefit increases enacted under Public Act 90-582, except that no additional contributions are required if for the previous fiscal year the ratio of the fund's assets to total actuarial liabilities was at least 90%.

Based on the June 30, 2012, actuarial valuation, the ratio of the actuarial value of assets to total actuarial liabilities, or funded ratio, amounts to 54.1%. Therefore, additional State contributions will be required for Fiscal Year 2014. The total payroll for FY 2014 is projected to be $2,341,179,200. This total payroll includes employee contributions of 7% of salary paid by the Board of Education. Excluding these employee contributions from payroll results in an adjusted projected payroll of $2,188,017,944. Based on this adjusted projected payroll for Fiscal Year 2014, we have determined the additional State contributions under Section 17-127 of the Pension Code to be $11,903,000.

Additional Board of Education Contributions

According to Section 17-127.2 of the Pension Code, the Board of Education shall make additional contributions of .58% of each teacher's salary to the Fund to offset a portion of the cost of benefit increases enacted under Public Act 90-582, except that no additional contributions are required if for the previous fiscal year the ratio of the fund's assets to total actuarial liabilities was at least 90%. As the funded ratio as of June 30, 2012, is 54.1%, additional Board of Education contributions will be required for Fiscal Year 2014. Based on adjusted projected payroll of $2,188,017,944 for Fiscal Year 2014, we have determined the additional Board of Education contribution under Section 17-127.2 of the Pension Code to be $12,691,000.

Board of Education Required Contribution

Senate Bill 1946, which was signed into law on April 14, 2010, as Public Act 96-0889, revised the funding provisions that had previously been in effect. Public Act 96-0889 specifies that, for Fiscal Years 2014 through 2059, the Board of Education is to make annual contributions calculated as a level percent of payroll sufficient to bring the total assets of the fund up to 90% of the total actuarial liabilities of the fund by the end of Fiscal year 2059. Based on our projection, we have determined that the Board of Education's required contribution for Fiscal Year 2014 is $600,009,000.

EXHIBIT A

Table of Plan Coverage

Category	Year Ended June 30 2012	2011	Change From Prior Year
Active members in valuation:			
Number	30,366	30,133	0.8%
Average age	42.6	43.0	-0.9%
Average years of service	11.2	11.5	-2.6%
Total salary supplied by the Fund	$2,118,235,482	$2,090,131,858	1.3%
Average salary	69,757	69,364	0.6%
Total active vested participants	21,063	21,027	0.2%
Male members	7,048	6,949	1.4%
Female members	23,318	23,184	0.6%
Vested terminated members	4,245	4,253	-0.2%
Service retirees:			
Number in pay status	22,636	21,977	3.0%
Average age	72.1	72.0	0.1%
Average monthly benefit	$3,870	$3,742	3.4%
Total annual benefit	1,051,090,534	986,884,026	6.5%
Disabled retirees:			
Number in pay status	468	465	0.6%
Average age	65.6	65.3	0.5%
Average monthly benefit	$2,621	$2,527	3.7%
Total annual benefit	14,717,767	14,101,691	4.4%
Beneficiaries (including children) in pay status:			
Number in pay status	2,822	2,757	2.4%
Average age	74.1	74.0	0.1%
Average monthly benefit	$1,485	$1,417	4.8%
Total annual benefit	50,272,587	46,887,342	7.2%
Total number of members*	60,537	59,585	1.6%

*There were 17,091 retirees and beneficiaries receiving health insurance subsidies as of June 30, 2012 and 17,279 as of June 30, 2011.

EXHIBIT B

Participants in Active Service as of June 30, 2012
By Age, Years of Service, and Average Salary

