Gabriel Roeder Smith & Company
Consultants & Actuaries

STATE UNIVERSITIES RETIREMENT SYSTEM OF ILLINOIS

GASB STATEMENT NOS. 67 AND 68 ACCOUNTING AND FINANCIAL REPORTING FOR PENSIONS

JUNE 30, 2015

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
20 North Clark Street
Suite 2400
Chicago, IL 60602-5111
312.456.9800 phone
312.456.9801 fax
www.gabrielroeder.com

November 12, 2015

The Board of Trustees
State Universities Retirement System of Illinois

Dear Board Members:

This report provides accounting and financial reporting information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 for the State Universities Retirement System of Illinois ("SURS"). These calculations have been made on a basis that is consistent with our understanding of these Statements.

GASB Statement No. 67 is the accounting standard that applies to the stand-along financial reports issued by retirement systems. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust.

Our calculation of the liability summarized in this actuarial valuation report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement Nos. 67 and 68. The calculation of the plan's liability for this report is not applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. Employers' proportionate share calculations of the net pension liability, pension expense, and deferred inflows and outflows are outside the scope of this report. This report may be provided to parties other than the State Universities Retirement System of Illinois ("SURS") only in its entirety and only with the permission of SURS.

This report is based upon information, furnished to us by SURS, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not otherwise audited.

This report complements the funding actuarial valuation reports that were provided to SURS and should be considered in conjunction with those reports. Please see the actuarial valuation reports as of June 30, 2014 and June 30, 2015 for additional discussion of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, the information contained in this report is accurate and fairly represents the actuarial position of the State Universities Retirement System of Illinois calculated in accordance with the requirements of GASB Statement Nos. 67 and 68. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The signing actuaries are independent of the plan sponsor.

Amy Williams and **Lance Weiss** are members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

By Amy Williams	By Lance J. Weiss
Amy Williams	Lance J. Weiss
ASA, MAAA, FCA	EA, MAAA, FCA

Auditor's Note – This information is intended to assist in preparation of the financial statements of the State Universities Retirement System of Illinois. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

A summary of plan provisions and actuarial assumptions can be found in the June 30, 2015, actuarial valuation report.

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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY
AS OF JUNE 30, 2015

		2015
Actuarial Valuation Date		June 30, 2014
Measurement Date of the Net Pension Liability		June 30, 2015
Plan's Fiscal Year Ending Date (Reporting Date) for GASB 67		June 30, 2015
Employer's Fiscal Year Ending Date (Reporting Date) for GASB 68		June 30, 2016
Membership		
Number of		
- Retirees and Beneficiaries		59,406
- Inactive, Nonretired Members		75,492
- Active Members		69,436
- Total		204,334
Covered Payroll	$	3,606,536,514
Net Pension Liability		
Total Pension Liability	$	41,219,328,943
Plan Fiduciary Net Position		17,462,967,856
Net Pension Liability	$	23,756,361,087
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		42.37 %
Net Pension Liability as a Percentage of Covered Payroll		658.70 %
Development of the Single Discount Rate		
Single Discount Rate, Beginning of Year		7.09 %
Single Discount Rate, End of Year		7.12 %
Long-Term Expected Rate of Investment Return		7.25 %
Long-Term Municipal Bond Rate, Beginning of Year*		4.29 %
Long-Term Municipal Bond Rate, End of Year*		3.80 %
Last year ending June 30 in the 2015 to 2114 projection period for which projected benefit payments are fully funded		2072
Total Pension Expense	$	2,034,521,079

Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 27,312,043	$ -
Changes in assumptions	609,393,909	-
Net difference between projected and actual earnings on pension plan investments	593,840,642	953,329,464
Total	$ 1,230,546,594	$ 953,329,464

*Source: *"State & local bonds" rate from Federal Reserve statistical release (H.15) as of June 26, 2014 at the beginning of the year and June 25, 2015 at the end of the year. The statistical release describes this rate as "Bond Buyer Index, general obligation, 20 years to maturity, mixed quality." In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.*

DISCUSSION

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to SURS subsequent to the measurement date of June 30, 2015.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of disclosure items should include:

- A description of benefits provided by the plan;
- The type of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets;
- Annual money-weighted rate of return;

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- A comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2014, and a measurement date of June 30, 2015.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.80% (based on the weekly rate closest to but not later than the measurement date of the "state & local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting Single Discount Rate is 7.12%.

The last year for which projected benefits for current members are fully funded by projected assets attributable to those members changed from 2065 from the measurement performed in the last valuation to 2072 in this year's valuation. The change was mainly attributable to the change in actuarial assumptions.

Effective Date and Transition

GASB Statement Nos. 67 and 68 are effective for fiscal years beginning after June 15, 2013, and June 15, 2014 respectively, earlier application is encouraged by the GASB.

SECTION B

FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the State Universities Retirement System of Illinois. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

PENSION EXPENSE UNDER GASB STATEMENT NO. 68
FOR ALL EMPLOYERS
FISCAL YEAR ENDED JUNE 30, 2015*

A. Expense		
1. Service Cost	$	654,968,438
2. Interest on the Total Pension Liability		2,723,714,885
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(267,682,083)
5. Projected Earnings on Plan Investments (made negative for addition here)		(1,245,500,760)
6. Pension Plan Administrative Expense		14,069,273
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		324,267,653
9. Recognition of Outflow (Inflow) of Resources due to Assets		(169,316,327)
10. Total Pension Expense	**$**	**2,034,521,079**

**Based on a measurement date of June 30, 2015. Will be used for fiscal year ending June 30, 2016. Employers' proportionate share calculations of the net pension liability, pension expense, and deferred inflows and outflows are outside the scope of this report.*

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT REPORTING PERIOD FOR ALL EMPLOYERS FISCAL YEAR ENDED JUNE 30, 2015*

A. Outflows (Inflows) of Resources due to Liabilities	
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$ 40,408,204
2. Assumption Changes (gains) or losses	$ 831,624,586
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.0855
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	$ 13,096,161
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	$ 269,526,685
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	$ 282,622,846
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	$ 27,312,043
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	$ 562,097,901
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	$ 589,409,944
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$ 742,300,803
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	$ 148,460,161
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	$ 593,840,642

**Based on a measurement date of June 30, 2015. Will be used for fiscal year ending June 30, 2016. Employers' proportionate share calculations of the net pension liability, pension expense, and deferred inflows and outflows are outside the scope of this report.*

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND PRIOR REPORTING PERIODS FOR ALL EMPLOYERS FISCAL YEAR ENDED JUNE 30, 2015*

A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	$ 324,267,653	$ -	$ 324,267,653
2. Due to Assets	148,460,161	317,776,488	(169,316,327)
3. Total	$ 472,727,814	$ 317,776,488	$ 154,951,326

B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	$ 13,096,161	-	$ 13,096,161
2. Assumption Changes	311,171,492 **	-	311,171,492
3. Net Difference between projected and actual earnings on pension plan investments	148,460,161	317,776,488	(169,316,327)
4. Total	$ 472,727,814	$ 317,776,488	$ 154,951,326

C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	$ 27,312,043	$ -	$ 27,312,043
2. Assumption Changes	609,393,909	-	609,393,909
3. Net Difference between projected and actual earnings on pension plan investments	593,840,642	953,329,464	(359,488,822)
4. Total	$ 1,230,546,594	$ 953,329,464	$ 277,217,130

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows of Resources
2016	$ 154,951,326
2017	118,957,720
2018	(145,152,075)
2019	148,460,159
2020	-
Thereafter	-
Total	$ 277,217,130

**Based on a measurement date of June 30, 2015. Will be used for fiscal year ending June 30, 2016.*
***Includes $41,644,807 from prior year.*

Employers' proportionate share calculations of the net pension liability, pension expense, and deferred inflows and outflows are outside the scope of this report.

