

## **STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS** ANNUAL ACTUARIAL VALUATION AS OF JUNE 30, 2011



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October 25, 2011

Board of Trustees State Employees' Retirement System Springfield, IL

#### Re: State Employees' Retirement System Actuarial Valuation as of July 1, 2011

Dear Board Members:

The results of the June 30, 2011 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, 2012, and ending June 30, 2013.

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 statues, 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

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By:

### 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

# 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, 2011. 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

Public Act 96-1497 (effective January 14, 2011) provided for recertification of the fiscal year 2011 contribution rate to reflect the impact of P.A. 96-0889, which created a second tier for future members of SERS hired after December 31, 2010. This change decreased the basic contribution rate for fiscal year 2011, from 28.452 percent to 26.187 percent of pay.

Public Act 96-1511 (effective January 27, 2011) requires the recalculation and recertification of the amount of the required State contribution to the applicable funds for State fiscal year 2011 on April 1, 2011 (rather than June 15, 2010).

There were no other legislative changes in the past year that materially affect the valuation as of June 30, 2011.

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

## **Assumption and Methods**

An experience study of the State Employees' Retirement System (SERS or System) for the period from July 1, 2005, to June 30, 2010, was performed. The primary purpose of the study was to compare the demographic and economic experience against the actuarial assumptions used in the valuations. The study was based on the information used to perform the valuations for the period from July 1, 2005, to June 30, 2010.

Following is a summary of the key findings and recommendations, as approved by the Board:

- **Price inflation:** Maintain the rate of price inflation of 3.00 percent.
- **Investment return:** The investment return assumption, net of investment expenses, compounded annually, was decreased from 8.50 percent to 7.75 percent effective with the actuarial valuation as of June 30, 2010. This reflects an underlying inflation assumption of 3.00 percent. The 7.75 percent assumption remained unchanged.
- **Payroll growth assumption:** The general payroll growth assumption of 4.00 percent, which reflects an underlying general or price inflation assumption of 3.00 percent remained unchanged. Benefits for new hires are based on capped payroll which is ultimately projected to grow at 1.5 percent per year.
- Salary increase: Salary experience for the period from July 1, 2005, to June 30, 2010, was reviewed. Salary increases between valuations were determined and an average annual salary increase was calculated. Slight modifications to the current salary increase assumption were made.
- **Normal retirement rates:** For members eligible for Regular Formula benefits, the overall rates were decreased to better reflect observed experience. For members eligible for Alternate Formula benefits, the overall rates were increased to better reflect observed experience.
- **Turnover rates:** Previously, termination rates were based on a combination of age and service. The new termination rates were changed to service-based only rates. For members eligible for Regular Formula benefits, the new rates increase the expected turnover while for members eligible for Alternate Formula benefits, the new rates decrease expected turnover.
- **Mortality rates:** The mortality table was updated from the 1994 Group Annuity Mortality table with a two-year set-back for males to the RP 2000 Mortality table projected to 2015 for the post-retirement mortality assumption. The pre-retirement mortality assumption is based on a percent of the post-retirement mortality rates to reflect that active members have lower mortality rates than retirees of the same age. The percent of the post-retirement table is 85 percent for males and 70 percent for females.
- **Disability rates:** The load of 0.90 percent of pay on the normal cost was increased to 1.00 percent of pay to reflect the near-term cash flow.
- **Cost Method:** The actuarial cost method is Projected Unit Credit, which is required to be used by statute.

- Amortization Method: No change to the 30-year open level percent of capped pay amortization method used to calculate the Annual Required Contribution for Governmental Accounting Standards Board (GASB) accounting purposes was made. The funding policy is defined by statute and does not directly amortize the unfunded actuarial liability and consequently, does not comply with GASB.
- Asset Smoothing Method: The asset smoothing method is defined by statute. Gains and losses (the difference between the actual investment return and the expected investment return) are smoothed in over a five-year period at a rate of 20 percent per year. There is currently no asset corridor. An asset corridor limits the amount that the actuarial (smoothed) value of assets can deviate from the market value of assets.
- **Dependent assumptions:** The current assumption on marital status that varies by sex and the assumption that males are three years older than their spouses was maintained.
- **Decrement Timing:** Decrement timing was changed from beginning of the year to middle of the year.
- Assumptions as a result of Public Act 96-0889: The assumptions for members hired on or after January 1 2011, remained unchanged. The assumptions will be monitored more closely as more members are hired and become eligible for Tier Two benefits.
- **State Contributions:** State contributions will be made on capped pay.

The cost impact of the assumption changes was measured as of the June 30, 2010, valuation. Based on this valuation, the change in assumptions decreased the funded ratio from 37.4 percent to 36.7 on an actuarial value of assets basis and increased the contribution rate for fiscal year 2012 from 32.38 percent to 33.79 percent. The June 30, 2010, valuation was not re-certified based on this measurement.

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

# **Key Valuation Results**

Valuation Date:	June 30, 2011	June 30, 2010		
Fiscal Year Ending:	June 30, 2013	June 30, 2012		
Estimated Statutory Contributions:				
Annual Amount	\$1,577,836,000	\$1,368,577,000		
Percentage of Covered Payroll	36.116%	32.252%		
Annual Required Contribution (ARC):				
Annual Amount	\$1,795,788,707	\$1,582,881,273		
Percentage of Covered Payroll	41.105%	37.302%		
Membership				
• Number of				
- Active Members	66,363	64,143		
- Members Receiving Payments	59,786	58,392		
- Members Eligible for Deferred Benefits	269	272		
- Total	126,418	122,807		
Covered Payroll	\$4,211,186,269	\$4,119,360,892		
Annualized Benefit Payments	\$1,512,859,186	\$1,407,980,745		
Assets				
• Market Value of Assets (MVA)	\$10,970,752,686	\$9,201,830,655		
• Actuarial Value of Assets (AVA)	\$11,159,836,617	\$10,961,540,164		
• Return on MVA	21.16%	9.48%		
• Return on AVA	3.30%	0.34%		
• Ratio – AVA to MVA	101.72%	119.12%		
Actuarial Information				
Normal Cost Amount	\$569,791,951	\$480,468,865		
• Actuarial Accrued Liability (AAL)	\$31,395,007,782	\$29,309,464,296		
• Unfunded Actuarial Accrued Liability (UAAL)	\$20,235,171,165	\$18,347,924,132		
• Funded Ratio based on AVA	35.55%	37.40%		
• UAAL as % of Covered Payroll	480.51%	445.41%		
• Funded Ratio based on MVA	34.94%	31.40%		

# 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 2011 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 2011 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 2011 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, 2011. 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 6/30/2010	\$ 9,201,830,655
2. Actual State Contribution Amount	1,127,886,796
3. Employee Contribution Amount	254,201,379
4. Benefit Payouts & Refunds	(1,529,639,576)
5. Administrative Expenses	(13,734,961)
6. Investment Income	1,930,208,393
7. Market Value of Assets 6/30/2011	10,970,752,686
8. Expected Investment Return at 7.75%	707,008,643
9. Investment Gain/(Loss) Current Year	1,223,199,750
10. Deferred Investment Gains and (Losses) All Years	(189,083,931)
11. Actuarial Value of Assets 6/30/2011 (7 10.)	11,159,836,617

# 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 6/30/2010	\$ 7,907,521,879
2. State Contribution Amount <sup>1</sup>	1,205,831,076
3. Employee Contribution Amount	254,201,379
4. Benefit Payouts & Refunds	(1,529,639,576)
5. Administrative Expenses	(13,734,961)
6. Investment Income <sup>2</sup>	1,664,836,829
7. Hypothetical Value of Assets 6/30/2011	9,489,016,626
8. Expected Investment Return at 7.75%	609,663,698
9. Investment Gain/(Loss) Current Year	1,055,173,131
10. Deferred Investment Gains and (Losses) All Years	(142,107,542)
11. Hypothetical Actuarial Value of Assets 6/30/2011 (7 10.)	9,631,124,168

<sup>1</sup>*Represents* 28.634 *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 21.16 percent.

