

**STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS**  
ANNUAL ACTUARIAL VALUATION AS OF JUNE 30, 2012

October 22, 2012

Board of Trustees  
State Employees' Retirement System  
Springfield, IL

**Re: State Employees' Retirement System Actuarial Valuation as of July 1, 2012**

Dear Board Members:

The results of the June 30, 2012 Annual Actuarial Valuation of the State Employees' Retirement System (SERS or System) are presented in this report. The purposes of the valuation were to measure the System's funding status and to determine the employer contribution rate for the fiscal year beginning July 1, 2013, and ending June 30, 2014.

The valuation was based upon information furnished by SERS staff concerning System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data.

The contribution rate has been determined under Illinois statutes, in particular under 40 ILCS Section 5/14-131. The System's current contribution rate does not meet the requirements for amortizing the unfunded liability under GASB Statement No. 25.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of SERS as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

The undersigned actuaries are members of the American Academy of Actuaries and are independent of the plan sponsor and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,

**Gabriel, Roeder, Smith & Company**

By: 

Alex Rivera, FSA, EA, MAAA  
Senior Consultant

By: 

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Senior Consultant

## **Additional Disclosures Required by Actuarial Standards of Practice**

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

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

The signing actuaries are independent of the plan sponsor.

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**SECTION A**  
**INTRODUCTION**

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## **Introduction**

The law governing the State Employees' Retirement System (SERS or System) requires the Actuary, as the technical advisor to the Board of Trustees to:

“...make an annual valuation of the liabilities and reserves of the System, make an annual determination of the amount of contributions required from the State under this Article, and certify the results thereof to the board. (40 ILCS Section 5/14 - 138(c)).”

Gabriel, Roeder, Smith & Company has been retained by the Board of Trustees to perform an actuarial valuation as of June 30, 2012. In this report, we present the results of the valuation and the appropriation requirements under Public Act 88-0593, Public Act 93-0002, Public Act 93-0839, Public Act 94-0004, and Public Act 96-0043 for fiscal year ending June 30, 2013. For purposes of disclosure, this report also includes the annual required contribution and schedule of funding progress as required by GASB Statement No. 25 and the development of the net pension obligation in accordance with GASB Statement No. 27.

The valuation was completed based upon membership and financial data provided by the administrative staff of the System. The actuarial assumptions used were based on an experience review for the five-year period ending June 30, 2010, and were adopted for use commencing with the June 30, 2011, valuation. The cost method used to determine the benefit liabilities is the Projected Unit Credit Cost Method. For valuation purposes, as well as projection purposes, actuarial value of assets are based on a 5-year smoothing method.

## **Changes Since Last Valuation**

### **Legislative Changes**

The following Public Acts were passed in fiscal year 2012 that affected SERS.

Public Act 97-0072 - Effective June 30, 2011

Public Act 97-0333 - Effective August 12, 2011

Public Act 97-0609 - Effective August 26, 2011

Public Act 97-0694 - Effective June 18, 2012

Public Act 97-0732 - Effective June 30, 2012

These Public Acts did not have a material impact on the valuation as of June 30, 2012.

A summary of the plan provisions are included in Section G of this report.

## Assumption and Methods

The assumptions and methods used are consistent with those used in the previous valuation and are based on the experience study of the State Employees' Retirement System performed for the period from July 1, 2005, to June 30, 2010. There were no changes to the assumptions or methods for the valuation as of June 30, 2012.

Following is a summary of the key valuation results for the current and prior plan years.

## Key Valuation Results

Valuation Date:	June 30, 2012	June 30, 2011
Fiscal Year Ending:	June 30, 2014	June 30, 2013
Estimated Statutory Contributions:		
• Annual Amount	\$1,662,667,000	\$1,577,836,000
• Percentage of Covered Payroll	38.435%	36.116%
Annual Required Contribution (ARC):		
• Annual Amount	\$1,916,849,287	\$1,795,788,707
• Percentage of Covered Payroll	44.311%	41.105%
Membership		
• Number of		
- Active Members	62,729	66,363
- Members Receiving Payments	62,788	59,786
- Members Eligible for Deferred Benefits	265	269
- Total	125,782	126,418
• Covered Payroll	\$4,329,083,716	\$4,211,186,269
• Annualized Benefit Payments	\$1,687,717,429	\$1,512,859,186
Assets		
• Market Value of Assets (MVA)	\$10,960,687,824	\$10,970,752,686
• Actuarial Value of Assets (AVA)	\$11,477,264,329	\$11,159,836,617
• Return on MVA	0.05%	21.16%
• Return on AVA	2.99%	3.30%
• Ratio – AVA to MVA	104.71%	101.72%
Actuarial Information		
• Normal Cost Amount	\$554,408,091	\$569,791,951
• Actuarial Accrued Liability (AAL)	\$33,091,186,194	\$31,395,007,782
• Unfunded Actuarial Accrued Liability (UAAL)	\$21,613,921,865	\$20,235,171,165
• Funded Ratio based on AVA	34.68%	35.55%
• UAAL as % of Covered Payroll	499.27%	480.51%
• Funded Ratio based on MVA	33.12%	34.94%

## **Appropriation Requirements Under P.A. 88-0593, P.A. 93-0002, P.A. 93-0839, P.A. 94-0004, and P.A. 96-0043**

The law governing the System under P.A. 88-0593 provides that:

For fiscal years 2012 through 2045, the minimum contribution to the System for each fiscal year shall be an amount determined to be sufficient to cause the total assets of the System to equal 90 percent of the total actuarial liabilities of the System by the end of fiscal year 2045. In making these determinations, the required contribution shall be calculated each year as a level-percentage-of-payroll over the years remaining to and including fiscal year 2045 and shall be determined under the projected unit credit actuarial cost method. For fiscal years 1997 through 2010, the minimum contribution to the System, as a percentage of the payroll, shall be increased in equal annual increments so that by fiscal year 2010, the contribution rate is at the same level as the contribution rate for fiscal years 2012 through 2045.

The above calculation provides the basis for calculating the appropriation requirements under P.A. 93-0002. For fiscal years 2005 and later, the contributions under P.A. 93-0002 start with a calculation of the contribution based upon the hypothetical asset value which assumes no infusion from the proceeds of the GOB sale that were deposited July 1, 2003 (Table 4a). This contribution is then reduced by the debt service beginning in fiscal year 2005 to produce the maximum contribution. For fiscal years 2006 and 2007, the maximum contribution is equal to the contribution amounts stated in P.A. 94-0004 for each respective year. The contribution amounts stated in P.A. 94-0004 are \$203,783,900 for fiscal year 2006 and \$344,164,400 for fiscal year 2007. A second projection is performed to develop the P.A. 88-0593 formula rate, which includes the GOB deposit. The lower of this formula rate with the GOB assets included and the maximum contribution is the required state appropriation (Table 4b).

Pursuant to Public Act 96-0043, \$723,703,100 of the total required State contribution for fiscal year 2010 will be paid from the proceeds of a GOB sale.

Pursuant to Public Act 96-0043, for the calculation of the fiscal year 2012 contribution and beyond, the value of the System's assets shall be equal to the actuarial value of the System's assets. As of June 30, 2008, the actuarial value of the System's assets shall be equal to the market value of the assets as of that date. In determining the actuarial value of the System's assets for fiscal years after June 30, 2008, any actuarial gains or losses from investment return incurred in a fiscal year shall be recognized in equal annual amounts over the five-year period following that fiscal year. Furthermore, for purposes of determining the required State contribution to the System for a particular year, the projected actuarial value of assets shall be assumed to earn a rate of return equal to the System's actuarially assumed rate of return.

The following tables outline the reconciliation of the market value of assets and the development of the hypothetical asset value as of June 30, 2012. Also, the tables show the development of the actuarial value of assets under both the market value and the hypothetical value of assets.

**Market Value of Asset Reconciliation and the Development of the Actuarial Value of Assets based upon the Market Value of Assets**

1. Market Value of Assets 6/30/2011	\$ 10,970,752,686
2. Actual State Contribution Amount	1,391,416,375
3. Employee Contribution Amount	259,122,881
4. Benefit Payouts & Refunds	(1,650,873,926)
5. Administrative Expenses	(15,705,561)
6. Investment Income	5,975,369
7. Market Value of Assets 6/30/2012	10,960,687,824
8. Expected Investment Return at 7.75%	849,623,372
9. Investment Gain/(Loss) Current Year	(843,648,003)
10. Deferred Investment Gains and (Losses) All Years	(516,576,505)
11. Actuarial Value of Assets 6/30/2012 (7. - 10.)	11,477,264,329

**Development of the Hypothetical Value of Assets and the Development of the Actuarial Value of Assets based upon the Hypothetical Value of Assets**

The hypothetical asset value assumes no infusion from the proceeds of the GOB sale that were deposited July 1, 2003.

1. Hypothetical Value of Assets 6/30/2011	\$ 9,489,016,626
2. State Contribution Amount <sup>1</sup>	1,510,243,474
3. Employee Contribution Amount	259,122,881
4. Benefit Payouts & Refunds	(1,650,873,926)
5. Administrative Expenses	(15,705,561)
6. Investment Income <sup>2</sup>	4,770,202
7. Hypothetical Value of Assets 6/30/2012	9,596,573,696
8. Expected Investment Return at 7.75%	739,307,462
9. Investment Gain/(Loss) Current Year	(734,537,260)
10. Deferred Investment Gains and (Losses) All Years	(440,582,158)
11. Hypothetical Actuarial Value of Assets 6/30/2012 (7. - 10.)	10,037,155,854

<sup>1</sup>Represents 34.886 percent of payroll for the basic contribution.

<sup>2</sup>Investment income assumes hypothetical value of assets earns the Fund's actual rate of return for fiscal year 2012 of 0.05 percent.

The fiscal year ending June 30, 2013, certified contribution and projected future year required State contribution rates and amounts assuming deferred investments gains and losses are recognized in the assets are as follows:

<b>Fiscal Year Ending June 30,</b>	<b>Base Contribution</b>	<b>Debt Service Contribution</b>	<b>Total Contribution</b>	<b>Assumed Payroll (billions)</b>	<b>Total Required Contribution</b>
2013	36.116%	1.871%	37.987%	\$4.369	\$1,659,576,000
2014	38.435%	1.877%	40.312%	4.326	1,743,865,000
2015	39.220%	1.800%	41.020%	4.480	1,837,809,000
2016	39.206%	1.728%	40.934%	4.633	1,896,675,000
2017	39.121%	1.732%	40.853%	4.791	1,957,173,000
2018	39.341%	1.731%	41.072%	4.949	2,032,855,000
2019	39.349%	1.726%	41.075%	5.114	2,100,676,000
2020	39.274%	1.781%	41.055%	5.280	2,167,752,000
2021	39.216%	1.823%	41.039%	5.454	2,238,276,000
2022	39.172%	1.856%	41.028%	5.632	2,310,586,000
2023	39.139%	1.880%	41.019%	5.811	2,383,596,000

For fiscal years 2014 through 2033, the base contribution is limited by the maximum contribution determined under the assumption that the proceeds of the GOB sale were not deposited; therefore, the contribution rate is not level as a percent of pay.

Pursuant to Public Act 96-0043, the fiscal year 2014 contribution rate is calculated assuming the actuarial value of assets as of July 1, 2012, earns a rate of return equal to the System's actuarially assumed rate of return.

The contributions for fiscal years 2015 and beyond, as presented above, are developed in Tables 4c and 4d in this report. In those projections, the actuarial valuations as of June 30 for years 2013 through 2016 have been projected as though a valuation in each of those years was performed. At each projected valuation, an additional 20 percent of the investment gains and losses are recognized. The market value of assets at June 30, 2012, is assumed to have a rate of return equal to the valuation interest rate going forward. Therefore, the actuarial value of assets is calculated by adjusting the market value at each respective valuation date by the remaining percentage of the investment gains and losses. The actuarial value of assets converges to market value in 2016, when all remaining investment gains and losses have been recognized. Because the deferred asset gains and losses are incorporated into the projections, the projections found in Tables 4c and 4d do not show a stable contribution rate until the impact of the five-year asset smoothing has been fully realized.

## Method of Calculation for Appropriation Requirements

The results are based on the projected unit credit actuarial cost method, the data provided and assumptions used for the June 30, 2012, actuarial valuation. In order to determine projected contribution rates and amounts, the following additional assumptions were used:

- Projected annualized payroll of \$4,368,800,000 for fiscal year 2013. This amount was provided by the System.
- Total employer contributions of \$1,577,836,000 (including no payments from the unclaimed property fund) for fiscal year 2013, as provided by the System.
- Administrative expenses of \$20,665,600 for fiscal year 2013, as provided by the System.
- New entrants whose average age is 36.16 and average pay is \$48,073 (2012 dollars). These values are based on the average age and average pay of new entrants over the last 15 years.
- The active member population is assumed to remain level at 62,729 for all years of the 33-year projection.
- Projected benefits for members hired on or after January 1, 2011, are based on the new provisions established in P.A. 96-0889.

The average increase in total uncapped payroll for the 33-year projection period is approximately 4.0 percent per year. It is important to note that benefits for new hires are based on capped payroll which is ultimately projected to grow at 1.5 percent per year. All results in this valuation assume that State contributions will be made on capped pay.

