

STATE UNIVERSITIES RETIREMENT SYSTEM OF ILLINOIS

ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2014



October 9, 2014

Board of Trustees State Universities Retirement System of Illinois 1901 Fox Drive Champaign, Illinois 61820

Dear Members of the Board:

At your request, we present the report of the actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2014. GRS has prepared this report exclusively for the Trustees of the State Universities Retirement System; GRS is not responsible for reliance upon this report by any other party. This report may be provided to parties other than SURS only in its entirety and only with the permission of the Board.

This valuation provides information on the funding status and the contribution requirements of SURS. This valuation includes a determination of the State contribution level (the "Statutory Contribution") for the fiscal year ending June 30, 2016, under Section 15-155 of the SURS Article of the Illinois Pension Code and provides estimates of Statutory contributions for subsequent years. This valuation also provides information as required by Governmental Accounting Standards Board ("GASB") Statement No. 27. Information required by GASB Statement No. 67 is provided in a separate report. This report should not be relied on for any purpose other than the purpose described.

This valuation is based on the provisions of SURS in effect as of June 30, 2014, data on the SURS membership and information on the asset value of the trust fund as of that date. Due to the court injunction of recent pension reform, this valuation does not reflect the provisions of Public Act 98-0599. The valuation was based upon the information furnished by SURS staff, concerning SURS benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by SURS.

The benefit provisions for members hired on or after January 1, 2011, were changed under Public Act 96-0889. Members hired on or after this date and the assumed new hires in the projections were valued under Public Act 96-0889 benefit provisions and different actuarial assumptions, as applicable. There was a decrease in the investment return assumption from 7.75 percent to 7.25 percent, which also affects the factors used to calculate benefits under Rule 2 (money purchase formula). The actuarial cost method (Projected Unit Credit, as required by statute) and all other assumptions and methods used in this valuation are unchanged from the prior June 30, 2013 actuarial valuation of SURS.

To the best of our knowledge, this actuarial statement is complete and accurate, fairly presents the actuarial position of SURS as of June 30, 2014, and has been prepared in accordance with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions, contribution amounts or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contribution shortfalls (the difference between the actual contributions and the annual required contributions) remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this variance-with a view to funding the plan over time. The current contribution variance, as measured by the Net Pension Obligation ("NPO"), is a cumulative \$9.126 billion dollar shortfall in required contributions. This is an increase of \$240 million in the shortfall amount (i.e., NPO) since the prior valuation as of June 30, 2013.

Although the statutory contribution requirements were met, the statutory funding method generates a contribution requirement that is less than a reasonable actuarially determined contribution. Meeting the statutory requirement does not mean that the undersigned agree that adequate actuarial funding has been achieved; we recommend the development and adherence to a funding policy that funds the normal cost of the plan as well as an amortization payment that would seek to pay off any unfunded accrued liability over a period at least as long as 15 years and no longer than 30 years.

The signing actuaries are independent of the plan sponsor.

Leslie Thompson, 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 herein.

Respectfully submitted,

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PURPOSES OF THE ACTUARIAL VALUATION

At your request we have performed an actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2014.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of SURS as of the valuation date based on the market value of assets and the actuarial value of assets;
- To calculate accounting information required under Governmental Accounting Standards Board ("GASB") Statement No. 27; and
- To develop the levels of contributions required under Section 15-155 of the SURS Article of the Illinois Pension Code ("Section 15-155") for the fiscal year ending June 30, 2016, and to estimate contributions required under that Section for the subsequent years of the funding period ending in the year 2045.

REPORT HIGHLIGHTS

The Annual Required Contribution ("ARC") (Table 11) for FY 2013 was \$1.549 billion, and increased to \$1.561 billion for FY 2014. For FY 2013, the actual State contribution to the SURS defined benefit plans was \$1.401 billion, and for FY 2014 the actual State Contribution was \$1.503 billion. The shortfalls in the actual State contributions received compared to the Annual Required Contribution become a part of the Net Pension Obligation, which as of this valuation totaled \$9.126 billion dollars. This Net Pension Obligation represents a running total of the annual contribution shortfalls.

The Statutory contribution for FY 2016 is \$1.647 billion, and includes the State's projected normal cost of \$432.1 million and the Self-Managed Plan ("SMP") contribution of \$57.3 million. The 2013 valuation had projected the Statutory contribution would increase, from \$1.588 billion for FY 2015 to \$1.590 billion for FY 2016. The key reason for the increase in the Statutory contribution over the projected amount from the prior valuation is the decrease in the investment return assumption from 7.75% to 7.25% which increased the actuarial accrued liability.

In the past 10 years, SURS experienced investment gains (compared to the actuarial assumption) in fiscal years 2005 through 2007, and 2010, 2011, 2013, and 2014. However, SURS incurred investment losses (or shortfalls in return compared to the actuarial assumption) in fiscal years 2008, 2009, and 2012. The return for the year ending June 30, 2014 was about 18.16% compared to a 12.50% return in FY 2013. The average market value investment return over the most recent 10 years has been approximately 7.8%.

The funded ratio increased from 41.5% as of June 30, 2013, to 42.3% as of June 30, 2014, based on the actuarial value of assets and increased from 43.7% as of June 30, 2013, to 46.5% as of June 30, 2014, based on the market value of assets. The deferred asset gains will be recognized in the actuarial value of assets over the next four years.

ACTUARIAL ASSUMPTIONS

The Board voted to decrease the investment return assumption from 7.75% to 7.25% as of June 30, 2014, and to decrease the ERI assumption from 7.75% to 7.00% as of June 30, 2013. All other

actuarial assumptions were first adopted by the Board for use with the actuarial valuation as of June 30, 2011, and were based on the recommendations from the experience review performed for the period from June 30, 2006, through June 30, 2010. The asset valuation method was changed from market value of assets to actuarial value of assets effective with the valuation as of June 30, 2009, as required by statute. The assumptions can be found in Appendix F of the report.

In addition, we have assumed that the Statutory contribution will be calculated as a level percentage of pensionable payroll. Pensionable payroll for members hired on or after January 1, 2011, is limited by the pay cap. The basis for this assumption comes from 40 ILCS 5/1-160 (b-5).

SURS BENEFITS

The benefit provisions valued in this valuation are identical to those valued in the prior valuation as of June 30, 2013. Due to the court injunction of recent pension reform, this valuation does not reflect the provisions of Public Act 98-0599.

EXPERIENCE DURING 2014

The fund earned 18.16% on a market value basis during FY 2014 which exceeded the investment return assumption of 7.75% for FY 2014. However, the fund earned 13.44% on an actuarial value of assets basis during FY 2014, due to recognition of deferred investment gains and losses under the asset smoothing method. Because 13.44% exceeds the assumed rate of investment return of 7.75% for FY 2014, there was an asset gain of \$802.4 million on the actuarial value of assets. Primarily due to this actuarial gain on assets, the SURS defined benefit programs experienced an overall actuarial gain of \$743.7 million. There was a loss of \$58.7 million from actuarial liabilities, including a loss of about \$153.0 million from demographic experience which was partially offset by a gain of \$94.3 million from lower than expected pay increases.

There was an increase in the liabilities of \$1,788.5 million due to the decrease in the investment return assumption from 7.75% to 7.25%.

The total gain or loss from liabilities for the system is calculated as follows (dollars in millions):

1. AAL - Prior Year	\$ 34,373.1
2. Normal Cost - Prior Year ¹	698.2
3. Benefits and Admin Expenses Paid in FY 2014	(2,099.6)
4. Interest on the above items	2,610.6
5. Expected AAL 6/30/2014 (1+2+3+4)	35,582.3
6. Impact of Change in Actuarial Assumptions and Methods	1,788.5
7. Expected AAL 6/30/2014 After Assumption Changes (5+6)	37,370.8
8. Actual AAL 6/30/2014	37,429.5
9. Actuarial (Gain)/Loss on Liabilities (8-7)	\$ 58.7

 $^{^{1}}$ Total Normal Cost from the previous valuation which includes both employee and employer portion.