The fiscal year ending June 30, 2012, 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:

Fiscal Year Ending June 30,	Base Contribution	Debt Service Contribution	Total Contribution	Assumed Payroll (billions)	Total Required Contribution
2012	32.252%	1.938%	34.190%	\$4.243	\$1,450,814,000
2013	36.116%	1.871%	37.987%	4.369	1,659,576,000
2014	36.642%	1.795%	38.437%	4.524	1,739,055,000
2015	37.124%	1.723%	38.847%	4.681	1,818,268,000
2016	36.863%	1.655%	38.518%	4.839	1,863,928,000
2017	36.553%	1.658%	38.211%	5.003	1,911,544,000
2018	36.554%	1.658%	38.212%	5.168	1,974,958,000
2019	36.560%	1.653%	38.213%	5.339	2,040,362,000
2020	36.488%	1.706%	38.194%	5.512	2,105,131,000
2021	36.432%	1.747%	38.179%	5.691	2,172,600,000
2022	36.390%	1.779%	38.169%	5.876	2,242,834,000

For fiscal years 2013 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 2013 contribution rate is calculated assuming the actuarial value of assets as of July 1, 2011, earns a rate of return equal to the System's actuarially assumed rate of return.

The contributions for fiscal years 2014 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 2012 through 2015 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, 2011, 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 2015, when all remaining investment gains and losses have been recognized. Because the results of projected actuarial projections 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, 2011, actuarial valuation. In order to determine projected contribution rates and amounts, the following additional assumptions were used:

- Projected annualized payroll of \$4,243,400,000 for fiscal year 2012. This amount was provided by the System.
- Total employer contributions of \$1,368,577,000 (including no payments from the unclaimed property fund) for fiscal year 2012, as provided by the System.
- Administrative expenses of \$18,755,000 for fiscal year 2012, as provided by the System.
- New entrants whose average age is 36.35 and average pay is \$46,838 (2011 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 66,363 for all years of the 34-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 payroll for the 34-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 2012 appropriation was converted to a percentage of the expected 2012 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 2012 will be 32.252 percent (based on the certification of the June 30, 2010, valuation results issued on November 10, 2010).
- 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 46. The funded ratio has decreased from 37.40 percent as of June 30, 2010, to 35.55 percent as of June 30, 2011. This decrease is primarily due to the recognition of asset losses from fiscal year 2009 and the change in the actuarial assumptions as a result of the most recent experience study.
- 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 2011 is equal to the employer normal cost plus a 30-year level-percentage-of-payroll amortization of the unfunded actuarial liability. For fiscal year 2011, State contributions of \$1,127,886,796 were approximately 87.5 percent of the ARC. The ARC for fiscal years 2012 and 2013 is greater than the employer contribution required by State statute.

The annual required contribution as well as the statutory contribution for fiscal years 2012 and 2013 are shown below as a percentage of payroll. The ARC percentage and statutory contribution for 2012 are based on the results of the June 30, 2010, valuation. The dollar amount of the ARC and the statutory contribution for 2012 will be the product of the actual payroll for 2012 and the percentages shown below.

	Fiscal Year 2013	Fiscal Year 2012
1. Employer normal cost	\$569,791,951	\$480,468,865
2. Initial amount to amortize the unfunded liability over 30 years as a level percentage of capped payroll	1,225,996,756	1,102,412,408
3. ARC $[(1) + (2)]$	\$1,795,788,707	\$1,582,881,273
4. ARC as a percentage of payroll	41.105%	37.302%
5. Estimated statutory contribution	\$1,577,836,000	\$1,368,577,000
6. Estimated statutory contribution as a percentage of payroll	36.116%	32.252%
7. Estimated statutory contribution as a percentage of ARC $[(5) \div (3)]$	87.863%	86.461%

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 2011 (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, 2010, of \$1,933,269,341 has increased to \$2,131,536,940 as of June 30, 2011, due to the 2011 APC of \$1,326,154,395 and actual 2011 employer contributions of \$1,127,886,796.

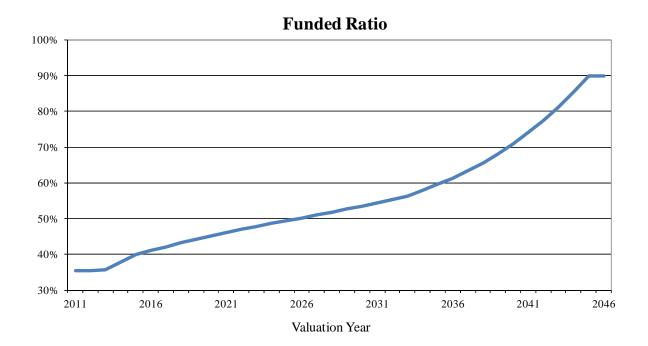
The GASB Statement Nos. 25 and 27 information is presented in draft form for review by the auditor. Please let us know if there are any changes so that we may maintain consistency with the State's financial statements.

# **Observations on Actuarial Funding and Statutory Funding**

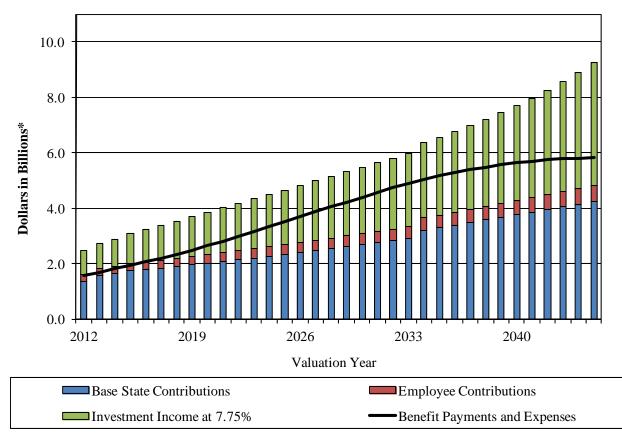
GASB Statements Nos. 25 and 27 provide guidance for retirement plans and plan sponsors on the development of an annual expense requirement to be reported in their annual financial statements. Under the GASB rules, this expense requirement is called the Annual Required Contribution (ARC). The ARC is the 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 60.0 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 51.5 percent in 2033 to 23.1 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, 2011, is only 35 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.