	Years of Service										
Age	Total	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	871	220	651	--	--	--	--	--	--	--	--
	$37,068	$14,535	$44,682	--	--	--	--	--	--	--	--
25-29	4,308	407	3,050	850	1	--	--	--	--	--	--
	48,989	14,552	49,594	$63,270	$83,907	--	--	--	--	--	--
30-34	5,122	265	1,822	2,515	520	--	--	--	--	--	--
	60,845	16,055	52,751	67,411	80,274	--	--	--	--	--	--
35-39	4,301	149	848	1,493	1,532	279	--	--	--	--	--
	71,008	15,195	53,815	69,141	83,674	$93,519	--	--	--	--	--
40-44	3,853	95	549	843	1,105	1,050	211	--	--	--	--
	76,572	16,950	50,980	68,019	82,531	91,509	$98,631	--	--	--	--
45-49	2,877	91	336	501	570	713	561	105	--	--	--
	77,455	12,184	50,933	68,318	80,674	87,772	91,734	$98,669	--	--	--
50-54	2,872	65	248	416	486	609	516	429	102	1	--
	79,096	11,170	43,588	65,323	79,587	85,887	91,234	94,128	$97,526	$64,888	--
55-59	3,062	51	181	327	392	560	528	440	459	124	--
	83,571	7,179	39,999	64,487	78,857	83,163	89,647	96,338	102,319	105,085	--
60-64	2,288	55	126	206	271	388	423	280	254	216	69
	83,910	8,020	25,760	56,452	75,582	84,563	92,958	97,230	102,975	107,248	$108,842
65-69	656	20	40	59	70	103	111	77	70	40	66
	82,837	5,423	14,107	58,387	72,090	86,607	96,632	96,165	100,035	103,223	105,977
70 & over	156	10	24	16	21	18	13	10	17	7	20
	67,918	1,203	15,717	22,136	65,331	80,400	99,540	97,409	96,493	109,682	117,817
Total	30,366	1,428	7,875	7,226	4,968	3,720	2363	1,341	902	388	155
	$69,757	$14,014	$49,452	$66,676	$81,258	$87,853	$92,266	$95,998	$101,674	$106,077	$108,780

EXHIBIT C

Reconciliation of Participant Data

	Active Members	Vested Terminated Members	Retirees	Disabled Retirees	Beneficiaries	Total
Number as of June 30, 2011	30,133	4,253	21,977	465	2,757	59,585
New participants	2,699	N/A	N/A	N/A	N/A	2,699
Terminations	(1,812)	570	0	0	0	(1,242)
Retirements	(1,053)	(206)	1,259	N/A	N/A	0
New disabilities	(13)	(10)	N/A	23	N/A	0
Died with beneficiary	0	0	0	0	236	236
Died without beneficiary	(31)	(20)	(656)	(22)	(171)	(900)
Refunds	(156)	(120)	0	0	0	(276)
Rehire	599	(187)	(1)	0	N/A	411
Certain period expired	N/A	N/A	0	0	0	0
Data adjustments	0	(35)	57	2	0	24
Number as of June 30, 2012	30,366	4,245	22,636	468	2,822	60,537

EXHIBIT D

Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended June 30, 2012		Year Ended June 30, 2011	
Net assets at market value at the beginning of the year		$10,344,086,736		$8,982,328,064
Contribution income:				
Employer contributions	$203,729,011		$208,589,994	
Employee contributions	187,141,384		185,882,636	
Administrative expenses	-10,120,434		-9,527,938	
Net contribution income		$380,749,961		$384,944,692
Miscellaneous income		431,790		55,307
Federal insurance reimbursement		6,770,651		10,338,661
Investment income:				
Interest, dividends and other income	$238,788,772		$232,171,337	
Asset appreciation	-239,806,743		1,928,712,617	
Securities lending income	5,011,510		4,601,984	
Less investment and administrative fees	-42,076,606		-42,193,297	
Net investment income		-38,083,067		2,123,292,641
Total income available for benefits		$349,869,335		$2,518,631,301
Less benefit payments:				
Annuity payments	-$1,113,884,747		-$1,047,538,959	
Death	-3,324,381		-3,260,860	
Refund of contributions	-36,294,636		-27,180,518	
Refund of insurance premiums	-69,011,323		-78,892,292	
Net benefit payments		-$1,222,515,087		-$1,156,872,629
Change in reserve for future benefits		-$872,645,752		$1,361,758,672
Net assets at market value at the end of the year		$9,471,440,984		$10,344,086,736