STATEMENT OF FIDUCIARY NET POSITION
AS OF JUNE 30, 2015

	2015
Assets	
Cash and short-term investments	$ 749,161,649
Receivables	
Members	$ 10,756,647
Non-employer contributing entity	181,777,558
Federal, trust funds, and other	1,772,530
Pending investment sales	422,748,331
Interest and dividends	42,333,100
Total Receivables	$ 659,388,166
Prepaid expenses	158,059
Investments, at fair value	
Equity investments	$ 11,243,565,767
Fixed income investments	4,562,385,463
Real estate investments	872,952,573
Mutual fund and variable annuities	-
Total Investments	$ 16,678,903,803
Securities lending collateral	752,561,440
Capital assets, at cost, net of accum deprec $ 18,627,220	$ 6,169,023
Total Assets	$ 18,846,342,140
Liabilities	
Payables	
Benefits payable	$ 8,689,007
Refunds payable	4,639,366
Securities lending collateral	752,410,673
Payable to brokers for unsettled trades	600,790,779
Administrative expenses payable	16,844,459
Total Liabilities	$ 1,383,374,284
Net Position Restricted for Pensions	$ 17,462,967,856

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR YEAR ENDED JUNE 30, 2015

	2015
Additions	
Contributions	
Employer	$ 39,933,909
Non-employer contributing entity	1,488,591,489
Member	267,682,083
Total Contributions	$ 1,796,207,481
Investment Income	
Net Appreciation in Fair Value of Investments	$ 225,279,830
Interest	111,077,945
Dividends	218,278,974
Securities lending	4,690,554
Gross Investment Income	$ 559,327,303
Less investment expense	
Asset management expense	55,705,026
Securities lending expense	422,320
Net investment income	$ 503,199,957
Total Additions	$ 2,299,407,438
Deductions	
Benefits	$ 2,129,977,721
Refunds of contributions	83,715,720
Administrative expense	14,069,273
Total Deductions	$ 2,227,762,714
Net Increase in Net Position	$ 71,644,724
Net Position Restricted for Pensions	
Beginning of Year	$ 17,391,323,132
End of Year	$ 17,462,967,856

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor’s Note – This information is intended to assist in preparation of the financial statements of the State Universities Retirement System of Illinois. Financial statements are the responsibility of management, subject to the auditor’s review. Please let us know if the auditor recommends any changes.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS CURRENT PERIOD

FISCAL YEAR ENDED JUNE 30, 2015

A. Total pension liability		
1. Service Cost	$	654,968,438
2. Interest on the Total Pension Liability		2,723,714,885
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		40,408,204
5. Changes of assumptions		831,624,586
6. Benefit payments, including refunds of employee contributions		(2,213,693,441)
7. Net change in total pension liability	$	2,037,022,672
8. Total pension liability – beginning		39,182,306,271
9. Total pension liability – ending	**$**	**41,219,328,943**
B. Plan fiduciary net position		
1. Contributions – employer & non-employer contributing entity	$	1,528,525,398
2. Contributions – employee		267,682,083
3. Net investment income		503,199,957
4. Benefit payments, including refunds of employee contributions		(2,213,693,441)
5. Pension Plan Administrative Expense		(14,069,273)
6. Other		-
7. Net change in plan fiduciary net position	$	71,644,724
8. Plan fiduciary net position – beginning		17,391,323,132
9. Plan fiduciary net position – ending	**$**	**17,462,967,856**
C. Net pension liability	**$**	**23,756,361,087**
D. Plan fiduciary net position as a percentage of the total pension liability		**42.37%**
E. Covered-employee payroll	**$**	**3,606,536,514**
F. Net pension liability as a percentage of covered employee payroll		**658.70%**

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS MULTIYEAR

Fiscal year ending June 30,	2015	2014
Total Pension Liability		
Service Cost	$ 654,968,438	$ 675,257,078
Interest on the Total Pension Liability	2,723,714,885	2,643,353,237
Benefit Changes	-	-
Difference between Expected and Actual Experience	40,408,204	-
Assumption Changes	831,624,586	130,585,622
Benefit Payments	(2,129,977,721)	(2,002,869,428)
Refunds	(83,715,720)	(82,897,092)
Net Change in Total Pension Liability	2,037,022,672	1,363,429,417
Total Pension Liability - Beginning	39,182,306,271	37,818,876,854
Total Pension Liability - Ending (a)	$ 41,219,328,943	$ 39,182,306,271
Plan Fiduciary Net Position		
Employer & Non-employer contributing entity Contributions	$ 1,528,525,398	$ 1,502,863,618
Employee Contributions	267,682,083	283,081,326
Pension Plan Net Investment Income	503,199,957	2,667,900,403
Benefit Payments	(2,129,977,721)	(2,002,869,428)
Refunds	(83,715,720)	(82,897,092)
Pension Plan Administrative Expense	(14,069,273)	(13,857,522)
Other	-	-
Net Change in Plan Fiduciary Net Position	71,644,724	2,354,221,305
Plan Fiduciary Net Position - Beginning	17,391,323,132	15,037,101,827
Plan Fiduciary Net Position - Ending (b)	$ 17,462,967,856	$ 17,391,323,132
Net Pension Liability - Ending (a) - (b)	23,756,361,087	21,790,983,139
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	42.37 %	44.39 %
Covered Employee Payroll	$ 3,606,536,514	$ 3,522,245,937
Net Pension Liability as a Percentage of Covered Employee Payroll	658.70 %	618.67 %

10 fiscal years will be built prospectively.
Covered employee payroll is equal to defined benefit payroll from the actuarial valuation as of the same date and rolled forward with one year of wage inflation at 3.75%.
Beginning of year Total Pension Liability for fiscal year 2014 uses a single discount rate of 7.12%.
End of year Total Pension Liability for fiscal years 2014 and 2015 use a single discount rate of 7.09% and 7.12%, respectively.
Assumption changes include the impact of the change in the single discount rate.
The single discount rate is based on the long-term municipal bond rate of 4.63% as of June 27, 2013, 4.29% as of June 26, 2014, and 3.80% as of June 25, 2015.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE NET PENSION LIABILITY MULTIYEAR

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2014	$ 39,182,306,271	$ 17,391,323,132	$ 21,790,983,139	44.39 %	$ 3,522,245,937	618.67 %
2015	41,219,328,943	17,462,967,856	23,756,361,087	42.37 %	3,606,536,514	658.70 %

10 fiscal years will be built prospectively.

Covered employee payroll is equal to defined benefit payroll from the actuarial valuation as of the same date and rolled forward with one year of wage inflation at 3.75%.

SCHEDULE OF CONTRIBUTIONS MULTIYEAR
LAST 10 FISCAL YEARS
($ in 000s)

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2006	$ 662,041	$ 180,000	$ 482,041	$ 3,054,100	5.89 %
2007	705,900	261,100	444,800	3,180,985	8.21 %
2008	707,537	344,900	362,637	3,303,220	10.44 %
2009	874,032	451,600	422,432	3,463,922	13.04 %
2010	1,003,331	696,600	306,731	3,491,071	19.95 %
2011	1,259,048	773,595	485,453	3,460,838	22.35 %
2012	1,443,348	985,815	457,533	3,477,166	28.35 %
2013	1,549,287	1,401,481	147,806	3,533,858	39.66 %
2014	1,560,524	1,502,864	57,660	3,522,246	42.67 %
2015	1,622,656	1,528,525	94,130	3,606,537	42.38 %

For fiscal years 2015 and prior, the Actuarially Determined Contribution is equal to normal cost plus 30-year open period amortization of the unfunded actuarial accrued liability as a level percentage of total payroll.

Covered employee payroll is equal to defined benefit payroll from the actuarial valuation as of the same date and rolled forward with one year of wage inflation at 3.75%.

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date:	June 30, 2014
Notes	Actuarially determined contribution rates are calculated as of June 30, which is 12 months prior to the beginning of the fiscal year in which contributions will be made.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Projected Unit Credit
Amortization Method	The Statutory Contributions is equal to the level percentage of pay contributions determined so that the Plan attains a 90% funded ratio by the end of 2045.
Remaining Amortization Period	Not Applicable. An amortization payment is not directly calculated. The amortization payment is the difference between the total statutory contribution and the employer normal cost contribution.
Asset Valuation Method	5 Year smoothed market.
Inflation	2.75%.
Salary Increases	3.75% to 12.00% including inflation.
Investment Rate of Return	7.25% beginning with the actuarial valuation as of June 30, 2014.
Retirement Age	Experience-based table of rates. Last updated for the 2015 valuation pursuant to an experience study of the period 2010 - 2014.
Mortality	Non-disabled post-retirement mortality uses RP-2014 White Collar Healthy Annuitant, sex distinct with rates set forward 1 year for males and rates set forward 1 year for females. Disabled post-retirement mortality uses RP-2014 Disabled Annuitant, sex distinct with rates set forward 9 year for males and rates set forward 10 year for females. Pre-retirement mortality uses RP-2014 White Collar Employee, sex distinct with rates multiplied by 110% for males younger than 60, and multiplied by 80% for males 60 or older and rates multiplied by 90% for females for all ages. The provision for future mortality improvement is based on the generational application of the MP-2014 improvement scales.

Other Information:

Notes	The statutory contribution for fiscal year ending June 30, 2015 was determined in the valuation as of June 30, 2013 and the statutory contribution for fiscal year ending June 30, 2016 was determined in the valuation as of June 30, 2014. All other contributions are projected using current assumptions.

SCHEDULE OF INVESTMENT RETURNS MULTIYEAR
LAST 10 FISCAL YEARS

FY Ending June 30,	Annual Return[1]
2006	
2007	
2008	
2009	
2010	
2011	
2012	
2013	
2014	
2015	

[1] *Annual money-weighted rate of return, net of investment expenses.*
To be calculated by SURS.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the State Universities Retirement System of Illinois. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the System's target asset allocation as of June 30, 2015, these best estimates are summarized in the following table:

ASSET ALLOCATION

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity		
Non-U.S. Equity		
Global Equity		
Core Fixed Income		
Emerging Market Debt		
Treasury-Inflation Protected Securities		
Private Equity		
Real Estate		
REITS		
Opportunity Fund / Infrastructure		
Commodities		
Total		

To be provided by SURS' investment consultant.