**SECTION B** Funding Results

# **Results of Actuarial Valuation as of June 30, 2011**

1	Number of Members	
	a. Active	66,363
	b. Inactive:	
	i. Eligible for deferred vested pension benefits (4,218	
	based on SERS service alone. An additional 271 are	
	eligible when reciprocal service is added to SERS service).	4,489
	ii. Eligible for return of contributions only	16,809
	c. Current Benefit Recipients:	
	i. Retirement annuities	47,002
	ii. Survivor annuities	10,428
	iii. Disability annuities	2,356
	d. Eligible for Deferred Benefits:	
	i. Retirement annuities	103
	ii. Survivor annuities	166
	e. Total	147,716
2	Covered Payroll	\$4,211,186,269
3	Annualized Benefit Payments Currently Being Made	
	a. Retirement	\$1,366,561,376
	b. Survivor	101,441,544
	c. Disability	44,856,266
	d. Total	\$1,512,859,186
4	Actuarial Liability—Annuitants	
	a. Current Benefit Recipients:	
	i. Retirement annuities	\$16,965,233,218
	ii. Survivor annuities	979,584,453
	iii. Disability annuities	285,643,801
	b. Eligible for Deferred Benefits:	
	i. Retirement annuities	7,966,357
	ii. Survivor annuities	9,106,024
	c. Total	\$18,247,533,853

5	Actuarial Liability—Inactive Members		
	a. Eligible for Deferred Vested Pension Benefits		\$427,032,846
	b. Eligible for Return of Contributions Only	_	27,948,046
	c. Total		\$454,980,892
		Normal	Actuarial
		Cost	Liability
6	Active Members		
	a. Pension Benefits	\$524,285,398	\$9,048,725,957
	b. Cost-of-Living Adjustments	180,639,314	3,169,344,822
	c. Death Benefits		
	i. Occupational	\$1,577,093	\$17,010,061
	ii. Non-occupational	13,932,636	174,370,558
	iii. Refund	8,597,178	28,154,578
	iv. Total	\$24,106,907	\$219,535,197
	d. Disability		
	i. Occupational	\$5,685,101	\$0
	ii. Non-occupational	32,215,575	0
	iii. Total	\$37,900,676	\$0
	e. Withdrawal	24,705,353	254,887,061
	f. Expenses	18,755,000	0
	g. Total	\$810,392,648	\$12,692,493,037
7	Total Actuarial Liability (4 + 5 + 6)		\$31,395,007,782
1	Total Notal millionity (++ 5+ 6)		\$51,555,007,702
8	Market Value of Assets (MVA)		\$10,970,752,686
9	Unfunded Actuarial Liability Based on MVA (7 - 8)		\$20,424,255,096
10	Funded Percentage Based on MVA $(8 \div 7)$		34.94%
11	Actuarial Value of Assets (AVA)		\$11,159,836,617
12	Unfunded Actuarial Liability Based on AVA (7 - 11)		\$20,235,171,165
13	Funded Percentage Based on AVA $(11 \div 7)$		35.55%
14	Total Normal Cost	\$810,392,648	
15	Employee Contributions	\$240,600,697	
16	Annual Employer Normal Cost (% payroll)	\$569,791,951 13.53%	

# 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 \$1,887,247,033 was due to the following:

1	UAAL at 06/30/2010	\$ 18,347,924,132
2	Contributions a. Contributions due	
	i interest on 1)	\$ 1,421,964,120
	ii members contributions	254,201,379
	iii employer normal cost	480,468,865
	iv interest on ii and iii	 27,937,287
	v total due	\$ 2,184,571,651
	b. Contributions paid	
	i member contributions	\$ 254,201,379
	ii state agencies	1,127,886,796
	iii interest on i and ii	52,556,632
	iv total paid	\$ 1,434,644,807
	c. Expected increase in UAAL	\$ 749,926,844
3	Expected UAAL at 06/30/2011	\$ 19,097,850,976
4	(Gains)/Losses	
	a. investment income	\$ 483,803,315
	b. demographic	 98,701,570
	c. total	\$ 582,504,885
5	Plan Provision Changes	\$ -
6	Assumption Changes	\$ 554,815,304
7	Total Change in UAAL	\$ 1,887,247,033
8	UAAL at 06/30/2011	\$ 20,235,171,165

# Analysis of Financial Gains and Losses in Unfunded Accrued Actuarial Liability for Fiscal Year Ending June 30, 2011

	Activity	 (Gain) Loss	% of 06/30/2010 AAL
1	Actuarial (Gain)/Loss		
	a. Retirements	\$ 264,183,388	0.91%
	b. Incidence of Disability	(238,874)	0.00%
	c. In-Service Mortality	1,384,722	0.00%
	d. Retiree Mortality	(83,110,353)	-0.28%
	e. Salary Increases	(116,457,671)	-0.40%
	f. Terminations	(36,923,665)	-0.13%
	g. Investment	483,803,315	1.65%
	h. New Entrant Liability	51,486,159	0.18%
	i. Other	18,377,864	0.06%
	j. Total Actuarial (Gain)/Loss	\$ 582,504,885	1.99%
2	Plan Provision Changes	\$ -	0.00%
3	Assumption Changes	\$ 554,815,304	1.89%
4	Contribution (Excess)/Shortfall	\$ 749,926,844	2.56%
5	Total Financial (Gain)/Loss	\$ 1,887,247,033	6.44%

## 34-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)

								Annual No	rmal Cost		State Co	ntribution	
Plan Year End 6/30	N umbe r Active	Actuarial Accrued Liability	Assets	Unfunde d Liability	Funded Ratio	Total Payroll	Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	Total Expenses
2012	66,363	33,006	10,523	22,483	31.88%	4,243	815	241	574	13.53%	1,480	34.89%	1,581
2013	66,363	34,670	11,589	23,081	33.43%	4,369	830	247	583	13.34%	1,689	38.66%	1,695
2014	66,363	36,360	12,687	23,673	34.89%	4,524	847	255	592	13.09%	1,749	38.66%	1,812
2015	66,363	38,067	13,812	24,255	36.28%	4,681	862	264	598	12.78%	1,809	38.66%	1,936
2016	66,363	39,785	14,960	24,825	37.60%	4,839	877	272	605	12.50%	1,871	38.66%	2,068
2017	66,363	41,509	16,130	25,379	38.86%	5,003	890	281	609	12.17%	1,934	38.66%	2,204
2018	66,363	43,232	17,319	25,913	40.06%	5,168	904	289	615	11.90%	1,998	38.66%	2,347
2019	66,363	44,950	18,525	26,425	41.21%	5,339	915	298	617	11.56%	2,064	38.66%	2,493
2020	66,363	46,650	19,743	26,907	42.32%	5,512	926	307	619	11.23%	2,131	38.66%	2,648
2021	66,363	48,326	20,970	27,356	43.39%	5,691	936	317	619	10.88%	2,200	38.66%	2,809
2022	66,363	49,963	22,202	27,761	44.44%	5,876	943	326	617	10.50%	2,272	38.66%	2,977
2023	66,363	51,554	23,434	28,120	45.46%	6,059	948	335	613	10.12%	2,342	38.66%	3,149
2024	66,363	53,088	24,663	28,425	46.46%	6,248	951	345	606	9.70%	2,415	38.66%	3,326
2025	66,363	54,551	25,883	28,668	47.45%	6,436	952	354	598	9.29%	2,488	38.66%	3,508
2026	66,363	55,939	27,096	28,843	48.44%	6,629	952	363	589	8.89%	2,563	38.66%	3,689
2027	66,363	57,246	28,306	28,940	49.45%	6,828	951	372	579	8.48%	2,639	38.66%	3,869
2028	66,363	58,472	29,517	28,955	50.48%	7,028	953	382	571	8.12%	2,717	38.66%	4,046
2029	66,363	59,620	30,739	28,881	51.56%	7,238	956	392	564	7.79%	2,798	38.66%	4,216
2030	66,363	60,688	31,981	28,707	52.70%	7,450	961	402	559	7.50%	2,880	38.66%	4,381

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.