EXHIBIT E

Summary Statement of Plan Assets

	Year Ended June 30, 2012		Year Ended June 30, 2011	
Cash		$13,428,219		$19,159,631
Accounts receivable		107,762,928		279,541,736
Investments, at fair value:				
Equities	$5,121,676,573		$6,375,599,574	
Fixed income	2,235,679,657		1,817,433,960	
Public REITs	165,423,842		298,907,749	
Real estate	727,399,447		686,732,202	
Short-term investments	539,724,134		486,200,107	
Private equity	304,685,721		319,315,230	
Infrastructure	307,980,960		275,818,888	
Hedge fund	173,505,261		177,744,777	
Total investments at market value		9,576,075,595		10,437,752,487
Invested securities lending collateral		588,095,853		578,003,044
Capital assets		2,366,332		2,794,812
Prepaid expenses		12,220		0
Total assets		$10,287,741,147		$11,317,251,710
Less accounts payable:				
Benefits payable	-$2,569,689		-$2,332,209	
Refunds payable	-21,757,021		-14,046,884	
Accounts and administrative expenses payable	-13,516,156		-13,997,618	
Securities lending collateral	-613,185,665		-608,158,566	
Due to broker for securities purchased	-165,271,632		-334,629,697	
Total accounts payable		-$816,300,163		-$973,164,974
Net assets at market value		$9,471,440,984		$10,344,086,736
Net assets at actuarial value		$9,398,201,630		$10,140,639,494

EXHIBIT F

Development of Unfunded Actuarial Accrued Liability

		Year Ending June 30, 2012
1.	Unfunded actuarial accrued liability at beginning of year	$6,799,986,951
2.	Normal cost at beginning of year	364,247,550
3.	Total contributions	390,870,395
4.	Interest	
	(a) Unfunded actuarial accrued liability and normal cost	$573,138,760
	(b) Total contributions	14,132,782
	(c) Total interest: (4a) – (4b)	559,005,978
5.	Expected unfunded actuarial accrued liability: (1) + (2) – (3) + (4c)	$7,332,370,084
6.	Changes due to (gain)/loss from:	
	(a) Investments	$685,743,831
	(b) Demographics and other	28,680,271
	(c) Total changes due to (gain)/loss: (6a) + (6b)	$714,424,102
7.	Change to due plan changes*	-69,335,447
8.	Change in actuarial assumptions	0
9.	Unfunded accrued liability at end of year: (5) + (6c) + (7) + (8)	$7,977,458,739

**Due to pension overpayment settlement.*

EXHIBIT G

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 Annual Required Contribution.

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

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

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

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

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

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB Statement No. 25, such as the funded ratio and the ARC.

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

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.

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 ARC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Annual Required Contribution (ARC): The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB Statement No. 25. The ARC consists of the Employer Normal Cost and the Amortization Payment.

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Fund is calculated including:

(a) Investment return - the rate of investment yield that the Fund will earn over the long-term future;

(b) Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates - the rate or probability of retirement at a given age;

(d) Turnover rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;

(e) Salary increase rates - the rates of salary increase due to inflation and productivity growth.

Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.
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, although GASB 25 reporting requires the use of the AVA.
GASB:	Governmental Accounting Standards Board.
GASB 25 and GASB 27:	Governmental Accounting Standards Board Statements No. 25 and No. 27. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement

No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.

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.

Margin: The difference, whether positive or negative, between the statutory employer contribution rate and the Annual Required Contribution (ARC) as defined by GASB 25.

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 is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount, or in relation to covered payroll, if the actuarial assumptions are realized.

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.

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 2,822 beneficiaries and 468 disabled retirees)		25,926
2. Pensioners receiving health insurance subsidies as of the valuation date		17,091
3. Members inactive during year ended June 30, 2012 with vested rights		4,245
4. Members active during the year ended June 30, 2012		30,366
Fully vested	21,063	
Not vested	9,303	
The actuarial factors as of the valuation date are as follows:		
1. Actuarial accrued liability		$17,375,660,369
Service retirees	$11,736.351,672	
Disabled retirees	140,454,050	
Beneficiaries	443,457,911	
Inactive participants with vested rights	255,812,695	
Active participants:		
Retirement	4,322,561,289	
Turnover	238,027,546	
Mortality	139,793,672	
Disability	99,201,534	
2. Actuarial value of assets ($9,471,440,984 at market value)		9,398,201,630
3. Unfunded actuarial accrued liability		$7,977,458.739
4. Funded ratio: (2) ÷ (3)		54.1%