The total net actuarial gain is the total of the gain from assets and the net loss from liabilities. The total actuarial gain for the year is as follows (dollars in millions):

1.	Actuarial (Gain)/Loss on Assets	\$ (802.4)
2.	Actuarial (Gain)/Loss on Liabilities	 58.7
3.	Total Actuarial (Gain)/Loss (1+2)	\$ (743.7)

The "behavior" of the population determines the liability gain or loss for the year. There was a gain on salaries, due to lower salary increases than assumed. From last year to this year, there were losses on retirement and termination that were partially offset by a gain on disability. Active and retiree mortality experience produced a small loss, meaning members are living a little bit longer than expected, and, as always, there was a new entrant loss. The new entrant loss occurs each year, but is offset by additional contributions to the assets. The other assumptions were so close that they generated very little actuarial gain or loss.

See Table 9 (page 17), Appendix C, for detail of the gains and losses by source.

STATUTORY APPROPRIATIONS FOR THE 2016 FISCAL YEAR AND BEYOND

Section 15-155, which governs the development of Employer/State contributions to SURS, provides that:

- 1. Employer/State contributions are determined under the following process:
 - a) The overall objective of the statute is to achieve a funding ratio of 90% by the end of fiscal year ("FY") 2045.
 - b) The Employer/State contribution for FY 2012 and each year thereafter to and including FY 2045 is to be based on a (theoretically) constant percentage of the payroll¹ of active members of SURS based on the actuarial value of assets at the valuation date and assuming the actuarial value of assets earns the assumed investment return in the future.
 - c) After 2045, the Employer/State contribution rate is to be sufficient to maintain the funding level at 90%.

- 2. During the period of amortization of the 2003 bond issue, the Employer/State contribution in any fiscal year may not exceed the excess of:
 - a) the contribution, as developed in 1. above, assuming that the special contribution (from the bond proceeds) has not been made, over
 - b) the debt service on the bond issue for the fiscal year.
- 3. Pursuant to Public Act 97-0694, Section 15-165, the dollar amount of the proposed Employer/State contribution required for a fiscal year shall be certified to the Governor no later than November 1 for the fiscal year commencing on the following July 1. The

¹ We have assumed the contribution would be based on pensionable payroll. Pensionable payroll for the members hired on or after January 1, 201l, is limited by the pay cap.

required amounts are budgeted pursuant to the continuing appropriations process. The State Actuary is required to review the actuarial assumptions and valuation and issue a preliminary report. After the Board considers the State Actuary's report, the certification is finalized no later than January 15.

Based on the actuarial value of assets, Employer/State contributions for FY 2016 and estimates of the required contributions for the subsequent five fiscal years follow. The estimates for fiscal years 2017-2021 are calculated based on the expected actuarial value of assets at each of the future corresponding valuations, including the recognition of deferred gains and losses that will be recognized in future years as shown in Table 7 (page 15). In addition, the following table shows the certified Employer/State contributions for FY 2015 for comparison purposes, as calculated in the actuarial valuation as of June 30, 2013.

Estimated Statutory Contribution (in Millions)

	(m wimons)							
Fiscal	15% of New Members to SMP							
Year ¹	SURS	SMP ²	Total					
2015	\$ 1,532.069	\$ 56.131	\$ 1,588.200					
2016	1,590.153	57.327	1,647.480					
2017	1,580.673	57.558	1,638.231					
2018	1,602.659	59.135	1,661.794					
2019	1,611.434	60.862	1,672.296					
2020	1,631.225	62.711	1,693.936					
2021	1,674.518	64.518	1,739.036					
Seven year total	\$ 11,222.731	\$418.242	\$11,640.973					

¹FY 2015 Contribution based on June 30, 2013, valuation. FY 2016 Contribution and projected FY 2017-2021 contributions based on June 30, 2014, valuation. The Statutory contribution does not include debt service.

The Statutory contribution for FY 2016 is \$1,647,480,000. This is equal to a gross Statutory contribution of \$1,650,931,000 less \$3,451,000 in SMP forfeitures. The projected SMP contributions for FY 2017-2021 are net of assumed projected SMP forfeitures.

The Statutory contribution increased from \$1.588 billion for fiscal year 2015 to \$1.647 billion for fiscal year 2016.

Estimates of Statutory contributions through 2045, assuming that 15% of future new members elect SMP and all other assumptions are realized, are set out in Table 15 (page 26).

The Statutory contributions set out in this report represent the contribution amount determined consistent with the state Statute. The net State appropriation certified to the Governor is the total shown in this report, adjusted by contributions from federal and trust funds.

² Projected Self Managed Plan ("SMP") contribution is based on projection of current SMP members and 15% of new members electing SMP, which is the defined contribution plan option.

ASSET INFORMATION

The Governmental Accounting Standards Board ("GASB") has promulgated Statements No. 25 and 27 that mandate, among other things, the use of market or market-related (actuarial) asset value. Prior to the valuation as of June 30, 2009, it was agreed that market value, without adjustment, would be used for all actuarial purposes. Legislation in 2009 determined that first effective in the valuation as of June 30, 2009, contribution projections will be set out based on the actuarial value of assets. Funding status determinations and the Annual Required Contribution ("ARC") were calculated based on the actuarial value of assets.

The market value of the assets of the fund that is available for benefits has increased from \$15,037.1 million as of June 30, 2013, to \$17,391.3 million as of June 30, 2014. This increase is due to favorable return on fund assets. The actuarial value of assets is \$15,844.7 million, which is \$1,546.6 million lower than the market value of assets. This difference is due to the continuing recognition of deferred investment gains and losses. Twenty percent of these gains and losses are recognized each year. The \$1,546.6 million, which is the value of net deferred gains, will be smoothed into the actuarial value of assets over the next four years. The remaining unrecognized net asset gains from FY 2011, FY 2013 and FY 2014 will be smoothed in over the next one, three and four years, respectively, and the remaining asset loss from FY 2012 will be smoothed in over the next two years.

The detailed determinations of asset values utilized in this valuation and asset growth in the last year are set out in Appendix A and Table 7 (page 15) of Appendix C.

FUNDING STATUS

The funding status of SURS is measured by the Funding Ratio. The Funding Ratio is the ratio of the assets available for benefits compared to the actuarial accrued liability of the System. Thus, it reflects the portion of benefits earned by SURS members, which are covered by System assets.

A funding ratio of 100% means that all of the benefits earned to date by SURS members are covered by assets. By monitoring changes in the funding ratio each year we can determine whether or not funding progress is being made.

Based on the actuarial value of assets, the SURS funding ratio increased from 41.5% at June 30, 2013, to 42.3% at June 30, 2014. The funded ratio is 46.5% based on the market value of assets at June 30, 2014. There are net deferred gains that will be smoothed into the actuarial value of assets over the next four years, and as a result, the funded ratio is projected to increase if all assumptions are realized and all employer contributions are made on a timely basis.

The following table shows a comparison for fiscal years 2008 through 2014 of the percentage of benefits that are covered by the actuarial value of assets. The employer financed liabilities for current active and inactive members are 0% funded by the assets. Only a portion of the retiree liabilities are funded by current assets and the percentage covered increased from 38.2% as of June 30, 2013 to 40.0% as of June 30, 2014.