## 34-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)

								Annual No	rmal Cost		State Co	ntribution	
Plan Year End 6/30	N umbe r Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	Total Expenses
2031	66,363	61,641	33,225	28,416	53.90%	7,669	954	412	542	7.07%	2,965	38.66%	4,566
2032	66,363	62,458	34,445	28,013	55.15%	7,850	945	416	529	6.74%	3,035	38.66%	4,757
2033	66,363	63,181	35,698	27,483	56.50%	8,064	946	426	520	6.45%	3,118	38.66%	4,908
2034	66,363	63,824	37,007	26,817	57.98%	8,289	952	436	516	6.23%	3,204	38.66%	5,044
2035	66,363	64,390	38,391	25,999	59.62%	8,518	958	447	511	6.00%	3,293	38.66%	5,170
2036	66,363	64,885	39,863	25,022	61.44%	8,748	965	458	507	5.80%	3,382	38.66%	5,288
2037	66,363	65,315	41,445	23,870	63.45%	8,982	974	470	504	5.61%	3,472	38.66%	5,394
2038	66,363	65,696	43,161	22,535	65.70%	9,220	987	482	505	5.48%	3,564	38.66%	5,486
2039	66,363	66,039	45,039	21,000	68.20%	9,461	1,003	494	509	5.38%	3,657	38.66%	5,566
2040	66,363	66,355	47,100	19,255	70.98%	9,703	1,022	507	515	5.31%	3,751	38.66%	5,634
2041	66,363	66,654	49,371	17,283	74.07%	9,946	1,042	519	523	5.26%	3,845	38.66%	5,693
2042	66,363	66,950	51,880	15,070	77.49%	10,191	1,065	532	533	5.23%	3,939	38.66%	5,741
2043	66,363	67,253	54,657	12,596	81.27%	10,437	1,090	545	545	5.22%	4,035	38.66%	5,779
2044	66,363	67,575	57,731	9,844	85.43%	10,685	1,117	558	559	5.23%	4,131	38.66%	5,809
2045	66,363	67,923	61,129	6,794	90.00%	10,933	1,145	571	574	5.25%	4,226	38.66%	5,834

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.

#### Table 4b

### 34-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)

								Annual N	ormal Cos	st			<b>Required</b> S	tate Contril	oution		_
											(a)	<b>(b)</b>	(c)=(a)-(b)	( <b>d</b> )	M inimum of	f (c) and (d	)
Plan		Actuarial									Without	t		Formula			
Year End	Number	Accrued		Unfunded	Funded	Total	1	Employee	•	Percent	GOB	Debt	Maximum	Rate With	R e quire d	Percent	Total
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Cont.	Balance	of Pay	Cont.	Service	Cont.	GOB	Cont.	of Pay	Expenses
2012	66,363	33,006	12,054	20,952	36.52%	4,243	815	241	574	13.53%	1,480	111	1,369	1,369	1,369	32.25%	1,581
2013	66,363	34,670	13,123	21,547	37.85%	4,369	830	247	583	13.34%	1,689	111	1,578	1,673	1,578	36.12%	1,695
2014	66,363	36,360	14,226	22,134	39.13%	4,524	847	255	592	13.09%	1,749	110	1,639	1,732	1,639	36.22%	1,812
2015	66,363	38,067	15,357	22,710	40.34%	4,681	862	264	598	12.78%	1,809	109	1,700	1,792	1,700	36.32%	1,936
2016	66,363	39,785	16,512	23,273	41.50%	4,839	877	272	605	12.50%	1,871	109	1,762	1,853	1,762	36.41%	2,068
2017	66,363	41,509	17,685	23,824	42.61%	5,003	890	281	609	12.17%	1,934	113	1,821	1,916	1,821	36.40%	2,204
2018	66,363	43,232	18,873	24,359	43.66%	5,168	904	289	615	11.90%	1,998	116	1,882	1,979	1,882	36.41%	2,347
2019	66,363	44,950	20,075	24,875	44.66%	5,339	915	298	617	11.56%	2,064	120	1,944	2,045	1,944	36.41%	2,493
2020	66,363	46,650	21,281	25,369	45.62%	5,512	926	307	619	11.23%	2,131	128	2,003	2,111	2,003	36.34%	2,648
2021	66,363	48,326	22,487	25,839	46.53%	5,691	936	317	619	10.88%	2,200	135	2,065	2,179	2,065	36.28%	2,809
2022	66,363	49,963	23,689	26,274	47.41%	5,876	943	326	617	10.50%	2,272	142	2,130	2,250	2,130	36.24%	2,977
2023	66,363	51,554	24,882	26,672	48.26%	6,059	948	335	613	10.12%	2,342	148	2,194	2,320	2,194	36.21%	3,149
2024	66,363	53.088	26.058	27.030	49.08%	6,248	951	345	606	9.70%	2,415	159	2,256	2,392	2,256	36.11%	3,326
2025	66,363	54,551	27,210	27,341	49.88%	6,436	952	354	598	9.29%	2,488	169	2,319	2,464	2,319	36.03%	3,508
2026	66,363	55,939	28,346	27,593	50.67%	6,629	952	363	589	8.89%	2,563	174	2,389	2,538	2,389	36.04%	3,689
2027	66,363	57,246	29,469	27,777	51.48%	6,828	951	372	579	8.48%	2,639	177	2,462	2,614	2,462	36.06%	3,869
2028	66,363	58,472	30,577	27,895	52.29%	7,028	953	382	571	8.12%	2,717	186	2,531	2,691	2,531	36.02%	4,046
2029	66,363	59.620	31.682	. ,	53.14%	7,238	956	392	564	7.79%	2,798	193	2,605	2,772	2,605	35.99%	4,216
2030	66,363	60,688	32,784	27,904	54.02%	7,450	961	402	559	7.50%	2,880	204	2,676	2,853	2,676	35.91%	4,381

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.

## 34-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)

								Annual N	ormal Cos	st			<b>Required</b> S	tate Contril	oution		_
											(a)	(b)	(c)=(a)-(b)	( <b>d</b> )	M inimum of	f (c) and (d	)
Plan		Actuarial									Withou	t		Formula			
Year End	Number	Accrued		Unfunded	<b>Funded</b>	Total	]	Employee	e	Percent	GOB	Debt	Maximum	Rate With	R e quire d	Percent	Total
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Cont.	Balance	of Pay	Cont.	Service	Cont.	GOB	Cont.	of Pay	Expenses
2031	66,363	61,641	33,868	27,773	54.94%	7,669	954	412	542	7.07%	2,965	215	2,750	2,937	2,750	35.86%	4,566
2032	66,363	62,458	34,909	27,549	55.89%	7,850	945	416	529	6.74%	3,035	220	2,815	3,006	2,815	35.86%	4,757
2033	66,363	63,181	35,971	27,210	56.93%	8,064	946	426	520	6.45%	3,118	219	2,899	3,088	2,899	35.94%	4,908
2034	66,363	63,824	37,270	26,554	58.39%	8,289	952	436	516	6.23%	3,204	0	N/A	3,174	3,174	38.29%	5,044
2035	66,363	64,390	38,642	25,748	60.01%	8,518	958	447	511	6.00%	3,293	0	N/A	3,262	3,262	38.29%	5,170
2036	66,363	64,885	40,100	24,785	61.80%	8,748	965	458	507	5.80%	3,382	0	N/A	3,350	3,350	38.29%	5,288
2037	66,363	65,315	41,666	23,649	63.79%	8,982	974	470	504	5.61%	3,472	0	N/A	3,439	3,439	38.29%	5,394
2038	66,363	65,696	43,365	22,331	66.01%	9,220	987	482	505	5.48%	3,564	0	N/A	3,530	3,530	38.29%	5,486
2039	66,363	66,039	45,222	20,817	68.48%	9,461	1,003	494	509	5.38%	3,657	0	N/A	3,623	3,623	38.29%	5,566
2040	66,363	66,355	47,261	19,094	71.22%	9,703	1,022	507	515	5.31%	3,751	0	N/A	3,716	3,716	38.29%	5,634
2041	66,363	66,654	49,507	17,147	74.27%	9,946	1,042	519	523	5.26%	3,845	0	N/A	3,809	3,809	38.29%	5,693
2042	66,363	66,950	51,988	14,962	77.65%	10,191	1,065	532	533	5.23%	3,939	0	N/A	3,902	3,902	38.29%	5,741
2043	66,363	67,253	54,733	12,520	81.38%	10,437	1,090	545	545	5.22%	4,035	0	N/A	3,997	3,997	38.29%	5,779
2044	66,363	67,575	57,772	9,803	85.49%	10,685	1,117	558	559	5.23%	4,131	0	N/A	4,092	4,092	38.29%	5,809
2045	66,363	67,923	61,132	6,791	90.00%	10,933	1,145	571	574	5.25%	4,226	0	N/A	4,186	4,186	38.29%	5,834