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

Components of the normal cost:	% of Payroll*	Amount
1. Retirement	10.69%	$242,465,165
2. Turnover	1.24%	28,179,632
3. Mortality	0.46%	10,516,079
4. Disability	0.35%	7,846,529
5. Total normal cost: (1) + (2) + (3) + (4)	12.74%	$289,007,405
6. Health insurance reimbursement	2.86%	65,000,000
7. Administrative expenses	0.47%	10,626,456
8. Total normal cost, including administrative expenses: (5) + (6) + (7)	16.07%	$364,633,861
9. Expected employee contributions	8.41%	-190,846,835
10. Employer normal cost: (8) + (9)	7.66%	$173,787,026

**Based on projected payroll of $2,268,956,806.*

EXHIBIT II

Projection of Contributions, Liabilities, and Assets

Based on the results of the June 30, 2012 actuarial valuation, we have projected valuation results for a 47-year period commencing with Fiscal Year 2013. We have based Board of Education contributions on the contribution requirements on the funding provision of Public Act 96-0889.

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

In order to determine projected contributions, liabilities, and assets, certain calculations needed to be made that are not normally required in a regular actuarial valuation. Benefit payout requirements, actuarial liabilities, and payroll were estimated over the 47-year period from 2013 through 2059 by projecting the membership of the Fund over the 47-year period, taking into account the impact of new entrants into the Fund over the 47-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 47-year projection period. The results of our projections are shown on the following pages.

EXHIBIT II (continued)

Projection of Contributions, Liabilities, and Assets

(Board of Education contributions are based on Public Act 96-0889)
(All dollar amounts are in millions. Actuarial Liability and asset figures as of end of year.)

Fiscal Year	Employee Contributions	Required Employer Contributions	Additional State Contributions	Additional BOE Contributions	Required Board of Education Contributions[1]	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2013	190.8	218.6	10.9	11.7	196.0	17,873.4	9,456.2	8,417.2	52.9%
2014	196.9	624.6	11.9	12.7	600.0	18,386.3	9,864.9	8,521.4	53.7%
2015	202.9	643.7	12.3	13.1	618.4	18,913.3	9,971.4	8,941.9	52.7%
2016	209.2	663.6	12.6	13.5	637.4	19,453.2	10,277.2	9,176.0	52.8%
2017	215.5	683.8	13.0	13.9	656.8	20,006.3	10,592.5	9,413.8	52.9%
2018	221.9	704.2	13.4	14.3	676.5	20,573.1	10,921.2	9,651.9	53.1%
2019	228.5	725.1	13.8	14.7	696.5	21,154.6	11,267.1	9,887.5	53.3%
2020	235.1	746.3	14.2	15.2	716.9	21,752.0	11,627.9	10,124.1	53.5%
2021	241.9	768.0	14.6	15.6	737.8	22,368.3	12,006.5	10,361.7	53.7%
2022	248.9	790.4	15.1	16.1	759.3	23,004.5	12,404.7	10,599.8	53.9%
2023	255.9	813.2	15.5	16.5	781.2	23,660.2	12,822.2	10,838.0	54.2%
2024	262.9	836.2	15.9	17.0	803.3	24,336.2	13,260.3	11,075.9	54.5%
2025	269.9	859.4	16.4	17.5	825.6	25,032.3	13,719.5	11,312.8	54.8%
2026	276.9	882.6	16.8	17.9	847.8	25,747.9	14,199.6	11,548.2	55.1%
2027	283.8	905.6	17.3	18.4	869.9	26,484.2	14,702.0	11,782.2	55.5%
2028	290.8	928.9	17.7	18.9	892.4	27,239.6	15,226.5	12,013.1	55.9%
2029	297.6	952.0	18.1	19.3	914.5	28,012.8	15,772.7	12,240.1	56.3%
2030	304.4	975.0	18.6	19.8	936.6	28,803.5	16,341.2	12,462.4	56.7%
2031	311.3	998.0	19.0	20.3	958.7	29,610.9	16,932.2	12,678.7	57.2%
2032	318.0	1,021.1	19.5	20.7	980.9	30,432.8	17,545.0	12,887.8	57.7%
2033	324.6	1,044.0	19.9	21.2	1,002.9	31,265.7	18,177.6	13,088.1	58.1%
2034	331.0	1,066.7	20.3	21.7	1,024.7	32,104.4	18,827.0	13,277.4	58.6%
2035	337.0	1,088.8	20.7	22.1	1,045.9	32,944.2	19,489.8	13,454.4	59.2%
2036	342.8	1,110.3	21.2	22.6	1,066.6	33,778.3	20,161.6	13,616.7	59.7%