Percentage of Benefits Covered by Net Assets (in Millions)

	Member	Members	Act/Inact	Net _	% of Benef	its Covered	d by Assets
	Acc	Receiving	Employer	Actuarial			
Fiscal	Contrib.	Benefits	Portion	Value of			
Year	(1)	(2)	(3)	Assets	(1)	(2)	(3)
2008	\$ 5,426.8	\$ 13,978.1	\$ 5,512.8	\$ 14,586.3	100.0%	65.5%	0.0%
2009	5,688.9	14,802.6	5,824.7	14,282.0	100.0%	58.1%	0.0%
2010	5,916.3	16,834.4	7,369.7	13,966.6	100.0%	47.8%	0.0%
2011	6,007.4	18,918.1	6,588.8	13,945.7	100.0%	42.0%	0.0%
2012	5,962.4	20,651.4	6,556.4	13,949.9	100.0%	38.7%	0.0%
2013	5,830.1	22,099.9	6,443.1	14,262.6	100.0%	38.2%	0.0%
2014	6,094.9	24,388.6	6,946.0	15,844.7	100.0%	40.0%	0.0%

ACTUARIAL FUNDING AND STATUTORY FUNDING

Previous GASB requirements, as amplified by the Actuarial Standards of Practice, provided guidance on how to determine the Annual Required Contribution ("ARC") (defined under GASB Statements No.25 and 27) for a retirement plan. This ARC is the sum of the normal cost and amortization of the unfunded accrued liability. The reason for this accrual pattern is to have benefits accrued within the same generation that has earned them as well as to ensure that all benefit obligations will be met. GASB Statements 67 and 68, which replace GASB Statements 25 and 27, no longer use the ARC. However, measuring the Statutory Contribution against a funding policy (such as the ARC) helps evaluate the funding adequacy of the current Statutory funding method. Table 15 illustrates an "alternative policy contribution" which is the sum of the employer normal cost and a 30-year closed period level percentage of capped payroll amortization payment.

The actual SURS contribution (excluding SMP) for FY 2014 was \$1.503 billion, which compares to the projected statutory SURS contribution of \$1.504 billion determined in the valuation as of June 30, 2012, and the FY 2014 ARC of \$1.561 billion.

The Statutory funding policy creates a perpetual contribution variance. In the case of SURS, the Statutory funding policy creates a temporary underfunding of the plan in earlier years, and in later years that Statutory contribution would exceed a contribution equal to normal cost plus 30-open period level percent of pay amortization of the unfunded liability (calculation used for the ARC). The cumulative difference between the ARC and the contributions (net of SMP) represents a "net pension obligation" (NPO) as defined under GASB. An NPO is viewed as the accumulated value of contribution variances – where GASB defines contribution variances as the difference between the ARC and the Statutory appropriation. In lay terms, this NPO could be viewed as a "past due" on the annual required contributions. As shown in Table 12 (page 20) of this report, the NPO (accumulated missed contributions) is \$9.1 billion as of June 30, 2014. A large and growing NPO may raise concerns in the capital markets and impact the cost of debt and borrowing for the State. The Statutory contributions are projected to continue to rise in order to meet the ultimate funding objective of a 90% funded ratio in 2045.

Based on projections assuming that the Statutory contributions are made every year (as shown in Table 13, page 21) and an investment return of 7.25% each year, the funded ratio is projected to begin

to increase from about 42% funded to 90% funded at 2045. The funded status is not projected to exceed 70% until 2040, and is projected to increase to 90% during the five year period from 2040 until 2045. If the Statutory contributions are not made or investment return is less than the assumption of 7.25%, the funded ratio will be lower and the cash flow strain will be higher.

The projected actuarial accrued liability of current retirees, current active and inactive members and future members is expected to increase from \$37.430 billion as of the end of FY 2014 to \$53.249 billion as of the end of FY 2045 (as shown in Graph 2, page 23). Total benefit payments are projected to increase from \$2.086 billion in fiscal year 2014 to \$4.430 billion in fiscal year 2045. Graph 3 (page 24) shows projected benefit payments separately for retirees as of June 30, 2014, active and inactive members as of June 30, 2014, and future members.

ADDITIONAL PROJECTION DETAILS

At the request of the State Actuary, we have included exhibits with additional projection details that can be found in Appendix E.

RECOMMENDATIONS

The calculations in this report were prepared based on the methods required by the Statutory funding policy including the asset smoothing method that was adopted for the first time in the June 30, 2009 actuarial valuation. In light of the current funded status of this Retirement System, we do not endorse this funding policy because the Statutory funding policy defers funding for these benefits into the future and places a higher burden on future generations of taxpayers.

We recommend a funding policy that contributes normal cost plus 30-year (or shorter) closed period amortization as a level percentage of capped payroll for paying off the current unfunded accrued liability (i.e., the amortization period declines by one year with each actuarial valuation) such that the funded ratio is projected to be 100 percent funded by 2045 or earlier. A closed amortization period methodology pays off the unfunded accrued liability in full by the end of the 30 year period. The fiscal year 2016 contribution would be \$1,910.225 (\$1,852.898 million for the SURS contribution and \$57.327 million for SMP) under this funding policy. The current Statutory contribution does not comply with this recommendation. Underfunding the System creates the risk that ultimately benefit obligations cannot be met from the trust, and will require a greater amount of funding from other State resources. In addition, continually underfunding the System also creates more of a funding need from contributions and less is available from investment return – thereby creating a more expensive plan. Projected contributions under the current Statutory policy and the recommended policy are shown in Graph 4 on page 27.

In addition, we recommend that an asset corridor on the actuarial value of assets be implemented, in the event that there is another significant market downturn similar to fiscal year 2009. The actuarial value of assets was about 30% higher than the market value of assets as of June 30, 2009, and was about 15% higher than the market value of assets as of June 30, 2010. The actuarial value of assets was within 5% of market value as of June 30, 2011, June 30, 2012, and June 30, 2013 and within 10% of market value as of June 30, 2014. Using an actuarial value of assets that is significantly higher than the market value of assets delays funding to the system by further deferring contributions into the future. The plan is already in serious funding jeopardy, and we cannot recommend an asset valuation method that does not include a corridor because it could add additional risk to the funding of the benefit obligations if another downturn occurred.

We recognize that the State Statute governs the funding policy of the System. The purpose of these comments is to highlight the difference between the Statutory appropriation and the recommended actuarially sound funding policy and to highlight the risks and additional costs of continuing to underfund the System.

GASB DISCLOSURE

Prior to fiscal year ending June 30, 2014, the accounting policies of the State of Illinois relative to its retirement systems were based on the terms of GASB Statement No. 25 and 27. Tables 10 and 11 (pages 18 and 19) are Required Supplemental Information tables mandated by those statements. Table 12 (page 20) provides additional supporting information.

GASB Statement No. 67 and 68 are new accounting standards which are replacing Statement No. 25 and 27. GASB Statement No. 67 is first effective for fiscal year 2014 and GASB Statement No. 68 is first effective for fiscal year 2015. A separate GASB 67 report has been provided. The GASB 27 schedules for fiscal year ending June 30, 2014, are contained in this report.

The significant provisions of GASB Statement No. 67 and 68 include:

- 1. Recognizing the entire Net Pension Liability (similar to the unfunded liability) on the balance sheet (compared with the Net Pension Obligation which is currently recognized).
- 2. Use of a blended discount rate to calculate liabilities for accounting purposes.
- 3. Use of market value of assets to calculate the Net Pension Liability.
- 4. Elimination of the Annual Required Contribution (ARC) and replacing it with a pension expense that requires a much shorter amortization period than 30 years.

FUTURE CONSIDERATIONS

Recent changes (such as five-year asset smoothing and the addition of the new benefit tier) have had the effect of reducing the Statutory contribution amounts that would have otherwise been made. However, the change in the investment return assumption and other changes to align the actuarial assumptions with current market expectations have increased the contribution amounts that would otherwise have been made. SURS is currently projected to have contributions sufficient to steadily increase the funded ratio from the current level of 42.3% to 90.0% by 2045, assuming the statutory contributions are received and the actuarial assumptions are met, including a 7.25% investment rate of return, each year through 2045.

This is a severely underfunded plan. We have not assessed the plan sponsor's ability to make contributions when due.