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.

#### 34-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)

								Annual No	ormal Cost		State Co	ntribution	
Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	Total Expenses
2012	66,363	33,006	10,222	22,784	30.97%	4,243	815	241	574	13.53%	1,480	34.88%	1,581
2013	66,363	34,670	10,987	23,683	31.69%	4,369	830	247	583	13.34%	1,689	38.66%	1,695
2014	66,363	36,360	12,318	24,042	33.88%	4,524	847	255	592	13.09%	1,768	39.08%	1,812
2015	66,363	38,067	13,681	24,386	35.94%	4,681	862	264	598	12.78%	1,847	39.46%	1,936
2016	66,363	39,785	14,842	24,943	37.31%	4,839	877	272	605	12.50%	1,893	39.12%	2,068
2017	66,363	41,509	16,010	25,499	38.57%	5,003	890	281	609	12.17%	1,941	38.81%	2,204
2018	66,363	43,232	17,197	26,035	39.78%	5,168	904	289	615	11.90%	2,006	38.81%	2,347
2019	66,363	44,950	18,403	26,547	40.94%	5,339	915	298	617	11.56%	2,072	38.81%	2,493
2020	66,363	46,650	19,620	27,030	42.06%	5,512	926	307	619	11.23%	2,139	38.81%	2,648
2021	66,363	48,326	20,846	27,480	43.14%	5,691	936	317	619	10.88%	2,208	38.81%	2,809
2022	66,363	49,963	22,078	27,885	44.19%	5,876	943	326	617	10.50%	2,280	38.81%	2,977
2023	66,363	51,554	23,309	28,245	45.21%	6,059	948	335	613	10.12%	2,351	38.81%	3,149
2024	66,363	53,088	24,538	28,550	46.22%	6,248	951	345	606	9.70%	2,425	38.81%	3,326
2025	66,363	54,551	25,758	28,793	47.22%	6,436	952	354	598	9.29%	2,497	38.81%	3,508
2026	66,363	55,939	26,972	28,967	48.22%	6,629	952	363	589	8.89%	2,572	38.81%	3,689
2027	66,363	57,246	28,183	29,063	49.23%	6,828	951	372	579	8.48%	2,650	38.81%	3,869
2028	66,363	58,472	29,395	29,077	50.27%	7,028	953	382	571	8.12%	2,727	38.81%	4,046
2029	66,363	59,620	30,619	29,001	51.36%	7,238	956	392	564	7.79%	2,809	38.81%	4,216
2030	66,363	60,688	31,863	28,825	52.50%	7,450	961	402	559	7.50%	2,891	38.81%	4,381

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.

#### Table 4c (Cont'd)

### **34-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)

								Annual No	rmal Cost		State Co	ntribution	
Plan Year End 6/30	Number Active	Actuarial Accrued Liability	Assets	Unfunded Liability	Funded Ratio	Total Payroll	Total	Employee Cont.	Balance	Percent of Pay	Amount	Percent of Pay	Total Expenses
2031	66,363	61,641	33,109	28,532	53.71%	7,669	954	412	542	7.07%	2,976	38.81%	4,566
2032	66,363	62,458	34,332	28,126	54.97%	7,850	945	416	529	6.74%	3,046	38.81%	4,757
2033	66,363	63,181	35,589	27,592	56.33%	8,064	946	426	520	6.45%	3,129	38.81%	4,908
2034	66,363	63,824	36,903	26,921	57.82%	8,289	952	436	516	6.23%	3,217	38.81%	5,044
2035	66,363	64,390	38,292	26,098	59.47%	8,518	958	447	511	6.00%	3,306	38.81%	5,170
2036	66,363	64,885	39,769	25,116	61.29%	8,748	965	458	507	5.80%	3,395	38.81%	5,288
2037	66,363	65,315	41,358	23,957	63.32%	8,982	974	470	504	5.61%	3,485	38.81%	5,394
2038	66,363	65,696	43,082	22,614	65.58%	9,220	987	482	505	5.48%	3,578	38.81%	5,486
2039	66,363	66,039	44,968	21,071	68.09%	9,461	1,003	494	509	5.38%	3,671	38.81%	5,566
2040	66,363	66,355	47,038	19,317	70.89%	9,703	1,022	507	515	5.31%	3,765	38.81%	5,634
2041	66,363	66,654	49,320	17,334	73.99%	9,946	1,042	519	523	5.26%	3,860	38.81%	5,693
2042	66,363	66,950	51,841	15,109	77.43%	10,191	1,065	532	533	5.23%	3,955	38.81%	5,741
2043	66,363	67,253	54,631	12,622	81.23%	10,437	1,090	545	545	5.22%	4,050	38.81%	5,779
2044	66,363	67,575	57,719	9,856	85.41%	10,685	1,117	558	559	5.23%	4,146	38.81%	5,809
2045	66,363	67,923	61,133	6,790	90.00%	10,933	1,145	571	574	5.25%	4,243	38.81%	5,834

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.