[1] Any contributions by the State of Illinois (other than the Additional State Contributions shown above) are to be credited against the Required Board of Education Contributions.

EXHIBIT II (continued)

Projection of Contributions, Liabilities, and Assets

(Board of Education contributions are based on Public Act 96-0889)
(All dollar amounts are in millions. Actuarial Liability and asset figures as of end of year.)

Fiscal Year	Employee Contributions	Required Employer Contributions	Additional State Contributions	Additional BOE Contributions	Required Board of Education Contributions[1]	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2037	348.3	1,131.3	21.6	23.0	1,086.7	34,600.2	20,838.1	13,762.2	60.2%
2038	353.3	1,151.8	21.9	23.4	1,106.4	35,402.9	21,514.5	13,888.4	60.8%
2039	357.9	1,171.8	22.3	23.8	1,125.7	36,178.1	22,185.3	13,992.9	61.3%
2040	362.1	1,191.7	22.7	24.2	1,144.8	36,915.9	22,843.5	14,072.4	61.9%
2041	365.9	1,211.3	23.1	24.6	1,163.6	37,606.0	23,482.4	14,123.6	62.4%
2042	369.4	1,230.8	23.5	25.0	1,182.3	38,241.0	24,097.5	14,143.6	63.0%
2043	373.1	1,252.6	23.9	25.5	1,203.3	38,820.0	24,692.0	14,128.0	63.6%
2044	376.7	1,275.8	24.3	25.9	1,225.6	39,335.8	25,261.8	14,073.9	64.2%
2045	380.5	1,301.0	24.8	26.4	1,249.8	39,793.2	25,815.2	13,977.9	64.9%
2046	384.4	1,328.8	25.3	27.0	1,276.4	40,200.1	26,364.2	13,835.9	65.6%
2047	388.8	1,359.7	25.9	27.6	1,306.1	40,564.0	26,921.1	13,642.9	66.4%
2048	393.9	1,394.3	26.6	28.3	1,339.4	40,894.5	27,501.2	13,393.3	67.2%
2049	399.7	1,433.0	27.3	29.1	1,376.6	41,190.8	28,110.5	13,080.3	68.2%
2050	406.3	1,476.1	28.1	30.0	1,418.0	41,459.3	28,762.9	12,696.5	69.4%
2051	413.7	1,523.6	29.0	31.0	1,463.6	41,705.4	29,472.2	12,233.2	70.7%
2052	421.9	1,575.6	30.0	32.0	1,513.6	41,933.8	30,252.6	11,681.2	72.1%
2053	431.1	1,632.0	31.1	33.2	1,567.7	42,151.4	31,121.3	11,030.1	73.8%
2054	441.2	1,692.5	32.3	34.4	1,625.8	42,358.4	32,089.9	10,268.5	75.8%
2055	452.0	1,756.9	33.5	35.7	1,687.7	42,559.5	33,175.2	9,384.3	78.0%
2056	463.5	1,825.0	34.8	37.1	1,753.1	42,761.2	34,396.9	8,364.3	80.4%
2057	475.5	1,896.6	36.1	38.5	1,822.0	42,968.0	35,773.7	7,194.4	83.3%
2058	488.1	1,971.7	37.6	40.1	1,894.1	43,187.1	37,327.8	5,859.3	86.4%
2059	501.2	2,050.1	39.1	41.7	1,969.4	43,425.8	39,083.2	4,342.6	90.0%

[1] Any contributions by the State of Illinois (other than the Additional State Contributions shown above) are to be credited against the Required Board of Education Contributions.