APPENDIX A

ASSET INFORMATION

TABLE 1
STATEMENT OF PLAN NET POSITION
AS OF JUNE 30, 2014 AND JUNE 30, 2013

	Defined Benefit Self Managed		Reporting Entity Totals			
	Plan	Plan	2014	2013		
Assets						
Cash and short-term investments	\$ 792,286,594	-	\$ 792,286,594	\$ 564,599,292		
Receivables						
Participants	8,890,114	\$ 3,102,136	11,992,250	14,702,522		
Federal, trust funds, and other	109,240,672	1,809,357	111,050,029	274,879,520		
Pending investment sales	444,237,505	-	444,237,505	388,643,715		
Interest and dividends	40,106,288		40,106,288	39,318,325		
Total receivables	602,474,579	4,911,493	607,386,072	717,544,082		
Prepaid expenses	124,042	-	124,042	116,380		
Investments, at fair value						
Equity investments	11,949,682,690	60,888,458	12,010,571,148	10,320,326,214		
Fixed income investments	4,070,551,894	27,090,851	4,097,642,745	3,825,328,939		
Real estate investments	635,941,600	1,420,174	637,361,774	382,755,515		
Mutual fund and variable annuities		1,490,380,389	1,490,380,389	1,179,889,253		
Total investments	16,656,176,184	1,579,779,872	18,235,956,056	15,708,299,921		
Securities lending collateral	664,501,026	-	664,501,026	646,999,435		
Capital assets, at cost, net of accum deprec						
\$ 18,437,341 and \$ 17,989,458 respectively	6,143,069		6,143,069	6,215,304		
Total assets	18,721,705,494	1,584,691,365	20,306,396,859	17,643,774,414		
Liabilities						
Benefits payable	9,869,469	_	9,869,469	7,262,371		
Refunds payable	5,319,941	_	5,319,941	6,112,384		
Securities lending collateral	664,335,138	_	664,335,138	646,877,066		
Payable to brokers for unsettled trades	635,098,360	-	635,098,360	666,401,158		
Administrative expenses payable	15,759,454		15,759,454	20,679,277		
Total liabilities	1,330,382,362		1,330,382,362	1,347,332,256		
Plan Net Position	\$ 17,391,323,132	\$ 1,584,691,365	\$ 18,976,014,497	\$ 16,296,442,158		

TABLE 2 STATEMENT OF CHANGES IN PLAN NET POSITION FOR YEARS ENDED JUNE 30, 2014 AND JUNE 30, 2013

	Defined Benefit	Self Managed	Reporting Entity Totals		
	Plan	Plan	2014	2013	
Additions					
Contributions					
Employer	\$ 1,502,863,618	\$ 57,161,788	\$ 1,560,025,406	\$ 1,450,720,295	
Participant	283,081,326	65,531,140	348,612,466	305,079,175	
Total Contributions	1,785,944,944	122,692,928	1,908,637,872	1,755,799,470	
Investment Income					
Net appreciation					
in fair value of investments	2,403,714,880	246,288,507	2,650,003,387	1,549,836,544	
Interest	97,719,525	-	97,719,525	100,489,294	
Dividends	214,220,387	-	214,220,387	237,085,587	
Securities lending	4,147,244		4,147,244	4,404,538	
Gross Investment Income	2,719,802,036	246,288,507	2,966,090,543	1,891,815,963	
Less investment expense					
Asset management expense	51,526,391	-	51,526,391	49,174,215	
Securities lending expense	375,242		375,242	373,983	
Net investment income	2,667,900,403	246,288,507	2,914,188,910	1,842,267,765	
Total additions	4,453,845,347	368,981,435	4,822,826,782	3,598,067,235	
Deductions					
Benefits	2,002,869,428	18,376,445	2,021,245,873	1,934,136,239	
Refunds of contributions	82,897,092	24,813,848	107,710,940	101,598,796	
Administrative expense	13,857,522	440,108	14,297,630	13,852,565	
Total deductions	2,099,624,042	43,630,401	2,143,254,443	2,049,587,600	
Net increase	2,354,221,305	325,351,034	2,679,572,339	1,548,479,635	
Plan Net Position					
Beginning of year	15,037,101,827	1,259,340,331	16,296,442,158	14,747,962,523	
End of Year	\$ 17,391,323,132	\$ 1,584,691,365	\$ 18,976,014,497	\$ 16,296,442,158	

APPENDIX B

MEMBERSHIP DATA

TABLE 3
SUMMARY OF DATA CHARACTERISTICS
(\$ IN MILLIONS)

	June	30, 2013	June 30, 2014		
	Number	Earnings	Number	Earnings	
Active Members					
Full time					
Traditional SURS	46,971	\$2,262.4	46,159	\$2,241.2	
Portable SURS	18,751	1,110.9	18,464	1,120.6	
SMP	10,252	668.1	10,849	731.2	
Total Full Time 1	75,974	\$4,041.4	75,472	\$4,093.0	
Part time					
Traditional SURS	4,074	\$ 26.9	4,095	\$ 27.2	
Portable SURS	760	5.9	718	6.0	
SMP	494	3.9	560	4.8	
Total Part Time	5,328	\$ 36.7	5,373	\$ 38.0	
Total	81,302	\$4,078.1	80,845	\$4,131.0	
Inactive Members					
Traditional SURS	64,706		65,222		
Portable SURS	9,863		10,270		
SMP	7,627		7,992		
Total	82,196		83,484		

¹ Includes 695 police officers and firefighters as of June 30, 2013 and 674 as of June 30, 2014.

	Number	Annual Benefits	Number	Annual Benefits
Benefit Recipients				
Retirement				
Traditional SURS	44,503	\$ 1,658.8	46,043	\$ 1,746.8
Portable SURS	3,639	105.5	4,194	124.6
Total Retirement	48,142	\$ 1,764.3	50,237	\$ 1,871.5
Survivor				
Traditional SURS	7,885	\$ 122.7	8,011	\$ 130.7
Portable SURS	116	1.6	133	2.1
Total Survivor	8,001	\$ 124.3	8,144	\$ 132.8
Disability				
Traditional SURS	911	\$ 16.8	864	\$ 16.3
Portable SURS	175	4.0	161	3.7
Total Disability	1,086	\$ 20.8	1,025	\$ 20.0
Total	57,229	\$ 1,909.4	59,406	\$ 2,024.4
Total Participants				
Total Traditional SURS	169,050		170,394	
Total Portable SURS	33,304		33,940	
Total SMP	18,373		19,401	
Total	220,727		223,735	

Values may not add due to rounding.

TABLE 4
DISTRIBUTION OF FULL-TIME ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE
AS OF JUNE 30, 2014

				Yea	ars of So	ervice				
Age	Under 1	1-4	5-9	10-14		15-19	20-24	25-29	30 & Over	Totals
Under 20		9	6	-	-	-	-		-	15
	\$ 46,08	2 \$ 69,	,658 \$	- \$	- \$	-	\$ -	\$ -	\$ -	\$ 115,740
20-24	34 \$ 2,972,22	0 3	721 ,347 \$ 338,	19 861 \$	- - \$	-	\$ -	\$ -	\$ -	1,080 \$ 21,400,430
25-29	65			692	18	-	-		-	5,063
			565 \$ 27,854,		,285 \$	-	\$ -	\$ -	\$ -	\$ 175,918,548
30-34	59 \$ 8,080,94	· · · · · · · · · · · · · · · · · · ·	,347 2, ,093 \$123,511,	585 594 \$ 27,313	542 3,184 \$	12 636,116	\$ -	\$ -	\$ -	8,077 \$ 355,664,935
35-39	39	· · · · · · · · · · · · · · · · · · ·	•		,660	411	11		-	8,680
	\$ 5,816,28		875 \$170,479,				\$ 561,935	\$ -	\$ -	\$ 454,300,033
40-44	29 \$ 4,217,02	· · · · · · · · · · · · · · · · · · ·	,409 2, ,104 \$164,083,		2,145 ,651 \$	1,271 83,974,969	357 \$ 24,256,798			9,344 \$ 537,259,520
45-49	27 \$ 4,261,41	- ,	.035 2, .395 \$132,003,		2,165 5,193 \$1	1,628 117,566,771	987 \$ 69,856,114			9,943 \$ 582,182,750
50-54	24 \$ 3.829.50	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		2,219 3.317 \$	1,904 129,207,594	,	· · · · · · · · · · · · · · · · · · ·		11,277 \$ 672,656,760
55-59	17	4 1,	482 2,	138 1	,966	1,732	1,410	900	317	
60-64	8	0	977 1,	631 1	,490	1,257	1,098	592	305	7,430
	\$ 1,359,91	9 \$ 39,834,	,091 \$ 73,024,	250 \$ 83,938	3,225 \$	74,653,529	\$ 78,467,852	\$ 55,422,285	\$ 36,674,652	\$ 443,374,803
65 & Over	\$ 354,48				997),197 \$	756 40,929,943	\$ 32,488,390			4,444 \$ 228,992,238
otal Count	3,07		.087 18,		3,202	8,971	5,924			
otal Payroll	\$41,214,86	3 \$927,476,	194 \$ 947,273,	261 \$781,696	5,395 \$3	583,531,551	\$428,130,771	\$ 265,433,884	\$118,213,520	\$ 4,092,970,438