To determine the contribution rates, the expected 2013 appropriation was converted to a percentage of the expected 2013 payroll. An amortization schedule was then determined on the assumption that:

- The ratio of total assets to total actuarial liabilities will be 90 percent by June 30, 2045.
- The actuarial value of assets shall be assumed to earn a rate of return equal to the System's actuarially assumed rate of return.
- The contribution rates for fiscal years 2010 through 2033 will not be uniform, but the rate for any one of these years will be the minimum of: the difference between the "without-GOB" contribution and the debt service, and the underlying formula rate as determined by Public Act 88-0593.
- The contribution rate for fiscal year 2013 will be 36.116 percent (based on the certification of the June 30, 2011, valuation results issued on October 26, 2011).
- The contribution rates for fiscal years 2034 through 2045 will be a uniform percentage of capped payroll.

## **GASB: Financial Accounting Information**

In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) has issued Statement No. 25—Financial Reporting for Defined Benefit Pension Plans and Statement No. 27—Accounting for Pensions by State and Local Governmental Employers.

GASB Statement No. 25 establishes a financial reporting framework for defined benefit plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and contribution patterns.

- The Schedule of Funding Progress includes information about the actuarially determined funded status from a long-term ongoing plan perspective and the progress made toward accumulating sufficient assets. For SERS, the liabilities are developed based on the Projected Unit Credit Cost Method. The assets are shown as an actuarial value as described on page 44. The funded ratio has decreased from 35.55 percent as of June 30, 2011, to 34.68 percent as of June 30, 2012. This decrease is primarily due to the recognition of asset losses from fiscal years 2009 and 21012 and higher than expected retirements.
- The Schedule of Employer Contributions provides information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed. For SERS, the ARC for fiscal year 2012 is equal to the employer normal cost plus a 30-year level-percentage-of-payroll amortization of the unfunded actuarial liability. For fiscal year 2012, State contributions of \$1,391,416,375 were approximately 86.2 percent of the ARC. The ARC for fiscal years 2013 and 2014 is greater than the employer contribution required by State statute.

The annual required contribution as well as the statutory contribution for fiscal years 2013 and 2014 are shown below as a percentage of payroll. The ARC percentage and statutory contribution for 2013 are based on the results of the June 30, 2011, valuation. The dollar amount of the ARC and the statutory contribution for 2013 will be the product of the actual payroll for 2013 and the percentages shown below.

	<b>Fiscal Year 2014</b>	<b>Fiscal Year 2013</b>
1. Employer normal cost	\$554,408,091	\$569,791,951
2. Initial amount to amortize the unfunded liability over 30 years as a level percentage of capped payroll	<u>1,362,441,196</u>	<u>1,225,996,756</u>
3. ARC [(1) + (2)]	\$1,916,849,287	\$1,795,788,707
4. ARC as a percentage of payroll	44.311%	41.105%
5. Estimated statutory contribution	\$1,662,667,000	\$1,577,836,000
6. Estimated statutory contribution as a percentage of payroll	38.435%	36.116%
7. Estimated statutory contribution as a percentage of ARC [(5) ÷ (3)]	86.740%	87.863%

GASB Statement No. 27 establishes standards for the measurement, recognition, and disclosure of pension expense and related liabilities. Annual pension cost is measured and disclosed on the accrual basis of accounting. In general, the annual pension cost is equal to the ARC with adjustments for past under-contributions or over-contributions. These adjustments are based on the net pension obligation (NPO) that represents the cumulative difference between the annual pension cost and the actual contribution to the plan. The first adjustment is equal to interest on the NPO, which is added to the ARC. The second adjustment is an amortization of the NPO, which is deducted from the ARC. This amortization is over an open 30-year period for fiscal year 2012 (i.e., the 30-year period is restarted each fiscal year).

These Statements were adopted by SERS (and the State of Illinois) for the 1997 fiscal year. A transition pension liability (asset) was developed under Statement No. 27 equal to the cumulative difference between the actuarially determined funding requirement and the actual amount contributed for fiscal years 1988 through 1996. As of the adoption date, all outstanding pension liabilities (assets) were adjusted to equal the transition NPO. The NPO as of June 30, 2011, of \$2,131,536,940 has increased to \$2,387,961,022 as of June 30, 2012, due to the 2012 APC of \$1,647,840,457 and actual 2012 employer contributions of \$1,391,416,375.

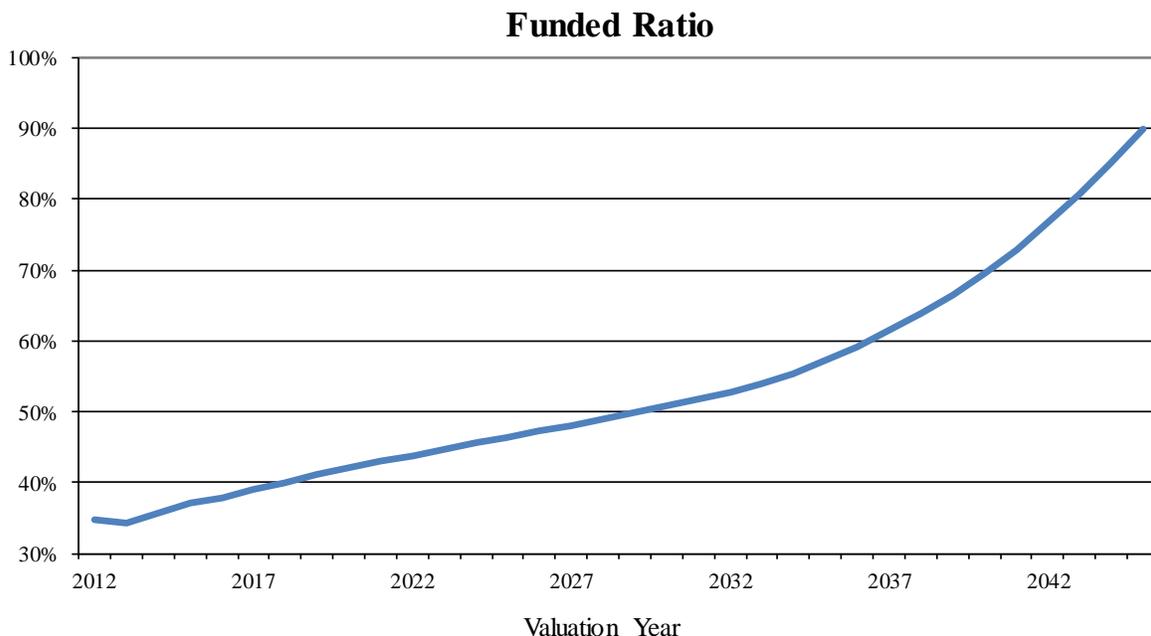
The GASB Statement Nos. 25 and 27 information is presented in draft form for review by the auditor. Please let us know if there are any changes so that we may maintain consistency with the State's financial statements.

## Observations on Actuarial Funding and Statutory Funding

GASB Statements Nos. 25 and 27 provide guidance for retirement plans and plan sponsors on the development of an annual expense requirement to be reported in their annual financial statements. Under the GASB rules, this expense requirement is called the Annual Required Contribution (ARC). The ARC is the sum of the normal cost and amortization of the unfunded accrued liability and represents the annual employer contributions that are projected to finance benefits for current plan members over a period not to exceed 30 years.

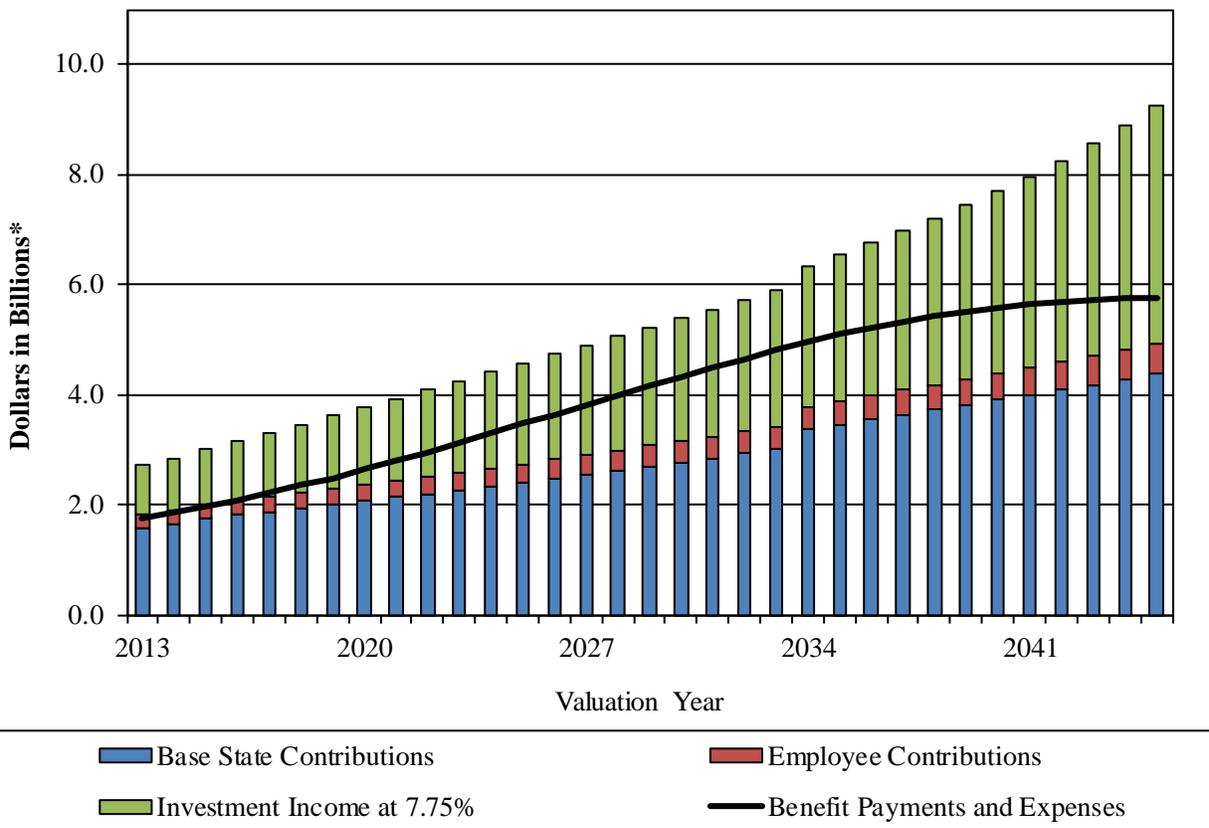
A key objective of the ARC is to accrue costs over the working lifetime of plan members to ensure that benefit obligations are satisfied and intergenerational equity is promoted. Although the ARC is solely an accounting provision, in certain circumstances it could represent a reasonable annual funding target and therefore is used by some plan sponsors as their de facto funding requirement. Given there is no requirement that the accounting provision for pension expense must equal the annual funding requirement, some plan sponsors adopt funding policies that differ from the ARC. However, a funding policy that differs significantly from the ARC approach could result in a potential “back-loading,” meaning contributions are deferred to the future. Back loading could result in an underfunding of the system.

The statutory funding policy adopted for SERS provides for level percent of pay funding that produces a funding target of 90 percent by 2045, assuming an open group projection. The following graph shows the projected funded ratio. A key observation is that the funded ratio is projected to remain level, then increase at a moderate rate for the next 23 years and does not grow markedly until after 2032. This illustrates how significantly the current funding policy defers contributions into the future.



The following graph compares the projected benefits and expenses against employer contributions, employee contributions, and investment income. Beginning in 2016, benefits exceed State and employee contributions. From 2016 to 2033, the percentage of investment income needed to pay ongoing benefits increases from approximately 1.0 percent to 57.0 percent. This implies that a lower level of investment income is projected to be available for potential asset growth. After 2033, the percentage of investment income needed to pay ongoing benefits is projected to decrease from approximately 46.2 percent in 2033 to 19.7 percent in 2045, which is projected to cause assets to grow at a higher rate.

### Comparison of Cash Flows



*\*Future dollar amounts are based on assumed inflationary increases.*

The provisions of P.A. 96-0043 develop an actuarial value of assets based on five year smoothing that does not recognize deferred investment gains and losses in the projection of assets used to develop the statutory contribution. This policy has a tendency to defer contributions when plan assets experience a loss.

Given that SERS funded ratio at June 30, 2012, is only 33 percent on a market value of assets basis, and because the current statutory policy tends to back-load and defer contributions, we would advise strengthening the current statutory funding policy. The Board has taken steps to strengthen the current statutory funding policy by adopting a lower assumed rate of return and more

conservative assumptions. Examples of other methods to strengthen the current funding policy include:

1. Reducing the projection period needed to reach 90 percent funding,
2. Increasing the 90 percent funding target,
3. Separating the financing of benefits for members hired before and after December 31, 2010, and,
4. Reverting back to the market value of assets when developing contribution rates.

Finally, the statutory contribution policy could also be strengthened by changing to an ARC based funding approach with an appropriate amortization policy for each respective tiered benefit structure.