EXHIBIT III

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy: The UP-1994 Mortality Table for Males, set back 3 years for male participants, and the UP-1994 Mortality Table for Females, set back 2 years for female participants (adopted June 30, 2003).

Disabled: The RP-2000 Disabled Mortality Table for Males, set back 2 years for male participants, and the RP-2000 Disabled Mortality Table for Females, set forward 5 years for female participants (adopted June 30, 2008).

The mortality table specified above was determined to contain provision appropriate to reasonably reflect future mortality improvement (actual-to-expected ratios of 134.8% for male retirees and 133.7% for female retirees, per the experience study report dated October 20, 2008), based on a review of mortality experience as of the measurement date.

Termination Rates:

Select and ultimate termination rates are based on recent experience of the Fund were used (adopted June 30, 2008). Ultimate rates after the fifth year are shown for sample ages in the table on the next page. Select rates are as follows:

Years of Service	Rate(%)
First year:	29.5
Second year:	7.1
Third year:	7.0
Fourth year:	5.6
Fifth year:	5.2

	Rate (%)	
Age	5-10 Years of Service	10+ Years of Service
25	4.6	
30	4.8	2.4
35	4.4	2.5
40	3.7	1.9
45	3.2	1.2
50	3.0	1.0
55	3.0	1.0

Retirement Rates:

For employees first hired prior to January 1, 2011, rates of retirement for each age from 55 to 75 based on the recent experience of the Fund were used (adopted June 30, 2008). Sample rates are shown below.

	Rate (%)	
Age	<33 Years of Service	33+ Years of Service
55	5.5	12.0
60	7.7	20.0
65	10.0	19.0
70	13.7	20.0
75	100.0	100.0

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). Sample rates are shown below.

Age	Rate (%)
62	40.0
64	25.0
67	30.0
70	20.0
75	100.0

Disability Rates:

Disability rates are based on the recent experience of the Fund were used (adopted June 30, 2003). Sample rates are shown below.

Age	Rate (%)
30	0.07
40	0.10
50	0.20
60	0.25

Salary Increases:

Assumed salary increases are based on the recent experience of the Fund were used (adopted June 30, 2003). Sample rates are shown below.

Age	Rate (%)
25	11.2
30	8.9
35	7.3
40	6.2
45	5.4
50	4.7
55	4.0

Valuation of Inactive Vested Participants:

The liability for an inactive member is equal to his or her existing account balance, loaded by 35%.

Unknown Data for Participants:

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

Spouses:

80% of participants were assumed to be married and females are assumed to be 2 years younger than males.

Net Investment Return:

8.00% per year

Inflation:

3.00% per year

Payroll Growth:

4.00% per year

Administrative Expenses:	Equal to actual expenses for the prior year, increased by 5%. Future expenses are assumed to grow at 5% per year.
Total Service at Retirement:	Total service at retirement is assumed to be 103.3% of the teacher's regular period of service at retirement.
Actuarial Value of Assets:	The actuarial value of assets was determined by smoothing unexpected gains and losses over a period of 4 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 4 years.
Actuarial Cost Method:	Projected Unit Credit (adopted August 31, 1991). Under this method, the projected benefits of each individual included in the valuation are allocated by a consistent formula to valuation years. The actuarial present value of benefits allocated to a valuation year is called the normal cost. The actuarial present value of benefits allocated to all periods prior to a valuation year is called the accrued liability.
Changes in Assumptions:	There have been no changes in actuarial assumptions since the last valuation.