## 34-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)

								Annual N	ormal Co	st			Required S	tate Contril	oution		
											(a)	(b)	(c)=(a)-(b)	( <b>d</b> )	M inimum of	c (c) and (d	)
Plan		Actuarial									Without	t		Formula			
Year End	Number	Accrued		Unfunded	Funded	Total	]	Employee	1	Percent	GOB	Debt	M aximum	Rate With	R e quire d	Pe rce nt	Total
6/30	Active	Liability	Assets	Liability	Ratio	Payroll	Total	Cont.	Balance	of Pay	Cont.	Service	Cont.	GOB	Cont.	of Pay	Expenses
2012	66,363	33,006	11,692	21,314	35.42%	4,243	815	241	574	13.53%	1,480	111	1,369	1,369	1,369	32.25%	1,581
2013	66,363	34,670	12,398	22,272	35.76%	4,369	830	247	583	13.34%	1,689	111	1,578	1,673	1,578	36.12%	1,695
2014	66,363	36,360	13,764	22,596	37.85%	4,524	847	255	592	13.09%	1,768	110	1,658	1,770	1,658	36.64%	1,812
2015	66,363	38,067	15,162	22,905	39.83%	4,681	862	264	598	12.78%	1,847	109	1,738	1,865	1,738	37.12%	1,936
2016	66,363	39,785	16,325	23,460	41.03%	4,839	877	272	605	12.50%	1,893	109	1,784	1,900	1,784	36.86%	2,068
2017	66,363	41,509	17,491	24,018	42.14%	5,003	890	281	609	12.17%	1,941	112	1,829	1,939	1,829	36.55%	2,204
2018	66,363	43,232	18,672	24,560	43.19%	5,168	904	289	615	11.90%	2,006	117	1,889	2,003	1,889	36.55%	2,347
2019	66,363	44,950	19,868	25,082	44.20%	5,339	915	298	617	11.56%	2,072	120	1,952	2,070	1,952	36.56%	2,493
2020	66,363	46,650	21,065	25,585	45.16%	5,512	926	307	619	11.23%	2,139	128	2,011	2,136	2,011	36.49%	2,648
2021	66,363	48,326	22,263	26,063	46.07%	5,691	936	317	619	10.88%	2,208	135	2,073	2,206	2,073	36.43%	2,809
2022	66,363	49,963	23,458	26,505	46.95%	5,876	943	326	617	10.50%	2,280	142	2,138	2,278	2,138	36.39%	2,977
2023	66,363	51,554	24,642	26,912	47.80%	6,059	948	335	613	10.12%	2,351	148	2,203	2,349	2,203	36.36%	3,149
2024	66,363	53,088	25,809	27,279	48.62%	6,248	951	345	606	9.70%	2,425	160	2,265	2,422	2,265	36.26%	3,326
2025	66,363	54,551	26,952	27,599	49.41%	6,436	952	354	598	9.29%	2,497	169	2,328	2,495	2,328	36.18%	3,508
2026	66,363	55,939	28,078	27,861	50.19%	6,629	952	363	589	8.89%	2,572	173	2,399	2,569	2,399	36.19%	3,689
2027	66,363	57,246	29,191	28,055	50.99%	6,828	951	372	579	8.48%	2,650	178	2,472	2,647	2,472	36.21%	3,869
2028	66,363	58,472	30,288	28,184	51.80%	7,028	953	382	571	8.12%	2,727	185	2,542	2,724	2,542	36.17%	4,046
2029	66,363	59,620	31,382	28,238	52.64%	7,238	956	392	564	7.79%	2,809	193	2,616	2,806	2,616	36.14%	4,216
2030	66,363	60,688	32,472	28,216	53.51%	7,450	961	402	559	7.50%	2,891	204	2,687	2,888	2,687	36.06%	4,381

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.

#### 34-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)

								Annual N	ormal Cos	<b>A</b>							
											(a)	(b)	(c)=(a)-(b)	( <b>d</b> )	M inimum of	f (c) and (d)	
Plan		Actuarial									Without	ţ		Formula			
Year En	d Number	Accrued		Unfunded	Funded	Total	]	Employee	•	Percent	GOB	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	66,363	61,641	33,543	28,098	54.42%	7,669	954	412	542	7.07%	2,976	215	2,761	2,973	2,761	36.00%	4,566
2032	66,363	62,458	34,572	27,886	55.35%	7,850	945	416	529	6.74%	3,046	219	2,827	3,043	2,827	36.01%	4,757
2033	66,363	63,181	35,620	27,561	56.38%	8,064	946	426	520	6.45%	3,129	218	2,911	3,126	2,911	36.09%	4,908
2034	66,363	63,824	36,932	26,892	57.87%	8,289	952	436	516	6.23%	3,217	0	N/A	3,213	3,213	38.76%	5,044
2035	66,363	64,390	38,319	26,071	59.51%	8,518	958	447	511	6.00%	3,306	0	N/A	3,302	3,302	38.76%	5,170
2036	66,363	64,885	39,795	25,090	61.33%	8,748	965	458	507	5.80%	3,395	0	N/A	3,391	3,391	38.76%	5,288
2037	66,363	65,315	41,381	23,934	63.36%	8,982	974	470	504	5.61%	3,485	0	N/A	3,482	3,482	38.76%	5,394
2038	66,363	65,696	43,103	22,593	65.61%	9,220	987	482	505	5.48%	3,578	0	N/A	3,574	3,574	38.76%	5,486
2039	66,363	66,039	44,986	21,053	68.12%	9,461	1,003	494	509	5.38%	3,671	0	N/A	3,667	3,667	38.76%	5,566
2040	66,363	66,355	47,054	19,301	70.91%	9,703	1,022	507	515	5.31%	3,765	0	N/A	3,761	3,761	38.76%	5,634
2041	66,363	66,654	49,333	17,321	74.01%	9,946	1,042	519	523	5.26%	3,860	0	N/A	3,855	3,855	38.76%	5,693
2042	66,363	66,950	51,850	15,100	77.45%	10,191	1,065	532	533	5.23%	3,955	0	N/A	3,950	3,950	38.76%	5,741
2043	66,363	67,253	54,636	12,617	81.24%	10,437	1,090	545	545	5.22%	4,050	0	N/A	4,046	4,046	38.76%	5,779
2044	66,363	67,575	57,719	9,856	85.41%	10,685	1,117	558	559	5.23%	4,146	0	N/A	4,142	4,142	38.76%	5,809
2045	66,363	67,923	61,128	6,795	90.00%	10,933	1,145	571	574	5.25%	4,243	0	N/A	4,238	4,238	38.76%	5,834

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.

# SECTION C Fund Assets

## State Employees' Retirement System of Illinois Statement of Plan Net Assets Years ended June 30, 2011 and 2010

		2011		2010
Assets				
Cash	\$	54,940,085	\$	49,912,665
Receivables:				
Contributions:				
Participants	\$	15,561,242	\$	15,308,885
Employing state agencies		18,858,218		17,119,073
Other accounts		6,748,407		6,905,516
	\$	41,167,867	\$	39,333,474
Investments - held in the Illinois State Board of				
Investment Commingled Fund at fair value	\$	10,882,484,004	\$	9,120,601,694
Securities lending collateral with State Treasurer		26,414,000	· .	22,587,000
Property and equipment, net of accumulated				
depreciation	\$	2,676,348	\$	2,808,489
depreemton	Ψ	2,070,310	Ψ	2,000,109
Total Assets	\$	11,007,682,304	\$	9,235,243,322
Liabilities				
Benefits payable	\$	5,055,752	\$	5,260,823
Refunds payable		684,323		640,022
Administrative expenses payable		1,375,236		1,326,567
Participants' deferred service credit accounts		156,993		215,859
Due to State of Illinois		3,243,314		3,382,396
Securities lending collateral with State Treasurer		26,414,000		22,587,000
Total Liabilities	\$	36,929,618	\$	33,412,667
Net assets held in trust for pension benefits	\$	10,970,752,686	\$	9,201,830,655

## State Employees' Retirement System of Illinois Statement of Changes in Plan Net Assets Years ended June 30, 2011 and 2010

	2011	2010
Additions:		
Contributions:		
Participants	\$ 254,201,379	\$ 246,172,971
Employing state agencies and appropriations	1,127,886,796	1,095,545,856
Total Contributions revenue	\$ 1,382,088,175	\$ 1,341,718,827
Investments income:		
Net investments income	\$ 221,489,114	\$ 200,200,994
Interest earned on cash balances	448,284	795,373
Net appreciation in fair value of investments	1,708,270,995	598,899,494
Total Investments income	\$ 1,930,208,393	\$ 799,895,861
Total Additions	\$ 3,312,296,568	\$ 2,141,614,688
Deductions:		
Benefits:		
Retirement annuities	\$ 1,329,155,991	\$ 1,237,118,008
Survivors' annuities	95,118,041	89,516,980
Disability benefits	53,056,325	48,312,629
Lump-sum benefits	 14,733,290	 15,693,575
Total Benefits	\$ 1,492,063,647	\$ 1,390,641,192
Refunds	37,575,929	15,274,174
Administrative	 13,734,961	 11,720,755
Total Deductions	\$ 1,543,374,537	\$ 1,417,636,121
N et increase	\$ 1,768,922,031	\$ 723,978,567
Net assets held in trust for pension benefits:	 	 
Beginning of year	\$ 9,201,830,655	\$ 8,477,852,088
End of year	\$ 10,970,752,686	\$ 9,201,830,655