TABLE 5
DISTRIBUTION OF BENEFIT RECIPIENTS BY AGE
AS OF JUNE 30, 2014

Age	Number	Annual Benefit
Retirees and Survivors		
Under 50	499	\$ 3,643,772
50-54	612	22,401,555
55-59	4,517	150,475,170
60-64	9,606	331,015,074
65-69	12,564	438,997,048
70-74	10,862	413,606,749
75-79	7,817	286,172,708
80-84	5,720	194,356,086
85-89	3,819	108,101,014
90 & Over	2,365	55,547,335
Total	58,381	\$ 2,004,316,511
Disabilitants		
Under 50	155	\$ 3,102,933
50-54	141	2,729,056
55-59	219	4,715,279
60-64	240	4,921,504
65-69	135	2,664,925
70-74	63	951,731
75-79	37	557,629
80-84	18	219,408
85-89	12	136,066
90 & Over	5	49,036
Total	1,025	\$ 20,047,567



TABLE 6
SUMMARY OF ACTUARIAL VALUES
AS OF JUNE 30, 2014

	Actuarial	Projected Unit C Actuarial	Gross					
	Present Value	Accrued	Normal	Gross				
	of Projected	Liability	Cost	NC %				
	Benefits (APV)	(AAL)	(NC) ¹	of Pay 1				
1. Active Members								
a. Retirement	\$13,983.7	\$ 8,981.3	\$535.8	15.18%				
b. Death	291.7	182.1	12.2	0.35%				
c. Disability	719.7	440.0	40.8	1.16%				
d. Termination	1,694.9	1,063.9	126.3	3.58%				
Total - Active Members	\$16,689.9	\$ 10,667.3	\$715.1	20.26%				
2. Benefit Recipients								
a. Retirement	\$22,854.9	\$22,854.9	\$ 0.0					
b. Survivor	1,214.7	1,214.7	0.0					
c. Disability	319.1	319.1	0.0					
Total - Benefit Recipients	\$24,388.6	\$24,388.6	\$ 0.0					
3. Other Inactive	\$ 2,373.6	\$ 2,373.6						
4. Grand Total	\$43,452.1	\$37,429.5	\$715.1	20.26%				
5. Operating Expense			\$ 14.9	0.42%				
6. Total Normal Cost			\$730.0	20.69%				
7. Expected Pay During Fiscal Year 2015 for Defined Benefit Plans 3,								
8. Present Value of Future S	Salaries (PVFS) 1			\$ 28,193.2				

¹ For members currently active as of June 30, 2014, in the Traditional and Portable defined benefit plans and includes the use of capped payroll for members hired on or after January 1, 2011.

Values may not add due to rounding.

TABLE 7

DEFINED BENEFIT PLAN DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
FOR THE YEAR ENDING JUNE 30, 2014

	2013	2014	2015	2016	2017	2018
Beginning of Year:						
(1) Market Value of Assets	\$ 13,705,143,278	\$ 15,037,101,827				
(2) Actuarial Value of Assets	13,949,905,108	14,262,621,179				
End of Year:						
(3) Market Value of Assets	15,037,101,827	17,391,323,132				
(4) Net of Contributions and Disbursements	(362,813,525)	(313,679,098)				
(5) Total Investment Income						
=(3)-(1)-(4)	1,694,772,074	2,667,900,403				
(6) Projected Rate of Return	7.75%	7.75%				
(7) Projected Investment Income						
$=(1)x(6)+([1+(6)]^{5}-1)x(4)$	1,048,351,903	1,153,447,124				
(8) Investment Income in	,, ,	,, -,				
Excess of Projected Income	646,420,171	1,514,453,279				
(9) Excess Investment Income Recognized						
This Year (5 year recognition)						
(9a) From This Year	129,284,034	302,890,656				
(9b) From One Year Ago	(215,038,203)	129,284,034	\$ 302,890,656			
(9c) From Two Years Ago	377,271,084	(215,038,203)	129,284,034	\$ 302,890,656		
(9d) From Three Years Ago	147,916,952	377,271,084	(215,038,203)	129,284,034	\$ 302,890,656	
(9e) From Four Years Ago	(812,256,174)	147,916,951	377,271,085	(215,038,203)	129,284,035	\$ 302,890,655
(9f) Total Recognized Investment Gain/(Loss)	(372,822,307)	742,324,522	594,407,572	217,136,487	432,174,691	302,890,655
(10) Change in Actuarial Value of Assets						
=(4)+(7)+9[f]	312,716,071	1,582,092,548				
End of Year:						
(3) Market Value of Assets	15,037,101,827	17,391,323,132				
(11) Final Actuarial Value of Assets	14,262,621,179	15,844,713,727				
(12) Difference Between Market & Actuarial Values	774,480,648	1,546,609,405				
(13) Actuarial Value Rate of Return	4.91 %	13.44 %				
(14) Estimated Market Value Rate of Return	12.53 %	17.93 %				
(15) Ratio of Actuarial Value to Market Value	95 %	91 %				
(16) SURS Reported Market Value Rate of Return	12.50 %	18.16 %				

Investment return assumption decreased from 7.75% to 7.25% as of June 30, 2014.

TABLE 8

ANALYSIS OF CHANGE IN

UNFUNDED ACTUARIAL ACCRUED LIABILITY

FOR THE YEAR ENDING JUNE 30, 2014

(\$ IN MILLIONS)

1. Actuarial (Gain)/Loss on AAL		
(a) AAL 6/30/13		\$ 34,373.1
(b) Normal Cost FY14	\$ 698.2	
(c) Benefits and Admin Expenses Paid FY14	(2,099.6)	
(d) Interest on (a), (b), and (c) at 7.75%	2,610.6	
(e) Expected AAL 6/30/2014 (a+b+c+d)		35,582.3
(f) Actual AAL 6/30/2014		 35,641.0
(g) Actuarial (Gain)/Loss on AAL (f-e)		\$ 58.7
(h) Impact of Benefit Changes		0.0
(i) Impact of Change in Actuarial Assumptions and Methods ¹		1,788.5
(j) Actual AAL After Changes (f+h+i)		\$ 37,429.5
2. Actuarial (Gain)/Loss on Assets		
(a) Actuarial Value of Assets 6/30/13		\$ 14,262.6
(b) Contributions FY14	1,785.9	
(c) Benefits and Admin Expenses	(2,099.6)	
(d) Interest on (a), (b), and (c) at 7.75%	1,093.4	
(e) Expected Assets 6/30/2014 (a+b+c+d)		\$ 15,042.3
(f) Actual Actuarial Value of Assets 6/30/2014		15,844.7
(g) Actuarial (Gain)/Loss on Assets (e-f)		\$ (802.4)
3. Total Actuarial (Gain)/Loss		
(a) (Gain)/Loss on AAL		\$ 58.7
(b) (Gain)/Loss on Assets		 (802.4)
(c) Net (Gain)/Loss (a+b)		\$ (743.7)

Values may not add due to rounding.

¹Investment return assumption decreased from 7.75% to 7.25% as of June 30, 2014.