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**SECTION B**  
**FUNDING RESULTS**

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## Results of Actuarial Valuation as of June 30, 2012

1	Number of Members	
	a. Active	62,729
	b. Inactive:	
	i. Eligible for deferred vested pension benefits (3,980 based on SERS service alone. An additional 319 are eligible when reciprocal service is added to SERS service).	4,299
	ii. Eligible for return of contributions only	18,250
	c. Current Benefit Recipients:	
	i. Retirement annuities	50,000
	ii. Survivor annuities	10,502
	iii. Disability annuities	2,286
	d. Eligible for Deferred Benefits:	
	i. Retirement annuities	104
	ii. Survivor annuities	161
	e. Total	<u>148,331</u>
2	Covered Payroll	\$4,329,083,716
3	Annualized Benefit Payments Currently Being Made	
	a. Retirement	\$1,531,926,687
	b. Survivor	108,396,235
	c. Disability	47,394,506
	d. Total	<u>\$1,687,717,429</u>
4	Actuarial Liability—Annuitants	
	a. Current Benefit Recipients:	
	i. Retirement annuities	\$19,077,020,117
	ii. Survivor annuities	1,047,978,790
	iii. Disability annuities	282,966,926
	b. Eligible for Deferred Benefits:	
	i. Retirement annuities	7,901,510
	ii. Survivor annuities	9,030,330
	c. Total	<u>\$20,424,897,673</u>

Table 1  
(Continued)

5	Actuarial Liability—Inactive Members		
	a. Eligible for Deferred Vested Pension Benefits		\$450,592,421
	b. Eligible for Return of Contributions Only		28,823,491
	c. Total		\$479,415,912
		Normal	Actuarial
		Cost	Liability
6	Active Members		
	a. Pension Benefits	\$511,309,807	\$8,678,262,092
	b. Cost-of-Living Adjustments	175,377,770	3,038,689,509
	c. Death Benefits		
	i. Occupational	\$1,565,170	\$16,693,891
	ii. Non-occupational	13,641,555	169,376,792
	iii. Refund	8,721,828	29,681,435
	iv. Total	\$23,928,553	\$215,752,118
	d. Disability		
	i. Occupational	\$6,493,626	\$0
	ii. Non-occupational	36,797,212	0
	iii. Total	\$43,290,838	\$0
	e. Withdrawal	24,931,920	254,168,890
	f. Expenses	20,665,600	0
	g. Total	\$799,504,488	\$12,186,872,609
7	Total Actuarial Liability (4 + 5 + 6)		\$33,091,186,194
8	Market Value of Assets (MVA)		\$10,960,687,824
9	Unfunded Actuarial Liability Based on MVA (7 – 8)		\$22,130,498,370
10	Funded Percentage Based on MVA (8 ÷ 7)		33.12%
11	Actuarial Value of Assets (AVA)		\$11,477,264,329
12	Unfunded Actuarial Liability Based on AVA (7 – 11)		\$21,613,921,865
13	Funded Percentage Based on AVA (11 ÷ 7)		34.68%
14	Total Normal Cost	\$799,504,488	
15	Employee Contributions	\$245,096,397	
16	Annual Employer Normal Cost	\$554,408,091	
	(% payroll)	12.81%	

## Analysis of Change in Unfunded Accrued Actuarial Liability

In addition to the expected change in the unfunded accrued actuarial liability, changes in membership demographics, and fund assets have affected the valuation results. The increase in the unfunded accrued actuarial liability (UAAL) of \$1,378,750,700 was due to the following:

1	UAAL at 06/30/2011	\$	20,235,171,165
2	Contributions		
	a. Contributions due		
	i interest on 1)	\$	1,568,225,765
	ii members contributions		259,122,881
	iii employer normal cost		569,791,951
	iv interest on ii and iii		31,521,123
	v total due	\$	2,428,661,720
	b. Contributions paid		
	i member contributions	\$	259,122,881
	ii state agencies		1,391,416,375
	iii interest on i and ii		62,765,014
	iv total paid	\$	1,713,304,270
	c. Expected increase in UAAL	\$	715,357,450
3	Expected UAAL at 06/30/2012	\$	20,950,528,615
4	(Gains)/Losses		
	a. investment income	\$	530,809,433
	b. demographic		132,583,817
	c. total	\$	663,393,250
5	Plan Provision Changes	\$	-
6	Assumption Changes	\$	-
7	Total Change in UAAL	\$	1,378,750,700
8	UAAL at 06/30/2012	\$	21,613,921,865

## Analysis of Financial Gains and Losses in Unfunded Accrued Actuarial Liability for Fiscal Year Ending June 30, 2012

	Activity	(Gain) Loss	% of 06/30/2011 AAL
1	Actuarial (Gain)/Loss		
	a. Retirements	\$ 395,087,063	1.27%
	b. Incidence of Disability	-	0.00%
	c. In-Service Mortality	494,015	0.00%
	d. Retiree Mortality	(61,968,128)	-0.20%
	e. Salary Increases	(57,658,148)	-0.18%
	f. Terminations	(150,246,102)	-0.48%
	g. Investment	530,809,433	1.69%
	h. New Entrant Liability	37,242,711	0.12%
	i. Other	(30,367,594)	-0.10%
	j. Total Actuarial (Gain)/Loss	\$ 663,393,250	2.12%
2	Plan Provision Changes	\$ -	0.00%
3	Assumption Changes	\$ -	0.00%
4	Contribution (Excess)/Shortfall	\$ 715,357,450	2.28%
5	Total Financial (Gain)/Loss	\$ 1,378,750,700	4.40%

The retirement loss for plan year end June 30, 2012, is a one-time extraordinary event which would be difficult to predict in the future. We will continue to monitor retirement experience and make recommended changes, if needed.

**33-Year Projection of Costs and Liabilities**  
**State Contribution Based on Public Act 88-0593, Public Act 94-0004, Public Act 96-0043**  
**Maximum Contribution Calculation: Without GOB Proceeds**  
**Rate of Return on Assets = 7.75%**  
*(All Dollar Amounts in Millions)*

Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Annual Normal Cost			State Contribution		Total Expenses	
							Total	Employee Cont.	Percent of Pay	Amount	Percent of Pay		
2013	62,729	34,637	11,003	23,634	31.77%	4,369	800	245	555	12.70%	1,689	38.67%	1,753
2014	62,729	36,242	12,018	24,224	33.16%	4,326	817	243	574	13.27%	1,773	40.98%	1,860
2015	62,729	37,874	13,070	24,804	34.51%	4,480	833	252	581	12.97%	1,836	40.98%	1,971
2016	62,729	39,523	14,152	25,371	35.81%	4,633	850	260	590	12.73%	1,899	41.00%	2,092
2017	62,729	41,185	15,261	25,924	37.05%	4,791	865	268	597	12.46%	1,964	40.98%	2,220
2018	62,729	42,850	16,393	26,457	38.26%	4,949	879	276	603	12.18%	2,029	41.00%	2,354
2019	62,729	44,513	17,547	26,966	39.42%	5,114	892	285	607	11.87%	2,096	40.99%	2,494
2020	62,729	46,164	18,717	27,447	40.54%	5,280	903	294	609	11.53%	2,164	40.98%	2,641
2021	62,729	47,795	19,903	27,892	41.64%	5,454	913	303	610	11.18%	2,235	40.98%	2,793
2022	62,729	49,391	21,098	28,293	42.72%	5,632	920	312	608	10.80%	2,308	40.98%	2,955
2023	62,729	50,943	22,297	28,646	43.77%	5,811	926	321	605	10.41%	2,382	40.98%	3,122
2024	62,729	52,441	23,499	28,942	44.81%	5,994	929	330	599	9.99%	2,457	41.00%	3,293
2025	62,729	53,869	24,696	29,173	45.84%	6,175	929	338	591	9.57%	2,531	41.00%	3,471
2026	62,729	55,225	25,891	29,334	46.88%	6,361	929	347	582	9.15%	2,607	40.98%	3,647
2027	62,729	56,501	27,086	29,415	47.94%	6,553	928	356	572	8.73%	2,686	40.99%	3,823
2028	62,729	57,697	28,287	29,410	49.03%	6,747	929	365	564	8.36%	2,765	40.99%	3,996
2029	62,729	58,814	29,503	29,311	50.16%	6,949	932	374	558	8.03%	2,848	40.98%	4,163
2030	62,729	59,853	30,741	29,112	51.36%	7,151	935	384	551	7.71%	2,931	40.99%	4,325

Normal cost rate includes administrative expenses.

State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 94-0004, and Public Act 96-0043.

Total expenses shown include benefit payments, refunds and administrative expenses.

Actuarial accrued liability and assets are measured at Plan Year End.

Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities**  
**State Contribution Based on Public Act 88-0593, Public Act 94-0004, Public Act 96-0043**  
**Maximum Contribution Calculation: Without GOB Proceeds**  
**Rate of Return on Assets = 7.75%**  
*(All Dollar Amounts in Millions)*

Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Annual Normal Cost				State Contribution		Total Expenses
							Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	
2031	62,729	60,814	32,013	28,801	52.64%	7,359	940	394	546	7.42%	3,016	40.98%	4,481
2032	62,729	61,672	33,307	28,365	54.01%	7,568	936	404	532	7.03%	3,102	40.99%	4,649
2033	62,729	62,406	34,606	27,800	55.45%	7,750	929	410	519	6.70%	3,176	40.98%	4,822
2034	62,729	63,041	35,942	27,099	57.01%	7,945	928	417	511	6.43%	3,256	40.97%	4,970
2035	62,729	63,595	37,347	26,248	58.73%	8,153	931	426	505	6.19%	3,342	41.00%	5,098
2036	62,729	64,070	38,835	25,235	60.61%	8,362	934	436	498	5.96%	3,427	40.98%	5,218
2037	62,729	64,470	40,424	24,046	62.70%	8,569	938	446	492	5.74%	3,512	40.98%	5,327
2038	62,729	64,809	42,136	22,673	65.02%	8,779	945	456	489	5.57%	3,598	40.98%	5,423
2039	62,729	65,099	43,998	21,101	67.59%	8,993	956	467	489	5.44%	3,686	40.99%	5,505
2040	62,729	65,350	46,035	19,315	70.44%	9,209	969	478	491	5.33%	3,774	40.99%	5,575
2041	62,729	65,575	48,272	17,303	73.61%	9,426	985	489	496	5.26%	3,863	40.98%	5,634
2042	62,729	65,787	50,738	15,049	77.12%	9,646	1,004	500	504	5.22%	3,953	40.98%	5,682
2043	62,729	65,998	53,464	12,534	81.01%	9,869	1,026	512	514	5.21%	4,045	41.00%	5,718
2044	62,729	66,221	56,481	9,740	85.29%	10,093	1,050	524	526	5.21%	4,137	40.99%	5,745
2045	62,729	66,463	59,818	6,645	90.00%	10,317	1,075	535	540	5.23%	4,228	40.98%	5,767

Normal cost rate includes administrative expenses.  
 State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 94-0004, and Public Act 96-0043.  
 Total expenses shown include benefit payments, refunds and administrative expenses.  
 Actuarial accrued liability and assets are measured at Plan Year End.  
 Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities****State Contribution Based on Public Act 88-0593, Public Act 93-0002, Public Act 94-0004, Public Act 96-0043****Rate of Return on Assets = 7.75%***(All Dollar Amounts in Millions)*

Plan Year End 6/30	Actuarial Number Active	Annual Normal Cost					Required State Contribution										
		Accrued Liability	Unfunded Assets	Funded Liability	Funded Ratio	Total Payroll	Employee		Percent		(a) Without GOB	(b) Debt Service	(c)=(a)-(b) Maximum Cont.	(d) Rate With Formula GOB	Minimum of (c) and (d)		Total
						Total	Cont.	Balance	of Pay	Cont.	Cont.	Cont.	Cont.	Required Cont.	Percent of Pay	Expenses	
2013	62,729	34,637	12,439	22,198	35.91%	4,369	800	245	555	12.70%	1,689	111	1,578	1,578	1,578	36.12%	1,753
2014	62,729	36,242	13,451	22,791	37.11%	4,326	817	243	574	13.27%	1,773	110	1,663	1,783	1,663	38.44%	1,860
2015	62,729	37,874	14,501	23,373	38.29%	4,480	833	252	581	12.97%	1,836	109	1,727	1,847	1,727	38.54%	1,971
2016	62,729	39,523	15,581	23,942	39.42%	4,633	850	260	590	12.73%	1,899	109	1,790	1,910	1,790	38.64%	2,092
2017	62,729	41,185	16,683	24,502	40.51%	4,791	865	268	597	12.46%	1,964	113	1,851	1,975	1,851	38.63%	2,220
2018	62,729	42,850	17,805	25,045	41.55%	4,949	879	276	603	12.18%	2,029	117	1,912	2,040	1,912	38.63%	2,354
2019	62,729	44,513	18,943	25,570	42.56%	5,114	892	285	607	11.87%	2,096	120	1,976	2,108	1,976	38.64%	2,494
2020	62,729	46,164	20,089	26,075	43.52%	5,280	903	294	609	11.53%	2,164	128	2,036	2,176	2,036	38.57%	2,641
2021	62,729	47,795	21,241	26,554	44.44%	5,454	913	303	610	11.18%	2,235	135	2,100	2,248	2,100	38.51%	2,793
2022	62,729	49,391	22,392	26,999	45.34%	5,632	920	312	608	10.80%	2,308	142	2,166	2,321	2,166	38.46%	2,955
2023	62,729	50,943	23,538	27,405	46.20%	5,811	926	321	605	10.41%	2,382	149	2,233	2,395	2,233	38.43%	3,122
2024	62,729	52,441	24,671	27,770	47.05%	5,994	929	330	599	9.99%	2,457	159	2,298	2,471	2,298	38.33%	3,293
2025	62,729	53,869	25,783	28,086	47.86%	6,175	929	338	591	9.57%	2,531	169	2,362	2,545	2,362	38.25%	3,471
2026	62,729	55,225	26,882	28,343	48.68%	6,361	929	347	582	9.15%	2,607	173	2,434	2,622	2,434	38.26%	3,647
2027	62,729	56,501	27,970	28,531	49.50%	6,553	928	356	572	8.73%	2,686	177	2,509	2,701	2,509	38.28%	3,823
2028	62,729	57,697	29,047	28,650	50.34%	6,747	929	365	564	8.36%	2,765	185	2,580	2,781	2,580	38.24%	3,996
2029	62,729	58,814	30,122	28,692	51.22%	6,949	932	374	558	8.03%	2,848	193	2,655	2,864	2,655	38.21%	4,163
2030	62,729	59,853	31,196	28,657	52.12%	7,151	935	384	551	7.71%	2,931	204	2,727	2,948	2,727	38.13%	4,325

Normal cost rate includes administrative expenses.