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

Year Ending June 30	2011	2012	2013	2014	2015
Beginning of Year:					
(1) Market Value of Assets	\$ 9,201,830,655				
(2) Actuarial Value of Assets	10,961,540,164				
End of Year:					
(3) Market Value of Assets	10,970,752,686				
(4) Contributions and Disbursements					
(4a) Actual State Contribution Amount	1,127,886,796				
(4b) Employee Contribution Amount	254,201,379				
(4c) Benefit Payouts & Refunds	(1,529,639,576)				
(4d) Administrative Expenses	(13,734,961)				
(4e) Net of Contributions and Disbursements	(161,286,362)				
(5) Total Investment Income					
=(3)-(1)-(4e)	1,930,208,393				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
$=(1)x(6)+([1+(6)]^{.5-1})x(4e)$	707,008,643				
(8) Investment Income in					
Excess of Projected Income	1,223,199,750				
(9) Excess Investment Income Recognized					
This Year (5-year recognition)					
(9a) From This Year	244,639,950				
(9b) From One Year Ago	16,487,825 \$	244,639,950			
(9c) From Two Years Ago	(608,553,603)	16,487,825 \$	244,639,950		
(9d) From Three Years Ago	0	(608,553,603)	16,487,825 \$	244,639,950	
(9e) From Four Years Ago	0	0	(608,553,603)	16,487,825 \$	244,639,95
(9f) Total Recognized Investment Gain	(347,425,828)	(347,425,828)	(347,425,828)	261,127,775	244,639,95
(10) Change in Actuarial Value of Assets					
=(4e)+(7)+(9f)	198,296,453				
End of Year:					
(3) Market Value of Assets	10,970,752,686				
(11) Actuarial Value of Assets					
=(2)+(10)	11,159,836,617				

Year Ending June 30	2011	2012	2013	2014	2015
Beginning of Year:					
(1) Hypothetical Value of Assets \$	7,907,521,879				
(2) Hypothetical Actuarial Value of Assets	9,393,957,745				
End of Year:					
(3) Hypothetical Value of Assets	9,489,016,626				
(4) Contributions and Disbursements					
(4a) State Contribution Amount <sup>1</sup>	1,205,831,076				
(4b) Employee Contribution Amount	254,201,379				
(4c) Benefit Payouts & Refunds	(1,529,639,576)				
(4d) A dministrative Expenses	(13,734,961)				
(4e) Net of Contributions and Disbursements	(83,342,082)				
(5) Total Investment Income <sup>2</sup>					
=(3)-(1)-(4e)	1,664,836,829				
(6) Projected Rate of Return	7.75%				
(7) Projected Investment Income					
$=(1)x(6)+([1+(6)]^{5}-1)x(4e)$	609,663,698				
(8) Investment Income in					
Excess of Projected Income	1,055,173,131				
(9) Excess Investment Income Recognized					
This Year (5-year recognition)					
(9a) From This Year	211,034,626				
(9b) From One Year Ago	14,133,591 \$	211,034,626			
(9c) From Two Years Ago	(514,323,410)	14,133,591 \$	211,034,626		
(9d) From Three Years Ago	0	(514,323,410)	14,133,591 \$	211,034,626	
(9e) From Four Years Ago	0	0	(514,323,410)	14,133,591 \$	211,034,627
(9f) Total Recognized Investment Gain	(289,155,193)	(289,155,193)	(289,155,193)	225,168,217	211,034,627
(10) Change in Hypothetical Actuarial Value of Assets					
=(4e)+(7)+(9f)	237,166,423				
End of Year:					
(3) Hypothetical Market Value of Assets	9,489,016,626				
(11) Hypothetical Actuarial Value of Assets					
=(2)+(10)	9,631,124,168				

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

<sup>1</sup> Represents 28.634 percent of payroll for the basic contribution.

 $^{2}$  Investment income assumes hypothetical value of assets earns the Fund's actual rate of return for fiscal year 2011 of 21.16%.

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## **SECTION D** ACCOUNTING DISCLOSURES

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.

#### Table 5

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

#### A. Schedule of Funding Progress

	6/30/2011	6/30/2010	6/30/2009
1 Actuarial Value of Assets	\$ 11,159,836,617	\$ 10,961,540,164	\$ 10,999,953,527
2 Actuarial Accrued Liability (AAL)	31,395,007,782	29,309,464,296	25,298,346,092
3 Unfunded AAL (UAAL) [(2) - (1)]	20,235,171,165	18,347,924,132	14,298,392,565
4 Funded Ratio $[(1) \div (2)]$	35.55%	37.40%	43.48%
5 Covered Payroll	4,211,186,269	4,119,360,892	4,027,263,000
6 UAAL as a Percentage of Covered Payroll	480.51%	445.41%	355.04%

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

	<u>6/30/2011</u>	6/30/2010	6/30/2009
1 Annual Required Contribution (ARC) per GASB 25			
(a) Percentage of payroll	30.609%	28.580%	24.916%
(b) Covered payroll for fiscal year	\$4,211,186,269	\$4,119,360,892	\$4,027,263,000
(c) ARC for fiscal year	1,289,002,005	1,177,313,343	1,003,432,849
2 Total Employer Contribution	1,127,886,796	1,095,545,856	774,910,344
3 Percentage of ARC Contributed $[(2) \div (1)]$	87.50%	93.05%	77.23%
4 Annual Contribution Required per State Statute			
(a) Percentage of payroll	26.187%	26.535%	19.116%
(b) Covered payroll for fiscal year	4,211,186,269	4,119,360,892	4,027,263,000
(c) Total required contribution	1,102,783,348	1,093,072,413	769,851,595
5 Employer Contribution	1,127,886,796	1,095,545,856	774,910,344
6 Percentage of (4) Contributed $[(5) \div (4)]$	102.28%	100.23%	100.66%

#### 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 2011 fiscal year was determined as of June 30, 2009, 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)