TABLE 9
ANALYSIS OF ACTUARIAL GAINS AND LOSSES
(\$ IN MILLIONS)

	Amount of (Gain) or Loss				
	FY 2011	FY 2012	FY 2013	FY 2014	
Investment Return ¹	\$ 430.0	\$ 476.7	\$ 391.8	\$ (802.4)	
Salary Increase	(172.3)	(4.0)	(53.6)	(94.3)	
Age and Service Retirement	(31.4)	126.3	14.3	105.2	
General Employment Termination	34.0	59.9	9.1	21.2	
Disability Incidence	(5.2)	5.9	2.3	(8.3)	
In Service Mortality	(2.6)	2.2	4.2	1.7	
Benefit Recipient ²	100.8	55.5	31.2	1.4	
New Entrants	75.0	75.2	77.4	79.0	
Other	81.2	56.2	63.8	(47.2)	
Total Actuarial (Gain)/Loss	\$ 509.5	\$ 853.9	\$ 540.5	\$ (743.7)	

 $^{^{1}}$ Gain/Loss is based on market value of assets prior to FY 2010, and actuarial value of assets thereafter.

²Benefit recipient (gain)/loss includes mortality gains and losses as well as gains and losses due to unexpected changes in benefit amounts from year to year. Unexpected changes may occur when benefits that are initially paid as preliminary estimates are finalized. Beginning with the valuation as of June 30, 2011, there is an additional load of 10% on the liabilities of those retirees who are currently receiving benefits as a preliminary estimate. Beginning with the valuation as of June 30, 2013, Staff provided additional data fields for members whose benefits are paid as preliminary estimates in order to better measure the liabilities for these retirees whose benefits have not been finalized.

TABLE 10
SCHEDULE OF FUNDING STATUS
(\$ IN 000s)

Plan Year	Assets	AAL	UAAL	Funding Ratio	Payroll/DB*	UAAL as % of Payroll
2000	\$ 12,063,950	\$ 13,679,039	\$1,615,089	88.19 %	\$2,424,209	66.62 %
2001	10,753,297	14,915,317	4,162,020	72.10	2,474,631	168.19
2002	9,814,677	16,654,041	6,839,364	58.93	2,607,155	262.33
2003	9,714,547	18,025,032	8,310,485	53.89	2,763,428	300.73
2004	12,586,305	19,078,583	6,492,278	65.97	2,814,071	230.71
2005	13,350,278	20,349,922	6,999,644	65.60	2,939,185	238.15
2006	14,175,147	21,688,935	7,513,788	65.36	3,054,100	246.02
2007	15,985,730	23,362,079	7,376,349	68.43	3,180,985	231.89
2008	14,586,325	24,917,678	10,331,353	58.54	3,303,220	312.77
2009	11,032,973	26,316,231	15,283,258	41.92	3,463,922	441.21
2009 **	14,281,998	26,316,231	12,034,233	54.27	3,463,922	347.42
2010 ***	13,966,643	30,120,427	16,153,784	46.37	3,491,071	462.72
2011	13,945,680	31,514,336	17,568,656	44.25	3,460,838	507.64
2012	13,949,905	33,170,216	19,220,311	42.06	3,477,166	552.76
2013	14,262,621	34,373,104	20,110,483	41.49	3,533,858	569.08
2014 ***	15,844,714	37,429,515	21,584,801	42.33	3,522,246	612.81

AAL - Actuarial Accrued Liability

GASB 67 information has been provided in a separate report.

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

UAAL - Unfunded Actuarial Accrued Liability

^{*} Payroll is rolled forward with salary scale for one year and uses capped payroll for members hired on and after January 1, 2011.

^{**} Assets at Actuarial Value (Market Value through first 2009, then Actuarial Value)

^{***} Investment rate of return assumption decreased from 8.50 percent to 7.75 percent in plan year 2010, and decreased from 7.75 percent to 7.25 percent in plan year 2014.

TABLE 11
SCHEDULE OF CONTRIBUTIONS
(\$ IN MILLIONS)

Fiscal Year	(1) Total Normal Cost	(2) Amortization of UAAL	(3) (1) + (2) Total ADC	(4) Member Contributions	(5) (3) - (4) Net State ARC*	(6) Actual State Contribution	(7) (6) / (5) State Cont. as Percent of Net ARC
2001			\$ 548.1	\$ 221.6	\$ 326.5	\$ 247.1	75.69 %
2002			686.9	251.6	435.3	256.1	58.84
2003			843.8	246.3	597.5	285.3	47.74
2004			934.8	243.8	691.0	1,757.5	254.36
2005			859.7	251.9	607.8	285.4	46.96
2006			914.9	252.9	662.0	180.0	27.19
2007			968.3	262.4	705.9	261.1	36.99
2008			971.6	264.1	707.5	344.9	48.75
2009			1,147.3	273.3	874.0	451.6	51.67
2010 **			1,278.3	275.0	1,003.3	696.6	69.43
2011 ***	\$ 723.798	\$ 795.427	1,519.225	260.177	1,259.048	773.595	61.44
2012	700.972	1,000.612	1,701.584	258.236	1,443.348	985.815	68.30
2013	699.747	1,094.681	1,794.428	245.141	1,549.287	1,401.481	90.46
2014	698.225	1,145.380	1,843.605	283.081	1,560.524	1,502.864	96.31

^{*} ARC - Annual Required Contribution as defined in GASB Statements No. 25 and 27. The ARC is the Actuarially Determined Contribution ("ADC") net of member contributions.

GASB 67 information has been provided in a separate report.

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

^{**} Assets at Actuarial Value (Market Value through 2009, then Actuarial Value beginning with fiscal year 2010).

^{***} Investment rate of return assumption decreased from 8.50 percent to 7.75 percent in fiscal year 2011. Beginning in fiscal year 2011, dollars are shown rounded to three decimal places.

TABLE 12
GENERAL INFORMATION GASB No. 27
(\$ IN MILLIONS)

				(4)		(6)			(9)
	(1)	(2)	(3)	(1) + (2) + (3)	(5)	(4) - (5)	(7)	(8)	(8) + (6) - (7)
Fiscal	Total	Interest on	NPO	Total	Member	State	Actual State	Beg. of Year	End of Year
Year	ADC	NPO	Adjustment	Expense	Contributions	Expense	Contribution	NPO	NPO
2009	\$1,147.332	\$520.287	\$(329.542)	\$1,338.077	\$273.292	\$1,064.785	\$451.617	\$6,121.020	\$6,734.188
2010	1,278.331	572.406	(362.553)	1,488.184	275.000	1,213.184	696.595	6,734.188	7,250.777
2011	1,519.225	561.935	(357.035)	1,724.125	260.177	1,463.948	773.595	7,250.777	7,941.130
2012	1,701.584	615.438	(452.282)	1,864.740	258.236	1,606.504	985.815	7,941.130	8,561.819
2013	1,794.428	663.541	(487.633)	1,970.336	245.141	1,725.195	1,401.481	8,561.819	8,885.533
2014	1,843.605	688.629	(506.070)	2,026.164	283.081	1,743.083	1,502.864	8,885.533	9,125.752

Notes in Trend Data

<u>Information</u>	Data			
Valuation Date	June 30, 2014			
Actuarial Cost Method	Projected Unit Credit			
Amortization Method	Level Percent, Open			
Remaining Amortization Period	30 years			
Asset Valuation Method	5-Year Smoothed Market			
Actuarial Assumptions				
Investment rate of return*	7.25%			
Projected salary increases*	3.75% - 12.00%			
Cost-of-living adjustment (pre/post 1/1/2011 hires)	3.0%/1.375%			
*Includes price inflation of 2.75%				

GASB 67 information has been provided in a separate report.