Single Discount Rate

A Single Discount Rate of 7.12% was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25% and a municipal bond rate of 3.80%. The projection of cash flows used to determine this single discount rate were the amounts of contributions attributable to current plan members and assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the statutory contribution rates under the System's funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2072. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2072, and the municipal bond rate was applied to all benefit payments after that date.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.12%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

SENSITIVITY OF NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

1% Decrease 6.12%	Discount Rate Assumption 7.12%	1% Increase 8.12%
$ 28,929,333,917	$ 23,756,361,087	$ 19,470,982,362

SUMMARY OF POPULATION STATISTICS

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	59,406
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	75,492
Active Plan Members	69,436
Total Plan Members	204,334

Excludes SMP.

SECTION E

SUMMARY OF BENEFITS

It should be noted that the purpose of this Appendix is to describe the benefit structures of SURS for which actuarial values have been generated. There is no description of the Self Managed Plan (SMP) and many portions of the defined plans are described in a manner which is not intended to be legally complete or precise.

It is not our intent to provide an exhaustive description of all benefits provided under SURS or the policies and procedures utilized by SURS staff. SURS benefits are determined by statute. A more precise description of the provisions of SURS is contained in the Member's Guide, published by SURS staff.

GENERAL

Plans

There are two defined benefit plans available under SURS, the Traditional Plan and the Portable Plan, and one defined contribution plan, the Self Managed Plan (SMP). A Member must select one of these plans within the first six months of participation. If no choice is made in that time, the Traditional Plan is deemed chosen. A new tier of benefits was established for members hired on or after January 1, 2011. Members hired before January 1, 2011, ("Tier 1 members") are not subject to a pay cap. Members hired on or after January 1, 2011, ("Tier 2 members") are eligible to choose one of the benefit plans. Tier 2 members that participate in the Traditional and Portable Plans are subject to the pay cap established under Public Act 96-0889. The pay cap history is as follows:

Year	CPI-U	½ CPI-U	Pensionable Pay Cap
2011			$106,800.00
2012	3.90%	1.95%	$108,882.60
2013	2.00%	1.00%	$109,971.43
2014	1.20%	0.60%	$110,631.26
2015	1.70%	0.85%	$111,571.63

The pay cap is calculated annually by the Illinois Department of Insurance.

The Self Managed Plan is a defined contribution plan under which members contribute 8.0% of compensation and the State contributes 7.6% of compensation. A portion of the employer contribution is used to fund disability benefits for SMP participants. Members hired on or after January 1, 2011, who participate in the SMP are not subject to the pay cap established under Public Act 96-0889.

The provisions of the defined benefit plans are identical in many areas. The description below is primarily of the Traditional Plan. Where different, the Portable plan provisions will be described in *italics.*

Member Contributions

Most members contribute a total of 8% of compensation. Police officers and firefighters contribute a total of 9.5% of compensation, with the additional 1.5% allocated to the retirement annuity.
The total contribution is broken down as follows:

	Police/Fire	All Others
Retirement Annuity	8.0%	6.5%
Survivor Benefits	1.0%	1.0%
Annual Increases in Retirement Benefits	0.5%	0.5%
Total Contribution	9.5%	8.0%

Portable Plan members contribute a total of 8% of compensation, but the breakdown set out above does not apply.

The retirement annuity portion of the total contribution (8.0% of compensation for police officers and firefighters and 6.5% of compensation for all others) is annuitized for the money purchase formula (Rule 2) calculation.

Contributions for members hired on or after January 1, 2011, are assumed not to be made on pay in excess of $106,800 in 2011 ($111,572 in 2015), increased by the lesser of 3% and 1/2 of the increase in CPI-U as measured in the preceding 12-month calendar year.

Since January 1, 1981, the member contributions under SURS have been "picked up" by employers.

Effective Rate of Interest

The Effective Rate of Interest ("ERI") is the interest rate that is applied to member contribution balances. Effective for the 2006 fiscal year, the ERI for the purpose of determining the money purchase benefit is established by the State Comptroller annually. The ERI for other purposes such as the calculation of purchases of service credit, refunds for excess contributions, portable plan refunds and lump sum portable retirements is determined by the SURS Board annually and certified to the Governor. For purposes of the actuarial valuation, the assumed ERI is 7.00%.

For the purposes of withdrawal of contributions at termination or death by Traditional Plan Members, this rate is not greater than 4.5% by statute.

RETIREMENT BENEFITS

Normal Retirement:

Eligibility

For police officers and firefighters, separation from service on or after the attainment of the earlier of:

1. Age 55 with 20 years of service, or
2. Age 50 with 25 years of service.

For other members hired before January 1, 2011, separation from service on or after attainment of the earlier of:

1. Age 62 with 5 years of service,
2. Age 60 with 8 years of service, and
3. 30 years of service regardless of age.

For members hired on or after January 1, 2011, separation from service on or after attainment age 67 with 10 years of service.

Initial Benefit Amount

There are 3 alternate formulae. The initial benefit is the largest produced by one of the three:

1. General Formula: The following percentages of high 4 consecutive year average compensation for each year of service:

Year of Service	General	Police/Fire
1st 10 Years	2.20 %	2.25 %
Next 10 Years	2.20	2.50
Over 20	2.20	2.75

For members hired on or after January 1, 2011, the above percentages of high final eight consecutive year average compensation within the last 10 years of service for each year of service. The pay cap for 2010 through 2013 is shown in the table on the previous page. We have assumed the limit applies to individual pay amounts that are used to develop the final average compensation.

2. Money Purchase Formula:

a) The member contributions for retirement benefits (8.0% of compensation for police officers and firefighters and 6.5% of compensation for all others) accumulated with interest at the ERI, plus

b) An imputed employer contribution match at $1.40 per dollar of member contribution accumulated with interest at the ERI.

c) The total of the accumulations in (a) and (b) is converted into an annuity using a life annuity factor that takes into account neither the automatic 50% spousal survivor benefit nor the automatic annual increases.

Members hired on or after July 1, 2005, no longer receive the Money Purchase Formula under the plan.

3. Minimum Benefit – A benefit for each year of service, up to 30, based on final annual pay, as follows:

Under 3,500	$ 8
$3,500 - $4,500	9
$4,500 - $5,500	10
$5,500 - $6,500	11
$6,500 - $7,500	12
$7,500 - $8,500	13
$8,500 - $9,500	14
Over $9,500	15

Minimum Retirement Annuity – No retiree shall receive a retirement annuity less than $25 per month for each year of service up to 30. The comparable benefit for survivor benefit recipients is $17.50 per month for each year of service up to 30.

Maximum Benefit

80% of high 4-year average compensation for members hired before January 1, 2011, and 80% of final 8-year average for members hired on or after January 1, 2011.

Contribution waivers are applicable to members whose benefits are capped at 80% of final average compensation. Member contributions made once the maximum benefit is achieved are refunded to the member with interest (at the Effective Rate of Interest).

The present value of the benefits for pay increases in excess of 6% during the last four years prior to retirement will be paid by the employer. The employer will pay this amount in a lump sum to the Retirement System.

Benefit Duration

The Normal Retirement benefit is payable for the lifetime of the retired member. If the retiree under the Traditional Plan has a spouse at date of retirement and if that spouse survives the retiree the spouse will receive, upon the death of the retiree, a survivor benefit equal to 50% of the monthly benefit being paid to the retiree as of the date of death. Such benefit will continue for the lifetime of the surviving spouse.

The survivor benefit for members hired on or after January 1, 2011, is equal to 66 2/3% of the monthly benefit being paid to the retiree as of the date of death.

For retirees under the Portable Plan, the normal form of benefit is a single-life annuity for unmarried participants and a reduced 50% joint and survivor benefit for married participants. With spousal consent, a member may designate a contingent annuitant to receive a joint and survivor annuity or elect a single-life annuity or lump sum distribution. Those providing a joint and survivor annuity will have their benefit reduced to cover the cost of the option. The available joint and survivor options are 50%, 75% and 100%. A member may elect the 75% or 100% spousal joint and survivor annuity without consent.

Portable Plan members may also elect to receive their retirement benefit as a lump sum equal to member contributions with an equal employer match (if have at least five years of service), accumulated with interest (at the Effective Rate of Interest that is certified annually by the SURS Board).

Annual Increases

For members hired before January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional based on the portion of the year retired.

For members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% applied to the original benefit. The first increase will be granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

The historical development of the Annual Increase as determined by the Illinois Department of Insurance for members hired on or after January 1, 2011 can be found in the following table.