	Applicable Actuarial Valuation						
	As-of	Investment	Annual Required	Actual	Amortiz	ation	
Fiscal Year	Date	Assumption	Contribution*	Contribution**	Years	Factor	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
7/1/87 - 6/30/88	6/30/1986	8%	\$ 186,935,353	\$ 99,990,922	40	11.92461333	
7/1/88 - 6/30/89	6/30/1987	8%	179,420,448	98,471,993	40	11.92461333	
7/1/89 - 6/30/90	6/30/1988	8%	184,689,149	107,938,094	40	11.92461333	
7/1/90 - 6/30/91	6/30/1989	8%	191,296,277	115,979,568	40	11.92461333	
7/1/91 - 6/30/92	6/30/1990	8%	208,717,019	98,532,783	40	11.92461333	
7/1/92 - 6/30/93	6/30/1991	8%	227,588,508	114,413,597	40	11.92461333	
7/1/93 - 6/30/94	6/30/1992	8%	277,518,586	127,649,961	40	11.92461333	
7/1/94 - 6/30/95	6/30/1993	8%	306,006,674	136,589,471	40	11.92461333	
7/1/95 - 6/30/96	6/30/1994	8%	335,219,027	146,397,934	40	11.92461333	
7/1/96 - 6/30/97	6/30/1995	8%	211,125,012	158,179,514	40	19.84983174	
7/1/97 - 6/30/98	6/30/1996	8%	206,725,718	200,741,736	40	19.53100753	
7/1/98 - 6/30/99	6/30/1997	8.5%	319,746,993	315,525,007	40	15.55212396	
7/1/99 - 6/30/00	6/30/1998	8.5%	299,081,856	340,872,521	40	15.38193387	
7/1/00 - 6/30/01	6/30/1999	8.5%	294,351,538	366,028,937	40	15.17924930	
7/1/01 - 6/30/02	6/30/2000	8.5%	306,509,801	386,116,583	40	15.53675931	
7/1/02 - 6/30/03	6/30/2001	8.5%	449,348,585	396,067,236	40	16.01251393	
7/1/03 - 6/30/04	6/30/2002	8.5%	576,219,951	1,864,673,411	40	20.17751836	
7/1/04 - 6/30/05	6/30/2003	8.5%	727,428,010	427,434,612	40	19.34057660	
7/1/05 - 6/30/06	6/30/2004	8.5%	672,555,569	210,499,791	40	18.52371012	
7/1/06 - 6/30/07	6/30/2005	8.5%	823,802,760	358,786,650	30	14.85458369	
7/1/07 - 6/30/08	6/30/2006	8.5%	986,410,891	587,732,407	30	14.91835797	
7/1/08 - 6/30/09	6/30/2007	8.5%	1,003,432,849	774,910,344	30	15.42654344	
7/1/09 - 6/30/10	6/30/2008	8.5%	1,177,313,343	1,095,545,856	30	15.47602451	
7/1/10 - 6/30/11	6/30/2009	8.5%	1,289,002,005	1,127,886,796	30	15.20158584	
	Beginning			Annual Pension	Increase	End of	
	of Year	Interest on	Amortization	Cost (APC)***	in NPO	Year NPO	
Fiscal Year	NPO	NPO	of NPO	(4 + 9 - 10)	(11 - 5)	(8 + 12)	
(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		96,521,137			419,082,478		
	1,135,542,787		76,117,143	1,006,814,885		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	

\* 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 6/30/2010 were obtained from the comprehensive annual financial report. The actual contribution for FYE 6/30/2011 was provided by the System.

\*\*\* APC =  $(4) + [(8)^{*}(3)] - [(8)/(7)]$ 

SECTION E Participant Data

# Active Age and Service Distribution June 30, 2011

Age					Years of Serv	ice					Percentage
Group	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35&Up	Total	of Total
Under 20	238	3								241	1%
20-24	1,145	334	3							1,482	2 %
25-29	1,127	1,479	385	10						3,001	5%
30-34	716	1,381	1,670	913	10					4,690	7 %
35-39	532	1,089	1,427	2,689	581	9				6,327	10%
40-44	460	956	1,490	2,538	2,112	1,109	43			8,708	13%
45-49	426	885	1,360	1,899	1,899	2,763	1,575	79		10,886	16%
50-54	304	805	1,169	1,768	1,517	2,345	2,131	1,505	51	11,595	17%
55-59	252	678	998	1,519	1,343	1,967	1,420	1,362	533	10,072	15%
60-64	146	447	837	1,161	1,012	1,145	737	545	555	6,585	10%
65-69	49	108	313	473	362	294	163	126	185	2,073	3%
70 & Over	23	29	77	152	135	102	49	41	95	703	1%
Total	5,418	8,194	9,729	13,122	8,971	9,734	6,118	3,658	1,419	66,363	100%
ercentage of											
Total	8%	12%	15%	19%	14%	15%	9%	6%	2%	100%	

# Retirees and Beneficiaries by Type of Benefit Being Paid June 30, 2011

<u>Type of Benefit Being Paid</u>	<u>Count</u>	Monthly <u>Payment</u>		Annual <u>Payment</u>	Average <u>Annual Payment</u>
Retirement Annuity	47,002	\$ 113,836,704.19	\$	1,366,040,450.28	\$ 29,063.45
Survivors	9,867	7,862,249.52		94,346,994.24	9,561.87
Widows	108	81,961.11		983,533.32	9,106.79
Occupational Death	60	47,037.00		564,444.00	9,407.40
QILDRO	382	409,596.17		4,915,154.04	12,866.90
Reversionary Annuity	11	32,232.10		386,785.20	35,162.29
Non-Occupational Disability	1,239	2,003,089.21		24,037,070.52	19,400.38
Occupational Disability	595	1,286,119.79		15,433,437.48	25,938.55
Temporary Disability	57	109,042.48		1,308,509.76	22,956.31
Total Temporary Disability - Occupational	465	339,770.68		4,077,248.16	8,768.28
Eligible for Deferred Retirement Annuity	103	43,410.50		520,926.00	5,057.53
Eligible for Deferred Survivor Annuity	166	20,386.08		244,633.00	1,473.69
Total	60,055	\$ 126,071,598.83	<b>\$</b> 2	1,512,859,186.00	\$ 25,191.23

**SECTION F** Actuarial Methods and Assumptions

## **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 withdrawa	from the r	olan are as follows:
ind bilder ( C ideob	or minarana.		

Service Based Withdrawal					
	General Form	ıla Employees	a Employees Alternate Formula Emp		
Service (Beginning					
of Year)	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**

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%

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

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</u> (2011 Dollars)
New entrants eligible for Regular Formula Benefits that are covered by Social Security.	37.57	\$45,119
New entrants eligible for Regular Formula Benefits that are not covered By Social Security.	31.21	\$52,909
New entrants in positions formerly eligible for Alternate Formula Benefits that are covered by Social Security that are now eligible for Regular Formula Benefits.	41.28	\$54,427
New entrants eligible for Alternate Formula Benefits that are covered by Social Security	32.29	\$47,396
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.	28.50	\$59,065
New entrants eligible for Alternate Formula Benefits that are not covered by Social Security	27.91	\$54,573

#### 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 Rate	es for Alternate Form	ula 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 46 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 30	3 4	45 50	8 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:

Age	Members Eligible For Normal Retirement	Age	Members Eligible For Early Retirement
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:

Age	Male Members Eligible For Normal Retirement	Female Members Eligible For Normal Retirement
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.

## **SECTION G PLAN PROVISIONS**

## Summary of Retirement System Plan (As of June 30, 2011)

#### 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**

<u>Reversionary Annuity</u>—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.

<u>Level Income</u>—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 indexu 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.

SECTION H GLOSSARY

## Glossary

Actuarial Accrued Liability The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs. (AAL)**Actuarial Assumptions** 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. Actuarial Cost Method 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. Actuarial Equivalent Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions. Actuarial Present Value The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future (APV)payments with an assumed interest rate and with the assumed probability each payment will be made. Actuarial Present Value of The Actuarial Present Value of amounts which are expected to be Future Benefits (APVFB) 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. Actuarial Valuation The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 25, such as the Funded Ratio and the Annual Required Contribution (ARC). Actuarial Value of Assets 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)

Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
Amortization Payment	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
Annual Required Contribution (ARC)	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB No. 25. The ARC consists of the Employer Normal Cost and Amortization Payment.
Closed Amortization Period	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.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	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.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial 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)

Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
GASB	Governmental Accounting Standards Board.
GASB No. 25 and GASB No. 27	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b>Open Amortization Period</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.
Unfunded Actuarial Accrued Liability	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