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



ACTUARIAL PROJECTIONS

TABLE 13

BASELINE PROJECTIONS – ACTUARIAL VALUATION JUNE 30, 2014

ASSUMES CONTRIBUTIONS BASED ON TABLE 15 & INVESTMENT RETURN OF 7.25% EACH YEAR
(\$ IN MILLIONS)

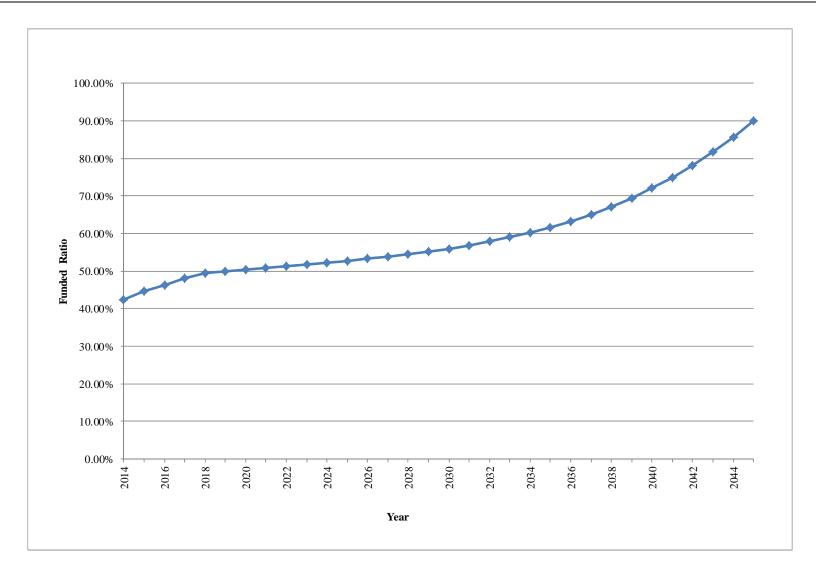
Fiscal											D.14		CITEC C 4 3 4
Year	Total	SMP	DB	SURS	Member			Assets		Funding	Debt	Maximum	SURS Contribution
Ending	Payroll 1	Payroll	Payroll 1	Contributions ²	Contributions	Benefits	Expenses	EOY	AAL	Ratio	Service	Contribution ³	% of Total Payroll
2014	\$ 4,130.958	\$ 736.022	\$ 3,394.936	\$ 1,502.864	\$ 283.081	\$ 2,085.767	\$ 13.858	\$ 15,844.714	\$ 37,429.515	42.33 %	\$ 114.000	\$ 1,511.719	36.38%
2015	4,394.286	777.497	3,616.789	1,532.069	289.705	2,245.494	14.925	17,245.725	38,556.638	44.73	113.227	1,545.032	34.87%
2016	4,499.746	793.137	3,706.609	1,590.153	296.899	2,307.349	15.485	18,330.908	39,699.714	46.17	112.435	1,607.800	35.34%
2017	4,614.366	811.989	3,802.378	1,580.673	304.570	2,419.797	16.065	19,575.136	40,807.101	47.97	116.476	1,607.461	34.26%
2018	4,736.582	834.235	3,902.347	1,602.659	312.578	2,533.089	16.668	20,662.065	41,875.898	49.34	120.304	1,632.557	33.84%
2019	4,863.330	858.614	4,004.716	1,611.434	320.778	2,652.044	17.293	21,396.686	42,897.247	49.88	123.920	1,647.109	33.13%
2020	4,992.649	884.722	4,107.927	1,631.225	329.045	2,774.933	17.941	22,085.688	43,864.238	50.35	132.009	1,666.457	32.67%
2021	5,125.153	910.222	4,214.930	1,674.518	337.616	2,895.782	18.614	22,752.504	44,776.031	50.81	139.615	1,706.582	32.67%
2022	5,261.111	935.318	4,325.793	1,718.939	346.496	3,013.660	19.312	23,400.062	45,633.090	51.28	146.736	1,748.436	32.67%
2023	5,401.008	961.275	4,439.733	1,764.646	355.623	3,133.826	20.036	24,026.161	46,429.887	51.75	153.373	1,792.194	32.67%
2024	5,544.082	987.588	4,556.494	1,811.392	364.975	3,254.729	20.788	24,629.762	47,162.227	52.22	164.417	1,832.688	32.67%
2025	5,690.218	1,014.410	4,675.808	1,859.139	374.532	3,367.221	21.567	25,219.162	47,834.899	52.72	174.604	1,875.143	32.67%
2026	5,840.254	1,041.537	4,798.717	1,908.159	384.377	3,475.283	22.376	25,799.507	48,449.093	53.25	179.149	1,924.644	32.67%
2027	5,993.394	1,068.713	4,924.680	1,958.194	394.467	3,578.158	23.215	26,376.786	49,006.653	53.82	183.195	1,975.762	32.67%
2028	6,150.166	1,095.965	5,054.201	2,009.416	404.842	3,677.854	24.086	26,955.559	49,507.624	54.45	191.634	2,023.796	32.67%
2029	6,309.260	1,122.974	5,186.286	2,061.396	415.421	3,774.963	24.989	27,539.577	49,950.967	55.13	199.325	2,073.414	32.67%
2030	6,471.384	1,150.510	5,320.874	2,114.365	426.202	3,811.972	25.926	28,192.661	50,394.822	55.94	211.160	2,119.980	32.67%
2031	6,636.703	1,179.848	5,456.855	2,168.380	437.094	3,899.844	26.898	28,868.302	50,786.369	56.84	221.997	2,168.695	32.67%
2032	6,806.113	1,211.781	5,594.332	2,223.730	448.106	3,980.982	27.907	29,576.582	51,128.769	57.85	226.944	2,224.774	32.67%
2033	6,981.407	1,245.806	5,735.601	2,281.003	459.422	4,055.347	28.953	30,329.145	51,426.275	58.98	226.249	2,288.614	32.67%
2034	7,161.812	1,282.056	5,879.755	2,339.946	470.968	4,123.393	30.039	31,137.675	51,683.101	60.25	NA	2,579.848	32.67%
2035	7,345.368	1,319.555	6,025.813	2,399.918	482.668	4,186.037	31.166	32,013.006	51,902.166	61.68	NA	2,645.969	32.67%
2036	7,532.625	1,358.502	6,174.122	2,461.100	494.547	4,243.601	32.334	32,966.638	52,086.237	63.29	NA	2,713.423	32.67%
2037	7,724.006	1,399.909	6,324.097	2,523.629	506.560	4,296.317	33.547	34,010.755	52,237.999	65.11	NA	2,782.363	32.67%
2038	7,921.245	1,444.368	6,476.877	2,588.072	518.798	4,343.350	34.805	35,159.972	52,361.472	67.15	NA	2,853.413	32.67%
2039	8,124.530	1,491.479	6,633.051	2,654.490	531.307	4,383.190	36.110	36,431.635	52,463.228	69.44	NA	2,926.641	32.67%
2040	8,333.010	1,540.062	6,792.948	2,722.606	544.115	4,415.707	37.464	37,844.222	52,550.837	72.01	NA	3,001.741	32.67%
2041	8,551.057	1,591.664	6,959.393	2,793.847	557.447	4,437.680	38.869	39,422.597	52,636.970	74.90	NA	3,080.286	32.67%
2042	8,776.343	1,645.384	7,130.958	2,867.454	571.190	4,446.951	40.327	41,194.754	52,738.043	78.11	NA	3,161.439	32.67%
2043	9,007.950	1,701.582	7,306.369	2,943.126	585.240	4,447.418	41.839	43,186.260	52,866.915	81.69	NA	3,244.869	32.67%
2044	9,244.156	1,760.441	7,483.716	3,020.301	599.446	4,441.260	43.408	45,421.537	53,034.349	85.65	NA	3,329.956	32.67%
2045	9,483.810	1,821.655	7,662.155	3,098.602	613.739	4,430.414	45.036	47,924.310	53,249.234	90.00	NA	3,416.285	32.67%

¹ Payroll shown is pensionable pay. It does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

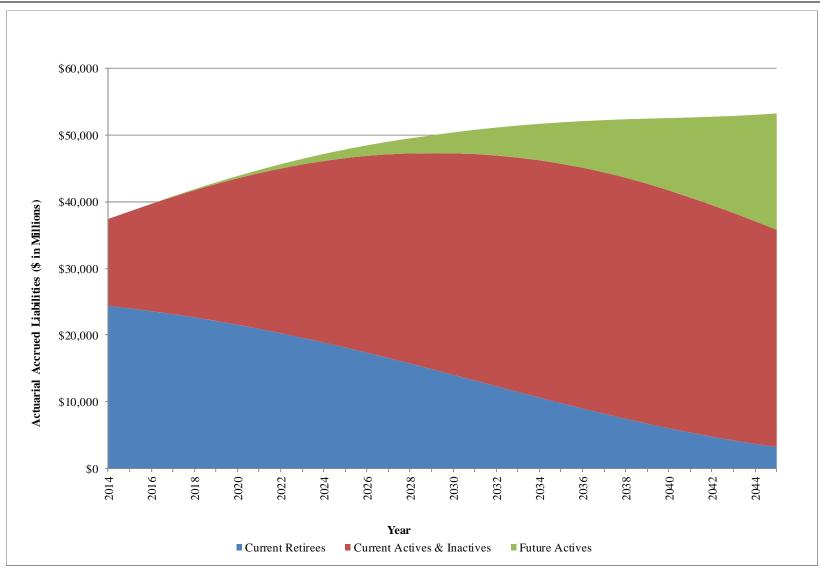
² Excludes SMP contributions.