State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 93-0002, Public Act 94-0004, and Public Act 96-0043.

Total expenses shown include benefit payments, refunds and administrative expenses.

Actuarial accrued liability and assets are measured at Plan Year End.

Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities**  
**State Contribution Based on Public Act 88-0593, Public Act 93-0002, Public Act 94-0004, Public Act 96-0043**  
**Rate of Return on Assets = 7.75%**  
*(All Dollar Amounts in Millions)*

Plan	Actuarial						Annual Normal Cost		Required State Contribution								
							Employee	Percent	(a)	(b)	(c)=(a)-(b)	(d)	Minimum of (c) and (d)				
Year End	Accrued	Unfunded	Funded	Total													
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Cont.	Balance	of Pay	Without	Debt	Maximum	Rate With	Required	Percent	Total
											GOB	Service	Cont.	GOB	Cont.	of Pay	Expenses
2031	62,729	60,814	32,280	28,534	53.08%	7,359	940	394	546	7.42%	3,016	215	2,801	3,033	2,801	38.07%	4,481
2032	62,729	61,672	33,367	28,305	54.10%	7,568	936	404	532	7.03%	3,102	220	2,882	3,119	2,882	38.08%	4,649
2033	62,729	62,406	34,443	27,963	55.19%	7,750	929	410	519	6.70%	3,176	218	2,958	3,194	2,958	38.16%	4,822
2034	62,729	63,041	35,785	27,256	56.76%	7,945	928	417	511	6.43%	3,256	0	N/A	3,275	3,275	41.22%	4,970
2035	62,729	63,595	37,197	26,398	58.49%	8,153	931	426	505	6.19%	3,342	0	N/A	3,361	3,361	41.22%	5,098
2036	62,729	64,070	38,694	25,376	60.39%	8,362	934	436	498	5.96%	3,427	0	N/A	3,447	3,447	41.22%	5,218
2037	62,729	64,470	40,293	24,177	62.50%	8,569	938	446	492	5.74%	3,512	0	N/A	3,532	3,532	41.22%	5,327
2038	62,729	64,809	42,016	22,793	64.83%	8,779	945	456	489	5.57%	3,598	0	N/A	3,619	3,619	41.22%	5,423
2039	62,729	65,099	43,890	21,209	67.42%	8,993	956	467	489	5.44%	3,686	0	N/A	3,707	3,707	41.22%	5,505
2040	62,729	65,350	45,941	19,409	70.30%	9,209	969	478	491	5.33%	3,774	0	N/A	3,796	3,796	41.22%	5,575
2041	62,729	65,575	48,193	17,382	73.49%	9,426	985	489	496	5.26%	3,863	0	N/A	3,885	3,885	41.22%	5,634
2042	62,729	65,787	50,676	15,111	77.03%	9,646	1,004	500	504	5.22%	3,953	0	N/A	3,976	3,976	41.22%	5,682
2043	62,729	65,998	53,422	12,576	80.94%	9,869	1,026	512	514	5.21%	4,045	0	N/A	4,068	4,068	41.22%	5,718
2044	62,729	66,221	56,460	9,761	85.26%	10,093	1,050	524	526	5.21%	4,137	0	N/A	4,160	4,160	41.22%	5,745
2045	62,729	66,463	59,820	6,643	90.00%	10,317	1,075	535	540	5.23%	4,228	0	N/A	4,252	4,252	41.22%	5,767

Normal cost rate includes administrative expenses.  
 State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 93-0002, Public Act 94-0004, and Public Act 96-0043.  
 Total expenses shown include benefit payments, refunds and administrative expenses.  
 Actuarial accrued liability and assets are measured at Plan Year End.  
 Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities****State Contribution Based on Public Act 88-0593, Public Act 94-0004, Public Act 96-0043****Maximum Contribution Calculation: Without GOB Proceeds****Rate of Return on Assets = 7.75%****Phase-In of Deferred Asset Gains and Losses Recognized in the Projected Actuarial Value of Assets***(All Dollar Amounts in Millions)*

Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Annual Normal Cost				State Contribution		Total Expenses
							Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	
2013	62,729	34,637	10,533	24,104	30.41%	4,369	800	245	555	12.70%	1,689	38.66%	1,753
2014	62,729	36,242	11,589	24,653	31.98%	4,326	817	243	574	13.27%	1,773	40.98%	1,860
2015	62,729	37,874	12,698	25,176	33.53%	4,480	833	252	581	12.97%	1,867	41.67%	1,971
2016	62,729	39,523	13,620	25,903	34.46%	4,633	850	260	590	12.73%	1,925	41.55%	2,092
2017	62,729	41,185	14,712	26,473	35.72%	4,791	865	268	597	12.46%	1,987	41.47%	2,220
2018	62,729	42,850	15,838	27,012	36.96%	4,949	879	276	603	12.18%	2,064	41.72%	2,354
2019	62,729	44,513	16,986	27,527	38.16%	5,114	892	285	607	11.87%	2,132	41.68%	2,494
2020	62,729	46,164	18,151	28,013	39.32%	5,280	903	294	609	11.53%	2,201	41.69%	2,641
2021	62,729	47,795	19,333	28,462	40.45%	5,454	913	303	610	11.18%	2,274	41.69%	2,793
2022	62,729	49,391	20,525	28,866	41.56%	5,632	920	312	608	10.80%	2,348	41.70%	2,955
2023	62,729	50,943	21,724	29,219	42.64%	5,811	926	321	605	10.41%	2,423	41.71%	3,122
2024	62,729	52,441	22,925	29,516	43.72%	5,994	929	330	599	9.99%	2,499	41.70%	3,293
2025	62,729	53,869	24,123	29,746	44.78%	6,175	929	338	591	9.57%	2,575	41.70%	3,471
2026	62,729	55,225	25,320	29,905	45.85%	6,361	929	347	582	9.15%	2,652	41.70%	3,647
2027	62,729	56,501	26,519	29,982	46.94%	6,553	928	356	572	8.73%	2,732	41.70%	3,823
2028	62,729	57,697	27,725	29,972	48.05%	6,747	929	365	564	8.36%	2,813	41.69%	3,996
2029	62,729	58,814	28,949	29,865	49.22%	6,949	932	374	558	8.03%	2,897	41.70%	4,163
2030	62,729	59,853	30,197	29,656	50.45%	7,151	935	384	551	7.71%	2,982	41.70%	4,325

Normal cost rate includes administrative expenses.

State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 94-0004, and Public Act 96-0043.

Total expenses shown include benefit payments, refunds and administrative expenses.

Actuarial accrued liability and assets are measured at Plan Year End.

Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities**  
**State Contribution Based on Public Act 88-0593, Public Act 94-0004, Public Act 96-0043**  
**Maximum Contribution Calculation: Without GOB Proceeds**  
**Rate of Return on Assets = 7.75%**  
**Phase-In of Deferred Asset Gains and Losses Recognized in the Projected Actuarial Value of Assets**  
*(All Dollar Amounts in Millions)*

Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Annual Normal Cost				State Contribution		Total Expenses
							Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	
2031	62,729	60,814	31,481	29,333	51.77%	7,359	940	394	546	7.42%	3,068	41.69%	4,481
2032	62,729	61,672	32,790	28,882	53.17%	7,568	936	404	532	7.03%	3,155	41.69%	4,649
2033	62,729	62,406	34,105	28,301	54.65%	7,750	929	410	519	6.70%	3,231	41.70%	4,822
2034	62,729	63,041	35,460	27,581	56.25%	7,945	928	417	511	6.43%	3,312	41.70%	4,970
2035	62,729	63,595	36,888	26,707	58.00%	8,153	931	426	505	6.19%	3,399	41.69%	5,098
2036	62,729	64,070	38,403	25,667	59.94%	8,362	934	436	498	5.96%	3,486	41.69%	5,218
2037	62,729	64,470	40,021	24,449	62.08%	8,569	938	446	492	5.74%	3,573	41.70%	5,327
2038	62,729	64,809	41,766	23,043	64.44%	8,779	945	456	489	5.57%	3,660	41.70%	5,423
2039	62,729	65,099	43,666	21,433	67.08%	8,993	956	467	489	5.44%	3,749	41.69%	5,505
2040	62,729	65,350	45,744	19,606	70.00%	9,209	969	478	491	5.33%	3,840	41.71%	5,575
2041	62,729	65,575	48,028	17,547	73.24%	9,426	985	489	496	5.26%	3,930	41.70%	5,634
2042	62,729	65,787	50,546	15,241	76.83%	9,646	1,004	500	504	5.22%	4,022	41.70%	5,682
2043	62,729	65,998	53,330	12,668	80.81%	9,869	1,026	512	514	5.21%	4,115	41.70%	5,718
2044	62,729	66,221	56,411	9,810	85.19%	10,093	1,050	524	526	5.21%	4,208	41.70%	5,745
2045	62,729	66,463	59,818	6,645	90.00%	10,317	1,075	535	540	5.23%	4,302	41.71%	5,767

Normal cost rate includes administrative expenses.  
 State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 94-0004, and Public Act 96-0043.  
 Total expenses shown include benefit payments, refunds and administrative expenses.  
 Actuarial accrued liability and assets are measured at Plan Year End.  
 Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities****State Contribution Based on Public Act 88-0593, Public Act 93-0002, Public Act 94-0004, Public Act 96-0043****Rate of Return on Assets = 7.75%****Phase-In of Deferred Asset Gains and Losses Recognized in the Projected Actuarial Value of Assets***(All Dollar Amounts in Millions)*

Plan Year End	Actuarial Number	Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Annual Normal Cost				Required State Contribution						
							Total	Employee Cont.	Balance	Percent of Pay	(a) Without GOB Cont.	(b) Debt Service	(c)=(a)-(b) Maximum Cont.	(d) Formula Rate With GOB	Minimum of (c) and (d) Required Cont.	Percent of Pay	Total Expenses
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Employee Cont.	Balance	Percent of Pay	Cont.	Service	Cont.	GOB	Required Cont.	Percent of Pay	Total Expenses
2013	62,729	34,637	11,883	22,754	34.31%	4,369	800	245	555	12.70%	1,689	111	1,578	1,578	1,578	36.12%	1,753
2014	62,729	36,242	12,944	23,298	35.72%	4,326	817	243	574	13.27%	1,773	110	1,663	1,783	1,663	38.44%	1,860
2015	62,729	37,874	14,055	23,819	37.11%	4,480	833	252	581	12.97%	1,867	110	1,757	1,901	1,757	39.22%	1,971
2016	62,729	39,523	14,946	24,577	37.82%	4,633	850	260	590	12.73%	1,925	108	1,817	1,957	1,817	39.21%	2,092
2017	62,729	41,185	16,024	25,161	38.91%	4,791	865	268	597	12.46%	1,987	113	1,874	2,017	1,874	39.12%	2,220
2018	62,729	42,850	17,130	25,720	39.98%	4,949	879	276	603	12.18%	2,064	117	1,947	2,101	1,947	39.34%	2,354
2019	62,729	44,513	18,254	26,259	41.01%	5,114	892	285	607	11.87%	2,132	120	2,012	2,170	2,012	39.35%	2,494
2020	62,729	46,164	19,385	26,779	41.99%	5,280	903	294	609	11.53%	2,201	127	2,074	2,241	2,074	39.27%	2,641
2021	62,729	47,795	20,523	27,272	42.94%	5,454	913	303	610	11.18%	2,274	135	2,139	2,315	2,139	39.22%	2,793
2022	62,729	49,391	21,660	27,731	43.85%	5,632	920	312	608	10.80%	2,348	142	2,206	2,390	2,206	39.17%	2,955
2023	62,729	50,943	22,792	28,151	44.74%	5,811	926	321	605	10.41%	2,423	149	2,274	2,466	2,274	39.14%	3,122
2024	62,729	52,441	23,910	28,531	45.59%	5,994	929	330	599	9.99%	2,499	159	2,340	2,544	2,340	39.04%	3,293
2025	62,729	53,869	25,009	28,860	46.43%	6,175	929	338	591	9.57%	2,575	169	2,406	2,621	2,406	38.96%	3,471
2026	62,729	55,225	26,095	29,130	47.25%	6,361	929	347	582	9.15%	2,652	173	2,479	2,700	2,479	38.97%	3,647
2027	62,729	56,501	27,170	29,331	48.09%	6,553	928	356	572	8.73%	2,732	177	2,555	2,781	2,555	38.99%	3,823
2028	62,729	57,697	28,235	29,462	48.94%	6,747	929	365	564	8.36%	2,813	185	2,628	2,864	2,628	38.95%	3,996
2029	62,729	58,814	29,298	29,516	49.81%	6,949	932	374	558	8.03%	2,897	192	2,705	2,949	2,705	38.92%	4,163
2030	62,729	59,853	30,361	29,492	50.73%	7,151	935	384	551	7.71%	2,982	205	2,777	3,035	2,777	38.84%	4,325

Normal cost rate includes administrative expenses.

State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 93-0002, Public Act 94-0004, and Public Act 96-0043.

Total expenses shown include benefit payments, refunds and administrative expenses.

Actuarial accrued liability and assets are measured at Plan Year End.

Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

**33-Year Projection of Costs and Liabilities**  
**State Contribution Based on Public Act 88-0593, Public Act 93-0002, Public Act 94-0004, Public Act 96-0043**  
**Rate of Return on Assets = 7.75%**  
**Phase-In of Deferred Asset Gains and Losses Recognized in the Projected Actuarial Value of Assets**  
*(All Dollar Amounts in Millions)*

Plan	Actuarial	Annual Normal Cost					Required State Contribution										
							(a)	(b)	(c)=(a)-(b)	(d)	Minimum of (c) and (d)						
Year End Number	Accrued	Unfunded	Funded	Total	Employee	Percent	Without	Debt	Maximum	Rate With	Required	Percent	Total				
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Cont.	Balance	of Pay	Cont.	Service	Cont.	GOB	Cont.	of Pay	Expenses
2031	62,729	60,814	31,434	29,380	51.69%	7,359	940	394	546	7.42%	3,068	214	2,854	3,123	2,854	38.77%	4,481
2032	62,729	61,672	32,511	29,161	52.72%	7,568	936	404	532	7.03%	3,155	219	2,936	3,212	2,936	38.79%	4,649
2033	62,729	62,406	33,577	28,829	53.80%	7,750	929	410	519	6.70%	3,231	219	3,012	3,289	3,012	38.87%	4,822
2034	62,729	63,041	34,953	28,088	55.44%	7,945	928	417	511	6.43%	3,312	0	N/A	3,372	3,372	42.44%	4,970
2035	62,729	63,595	36,405	27,190	57.25%	8,153	931	426	505	6.19%	3,399	0	N/A	3,460	3,460	42.44%	5,098
2036	62,729	64,070	37,947	26,123	59.23%	8,362	934	436	498	5.96%	3,486	0	N/A	3,549	3,549	42.44%	5,218
2037	62,729	64,470	39,596	24,874	61.42%	8,569	938	446	492	5.74%	3,573	0	N/A	3,637	3,637	42.44%	5,327
2038	62,729	64,809	41,377	23,432	63.84%	8,779	945	456	489	5.57%	3,660	0	N/A	3,726	3,726	42.44%	5,423
2039	62,729	65,099	43,315	21,784	66.54%	8,993	956	467	489	5.44%	3,749	0	N/A	3,816	3,816	42.44%	5,505
2040	62,729	65,350	45,438	19,912	69.53%	9,209	969	478	491	5.33%	3,840	0	N/A	3,908	3,908	42.44%	5,575
2041	62,729	65,575	47,771	17,804	72.85%	9,426	985	489	496	5.26%	3,930	0	N/A	4,001	4,001	42.44%	5,634
2042	62,729	65,787	50,344	15,443	76.53%	9,646	1,004	500	504	5.22%	4,022	0	N/A	4,094	4,094	42.44%	5,682
2043	62,729	65,998	53,189	12,809	80.59%	9,869	1,026	512	514	5.21%	4,115	0	N/A	4,188	4,188	42.44%	5,718
2044	62,729	66,221	56,337	9,884	85.07%	10,093	1,050	524	526	5.21%	4,208	0	N/A	4,283	4,283	42.44%	5,745
2045	62,729	66,463	59,818	6,645	90.00%	10,317	1,075	535	540	5.23%	4,302	0	N/A	4,379	4,379	42.44%	5,767

Normal cost rate includes administrative expenses.  
 State contribution based on the requirements of Public Act 88-0593, as amended by Public Act 90-0065, Public Act 93-0002, Public Act 94-0004, and Public Act 96-0043.  
 Total expenses shown include benefit payments, refunds and administrative expenses.  
 Actuarial accrued liability and assets are measured at Plan Year End.  
 Total payroll is capped for members hired after December 31, 2010, as defined in Public Act 96-0889.

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**SECTION C**

**FUND ASSETS**

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**State Employees' Retirement System of Illinois**  
**Statement of Plan Net Assets**  
**Years ended June 30, 2012 and 2011**

Assets	2012	2011
Cash	\$ 133,959,043	\$ 54,940,085
Receivables:		
Contributions:		
Participants	\$ 15,059,723	\$ 15,561,242
Employing state agencies	139,273,104	18,858,218
Other accounts	6,474,247	6,748,407
	<u>\$ 160,807,074</u>	<u>\$ 41,167,867</u>
Investments - held in the Illinois State Board of Investment Commingled Fund at fair value	\$ 10,675,772,261	\$ 10,882,484,004
Securities lending collateral with State Treasurer	<u>72,867,000</u>	<u>26,414,000</u>
Property and equipment, net of accumulated depreciation	<u>\$ 2,723,398</u>	<u>\$ 2,676,348</u>
Total Assets	\$ 11,046,128,776	\$ 11,007,682,304
Liabilities		
Benefits payable	\$ 6,184,894	\$ 5,055,752
Refunds payable	818,593	684,323
Administrative expenses payable	1,539,489	1,375,236
Participants' deferred service credit accounts	129,753	156,993
Due to State of Illinois	3,901,223	3,243,314
Securities lending collateral with State Treasurer	<u>72,867,000</u>	<u>26,414,000</u>
Total Liabilities	<u>\$ 85,440,952</u>	<u>\$ 36,929,618</u>
Net assets held in trust for pension benefits	<u>\$ 10,960,687,824</u>	<u>\$ 10,970,752,686</u>

**State Employees' Retirement System of Illinois**  
**Statement of Changes in Plan Net Assets**  
**Years ended June 30, 2012 and 2011**

	2012	2011
<b>Additions:</b>		
Contributions:		
Participants	\$ 259,122,881	\$ 254,201,379
Employing state agencies and appropriations	1,391,416,375	1,127,886,796
Total Contributions revenue	<u>\$ 1,650,539,256</u>	<u>\$ 1,382,088,175</u>
Investments income:		
Net investments income	\$ 253,906,644	\$ 221,489,114
Interest earned on cash balances	687,112	448,284
Net appreciation in fair value of investments	(248,618,387)	1,708,270,995
Total Investments income	<u>\$ 5,975,369</u>	<u>\$ 1,930,208,393</u>
Total Additions	\$ 1,656,514,625	\$ 3,312,296,568
<b>Deductions:</b>		
Benefits:		
Retirement annuities	\$ 1,454,910,158	\$ 1,329,155,991
Survivors' annuities	101,136,325	95,118,041
Disability benefits	56,098,869	53,056,325
Lump-sum benefits	15,228,249	14,733,290
Total Benefits	<u>\$ 1,627,373,601</u>	<u>\$ 1,492,063,647</u>
Refunds	23,500,325	37,575,929
Administrative	15,705,561	13,734,961
Total Deductions	<u>\$ 1,666,579,487</u>	<u>\$ 1,543,374,537</u>
Net increase	<u>\$ (10,064,862)</u>	<u>\$ 1,768,922,031</u>
<b>Net assets held in trust for pension benefits:</b>		
Beginning of year	<u>\$ 10,970,752,686</u>	<u>\$ 9,201,830,655</u>
End of year	<u><u>\$ 10,960,687,824</u></u>	<u><u>\$ 10,970,752,686</u></u>

**State Employees' Retirement System of Illinois**  
**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS - ACTUAL ASSETS**

Year Ending June 30	2012	2013	2014	2015	2016
Beginning of Year:					
(1) Market Value of Assets	\$ 10,970,752,686				
(2) Actuarial Value of Assets	11,159,836,617				
End of Year:					
(3) Market Value of Assets	10,960,687,824				
(4) Contributions and Disbursements					
(4a) Actual State Contribution Amount	1,391,416,375				
(4b) Employee Contribution Amount	259,122,881				
(4c) Benefit Payouts & Refunds	(1,650,873,926)				
(4d) Administrative Expenses	(15,705,561)				
(4e) Net of Contributions and Disbursements	(16,040,231)				
(5) Total Investment Income					
=(3)-(1)-(4e)	5,975,369				
(6) Projected Rate of Return					
	7.75%				
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>.5</sup> -1)x(4e)	849,623,372				
(8) Investment Income in Excess of Projected Income					
	(843,648,003)				
(9) Excess Investment Income Recognized					
This Year (5-year recognition)					
(9a) From This Year	(168,729,601)				
(9b) From One Year Ago	244,639,950	\$ (168,729,601)			
(9c) From Two Years Ago	16,487,825	244,639,950	\$ (168,729,601)		
(9d) From Three Years Ago	(608,553,603)	16,487,825	244,639,950	\$ (168,729,601)	
(9e) From Four Years Ago	0	(608,553,603)	16,487,825	244,639,950	\$ (168,729,599)
(9f) Total Recognized Investment Gain	(516,155,429)	(516,155,429)	92,398,174	75,910,349	(168,729,599)
(10) Change in Actuarial Value of Assets					
=(4e)+(7)+(9f)	317,427,712				
End of Year:					
<b>(3) Market Value of Assets</b>	<b>10,960,687,824</b>				
<b>(11) Actuarial Value of Assets</b>					
=(2)+(10)	<b>11,477,264,329</b>				

**State Employees' Retirement System of Illinois**  
**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS - HYPOTHETICAL ASSETS**

Year Ending June 30	2012	2013	2014	2015	2016
Beginning of Year:					
(1) Hypothetical Value of Assets	\$ 9,489,016,626				
(2) Hypothetical Actuarial Value of Assets	9,631,124,168				
End of Year:					
(3) Hypothetical Value of Assets	9,596,573,696				
(4) Contributions and Disbursements					
(4a) State Contribution Amount <sup>1</sup>	1,510,243,474				
(4b) Employee Contribution Amount	259,122,881				
(4c) Benefit Payouts & Refunds	(1,650,873,926)				
(4d) Administrative Expenses	(15,705,561)				
(4e) Net of Contributions and Disbursements	102,786,868				
(5) Total Investment Income <sup>2</sup>					
=(3)-(1)-(4e)	4,770,202				
(6) Projected Rate of Return		7.75%			
(7) Projected Investment Income					
=(1)x(6)+([1+(6)] <sup>5</sup> -1)x(4e)	739,307,462				
(8) Investment Income in Excess of Projected Income	(734,537,260)				
(9) Excess Investment Income Recognized This Year (5-year recognition)					
(9a) From This Year	(146,907,451)				
(9b) From One Year Ago	211,034,626	\$ (146,907,450)			
(9c) From Two Years Ago	14,133,591	211,034,626	\$ (146,907,450)		
(9d) From Three Years Ago	(514,323,410)	14,133,591	211,034,626	\$ (146,907,450)	
(9e) From Four Years Ago	0	(514,323,410)	14,133,591	211,034,626	\$ (146,907,460)
(9f) Total Recognized Investment Gain	(436,062,644)	(436,062,643)	78,260,767	64,127,176	(146,907,460)
(10) Change in Hypothetical Actuarial Value of Assets					
=(4e)+(7)+(9f)	406,031,686				
End of Year:					
<b>(3) Hypothetical Market Value of Assets</b>	<b>9,596,573,696</b>				
<b>(11) Hypothetical Actuarial Value of Assets</b>					
=(2)+(10)	<b>10,037,155,854</b>				

<sup>1</sup> Represents 34.886 percent of payroll for the basic contribution.

<sup>2</sup> Investment income assumes hypothetical value of assets earns the Fund's actual rate of return for fiscal year 2011 of 0.05%.

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## **SECTION D**

### **ACCOUNTING DISCLOSURES**

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**This information is presented in draft form for review by the auditor. Please let us know if there are any changes so that we may maintain consistency with the State's financial statements.**

## Financial Accounting Information in Accordance with GASB Statement No. 25

### A. Schedule of Funding Progress

	<u>6/30/2012</u>	<u>6/30/2011</u>	<u>6/30/2010</u>
1 Actuarial Value of Assets	\$ 11,477,264,329	\$ 11,159,836,617	\$ 10,961,540,164
2 Actuarial Accrued Liability (AAL)	33,091,186,194	31,395,007,782	29,309,464,296
3 Unfunded AAL (UAAL) [(2) - (1)]	21,613,921,865	20,235,171,165	18,347,924,132
4 Funded Ratio [(1) ÷ (2)]	34.68%	35.55%	37.40%
5 Covered Payroll	4,329,083,716	4,211,186,269	4,119,360,892
6 UAAL as a Percentage of Covered Payroll	499.27%	480.51%	445.41%

### B. Schedule of Employer Contributions for the Fiscal Year End

	<u>6/30/2012</u>	<u>6/30/2011</u>	<u>6/30/2010</u>
1 Annual Required Contribution (ARC) per GASB 25			
(a) Percentage of payroll	37.302%	30.609%	28.580%
(b) Covered payroll for fiscal year	\$4,329,083,716	\$4,211,186,269	\$4,119,360,892
(c) ARC for fiscal year	1,614,834,808	1,289,002,005	1,177,313,343
2 Total Employer Contribution	1,391,416,375	1,127,886,796	1,095,545,856
3 Percentage of ARC Contributed [(2) ÷ (1)]	86.16%	87.50%	93.05%
4 Annual Contribution Required per State Statute			
(a) Percentage of payroll	32.252%	26.187%	26.535%
(b) Covered payroll for fiscal year	4,329,083,716	4,211,186,269	4,119,360,892
(c) Total required contribution	1,396,216,080	1,102,783,348	1,093,072,413
5 Employer Contribution	1,391,416,375	1,127,886,796	1,095,545,856
6 Percentage of (4) Contributed [(5) ÷ (4)]	99.66%	102.28%	100.23%

**C. Notes to Required Schedules**

1. The cost method used to determine the ARC is the Projected Unit Credit Cost Method. The ARC (as percentage of payroll) for the 2012 fiscal year was determined as of June 30, 2010, based on the assumptions then in effect.
2. The assets are shown at actuarial value.
3. Economic assumptions include an inflation rate of 3.0 percent; an investment return rate of 8.50 percent prior to the June 30, 2010, valuation, and 7.75 percent after; salary increase rates based on age-related productivity and merit rates plus inflation; and postretirement benefit increases of 3.0 percent.
4. The amortization method is an open 30-year period, level percent of projected capped payroll.