Year	CPI-U	½ CPI-U	Annual Increase
2011			3.00%
2012	3.90%	1.95%	1.95%
2013	2.00%	1.00%	1.00%
2014	1.20%	0.60%	0.60%
2015	1.70%	0.85%	0.85%

Early Retirement

Eligibility

For members hired before January 1, 2011, other than police and fire employees, separation from service on or after attainment of age 55 with 8 years of service but not eligible for Normal Retirement. For members hired on or after January 1, 2011, separation from service on or after attainment of age 62 with 10 years of service but not eligible for Normal Retirement.

Benefits

The benefit amounts and all terms of benefit payment are the same as that for Normal Retirement, except that the benefit amounts calculated under the General Formula and the Minimum Formula shall be reduced by .5% for each month by which the retirement date precedes the 60th birthday for members hired before January 1, 2011. The Minimum Formula shall be reduced by .5% for each month by which the retirement date precedes the 67th birthday for members hired on or after January 1, 2011.

BENEFITS ON DEATH BEFORE RETIREMENT

Survivor Benefits

Traditional Plan

Eligibility

Payable to eligible survivor(s) (spouse, child or dependent parent) for the death of an active member with at least 1.5 years of service or a terminated member with at least 10 years of service. For this purpose, service under the State Employees' Retirement System, the Teachers' Retirement System of the State of Illinois and the Public School Teachers' Pension Fund of Chicago is recognized.

Benefits

For members hired before January 1, 2011, an annuity to the eligible survivor(s) equal to the greater of:

1. 50% of the benefit accrued to the date of the death of the member, and
2. The lowest applicable benefit from the following list:
    a) $400 per month to a single eligible survivor or $600 per month to two or more eligible survivors.
    b) 30% (one survivor), or 60% (two survivors), or 80% (three or more survivors) of the member's final rate of earnings.
    c) If member inactive, 80% of base retirement annuity.

For members hired on or after January1, 2011, an annuity to the survivor(s) equal to 66 2/3% of the benefit accrued to the date of the death of the member.

Benefit Duration

Surviving spouse
May receive a lifetime benefit commencing at the later of the member's date of death and the spouse's attainment of age 50. May be payable at the date of death if a dependent child in their care is also receiving benefits.

Dependent child
Payable to unmarried child(ren) under age 18 (over 18 if disabled prior to age 18), and children age 18-22 if a qualified full-time student.

Dependent parent
Payable until dependency conditions are not met, so long as they were dependent upon the member at the time of their death.

Annual Increases

For members hired before January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

For members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% of the originally granted survivor annuity. The first increase will be granted upon January 1 following the first anniversary of the commencement of the annuity.

Portable Plan

Eligibility

Payable to an eligible spouse for the death of an active or inactive member with at least 1.5 years of SURS service.

Benefits

An annuity to the eligible spouse equal to 50% of the member's earned retirement benefit after the reductions to pay for the cost of providing the pre-retirement survivor annuity. (Applicable to both Tier 1 and Tier 2 members.)

Benefit Duration

Surviving spouse
May receive a lifetime benefit commencing at the member's earliest retirement age.

Annual Increases

For members hired before January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

For members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each survivor annuity recipient shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% of the originally granted survivor annuity. The first increase will be granted upon January 1 following the first anniversary of the commencement of the annuity.

Lump Sum Death Benefit

Eligibility

Death of member prior to retirement.

Traditional Plan

Benefit

With Eligible Survivor

- Refund of accumulated member contributions for retirement and annual adjustment at 4.5% interest

Without Eligible Survivor

- Refund of the total accumulated member contribution at 4.5% interest, and
- $5,000 to a dependent beneficiary or $2,500 to a non-dependent beneficiary

Portable Plan

Benefit

With Eligible Spouse

- Refund of total accumulated member contributions at the full Effective Rate of Interest, plus, if the member has at least 1.5 years of service at death, a like amount of imputed employer contributions – less the actuarial equivalent of the Pre-Retirement Survivor Annuity.

Without Eligible Spouse

- Refund of total accumulated member contributions at the full Effective Rate of Interest, plus, if the member has at least 1.5 years of service at death, a like amount of imputed employer contributions.

BENEFITS ON DEATH AFTER RETIREMENT

In addition to survivor/spouse benefits payable from the System, the following death benefit is payable if a member does not have an eligible survivor/spouse/contingent annuitant:

- The greater of the total accumulated member contributions or $1,000.

BENEFITS FOR DISABILITY

Disability Benefit

Eligibility

Disablement after completing 2 years of service. The service requirement is waived if the disablement is accidental.

Disability definition – inability to perform the duties of "own occupation."

Pregnancy and childbirth are, by definition, disablement.

Benefit

50% of the basic compensation paid at date of disablement. This base benefit level is offset dollar for dollar by each of the following:

1. Earnings while disabled in excess of the disability benefit.
2. Other disability insurance either fully or partially employer provided.
3. Worker's compensation benefits.

Duration of Benefit

Benefits become payable on the later of the termination of salary and sick leave, or the 61st day after disablement and continue to the earlier of the following:

1. Recovery or death.
2. Benefits paid equal 50% of total compensation during the period of SURS service.
3. If disablement occurs prior to age 65, the disability benefit may not continue past the August 31 following 70th birthday.
4. If disablement occurs at or after attainment of age 65, completion of 5 years in disablement.

Survivor and death benefits are payable if a member dies while receiving disability benefits.

If, at discontinuance of the disability benefit, the member is eligible for a retirement benefit (based on service, which includes the period of disability and may also include time receiving a disability retirement annuity), the member may retire and receive that benefit. The member may commence the retirement benefit once age and service requirements are met. The early retirement reduction does not apply for members that began first participating prior to January 1, 2011 (Tier 1). The benefit is based on the greatest of 3 formulas (General Formula, Money Purchase, and Minimum Benefit), subject to applicable maximums. Contributions are not made during the disability period. However, accumulated contributions continue to accrue interest.

Annual Increases

Each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

Disability Retirement Annuity

Eligibility

Continuing disablement after discontinuation of the disability benefit as a result of reaching the "50% of total earnings" limitation. Disability is defined in accordance with the Social Security disability definition.

Benefit

35% of the compensation being earned at disablement.

Duration of Benefit

Benefits become payable upon discontinuance of the disability benefit and continue to the earlier of the following:

1. Recovery or death
2. Election to receive a retirement benefit

Survivor and death benefits are payable if a member dies while receiving a disability retirement annuity.

Annual Increases

Each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

For members hired on or after January 1, 2011, if the member converts to a service retirement annuity (item 2 above), each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% of the originally granted benefit. The first increase will be granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

BENEFITS FOR DEFERRED MEMBERS

Eligibility

For members hired before January 1, 2011, separation from employment with at least 5 years of service and separation from employment with at least 10 years of service for members hired on or after January 1, 2011.

Benefit

Benefit as defined for normal retirement purposes, but calculated based on final average compensation and service at date of termination.

Commencement of Benefit

Benefits commence when member reaches the age condition for either normal or early retirement.

Annual Increases

For members hired before January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased by 3%. The adjustment for the first January after retirement shall be proportional.

For members hired on or after January 1, 2011, each January 1 subsequent to retirement date the monthly benefit being paid each retiree shall be increased fifty percent of the Consumer Price Index ("CPI") up to a maximum of 3% applied to the original benefit. The first increase will be granted upon the later of the attainment of age 67 or the first anniversary of the commencement of the annuity.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

VALUATION METHODS – CALCULATION OF THE TOTAL PENSION LIABILITY ENTRY AGE NORMAL METHOD

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an Individual Entry-Age Actuarial Cost Method having the following characteristics:

(i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;

(ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

VALUATION METHODS – CALCULATION OF CONTRIBUTIONS PROJECTED UNIT CREDIT METHOD

The Projected Unit Credit Method is mandated under Section 15-155 as the funding method to be used for all purposes under SURS.

The concept of this method is that funding of benefits should occur as benefits are accrued (earned) by active members of SURS.

The Normal Cost ("NC") for a fiscal year under this method is the actuarial present value of all benefits expected to be accrued during the fiscal year adjusted for future expected salary increases. The Actuarial Accrued Liability ("AAL") under this method is the actuarial present value of all benefits accrued to the valuation date. To the extent that the assets of the fund are insufficient to cover the AAL, an Unfunded Actuarial Accrued Liability ("UAAL") develops. Under the classical application of this method, the contribution for a year is the NC for that year plus an amount to amortize the UAAL.

Under Section 15-155, the employer/State contribution is determined such that the assets of SURS reach 90% of the AAL by the end of FY 2045.

This contribution is determined as a level percentage of pay for all years except that the contribution rates through 2010 shall grade in equal steps to the desired level contribution rate. *We have assumed the contribution would be based on pensionable (capped) payroll for members hired on or after January 1, 2011 ("Tier 2 members").* Pensionable pay does not include amounts in excess of the pay cap ($111,572 in 2015, increased by the lesser of 3% and 1/2 of the increase in CPI-U as measured in the preceding 12-month calendar year) that is applicable to members hired on or after January 1, 2011, participating in the defined benefit plans.