EXHIBIT IV

Summary of Plan Provisions

This exhibit summarizes the major provisions of the CTPF 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 teacher and certain other employees of the Chicago Public Schools, approved charter schools, and the Chicago Teachers' Pension Fund are members of this pension plan.
Employee Contributions:	All members of the Fund are required to contribute 9% of salary to the Fund as follows: 7.5% for the retirement pension, 1% for the spouse's pension, and 0.5% for the automatic increases in the retirement pension. As of September 1981, the Board of Education has been paying 7% of the required teacher contributions for Chicago public school teachers. Charter school contributions may be contributed at various rates by the employers and teachers.
Service Retirement Pension:	a. Eligibility – An employee may retire at age 55 with at least 20 years of service or at age 62 with 5 years of service. If retirement occurs before age 60, the service retirement pension is reduced ½ 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 34 years of service. b. Amount – For service earned before July 1, 1998, the amount of the service retirement pension is 1.67% of highest average salary for the first 10 years, 1.90% for each of the next 10 years, 2.10% for each of the following 10 years, and 2.30% for each year above 30. For service earned after June 30, 1998, the amount of the service retirement pension is 2.2% of highest average salary for each year of service. Service earned before July 1, 1998 can be upgraded to the 2.2% formula through the payment of additional employee contributions of 1% of the teacher's highest salary

within the last four years for each year of prior service, up to a maximum of 20%, which upgrades all service years. The number of years for which contributions are required is reduced by one for each three full years of service after June 30, 1998. No contribution is required if the employee has at least 30 years of service.

The highest average salary is the average of the 4 highest consecutive years of salary within the last 10 years.

The maximum pension payable is 75% of the highest annual salary or $1,500 per month, whichever is greater.

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 2012, the final average salary is limited to the Social Security wage base of $108,883. 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.

Post-Retirement Increase:

An annuitant is entitled to automatic annual increases of 3% of the current pension starting the later of attainment of age 61 and receipt of one year's pension payments.

Automatic annual increases in the retirement annuity for employees who first become a participant on or after January 1, 2011 is 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. This automatic annual increase starts the later of attainment of age 67 and receipt of one year's pension payments.

Survivor's Pension:	A surviving spouse or unmarried minor child is entitled to a pension upon the death of an employee while in service or on retirement. The minimum survivor's pension is 50% of the deceased employee's or retired employee's pension at the date of death. If the spouse is under age 50 and no unmarried minor children under age 18 survive, payment of the survivor's pension is deferred until age 50. Survivor's pensions are subject to annual increases of 3% per year based on the current amount of pension starting the later of when the member would have attained age 61 and receipt of one year's pension payments. For employees who first become a participant on or after January 1, 2011, the initial survivor's pension 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. This automatic annual increase starts the later of when the member would have attained age 67 and receipt of one year's pension payments.
Single Sum Death Benefit:	Upon the death of an employee in service, a refund equal to the total contributions less contributions for survivor's pensions is payable. 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 the lesser of $10,000 and salary earned for the most recent six months. Upon the death of a retired member, the death benefit is the lesser of $10,000 and the most recent salary earned for a 6 month period less 20% of the death benefit for each year that the member has been on pension, to a minimum of $5,000.
Non-Duty Disability Benefit:	A non-duty disability pension is payable in the event of total or permanent disability with 10 or more years of service. The benefit is the unreduced service retirement pension. However, if the participant has 20 or more and less than 25 years of service and is under age 55, the benefit is reduced by ½ of 1% for each month that the age of the member is below 55 down to a minimum age of 50, but not less than the unreduced service retirement pension with 20 years of service.

Duty Disability Benefit:	Upon disability resulting from an injury incurred while working, an employee is entitled to a disability benefit of 75% of final average salary until age 65. At age 65, the disabled employee shall receive a service retirement pension, which includes service earned while disabled.
Refunds:	An employee who terminates employment before qualifying for a pension is entitled to a refund of employee contributions, without interest. An employee who is unmarried at date of retirement is entitled to a refund of the full amount contributed for the survivor's pension, without interest.
Retiree Health Insurance:	A recipient of a service retirement, disability, or survivor's pension is eligible for a partial reimbursement of the cost of health insurance coverage, which may be in the form of an annual direct payment or a reduction in the amount deducted from the monthly annuity. Effective January 1, 2011, the Board provides reimbursement of 60% of the cost of pensioners' health insurance coverage. The total amount of payments in any year may not exceed 75% of the total cost of health insurance coverage in that year for all recipients who receive payments in that year. Total payments may not exceed $65,000,000 plus any amount that was authorized to be paid in the preceding year but was not actually paid (including any interest earned).
Plan Year:	July 1 through June 30
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.