## Development of Net Pension Obligation in Accordance with GASB Statement No. 27 (Date of Transition is July 1, 1996)

Fiscal Year	Applicable Actuarial Valuation			Actual Contribution**	Amortization	
	As-of Date	Investment Assumption	Annual Required Contribution*		Years	Factor
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/87 - 6/30/88	6/30/1986	8.00%	\$ 186,935,353	\$ 99,990,922	40	11.92461333
7/1/88 - 6/30/89	6/30/1987	8.00%	179,420,448	98,471,993	40	11.92461333
7/1/89 - 6/30/90	6/30/1988	8.00%	184,689,149	107,938,094	40	11.92461333
7/1/90 - 6/30/91	6/30/1989	8.00%	191,296,277	115,979,568	40	11.92461333
7/1/91 - 6/30/92	6/30/1990	8.00%	208,717,019	98,532,783	40	11.92461333
7/1/92 - 6/30/93	6/30/1991	8.00%	227,588,508	114,413,597	40	11.92461333
7/1/93 - 6/30/94	6/30/1992	8.00%	277,518,586	127,649,961	40	11.92461333
7/1/94 - 6/30/95	6/30/1993	8.00%	306,006,674	136,589,471	40	11.92461333
7/1/95 - 6/30/96	6/30/1994	8.00%	335,219,027	146,397,934	40	11.92461333
7/1/96 - 6/30/97	6/30/1995	8.00%	211,125,012	158,179,514	40	19.84983174
7/1/97 - 6/30/98	6/30/1996	8.00%	206,725,718	200,741,736	40	19.53100753
7/1/98 - 6/30/99	6/30/1997	8.50%	319,746,993	315,525,007	40	15.55212396
7/1/99 - 6/30/00	6/30/1998	8.50%	299,081,856	340,872,521	40	15.38193387
7/1/00 - 6/30/01	6/30/1999	8.50%	294,351,538	366,028,937	40	15.17924930
7/1/01 - 6/30/02	6/30/2000	8.50%	306,509,801	386,116,583	40	15.53675931
7/1/02 - 6/30/03	6/30/2001	8.50%	449,348,585	396,067,236	40	16.01251393
7/1/03 - 6/30/04	6/30/2002	8.50%	576,219,951	1,864,673,411	40	20.17751836
7/1/04 - 6/30/05	6/30/2003	8.50%	727,428,010	427,434,612	40	19.34057660
7/1/05 - 6/30/06	6/30/2004	8.50%	672,555,569	210,499,791	40	18.52371012
7/1/06 - 6/30/07	6/30/2005	8.50%	823,802,760	358,786,650	30	14.85458369
7/1/07 - 6/30/08	6/30/2006	8.50%	986,410,891	587,732,407	30	14.91835797
7/1/08 - 6/30/09	6/30/2007	8.50%	1,003,432,849	774,910,344	30	15.42654344
7/1/09 - 6/30/10	6/30/2008	8.50%	1,177,313,343	1,095,545,856	30	15.47602451
7/1/10 - 6/30/11	6/30/2009	8.50%	1,289,002,005	1,127,886,796	30	15.20158584
7/1/11 - 6/30/12	6/30/2010	7.75%	1,614,834,808	1,391,416,375	30	16.12498455
Fiscal Year	Beginning of Year NPO	Interest on NPO	Amortization of NPO	Annual Pension Cost (APC)***	Increase in NPO	End of Year NPO
(1)	(8)	(9)	(10)	(11)	(12)	(13)
7/1/87 - 6/30/88	\$ 0	\$ 0	\$ 0	\$186,935,353	\$ 86,944,431	\$ 86,944,431
7/1/88 - 6/30/89	86,944,431	6,955,554	7,291,174	179,084,828	80,612,835	167,557,267
7/1/89 - 6/30/90	167,557,267	13,404,581	14,051,379	184,042,351	76,104,257	243,661,524
7/1/90 - 6/30/91	243,661,524	19,492,922	20,433,495	190,355,705	74,376,137	318,037,660
7/1/91 - 6/30/92	318,037,660	25,443,013	26,670,690	207,489,343	108,956,560	426,994,220
7/1/92 - 6/30/93	426,994,220	34,159,538	35,807,804	225,940,241	111,526,644	538,520,864
7/1/93 - 6/30/94	538,520,864	43,081,669	45,160,447	275,439,808	147,789,847	686,310,711
7/1/94 - 6/30/95	686,310,711	54,904,857	57,554,127	303,357,404	166,767,933	853,078,644
7/1/95 - 6/30/96	853,078,644	68,246,292	71,539,313	331,926,005	185,528,071	1,038,606,716
7/1/96 - 6/30/97	1,038,606,716	83,088,537	52,323,200	241,890,349	83,710,835	1,122,317,551
7/1/97 - 6/30/98	1,122,317,551	89,785,404	57,463,372	239,047,750	38,306,014	1,160,623,565
7/1/98 - 6/30/99	1,160,623,565	98,653,003	74,627,978	343,772,018	28,247,011	1,188,870,576
7/1/99 - 6/30/00	1,188,870,576	101,053,999	77,290,059	322,845,796	(18,026,725)	1,170,843,851
7/1/00 - 6/30/01	1,170,843,851	99,521,727	77,134,503	316,738,762	(49,290,175)	1,121,553,676
7/1/01 - 6/30/02	1,121,553,676	95,332,062	72,187,105	329,654,758	(56,461,825)	1,065,091,851
7/1/02 - 6/30/03	1,065,091,851	90,532,807	66,516,217	473,365,175	77,297,939	1,142,389,790
7/1/03 - 6/30/04	1,142,389,790	97,103,132	56,616,962	616,706,121	(1,247,967,290)	(105,577,500)
7/1/04 - 6/30/05	(105,577,500)	(8,974,088)	(5,458,860)	723,912,782	296,478,170	190,900,670
7/1/05 - 6/30/06	190,900,670	16,226,557	10,305,747	678,476,379	467,976,588	658,877,258
7/1/06 - 6/30/07	658,877,258	56,004,567	44,355,148	835,452,179	476,665,529	1,135,542,787
7/1/07 - 6/30/08	1,135,542,787	96,521,137	76,117,143	1,006,814,885	419,082,478	1,554,625,265
7/1/08 - 6/30/09	1,554,625,265	132,143,148	100,775,995	1,034,800,002	259,889,658	1,814,514,923
7/1/09 - 6/30/10	1,814,514,923	154,233,768	117,246,837	1,214,300,274	118,754,418	1,933,269,341
7/1/10 - 6/30/11	1,933,269,341	164,327,894	127,175,504	1,326,154,395	198,267,599	2,131,536,940
7/1/11 - 6/30/12	2,131,536,940	165,194,113	132,188,464	1,647,840,457	256,424,082	2,387,961,022

\* The annual required contributions for FYE 6/30/1988 through 6/30/1996 were determined based on the APB8 percentages provided by the System. Thereafter, the annual required contribution was obtained by adding the normal cost and an amortization over the period disclosed in column (6) (constant percent of payroll) of the UAAL (AAL - MVA) at the valuation date shown in column (2). The resulting percentage of payroll is applied to the actual covered payroll for the applicable fiscal year.

\*\* The actual contributions for FYE 6/30/1988 through 6/30/2011 were obtained from the comprehensive annual financial report. The actual contribution for FYE 6/30/2012 was provided by the System.

\*\*\* APC = (4) + [(8)\*(3)] - [(8)/(7)]

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**SECTION E**  
**PARTICIPANT DATA**

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# Active Age and Service Distribution

## June 30, 2012

Age Group	Years of Service									Total	Percentage of Total
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35&Up		
Under 20	163	5								168	1%
20-24	553	608	4							1,165	2%
25-29	580	2,089	394	11						3,074	5%
30-34	389	1,656	1,497	947	13					4,502	7%
35-39	239	1,277	1,197	2,704	574	5				5,996	10%
40-44	257	1,149	1,200	2,750	2,148	947	29			8,480	14%
45-49	209	1,015	1,124	1,979	1,828	2,675	1,414	68		10,312	16%
50-54	212	840	1,079	1,883	1,536	2,236	1,968	1,096	49	10,899	16%
55-59	142	717	883	1,539	1,301	1,727	1,312	1,117	453	9,191	15%
60-64	79	489	739	1,220	898	998	653	514	515	6,105	10%
65-69	40	146	295	542	346	289	175	109	182	2,124	3%
70 & Over	6	47	69	170	130	108	57	32	94	713	1%
<b>Total</b>	<b>2,869</b>	<b>10,038</b>	<b>8,481</b>	<b>13,745</b>	<b>8,774</b>	<b>8,985</b>	<b>5,608</b>	<b>2,936</b>	<b>1,293</b>	<b>62,729</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>5%</b>	<b>16%</b>	<b>14%</b>	<b>21%</b>	<b>14%</b>	<b>14%</b>	<b>9%</b>	<b>5%</b>	<b>2%</b>	<b>100%</b>	

# Retirees and Beneficiaries by Type of Benefit Being Paid

## June 30, 2012

<u>Type of Benefit Being Paid</u>	<u>Count</u>	<u>Monthly Payment</u>	<u>Annual Payment</u>	<u>Average Annual Payment</u>
Retirement Annuity	50,000	\$ 127,617,252.68	\$ 1,531,407,032.16	\$ 30,628.14
Survivors	9,873	8,346,728.52	100,160,742.24	10,144.91
Widows	96	76,678.45	920,141.40	9,584.81
Occupational Death	59	48,986.94	587,843.28	9,963.45
QILDRO	460	503,727.90	6,044,734.80	13,140.73
Reversionary Annuity	14	35,279.01	423,348.12	30,239.15
Non-Occupational Disability	1,209	2,148,188.55	25,778,262.60	21,321.97
Occupational Disability	605	1,333,572.28	16,002,867.36	26,451.02
Temporary Disability	75	164,288.48	1,971,461.76	26,286.16
Total Temporary Disability - Occupational	397	303,492.86	3,641,914.32	9,173.59
Eligible for Deferred Retirement Annuity	104	43,304.60	519,655.20	4,996.68
Eligible for Deferred Survivor Annuity	161	21,618.78	259,425.36	1,611.34
<b>Total</b>	<b>63,053</b>	<b>\$ 140,643,119.05</b>	<b>\$ 1,687,717,428.60</b>	<b>\$ 26,766.65</b>

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## **SECTION F**

### **ACTUARIAL METHODS AND ASSUMPTIONS**

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## **Actuarial Methods and Assumptions**

### **Actuarial Cost Method Adopted June 30, 1989**

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

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

For ancillary benefits for active members, in particular death and survivor benefits, termination benefits, and the postretirement increases, the same procedure as outlined above is followed.

Estimated annual administrative expenses are added to the normal cost.

For valuation purposes, as well as projection purposes, an actuarial value of assets is used.

# **Actuarial Assumptions Adopted June 30, 2011**

## **Mortality**

### *Post-Retirement Mortality*

RP2000 Combined Healthy mortality table, sex distinct, with rates projected to 2015 with scale aa. No adjustment is made for post-disabled mortality. The mortality table used is a static table with the provision for future mortality improvement in the projection to 2015 which is in sync with the next scheduled experience study.

### *Pre-Retirement Mortality*

Based on a percentage of 85 percent for males and 70 percent for females of post-retirement mortality. Five percent of deaths among active employees are assumed to be in the performance of their duty.

## **Interest**

7.75 percent per annum, compounded annually.

## **General Inflation**

3.00 percent per annum, compounded annually.

## **Marriage Assumption**

85.0 percent of active male participants and 65.0 percent of active female participants are assumed to be married. Actual marital status at benefit commencement is used for retirees.

## **Social Security Offset for Survivor Benefits**

No offset assumption for male surviving spouses because it is assumed their own PIA is as great as their spouses' PIA. Sixty percent of married male members are assumed to have a dual income household. For the dual income household, it is assumed the offset at age 60 is 45.0 percent of the original survivor benefit. It is assumed the offset at age 62 is 10.0 percent of the original survivor benefit. Furthermore, it is assumed that 50 percent of retirees on or after July 1, 2009, will elect to remove the offset provision. In exchange for the removal, the member's retirement annuity is reduced by 3.825 percent monthly as mandated by Statutes.