ACTUARIAL ASSUMPTIONS (MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015 ACTUARIAL VALUATION)

Under statute 15-155(a), the Board adopts the assumptions after consultation with the actuary. All actuarial assumptions are expectations of future experience and are not market measures. The rationale for the assumption may be found in the 2010-2014 experience study report issued to the Board of Trustees on January 16, 2015.

Rate of Investment Return. For all purposes under the system the rate of investment return is assumed to be 7.25% per annum beginning with the **June 30, 2014**, valuation. This assumption is net of investment expenses.

Price Inflation (Increase in Consumer Price Index "CPI"). The assumed rate is 2.75% per annum.

Effective Rate of Interest. The actuarial valuation assumed rate credited to member accounts is 7.00% per annum, beginning with the June 30, 2013 actuarial valuation.

Cost of living adjustment "COLA." The assumed rate is 3.00% per annum for members hired before January 1, 2011, based on the benefit provision of 3.00% annual compound increases. The assumed rate is 1.375% for members hired on or after January 1, 2011, based on the benefit provision of increases equal to ½ of the increase in CPI with a maximum increase of 3.00%.

Annual Compensation Increases. Each member's compensation is assumed to increase by 3.75% each year, 2.75% reflecting salary inflation and 1.00% reflecting standard of living increases. That rate is increased for members with less than 34 years of service. The total assumed increase follows:

Service Year	Total Increase
0	15.00%
1	12.00%
2	9.00%
3	7.25%
4	6.50%
5	6.00%
6	5.75%
7	5.50%
8	5.25%
9	5.00%
10	4.75%
11	4.50%
12-13	4.25%
14-33	4.00%
34+	3.75%

Payroll Growth. The assumed rate of total payroll growth is 3.75%.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

Mortality. The mortality assumptions are as follows:

Base Table with 2014 Base Year	Male Set Forward	Female Set Forward	Male Multiplier	Female Multiplier
RP-2014 White Collar Employee, sex distinct (pre-retirement)	None	None	110% pre 60, 80% at ages 60+	90% pre 60, 90% at ages 60+
RP-2014 White Collar Healthy Annuitant, sex distinct (non-disabled post-retirement)	1 year	1 year	100%	100%
RP-2014 Disabled Annuitant, sex distinct (disabled post-retirement)	9 years	10 years	100%	100%

The provision for future mortality improvement is based on the generational application of the MP-2014 improvement scales.

Future Life Expectancy (years) in 2015

	Postretirement		Disabled - Retiree	
Age	**Male**	**Female**	**Male**	**Female**
35	51.89	53.99	29.47	34.27
40	46.66	48.77	26.05	30.21
45	41.51	43.62	22.88	26.43
50	36.47	38.54	19.84	22.78
55	31.59	33.54	16.87	19.15
60	26.82	28.63	13.96	15.63
65	22.21	23.90	11.18	12.41
70	17.81	19.40	8.64	9.62
75	13.74	15.21	6.42	7.28

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

Disability. A table of disability incidence with rates follows:

Age	Male	Female	Age	Male	Female
20	0.042%	0.060%	50	0.206%	0.249%
21	0.043%	0.064%	51	0.219%	0.257%
22	0.044%	0.067%	52	0.231%	0.264%
23	0.045%	0.071%	53	0.244%	0.272%
24	0.046%	0.074%	54	0.256%	0.279%
25	0.047%	0.078%	55	0.264%	0.287%
26	0.048%	0.081%	56	0.271%	0.294%
27	0.049%	0.085%	57	0.279%	0.302%
28	0.050%	0.088%	58	0.286%	0.309%
29	0.051%	0.092%	59	0.294%	0.317%
30	0.054%	0.099%	60	0.301%	0.324%
31	0.056%	0.107%	61	0.309%	0.332%
32	0.059%	0.114%	62	0.316%	0.339%
33	0.061%	0.122%	63	0.324%	0.347%
34	0.064%	0.129%	64	0.331%	0.354%
35	0.067%	0.137%	65	0.339%	0.362%
36	0.071%	0.144%	66	0.346%	0.369%
37	0.074%	0.152%	67	0.354%	0.377%
38	0.078%	0.159%	68	0.361%	0.384%
39	0.081%	0.167%	69	0.369%	0.392%
40	0.091%	0.174%	70	0.369%	0.392%
41	0.101%	0.182%	71	0.369%	0.392%
42	0.111%	0.189%	72	0.369%	0.392%
43	0.121%	0.197%	73	0.369%	0.392%
44	0.131%	0.204%	74	0.369%	0.392%
45	0.144%	0.212%	75	0.369%	0.392%
46	0.156%	0.219%	76	0.369%	0.392%
47	0.169%	0.227%	77	0.369%	0.392%
48	0.181%	0.234%	78	0.369%	0.392%
49	0.194%	0.242%	79	0.369%	0.392%

Disability rates apply during the retirement eligibility period.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

Retirement. Upon eligibility, active members are assumed to retire as follows:

	Members Hired Before January 1, 2011 and Eligible for		Members Hired on or after January 1, 2011 and Eligible for	
Age	Normal Retirement	Early Retirement	Normal Retirement	Early Retirement
Under 50	50.0%	-	-	-
50	45.0	-	-	-
51	45.0	-	-	-
52	45.0	-	-	-
53	40.0	-	-	-
54	40.0	-	-	-
55	38.0	7.5%	-	-
56	36.0	6.0	-	-
57	30.0	4.5	-	-
58	30.0	5.5	-	-
59	30.0	6.0	-	-
60	11.0	-	-	-
61	11.0	-	-	-
62	13.0	-	-	35.0%
63	13.0	-	-	15.0
64	13.0	-	-	15.0
65	17.0	-	-	15.0
66	17.0	-	-	15.0
67	15.0	-	50.0%	-
68	15.0	-	35.0	-
69	15.0	-	30.0	-
70-74	15.0	-	15.0	-
75-79	20.0	-	20.0	-
80+	100.0	-	100.0	-

Members that retire are assumed to elect the most valuable option on a present value basis – refund of contributions (or portable lump sum retirement, if applicable) or a retirement annuity.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

General Turnover. A table of termination rates based on experience in the 2010-2014 period. The assumption is a table of turnover rates by years of service. A sample of these rates follows:

Years of Service	All Members
0	20.00%
1	20.00
2	15.00
3	14.00
4	12.00
5	10.00
6	9.00
7	7.50
8	6.75
9	6.00
10	5.25
11	4.50
12	4.00
13	3.70
14	3.20
15	3.00
16	3.00
17	3.00
18	3.00
19	3.00
20	2.50
21	2.50
22	2.50
23	2.50
24	2.50
25	2.00
26	2.00
27	2.00
28	2.00
29	2.00

Part time members with less than 3 years of service (all members classified as part time for valuation purposes) are assumed to terminate at the valuation date.

Members that terminate with at least 5 years of service (10 years of service for Tier 2 members) are assumed to elect the most valuable option on a present value basis – refund of contributions or a deferred benefit.

Termination rate for 29 years of service used for Tier 2 members until retirement eligibility is met.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

Operational Expenses. The amount of operational expenses for administration incurred in the latest fiscal year are supplied by SURS staff and incorporated in the Normal Cost.

Marital Status. Members are assumed to be married in the following proportions:

Age	Males	Females
20	25 %	40 %
30	70	75
40	80	80
50	85	80
60	85	70

Spouse Age. The female spouse is assumed to be 3 years younger than the male spouse.

Benefit Commencement Age. Inactive members eligible for a deferred benefit are assumed to commence benefits at their earliest normal retirement age. For Tier 1 members this is age 62 with at least 5 years of service, age 60 with at least 8 years of service, or immediately if at least 30 years of service. For Tier 2 members, this is age 67 with 10 or more years of service.

Load on Final Average Salary. No load is assumed to account for higher than assumed pay increases in final years of employment before retirement.

Load on Liabilities for Service Retirees With Non-finalized Benefits. A load of 10% on liabilities for service retirees whose benefits have not been finalized as of the valuation date is assumed to account for finalized benefits that on average are 10% higher than 100% of the preliminary estimated benefit. A load of 5% is used if a "best formula" benefit was provided in the data by Staff.

Valuation of Inactives. An annuity benefit is estimated based on information provided by staff for Tier 1 inactive members with five or more years of service and Tier 2 members with 10 or more years of service.

Assumption for Missing Data. Members with an unknown gender are assumed to be female. Active and inactive members with an unknown date of birth are assumed to be 37 years old at the valuation. An assumed spouse date of birth is calculated for current service retirees in the traditional plan for purposes of calculating future survivor benefits. The female spouse is assumed to be 3 years younger than the male spouse. 70% of current total male retirees and 80% of current total female retirees in the traditional plan that have not elected a survivor refund are assumed to have a spouse at the valuation date.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2015
ACTUARIAL VALUATION)
(CONTINUED)

Reciprocal Service. Reciprocal service is included for current inactive members for purposes of determining vesting eligibility and eligibility age to commence benefits.