## Termination

Illustrative rates of withdrawal from the plan are as follows:

Service Based Withdrawal				
Service (Beginning of Year)	General Formula Employees		Alternate Formula Employees	
	Males	Females	Males	Females
0	0.1800	0.1700	0.0400	0.0775
1	0.1200	0.1100	0.0250	0.0475
2	0.0600	0.0850	0.0250	0.0450
3	0.0550	0.0700	0.0250	0.0300
4	0.0500	0.0550	0.0250	0.0300
5	0.0450	0.0500	0.0250	0.0300
6	0.0350	0.0400	0.0150	0.0300
7	0.0300	0.0350	0.0150	0.0300
8	0.0300	0.0250	0.0150	0.0300
9	0.0250	0.0250	0.0150	0.0200
10	0.0200	0.0250	0.0150	0.0200
11	0.0200	0.0200	0.0100	0.0175
12	0.0200	0.0200	0.0100	0.0175
13	0.0200	0.0200	0.0100	0.0175
14	0.0150	0.0150	0.0100	0.0175
15	0.0150	0.0150	0.0100	0.0100
16	0.0150	0.0150	0.0075	0.0100
17	0.0125	0.0150	0.0075	0.0100
18	0.0125	0.0150	0.0075	0.0100
19	0.0125	0.0100	0.0075	0.0100
20	0.0100	0.0100	0.0075	0.0100
21	0.0100	0.0075	0.0050	0.0100
22	0.0100	0.0075	0.0050	0.0100
23	0.0100	0.0075	0.0050	0.0100
24	0.0100	0.0075	0.0050	0.0100
25	0.0100	0.0075	0.0050	0.0100
26	0.0100	0.0075	0.0050	0.0100
27	0.0100	0.0075	0.0050	0.0100
28	0.0100	0.0075	0.0050	0.0100
29	0.0100	0.0075	0.0050	0.0100
30+	0.0100	0.0075	0.0050	0.0100

It is assumed that terminated employees will not be rehired. The rates apply only to employees who have not fulfilled the service requirement necessary for retirement at any given age.

## Salary Increases

Illustrative rates of increase per individual employee per annum, compounded annually:

Age	Annual Increase
25	8.87%
30	7.25%
35	6.47%
40	5.87%
45	5.41%
50	5.02%
55	4.72%
60	4.44%
65	4.23%
70	4.00%

These increases include a component for inflation of 3.0 percent per annum.

## Disability

Because members who receive disability benefits typically spend less than one year on disability, they are considered active members. Therefore a load of 1.00 percent of pay on the normal cost is applied to reflect the near-term cash flow.

## Population Projection

For purposes of determining annual appropriation as a percent of total covered payroll, the size of the active group is assumed to remain level at the number of actives as of the valuation date. New entrants are assumed to enter with an average age and an average pay as disclosed below. New entrants are assumed to have the same demographic profile as new entrants in the 15 years prior to the valuation date. The average increase in payroll for the projection period is 4.0 percent per annum.

<u>New Entrant Benefit Group</u>	<u>Average Age</u>	<u>Average Pay (2012 Dollars)</u>
New entrants eligible for Regular Formula Benefits that are covered by Social Security.	37.45	\$46,628
New entrants eligible for Regular Formula Benefits that are not covered By Social Security.	30.85	\$42,510
New entrants in positions formerly eligible for Alternate Formula Benefits that are covered by Social Security that are now eligible for Regular Formula Benefits.	39.26	\$53,584
New entrants eligible for Alternate Formula Benefits that are covered by Social Security	31.98	\$48,282
New entrants in positions formerly eligible for Alternate Formula Benefits that are not covered by Social Security that are now eligible for Regular Formula Benefits.	28.91	\$61,680
New entrants eligible for Alternate Formula Benefits that are not covered by Social Security	27.64	\$58,844

## Retirement

Employees are assumed to retire in accordance with the rates shown below. The rates apply only to employees who have fulfilled the service requirement necessary for retirement at any given age.

Retirement Rates for General Formula Employees		
	Males	Females
50	5.00%	5.00%
51	5.00%	5.00%
52	15.00%	15.00%
53	12.00%	15.00%
54	15.00%	15.00%
55	12.00%	13.00%
56	10.00%	13.00%
57	10.00%	13.00%
58	10.00%	13.00%
59	10.00%	13.00%
60	10.00%	13.00%
61	10.00%	10.00%
62	15.00%	17.50%
63	12.50%	15.00%
64	12.50%	15.00%
65	20.00%	25.00%
66	20.00%	20.00%
67	12.50%	20.00%
68	12.50%	15.00%
69	12.50%	15.00%
70	100.00%	100.00%

Early Retirement Rates for General Formula Employees		
Age	Males	Females
55	5.50%	6.00%
56	6.00%	6.00%
57	7.50%	8.00%
58	9.00%	8.00%
59	12.00%	18.00%

Retirement Rates for Alternate Formula Employees		
Age	Males	Females
50	50.00%	50.00%
51	35.00%	25.00%
52	35.00%	40.00%
53	35.00%	40.00%
54	35.00%	30.00%
55	35.00%	30.00%
56	20.00%	25.00%
57	20.00%	25.00%
58	20.00%	25.00%
59	20.00%	20.00%
60	30.00%	20.00%
61	30.00%	30.00%
62	45.00%	40.00%
63	30.00%	25.00%
64	30.00%	25.00%
65	50.00%	40.00%
66	20.00%	40.00%
67	30.00%	40.00%
68	50.00%	40.00%
69	50.00%	40.00%
70	100.00%	100.00%

**Assets**

Assets available for benefits are used as described on page 44 of the most recent valuation report.

**Expenses**

As estimated and advised by SERS staff, based on current expenses and are expected to increase in relation to the projected capped payroll.

**Spouse's Age**

The female spouse is assumed to be three years younger than the male spouse.

## Children

It is assumed that married members have 2.2 children, one year apart in age.

The age of the youngest child of a deceased employee at his date of death is assumed to be as follows:

Age at Death of Employee	Age of Youngest Child	Age at Death of Employee	Age of Youngest Child
20	2	40	6
25	3	45	8
30	4	50	10
35	5	55	12
		60	14

## Overtime and Shift Differentials

Reported earnings include base pay alone. It is assumed that overtime and shift differentials will increase total payroll by 3.5 percent over reported earnings.

## Missing Data

If earnings were not available, the annual rate of pay is assumed to be the rate of pay for the population as a whole on the valuation date. If a birth date was not available, the member was assumed to be age 35.

## Decrement Timing

All decrements are assumed to occur mid-year.

## Decrement Relativity

Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

## Decrement Operation

Disability and turnover decrements do not operate after member reaches retirement eligibility.

## Eligibility Testing

Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

**Assumptions as a result of Public Act 96-0889 (Adopted by the Board on July 12, 2010)**

Members hired after December 31, 2010, are assumed to make contributions on salary up to the final average compensation cap in a given year until this plan provision or administrative procedure is clarified.

State contributions, expressed as a percentage of pay, are calculated based upon capped pay.

Retirement rates for tier two members eligible for regular formula benefits to account for the change in retirement age, as follows:

<b>Age</b>	<b>Members Eligible For Normal Retirement</b>	<b>Age</b>	<b>Members Eligible For Early Retirement</b>
67	50.0%	62	30.0%
68	75.0	63	34.0
69	90.0	64	38.0
70	100.0	65	42.0
		66	46.0

Members hired after December 31, 2010, eligible for the alternate formula benefits will retire according to the age-based retirement rates used in the most recent valuation as follows:

<b>Age</b>	<b>Male Members Eligible For Normal Retirement</b>	<b>Female Members Eligible For Normal Retirement</b>
60	35.0%	20.0%
61	37.0	15.0
62	38.0	25.0
63	40.0	40.0
64	41.0	40.0
65	80.0	55.0
66	40.0	55.0
67	55.0	45.0
68	55.0	45.0
69	40.0	45.0
70	100.0	100.0

# **Projection Methodology Adopted June 30, 2005, and Amended June 30, 2009**

## **Appropriation Requirements Under P.A. 93-0002, P.A. 94-0004, and P.A. 96-0043**

### **State Contributions under P.A. 93-0002**

In general, for each year during the life of the GOB program, the state contributions to the System are to be calculated as follows:

1. Calculation of the contribution maximum
  - a. A projection of contributions will be made from the valuation date to June 30, 2045. Such projection will be based on hypothetical asset values determined using the following assumptions:
    - i) That the System had received no portion of the general obligation bond proceeds in excess of the scheduled contributions for the remainder of fiscal 2003 and for the entirety of 2004,
    - ii) That hypothetical state contributions had been made each fiscal year from 2005 through the valuation date, based on the funding process in place prior to P.A. 93-0002 (without regard to prior state minimum requirements),
    - iii) That the actual amounts of member contributions and the actual cash outflows (benefit payments, refunds and administrative expenses) for each year prior to the valuation date were realized, and
    - iv) That the hypothetical fund earned returns in each prior fiscal year equal to the rate of total return actually earned by the retirement fund in that year.
  - b. The hypothetical asset values developed in a., above, will not exceed the actual assets of the fund.
  - c. A projection of maximum contributions for each year of the GOB program will be performed each year, by reducing the contributions produced in a., above, by the respective amount of debt service allocated to the System for each year.
2. Calculation of the contribution with GOB proceeds
  - a. The basic projection of state contributions from the valuation date through June 30, 2045, will be made, taking into account all assets of the System, including the GOB proceeds.
  - b. State contribution rates (expressed as a percentage of covered pay), in the pattern required by the funding sections of the statutes, are calculated.
  - c. In those projections, the dollars of state contributions which are added to assets each year during the GOB program are limited by the contribution maximum. Because the bonds are to be liquidated by the end of fiscal 2033, there is no contribution maximum thereafter.

### **State Contributions under P.A. 94-0004**

The following is an excerpt from the Illinois Compiled statutes 40 ILCS 5/14-108.3 (f)-(g):

(f) The System shall determine the amount of the increase in the present value of future benefits resulting from the granting of early retirement incentives under this Section and shall report that amount to the Governor and the Commission on Government Forecasting and Accountability on or after the effective date of this amendatory Act of the 93rd General Assembly and on or before November 15, 2004. Beginning with State fiscal year 2008, the increase reported under this subsection (f) shall be included in the calculation of the required State contribution under Section 14-131.

(g) In addition to the contributions otherwise required under this Article, the State shall appropriate and pay to the System an amount equal to \$70,000,000 in State fiscal years 2004 and 2005.

### **State Contributions under P.A. 96-0043**

The following is an excerpt from the Illinois Compiled statutes 40 ILCS 5/14-131:

(g) For purposes of determining the required State contribution to the System, the value of the System's assets shall be equal to the actuarial value of the System's assets, which shall be calculated as follows:

As of June 30, 2008, the actuarial value of the System's assets shall be equal to the market value of the assets as of that date. In determining the actuarial value of the System's assets for fiscal years after June 30, 2008, any actuarial gains or losses from investment return incurred in a fiscal year shall be recognized in equal annual amounts over the five-year period following that fiscal year.

(h) For purposes of determining the required State contribution to the System for a particular year, the actuarial value of assets shall be assumed to earn a rate of return equal to the System's actuarially assumed rate of return.

Following the above legislation we have calculated the required contribution and the results are shown in the summary section of this report.

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**SECTION G**  
**PLAN PROVISIONS**

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# **Summary of Retirement System Plan (As of June 30, 2012)**

## **Purpose**

The State Employees' Retirement System of Illinois, a State Agency, provides an orderly means whereby aged or disabled employees may be retired from active service without prejudice or hardship and enables the employees to accumulate reserves for old age, disability, death and termination of employment.

## **Administration**

Responsibility for the operation of the System and the direction of its policies is vested in a Board of Trustees of seven members. The administration of the detailed affairs of the System is the responsibility of the Executive Secretary who is appointed by the Board of Trustees. Administrative policies and procedures are designed to ensure an accurate accounting of funds of the System and prompt payment of claims for benefits within the applicable statute.

## **Membership**

All persons entering State service on or after January 1, 1984, become members upon completion of six months of continuous service except that, beginning July 1, 1991, employees in police positions become members on their first day of employment. Persons entering State service from January 1, 1972, to January 1, 1984, became members on their first day of employment. Excluded from membership are: any employee whose position is subject to membership under another State-supported system, any person who becomes an employee after June 30, 1979, as a public service employment program participant under the federal CETA program, or any enrollee of the Young Adult Conservation Corps. Prior to January 1, 1984, emergency and temporary employees were excluded from membership. Persons appointed by the Governor with the advice and consent of the Senate may elect to become members of the System. Other exceptions are identified in State law.

## **Membership Service**

Membership service includes all service rendered while a member of the System for which credit is allowable. Persons entering service on or after January 1, 1984, or after July 1, 1982, in the case of emergency or temporary employees, may also receive membership service credit for periods of employment prior to membership by making contributions for such periods.

## **Member Contributions**

Members are required to contribute a percentage of salary as their share of meeting the cost of the various benefits. Contribution rates are as shown below:

- Members covered by Social Security - 4.0 percent of Salary.
- Members not covered by Social Security - 8.0 percent of Salary.
- Members covered by Social Security who are serving in a position in which service toward the Alternative Retirement Annuity may be earned - 8.5 percent of Salary.
- Members not covered by Social Security who are serving in a position in which service toward the Alternative Retirement Annuity may be earned - 12.5 percent of Salary.

Members covered by Social Security also pay the current Social Security tax rate.

Credit for regular interest each fiscal year on a member's individual contribution account is computed on the accumulated balance in the account at the beginning of each fiscal year.

## **Retirement Pension**

### ***Qualification of Member***

Upon termination of State service, a member is eligible for a pension at age 60 with at least eight years of pension credit or at any age with 35 or more years of credit.

General formula members are eligible for a retirement annuity if the sum of the member's age plus years (and whole months) of pension credit equals or exceeds 85. General formula members between ages 55 and 60 with at least 25 years of pension credit are eligible for a retirement annuity reduced by one-half of 1 percent for each month the member is under age 60. Certain positions in the Department of Corrections were placed under the general formula effective July 1, 2005.

Members serving in a position in which service toward the Alternative Retirement Annuity may be earned are eligible to receive the alternative retirement annuity at age 50 with at least 25 years of pension credit or at age 55 with at least 20 years of pension credit in such a position. Security employees of the Department of Human Services were placed under the alternative formula effective January 1, 2001. Certain members of the Department of Transportation and the Toll Highway Authority were placed under the alternative formula effective August 1, 2001.

### ***Amount of Pension***

The pension is based on the member's final average compensation and the number of years of pension credit that has been established.

Final Average Compensation is the average of the highest 48 consecutive months in the last 10 years. All employees whose benefit is calculated under the alternative formula will have their benefit based on the greater of (i) the salary rate in effect on their last day of service, provided the last day salary does not exceed 115 percent of the average monthly compensation received by the member for the last 24 months of service, or (ii) the average monthly compensation for the last 48 months prior to retirement.

The general formula for members retiring on or after January 1, 1998, (regardless of termination date) is as follows:

- 1.67 percent of final average salary per year of credited service for members covered by Social Security.
- 2.20 percent of final average salary per year of credited service for members not covered by Social Security.

The alternative formula for members retiring on or after January 1, 2001 (regardless of termination date) is as follows:

- 2.50 percent of final average salary per year of credited service for members covered by Social Security.
- 3.00 percent of final average salary per year of credited service for members not covered by Social Security.

The maximum pension payable is 75 percent of final average compensation for general formula members and 80 percent of final average compensation for alternative formula members.

### ***Optional Forms of Payment***

Reversionary Annuity—A member may elect to receive a smaller pension during his lifetime in order to provide a spouse or a designated dependent with a lifetime income. That payment would be in addition to any other benefit payable by the System.

Level Income—A member who contributes to Social Security as a State employee may elect to have his pension payments increased before Social Security Normal Retirement Age and reduced thereafter. To be eligible for this election the member must have established eligibility for a Social Security pension.

### ***Annual Increases in Pension***

Postretirement increases of 3.0 percent of the current pension (i.e., increases are compounded) are granted to members effective each January 1 occurring on or after the first anniversary of the pension.

### **Survivors Annuity**

#### ***Qualification of Survivor***

If death occurs while in State employment, the member must have established at least 18 months of pension credit. If death occurs after termination of State service and the member was not receiving a retirement pension, the member must have established at least eight years of pension credit.

An eligible spouse qualifies at age 50 or at any age if there is, in the care of the spouse, any unmarried children of the member under age 18 (age 22 if full-time student); unmarried children under age 18 (age 22 if full-time student) qualify if no spouse survives; dependent parents at age 50 qualify if neither an eligible spouse nor children survive the member.

### ***Amount of Payment***

If the member's death occurs before retirement, the named beneficiary receives a lump sum refund of all of the member's pension contributions plus interest, excluding contributions for widows and survivors benefits. A single lump sum payment of \$1,000 is also made immediately to the survivor beneficiary of the member.

An eligible spouse receives a monthly annuity equal to 30 percent of the member's final average compensation subject to a maximum of \$400. If children of the member are under the care of the spouse, the annuity is increased for each child, subject to a monthly maximum of \$600 or 80 percent of final average compensation. If only eligible children survive, the monthly annuity may not exceed the lesser of \$600 or 80 percent of final average compensation. The maximum combined monthly payment to parents may not exceed \$400. If the member's death occurs after retirement or after termination of State employment but before the member receives a pension, the monthly benefit is further limited to 80 percent of the pension received or earned by the member. Monthly benefits payable to survivors of a member who was covered by Social Security as a State employee are reduced by one-half of the Social Security benefits for which the survivors are eligible. For benefits granted on or after January 1, 1992, the reduction may not exceed 50 percent of the amount of survivors annuity otherwise payable. If death of the member occurs on or after January 1, 1984, the minimum total survivors annuity benefit payable (before any reduction for Social Security benefits) is equal to 50 percent of the member's earned pension without regard to the member's age at death. Any member who retires on or after July 1, 2009, will have the option at the time of retirement to remove the offset provision. In exchange for the removal, SERS will reduce the member's retirement annuity by 3.825 percent.

### ***Duration of Payment***

The monthly annuity payable to a spouse continues for his/her lifetime without regard to remarriage. The monthly annuity to children terminates upon death, marriage or attainment of age 18 (age 22 if full-time student). However, the monthly annuity will continue for a child who at age 18, is physically or mentally disabled and unable to accept gainful employment.

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

If the member's death occurs before retirement, increases of 3.0 percent of the current annuity are granted to survivors effective each January 1 occurring on or after the first anniversary of the annuity (i.e., increases are compounded). If the member's death occurs after retirement, the initial 3.0 percent increase applies on the January 1 on or after the survivor annuity begins.

### **Widow's Annuity Option**

The widow of a male member who was a participant in the System prior to July 19, 1961, may have the option of taking a Widow's Annuity rather than the Survivor's Annuity.

### ***Qualification of Widow***

An eligible widow receives a Widow's Annuity if she is age 50 or over or has in her care any of the member's unmarried children under age 18. If she is not age 50 and has no such children in her care, she becomes eligible at age 50.

### ***Amount of Payment***

The Widow's Annuity consists of a lump sum payment of \$500, plus a monthly annuity equal to 50 percent of the pension earned or received by the member at the date of death. If the widow has in her care eligible children of the member, the monthly annuity is increased because of each child, subject to a maximum payment equal to 66-2/3 percent of the earned pension. Monthly benefits payable to a widow of a member who was covered by Social Security as a State employee are reduced by one-half of the amount of benefits she is entitled to as a widow from Social Security (reduced by one-half of the amount of benefits she is entitled to based on her own Primary Insurance Amount). For benefits granted on or after January 1, 1992, the reduction may not exceed 50 percent of the amount of widow's annuity otherwise payable. Any member who retires on or after July 1, 2009, will have the option at the time of retirement to remove the offset provision. In exchange for the removal, SERS will reduce the member's retirement annuity by 3.825 percent.

### ***Duration of Payment***

The monthly payment to the widow continues for her lifetime whether or not she remarries. If the amount of benefit was increased because of eligible children, it is adjusted downward as these children's benefits are terminated (death, marriage or attainment of age 18 or 22).

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

If the member's death occurs before retirement, increases of 3.0 percent of the current annuity are granted to widows effective each January 1 occurring on or after the first anniversary of the annuity (i.e., increases are compounded). If the member's death occurs after retirement, the initial 3.0 percent increase applies on the January 1 on or after the widow's annuity begins.

### **Occupational Death Benefit**

#### ***Qualification of Survivors***

If a member's death results from an injury on the job or a job related cause, the spouse may be eligible for an Occupational Death benefit. If only unmarried children under age 18 (age 22 if full-time student) survive, they would be eligible for the benefit. If neither a spouse nor eligible children survive, a dependent father or mother would be eligible.

#### ***Amount and Duration of Payment***

The nominated beneficiary receives a lump sum payment consisting of all contributions made by the member plus interest credited to his account.

A surviving spouse is entitled to a monthly benefit equal to 50 percent of the member's final average compensation. The benefit is payable for the remaining lifetime of the spouse without regard to remarriage. If children under age 18 (age 22 if full-time student) also survive, the annuity is increased by 15 percent of such average because of each child, subject to a maximum of 75 percent. If there is no spouse, or if the spouse dies before all children have attained age 18 (age 22 if full-time student), each child receives a monthly allowance of 15 percent of final average compensation.

The combined payment to children may not exceed 50 percent of the member's final average compensation. Payments to or on account of children terminate upon their death, marriage or attainment of age 18 (age 22 if full-time student).

If there is no spouse or eligible children, a benefit of 25 percent of final average compensation is payable to each surviving dependent parent for life.

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

Increases of 3.0 percent of the current annuity are granted effective each January 1 occurring on or after the first anniversary of the annuity (i.e., increases are compounded).

### ***Reductions***

The monthly benefit is reduced by any payments awarded under the Workmen's Compensation or Occupational Diseases Acts.

## **Other Death Benefits**

If the survivor beneficiaries of the member do not qualify for any of the previously described death benefits, one of the following benefits is payable to the nominated beneficiary on file with the System at the date of death.

### ***Before Retirement***

If the member's death occurred while in State service the benefit consists of: (1) a refund of all contributions plus interest credited to the member's account; and (2) a payment equal to one month's salary for each full year of pension credit not to exceed six month's salary. The minimum payment is equal to one month's salary.

If the member had terminated State service but not yet qualified for a pension, the benefit consists of a refund of all of the member's contributions to the System plus the interest credited to the member's account.

### ***After Retirement***

The benefit consists of a lump sum payment equal to the excess of contributions plus interest credited to the member's account over the total amount of pension payments made to the member. The minimum payment is \$500.00.

## **Non-Occupational Disability Benefits**

### ***Qualification and Amount of Payment***

Available to any member who has established at least one and one-half years of creditable service and who has been granted a disability leave of absence by his employing agency. The benefit is 50 percent of the member's final average compensation plus a credit to the member's account of service and contributions. It begins on the 31st day of absence from service on account of disability.

If the member has Social Security coverage as a State employee, the benefit payable by the System is reduced by the amount of any disability payment to which he is entitled under Social Security.

### ***Duration of Payment***

The member is eligible for the monthly benefit until the occurrence of any of the following events: (1) disability ceases; (2) resumption of gainful employment; (3) payments are made for a period of time equal to one-half of the service credit established as of the date disability began; or (4) attainment of age 65 if the benefit commences prior to age 60, or payment for 5 years if benefit commences after age 60.

If termination of the benefit is due to the member receiving benefits for a period of time equal to one-half of the service credit established at the date of disability, he shall be eligible for a retirement annuity if he has attained age 55 and has 15 years of service, or if he has attained age 50 and has 20 years of service.

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

A onetime increase of 7.0 percent of the original annuity is granted to members on the January 1 following the fourth anniversary of the annuity. Increases of 3.0 percent of the current annuity are then granted to members each January 1 following the 7.0 percent increase (i.e., the 3.0 percent increases are compounded).

## **Occupational Disability Benefit**

### ***Qualification and Amount of Payment***

Provided for any member who becomes disabled as the direct result of injury or diseases arising out of and in the course of State employment.

The benefit is 75 percent of final average compensation plus a credit to the member's account of service and contributions. The cash benefit is reduced by any payment received under the Workmen's Compensation or Occupational Diseases Acts.

### ***Duration of Payment***

Monthly benefits are payable until the occurrence of any of the following events: (1) disability ceases; (2) resumption of gainful employment; or (3) attainment of age 65 if the benefit commences prior to age 60, or payment for 5 years if the benefit commences after age 60.

If termination of the benefit is due to the member having attained age 65 or having received benefits for five years after age 60, the member is entitled to a retirement pension based upon service credit established as of that date.

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

A one-time increase of 7.0 percent of the original annuity is granted to members on the January 1 following the fourth anniversary of the annuity. Increases of 3.0 percent of the current annuity are

then granted to members each January 1 following the 7.0 percent increase (i.e., the 3.0 percent increases are compounded).

### ***Temporary Disability Benefit***

A member who is initially denied Workers' Compensation benefits and is appealing the denial may receive payment at the non-occupational rate, 50 percent of pay, providing all eligibility requirements for the non-occupational benefit are met, until the determination is made.

### **Separation Benefits**

Upon termination of State employment by resignation, discharge, dismissal, or layoff, a member may obtain a refund of the contributions made to the System. By accepting a refund, a member forfeits all accrued rights and benefits in the System for himself and his beneficiaries.

**Provisions Applicable to Members Hired after December 31, 2010, as a result of Public Act 96-0889**

***Final Average Compensation***

Based on last eight years of service and may not exceed \$106,800, as automatically increased by the lesser of 3 percent or one-half of the annual increase in the consumer price index-u during the preceding 12-month calendar year.

***Retirement Eligibility – All Members Except State policemen, fire fighters in the fire protection service of a department, or security employees of the Department of Corrections or the Department of Juvenile Justice***

Normal retirement – 67 years old with 10 years of service.

Early Retirement – 62 years old with 10 years of service with a 6.0 percent per year reduction in benefit for each year age is under 67.

***Retirement Eligibility – State policemen, fire fighters in the fire protection service of a department, or security employees of the Department of Corrections or the Department of Juvenile Justice***

Normal retirement – 60 years old with 20 years of service.

***Annual Increases in Annuity***

Annual increases begin at the later of the first anniversary of retirement or age 67. The annual increases are equal to the lesser of 3.0 percent or one-half of the annual increase in the consumer price index-u during the preceding 12-month calendar year and are not compounded.

***Survivor Benefits***

Benefit equal to 66.67 percent of the earned retirement benefit at death. Survivor benefits are increased by the lesser of 3.0 percent or one-half of the annual increase in the consumer price index-u during the preceding 12-month calendar year and are not compounded.

***Miscellaneous***

State policeman, a fire fighter in the fire protection service of a department, or a security employee of the Department of Corrections or the Department of Juvenile are still eligible for Alternate formula benefits as defined in section 14-110 of the Illinois Pension Code.

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## **SECTION H**

### **GLOSSARY**

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## Glossary

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
<b><i>Actuarial Cost Method</i></b>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of future Normal Costs and the Actuarial Accrued Liability.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value (APV)</i></b>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired 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 provide sufficient assets to pay all projected benefits and expenses when due.
<b><i>Actuarial Valuation</i></b>	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 No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC).
<b><i>Actuarial Value of Assets</i></b>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution (ARC).

## **Glossary (cont'd)**

<b><i>Amortization Method</i></b>	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 rate at which total covered payroll of all active members is assumed to increase.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Annual Required Contribution (ARC)</i></b>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB No. 25. The ARC consists of the Employer Normal Cost and Amortization Payment.
<b><i>Closed Amortization Period</i></b>	A specific number of years that is reduced by one each year, and 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.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<b><i>Experience Gain/Loss</i></b>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as 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, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

## **Glossary (cont'd)**

<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 25 and GASB No. 27</i></b>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, 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.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.