The recently updated actuarial assumptions (including retirement and termination rates) were based on SURS service only. Therefore, reciprocal service was not included for current active members. Reciprocal service will be collected and analyzed in the future and will be considered in the next experience review.

Projection Assumptions. The number of total active members throughout the projection period will remain the same as the total number of active members in the defined benefit plans and the SMP in the current valuation.

30% of total future hires will elect to participate in the Self Managed Plan.

New entrants have an average age of 37.2 and average capped pay of $36,607 and average uncapped pay of $37,954 (2015 dollars). These values are based on the average age and average pay of current members. The range profile is based on the age at hire and assumed pay at hire (using the actuarial assumptions, inflated to 2015 dollars) of current active members with service between one and four years.

		Average Pay			Average Pay			Average Pay	
Age	Number Males	Capped Male	Uncapped Male	Number Females	Capped Female	Uncapped Female	Total Number	Capped Total	Uncapped Total
<20	63	$15,625	$15,625	50	$14,030	$14,030	113	$14,919	$14,919
20 - 24	737	27,868	27,868	1,198	26,866	26,866	1,935	27,248	27,248
25 - 29	1,830	37,401	38,058	2,406	34,209	34,275	4,236	35,588	35,909
30 - 34	1,622	43,460	44,993	2,029	37,989	38,733	3,651	40,419	41,514
35 - 39	1,068	45,119	48,118	1,378	37,205	38,062	2,446	40,661	42,453
40 - 44	829	42,908	45,651	1,177	36,194	37,190	2,006	38,969	40,686
45 - 49	724	42,675	46,460	1,004	33,367	34,424	1,728	37,267	39,467
50 - 54	678	42,025	46,592	872	32,002	33,340	1,550	36,386	39,136
55 - 59	476	37,799	41,147	616	32,298	33,933	1,092	34,696	37,077
60 - 64	269	34,456	40,625	263	31,022	32,869	532	32,758	36,791
65 - 69	15	17,789	17,789	6	25,405	25,405	21	19,965	19,965
Total	8,311	39,843	42,039	10,999	34,163	34,867	19,310	36,607	37,954

SMP Contribution Assumptions. The projected SMP contributions are equal to 7.6% of SMP payroll, plus estimated SMP expenses minus SMP employer forfeitures. Estimated SMP expenses for FY 2016 are $488,530 and SMP employer forfeitures used to reduce the certified contributions for FY 2017 are $4,235,356. Estimated SMP expenses for FY 2017 and after are assumed to increase by 2.75%. Estimated SMP employer forfeitures used to reduce the certified contributions for FY 2018 and after are assumed to be 7.5% of the gross SMP employer contribution.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.80%; and the resulting Single Discount Rate is 7.12%.

The tables in this section provide background for the development of the Single Discount Rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF CONTRIBUTIONS ENDING JUNE 30 FOR 2015 TO 2064

Year	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
0				
1	$ 266,189,500	$ 390,686,122	$ 1,154,781,672	$ 1,811,657,294
2	250,579,889	367,638,463	1,222,004,315	1,840,222,667
3	236,137,049	346,467,014	1,279,139,318	1,861,743,382
4	223,479,999	326,266,566	1,310,324,298	1,860,070,863
5	212,004,853	307,469,926	1,328,384,391	1,847,859,170
6	201,059,935	289,765,117	1,357,303,451	1,848,128,503
7	190,775,235	272,724,644	1,409,812,786	1,873,312,665
8	180,839,114	256,567,457	1,463,244,500	1,900,651,071
9	171,250,979	240,938,204	1,517,887,039	1,930,076,221
10	161,919,935	225,836,629	1,573,309,712	1,961,066,276
11	152,917,789	211,176,656	1,629,718,798	1,993,813,243
12	144,274,788	197,076,763	1,687,721,213	2,029,072,764
13	135,827,891	183,544,973	1,746,750,634	2,066,123,499
14	127,712,236	170,406,239	1,807,077,754	2,105,196,230
15	119,711,168	157,821,581	1,868,351,117	2,145,883,867
16	111,698,709	145,518,302	1,930,700,504	2,187,917,514
17	103,723,600	133,344,188	1,994,657,088	2,231,724,876
18	95,890,409	121,381,465	2,060,347,792	2,277,619,666
19	88,510,701	109,842,630	2,128,148,575	2,326,501,907
20	81,381,772	99,066,294	2,197,591,916	2,378,039,982
21	74,332,008	88,860,752	2,268,115,762	2,431,308,522
22	67,446,056	79,164,989	2,339,982,456	2,486,593,501
23	60,674,085	70,042,586	2,413,370,929	2,544,087,600
24	54,198,100	61,351,622	2,488,848,069	2,604,397,791
25	48,156,864	53,254,164	2,566,282,535	2,667,693,564
26	42,574,283	45,864,051	2,645,380,146	2,733,818,480
27	37,896,367	39,213,816	2,727,141,072	2,804,251,255
28	33,883,029	33,751,774	2,810,514,379	2,878,149,183
29	30,338,474	29,192,348	2,895,383,853	2,954,914,675
30	27,072,909	25,307,640	2,981,537,683	3,033,918,232
31	24,055,808	21,906,312	3,069,076,566	3,115,038,686
32	21,218,476	18,934,418	438,188,689	478,341,583
33	18,527,167	16,275,049	417,941,900	452,744,115
34	15,991,255	13,882,037	425,692,935	455,566,228
35	13,554,826	11,755,587	432,908,229	458,218,642
36	11,298,930	9,807,232	440,005,739	461,111,901
37	9,252,578	8,066,884	446,845,817	464,165,279
38	7,468,582	6,527,645	453,250,306	467,246,532
39	5,935,813	5,227,198	459,351,966	470,514,977
40	4,641,395	4,136,546	465,279,616	474,057,557
41	3,562,906	3,223,189	470,985,308	477,771,404
42	2,696,171	2,461,157	476,480,672	481,638,000
43	2,015,374	1,849,900	481,822,017	485,687,291
44	1,493,095	1,366,314	487,060,717	489,920,126
45	1,104,332	992,312	492,214,029	494,310,673
46	816,432	711,453	497,590,448	499,118,334
47	607,807	503,835	502,931,200	504,042,841
48	452,439	357,402	508,527,904	509,337,745
49	332,625	251,655	514,363,163	514,947,443
50	243,127	173,738	520,451,137	520,868,002

Year 1 is the year beginning June 30, 2014, and ending June 30, 2015.

SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF PLAN FIDUCIARY NET POSITION ENDING JUNE 30 FOR 2015 TO 2064

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.250%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	$ 17,391,323,132	$ 1,811,657,294	$ 2,234,279,469	$ 13,974,556	$ 1,245,321,203	$ 18,200,047,604
2	18,200,047,604	1,840,222,667	2,292,902,160	13,544,683	1,302,898,523	19,036,721,951
3	19,036,721,951	1,861,743,382	2,396,271,787	13,103,652	1,360,658,010	19,849,747,904
4	19,849,747,904	1,860,070,863	2,500,411,739	12,699,492	1,415,848,195	20,612,555,731
5	20,612,555,731	1,847,859,170	2,607,014,881	12,322,509	1,466,933,508	21,308,011,020
6	21,308,011,020	1,848,128,503	2,719,538,015	11,948,058	1,513,369,349	21,938,022,800
7	21,938,022,800	1,873,312,665	2,828,506,686	11,575,600	1,556,074,419	22,527,327,598
8	22,527,327,598	1,900,651,071	2,936,618,151	11,192,317	1,595,935,874	23,076,104,077
9	23,076,104,077	1,930,076,221	3,045,615,041	10,804,534	1,632,901,972	23,582,662,695
10	23,582,662,695	1,961,066,276	3,155,825,152	10,409,798	1,666,820,048	24,044,314,070
11	24,044,314,070	1,993,813,243	3,267,907,837	10,013,521	1,697,478,285	24,457,684,240
12	24,457,684,240	2,029,072,764	3,375,576,942	9,615,153	1,724,882,888	24,826,447,798
13	24,826,447,798	2,066,123,499	3,480,377,050	9,209,863	1,749,219,736	25,152,204,119
14	25,152,204,119	2,105,196,230	3,580,315,018	8,805,806	1,770,683,698	25,438,963,223
15	25,438,963,223	2,145,883,867	3,677,632,567	8,391,576	1,789,471,569	25,688,294,516
16	25,688,294,516	2,187,917,514	3,717,480,242	7,960,018	1,807,641,313	25,958,413,082
17	25,958,413,082	2,231,724,876	3,806,139,039	7,515,029	1,825,643,340	26,202,127,230
18	26,202,127,230	2,277,619,666	3,888,625,774	7,063,670	1,842,025,441	26,426,082,893
19	26,426,082,893	2,326,501,907	3,961,337,428	6,625,665	1,857,429,124	26,642,050,831
20	26,642,050,831	2,378,039,982	4,026,814,248	6,189,335	1,872,605,901	26,859,693,131
21	26,859,693,131	2,431,308,522	4,085,851,854	5,743,864	1,888,195,364	27,087,601,299
22	27,087,601,299	2,486,593,501	4,136,846,278	5,295,135	1,904,887,499	27,336,940,886
23	27,336,940,886	2,544,087,600	4,180,325,206	4,839,811	1,923,479,997	27,619,343,465
24	27,619,343,465	2,604,397,791	4,216,055,768	4,391,799	1,944,845,562	27,948,139,251
25	27,948,139,251	2,667,693,564	4,241,485,311	3,963,179	1,970,047,157	28,340,431,481
26	28,340,431,481	2,733,818,480	4,255,677,199	3,557,468	2,000,352,427	28,815,367,722
27	28,815,367,722	2,804,251,255	4,255,927,995	3,212,620	2,037,297,171	29,397,775,533
28	29,397,775,533	2,878,149,183	4,239,118,680	2,913,172	2,082,763,010	30,116,655,874
29	30,116,655,874	2,954,914,675	4,211,366,847	2,645,402	2,138,613,835	30,996,172,136
30	30,996,172,136	3,033,918,232	4,172,426,643	2,394,785	2,206,588,347	32,061,857,286
31	32,061,857,286	3,115,038,686	4,122,649,696	2,159,274	2,288,520,918	33,340,607,920
32	33,340,607,920	478,341,583	4,065,126,044	1,933,395	2,289,379,164	32,041,269,229
33	32,041,269,229	452,744,115	3,999,769,670	1,714,435	2,196,600,951	30,689,130,190
34	30,689,130,190	455,566,228	3,927,222,051	1,503,431	2,101,262,736	29,317,233,672
35	29,317,233,672	458,218,642	3,850,821,751	1,295,436	2,004,623,169	27,927,958,296
36	27,927,958,296	461,111,901	3,769,254,487	1,098,180	1,906,915,855	26,525,633,385
37	26,525,633,385	464,165,279	3,684,355,607	914,963	1,808,386,311	25,112,914,405
38	25,112,914,405	467,246,532	3,594,447,006	751,710	1,709,281,904	23,694,244,124
39	23,694,244,124	470,514,977	3,500,993,464	608,326	1,609,878,242	22,273,035,554
40	22,273,035,554	474,057,557	3,404,336,703	484,527	1,510,413,705	20,852,685,586
41	20,852,685,586	477,771,404	3,304,839,512	379,004	1,411,118,030	19,436,356,503
42	19,436,356,503	481,638,000	3,200,551,741	292,341	1,312,289,258	18,029,439,679
43	18,029,439,679	485,687,291	3,092,271,195	222,805	1,214,290,978	16,636,923,949
44	16,636,923,949	489,920,126	2,980,189,285	168,344	1,117,478,165	15,263,964,611
45	15,263,964,611	494,310,673	2,864,846,749	127,015	1,022,204,469	13,915,505,989
46	13,915,505,989	499,118,334	2,747,186,778	95,814	928,804,108	12,596,145,839
47	12,596,145,839	504,042,841	2,628,072,821	72,798	837,569,041	11,309,612,103
48	11,309,612,103	509,337,745	2,508,396,014	55,316	748,746,930	10,059,245,448
49	10,059,245,448	514,947,443	2,388,538,582	41,522	662,564,446	8,848,177,232
50	8,848,177,232	520,868,002	2,268,767,714	30,994	579,238,971	7,679,485,497

Year 1 is the year beginning June 30, 2014, and ending June 30, 2015.

SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES OF PROJECTED BENEFITS ENDING JUNE 30 FOR 2015 TO 2064

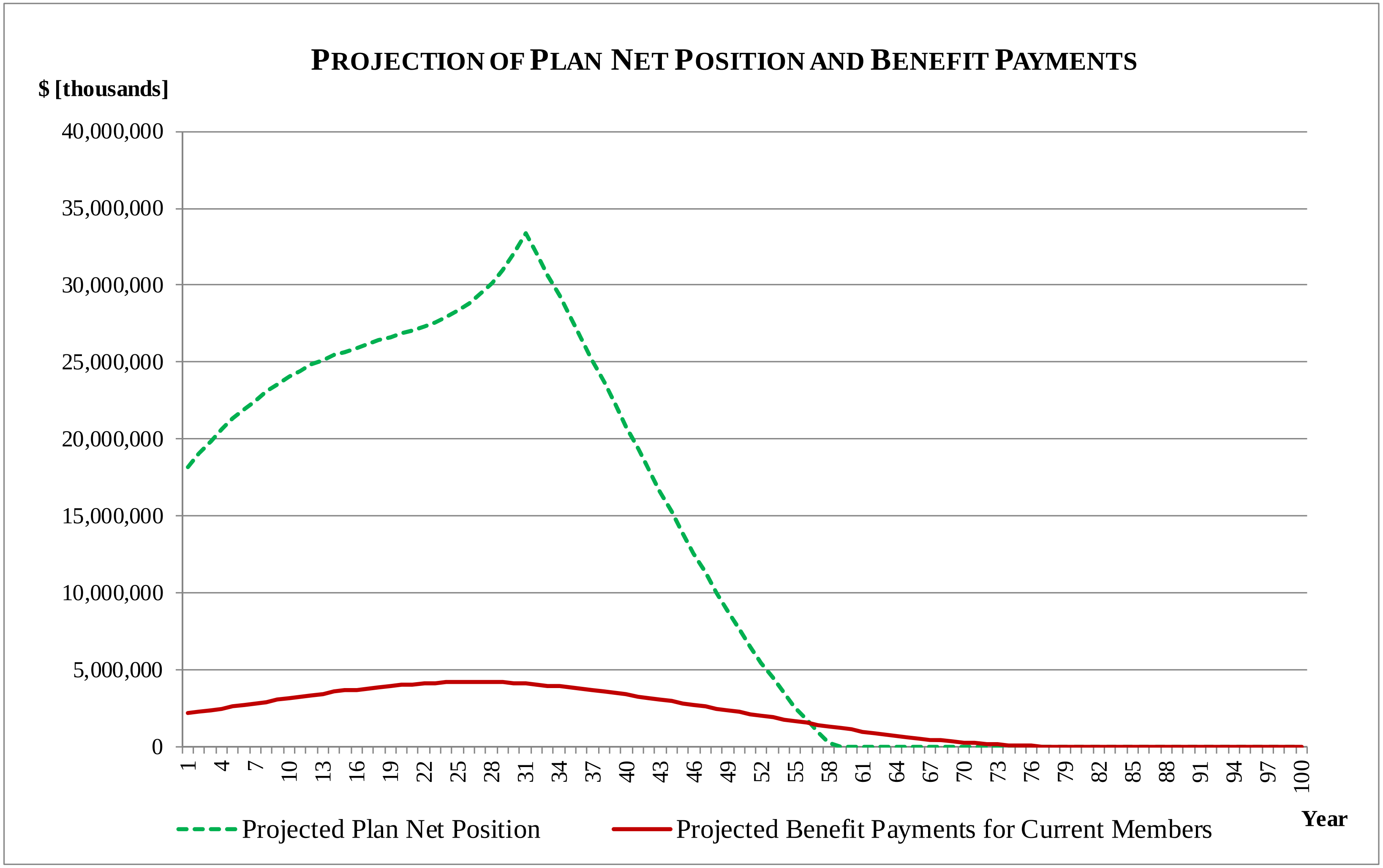
Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+SDR)^(a-.5)
1	$ 17,391,323,132	$ 2,248,254,025	$ 2,248,254,025	$ -	$ 2,170,934,544	$ -	$ 2,172,286,339
2	18,200,047,604	2,306,446,843	2,306,446,843	-	2,076,574,414	-	2,080,455,947
3	19,036,721,951	2,409,375,439	2,409,375,439	-	2,022,605,700	-	2,028,910,717
4	19,849,747,904	2,513,111,231	2,513,111,231	-	1,967,076,083	-	1,975,666,114
5	20,612,555,731	2,619,337,389	2,619,337,389	-	1,911,628,904	-	1,922,368,605
6	21,308,011,020	2,731,486,073	2,731,486,073	-	1,858,719,417	-	1,871,490,368
7	21,938,022,800	2,840,082,286	2,840,082,286	-	1,801,973,781	-	1,816,615,067
8	22,527,327,598	2,947,810,468	2,947,810,468	-	1,743,892,863	-	1,760,252,332
9	23,076,104,077	3,056,419,576	3,056,419,576	-	1,685,915,934	-	1,703,851,446
10	23,582,662,695	3,166,234,950	3,166,234,950	-	1,628,428,821	-	1,647,802,949
11	24,044,314,070	3,277,921,358	3,277,921,358	-	1,571,907,083	-	1,592,590,241
12	24,457,684,240	3,385,192,095	3,385,192,095	-	1,513,611,289	-	1,535,437,775
13	24,826,447,798	3,489,586,914	3,489,586,914	-	1,454,814,962	-	1,477,632,061
14	25,152,204,119	3,589,120,824	3,589,120,824	-	1,395,161,609	-	1,418,808,388
15	25,438,963,223	3,686,024,143	3,686,024,143	-	1,335,971,868	-	1,360,307,922
16	25,688,294,516	3,725,440,260	3,725,440,260	-	1,258,981,766	-	1,283,512,310
17	25,958,413,082	3,813,654,069	3,813,654,069	-	1,201,671,696	-	1,226,611,731
18	26,202,127,230	3,895,689,444	3,895,689,444	-	1,144,541,550	-	1,169,751,280
19	26,426,082,893	3,967,963,093	3,967,963,093	-	1,086,970,001	-	1,112,295,569
20	26,642,050,831	4,033,003,583	4,033,003,583	-	1,030,104,397	-	1,055,418,188
21	26,859,693,131	4,091,595,718	4,091,595,718	-	974,424,170	-	999,613,389
22	27,087,601,299	4,142,141,413	4,142,141,413	-	919,777,864	-	944,729,884
23	27,336,940,886	4,185,165,017	4,185,165,017	-	866,509,477	-	891,125,151
24	27,619,343,465	4,220,447,567	4,220,447,567	-	814,745,441	-	838,934,408
25	27,948,139,251	4,245,448,491	4,245,448,491	-	764,169,509	-	787,837,151
26	28,340,431,481	4,259,234,667	4,259,234,667	-	714,826,093	-	737,883,556
27	28,815,367,722	4,259,140,615	4,259,140,615	-	666,489,798	-	688,845,181
28	29,397,775,533	4,242,031,851	4,242,031,851	-	618,939,431	-	640,496,785
29	30,116,655,874	4,214,012,249	4,214,012,249	-	573,287,826	-	593,994,202
30	30,996,172,136	4,174,821,428	4,174,821,428	-	529,562,872	-	549,373,490
31	32,061,857,286	4,124,808,969	4,124,808,969	-	487,849,837	-	506,730,468
32	33,340,607,920	4,067,059,439	4,067,059,439	-	448,503,196	-	466,441,389
33	32,041,269,229	4,001,484,106	4,001,484,106	-	411,442,186	-	428,431,150
34	30,689,130,190	3,928,725,483	3,928,725,483	-	376,653,585	-	392,694,673
35	29,317,233,672	3,852,117,187	3,852,117,187	-	344,344,072	-	359,456,383
36	27,927,958,296	3,770,352,667	3,770,352,667	-	314,251,815	-	328,452,118
37	26,525,633,385	3,685,270,571	3,685,270,571	-	286,396,626	-	299,711,118
38	25,112,914,405	3,595,198,717	3,595,198,717	-	260,509,831	-	272,960,470
39	23,694,244,124	3,501,601,789	3,501,601,789	-	236,575,993	-	248,191,553
40	22,273,035,554	3,404,821,230	3,404,821,230	-	214,486,978	-	225,298,312
41	20,852,685,586	3,305,218,516	3,305,218,516	-	194,137,527	-	204,177,172
42	19,436,356,503	3,200,844,082	3,200,844,082	-	175,297,828	-	184,592,864
43	18,029,439,679	3,092,493,999	3,092,493,999	-	157,915,071	-	166,495,553
44	16,636,923,949	2,980,357,629	2,980,357,629	-	141,901,110	-	149,797,835
45	15,263,964,611	2,864,973,765	2,864,973,765	-	127,186,425	-	134,431,544
46	13,915,505,989	2,747,282,592	2,747,282,592	-	113,717,197	-	120,344,779
47	12,596,145,839	2,628,145,619	2,628,145,619	-	101,431,987	-	107,477,295
48	11,309,612,103	2,508,451,330	2,508,451,330	-	90,268,014	-	95,767,106
49	10,059,245,448	2,388,580,105	2,388,580,105	-	80,143,945	-	85,132,205
50	8,848,177,232	2,268,798,708	2,268,798,708	-	70,978,951	-	75,490,694

Year 1 is the year beginning June 30, 2014, and ending June 30, 2015.

SINGLE DISCOUNT RATE DEVELOPMENT PRESENT VALUES OF PROJECTED BENEFITS ENDING JUNE 30 FOR 2065 TO 2114 (CONCLUDED)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+SDR)^(a-.5)
51	$ 7,679,485,497	$ 2,149,257,414	$ 2,149,257,414	$ -	$ 62,693,821	$ -	$ 66,761,989
52	6,556,300,682	2,030,111,396	2,030,111,396	-	55,215,229	-	58,871,363
53	5,481,808,464	1,911,529,124	1,911,529,124	-	48,475,536	-	51,749,781
54	4,459,241,073	1,793,682,844	1,793,682,844	-	42,412,128	-	45,333,227
55	3,491,877,138	1,676,784,735	1,676,784,735	-	36,967,869	-	39,563,224
56	2,582,710,234	1,561,123,741	1,561,123,741	-	32,091,287	-	34,387,063
57	1,735,878,234	1,447,032,234	1,447,032,234	-	27,735,162	-	29,756,328
58	953,282,502	1,334,878,167	953,282,502	381,595,665	17,036,361	44,694,657	25,626,314
59	-	1,225,083,705	-	1,225,083,705	-	138,235,817	21,956,022
60	-	1,118,089,058	-	1,118,089,058	-	121,544,095	18,707,152
61	-	1,014,342,027	-	1,014,342,027	-	106,229,352	15,843,790
62	-	914,295,857	-	914,295,857	-	92,246,418	13,332,291
63	-	818,412,275	-	818,412,275	-	79,549,516	11,141,241
64	-	727,140,614	-	727,140,614	-	68,090,489	9,241,090
65	-	640,901,922	-	640,901,922	-	57,817,895	7,603,959
66	-	560,072,356	-	560,072,356	-	48,676,291	6,203,485
67	-	484,970,508	-	484,970,508	-	40,606,104	5,014,762
68	-	415,848,131	-	415,848,131	-	33,543,887	4,014,330
69	-	352,878,002	-	352,878,002	-	27,422,426	3,180,141
70	-	296,141,575	-	296,141,575	-	22,170,899	2,491,521
71	-	245,621,694	-	245,621,694	-	17,715,495	1,929,191
72	-	201,201,932	-	201,201,932	-	13,980,457	1,475,313
73	-	162,668,572	-	162,668,572	-	10,889,189	1,113,522
74	-	129,714,375	-	129,714,375	-	8,365,321	828,947
75	-	101,951,280	-	101,951,280	-	6,334,172	608,240
76	-	78,928,882	-	78,928,882	-	4,724,281	439,604
77	-	60,151,771	-	60,151,771	-	3,468,573	312,764
78	-	45,098,510	-	45,098,510	-	2,505,344	218,914
79	-	33,244,397	-	33,244,397	-	1,779,206	150,652
80	-	24,081,726	-	24,081,726	-	1,241,647	101,879
81	-	17,134,684	-	17,134,684	-	851,117	67,673
82	-	11,970,767	-	11,970,767	-	572,846	44,137
83	-	8,209,131	-	8,209,131	-	378,456	28,257
84	-	5,524,766	-	5,524,766	-	245,378	17,754
85	-	3,648,608	-	3,648,608	-	156,117	10,946
86	-	2,364,525	-	2,364,525	-	97,470	6,622
87	-	1,503,835	-	1,503,835	-	59,721	3,932
88	-	938,577	-	938,577	-	35,909	2,291
89	-	574,753	-	574,753	-	21,184	1,310
90	-	345,292	-	345,292	-	12,261	735
91	-	203,388	-	203,388	-	6,958	404
92	-	117,259	-	117,259	-	3,864	217
93	-	66,009	-	66,009	-	2,096	114
94	-	36,236	-	36,236	-	1,108	59
95	-	19,368	-	19,368	-	571	29
96	-	10,044	-	10,044	-	285	14
97	-	5,053	-	5,053	-	138	7
98	-	2,489	-	2,489	-	66	3
99	-	1,208	-	1,208	-	31	1
100	-	-	-	-	-	-	-
				Totals	$ 44,260,838,728	$ 954,277,106	$ 45,215,115,833

Year 1 is the year beginning June 30, 2014, and ending June 30, 2015.



Year 1 is the year beginning June 30, 2014, and ending June 30, 2015.

SECTION H

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

GLOSSARY OF TERMS

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of employees that are provided with pensions through the pension plan.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

GLOSSARY OF TERMS

Entry Age Actuarial Cost Method (EAN)	The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.
Non-Employer Contributing Entities	Non-employer contributing entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.
Normal Cost	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.

GLOSSARY OF TERMS

Other Postemployment Benefits (OPEB) All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.

Real Rate of Return The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total Pension Expense The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total Pension Liability
3. Current-Period Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

Total Pension Liability (TPL) The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL) The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 67 and 68, the valuation assets are equal to the market value of assets.