³Maximum contribution after impact of debt service.

GRAPH 1
PROJECTED FUNDED RATIO BASED ON STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2014



GRAPH 2
PROJECTED ACTUARIAL ACCRUED LIABILITIES
ACTUARIAL VALUATION AS OF JUNE 30, 2014



GRAPH 3
PROJECTED BENEFIT PAYMENTS
ACTUARIAL VALUATION AS OF JUNE 30, 2014

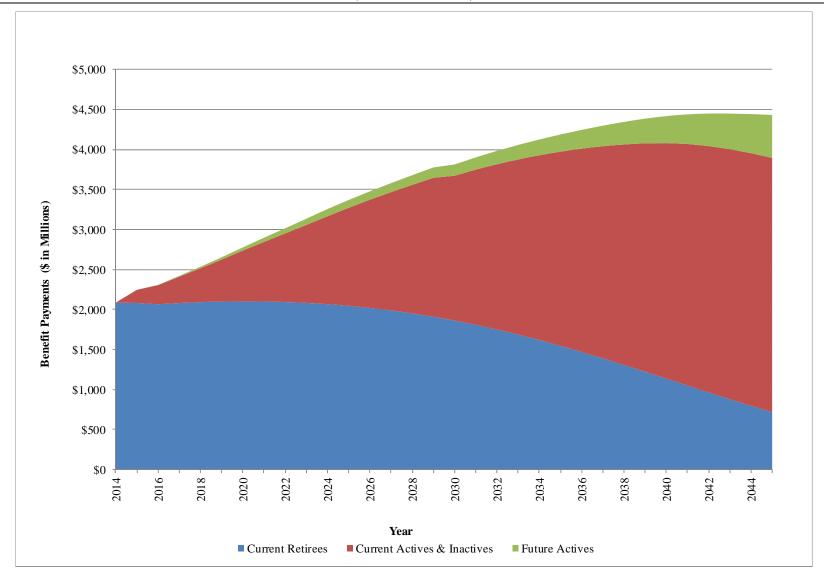


TABLE 14
PROJECTED STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2014
BEFORE IMPACT OF BONDS ISSUED IN 2004
(\$ IN MILLIONS)

	15% of New Members to SMP								
	_			ntribution					
FYE	SURS Cont.	SMP Cont.	\$	% of Pay ¹					
2016	\$ 1,720.234	\$ 57.327	\$ 1,777.561	39.50 %					
2017	1,723.937	57.558	1,781.495	38.61					
2018	1,752.861	59.135	1,811.996	38.26					
2019	1,771.029	60.862	1,831.891	37.67					
2020	1,798.466	62.711	1,861.177	37.28					
2021	1,846.197	64.518	1,910.715	37.28					
2022	1,895.172	66.297	1,961.469	37.28					
2023	1,945.566	68.136	2,013.702	37.28					
2024	1,997.105	70.002	2,067.107	37.28					
2025	2,049.747	71.903	2,121.650	37.29					
2026	2,103.793	73.826	2,177.619	37.29					
2027	2,158.957	75.753	2,234.710	37.29					
2028	2,215.430	77.686	2,293.116	37.29					
2029	2,272.740	79.603	2,352.343	37.28					
2030	2,331.140	81.556	2,412.696	37.28					
2031	2,390.692	83.637	2,474.329	37.28					
2032	2,451.717	85.901	2,537.618	37.28					
2033	2,514.862	88.313	2,603.175	37.29					
2034	2,579.848	90.882	2,670.730	37.29					
2035	2,645.969	93.538	2,739.507	37.30					
2036	2,713.423	96.298	2,809.721	37.30					
2037	2,782.363	99.230	2,881.593	37.31					
2038	2,853.413	102.378	2,955.791	37.31					
2039	2,926.641	105.713	3,032.354	37.32					
2040	3,001.741	109.152	3,110.893	37.33					
2041	3,080.286	112.804	3,193.090	37.34					
2042	3,161.439	116.606	3,278.045	37.35					
2043	3,244.869	120.582	3,365.451	37.36					
2044	3,329.956	124.747	3,454.703	37.37					
2045	3,416.285	129.077	3,545.362	37.38					
Total	\$72,675.878	\$2,585.731	\$75,261.609						

¹ Percent of pay amounts are calculated based on pensionable pay. Pensionable pay does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

TABLE 15
PROJECTED STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2014
INCLUDING IMPACT OF BONDS ISSUED IN 2004

(\$ IN MILLIONS)

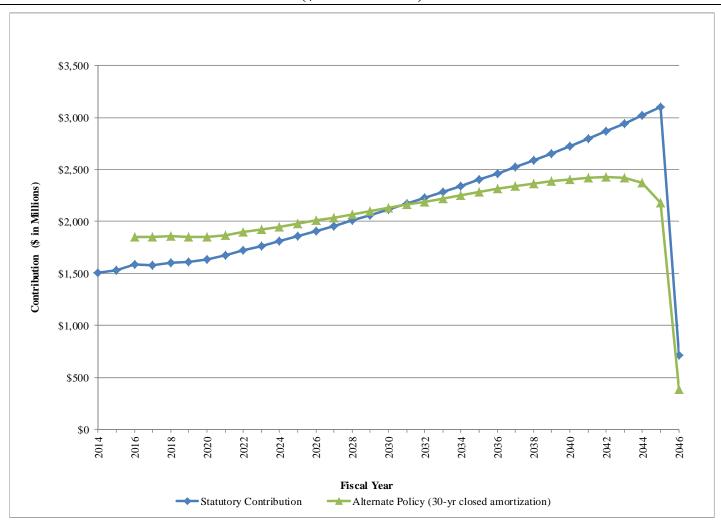
	15	5% of New Me	embers to SMP					Projected % of
			Total Cont	tribution	Debt S	ervice	Alternate Policy	Alternate Policy
FYE	SURS Cont.	SMP Cont.	\$	% of Pay 1	\$	% of Pay ¹	Contribution	Contributed ²
2016	\$ 1,590.153	\$ 57.327	\$ 1,647.480	36.61 %	\$ 112.435	2.50 %	\$ 1,852.898	85.82 %
2017	1,580.673	57.558	1,638.231	35.50	116.476	2.52	1,852.719	85.32
2018	1,602.659	59.135	1,661.794	35.08	120.304	2.54	1,856.970	86.31
2019	1,611.434	60.862	1,672.296	34.39	123.920	2.55	1,847.886	87.20
2020	1,631.225	62.711	1,693.936	33.93	132.009	2.64	1,847.555	88.29
2021	1,674.518	64.518	1,739.036	33.93	139.615	2.72	1,870.895	89.50
2022	1,718.939	66.297	1,785.236	33.93	146.736	2.79	1,897.155	90.61
2023	1,764.646	68.136	1,832.782	33.93	153.373	2.84	1,923.190	91.76
2024	1,811.392	70.002	1,881.394	33.94	164.417	2.97	1,950.261	92.88
2025	1,859.139	71.903	1,931.042	33.94	174.604	3.07	1,978.587	93.96
2026	1,908.159	73.826	1,981.985	33.94	179.149	3.07	2,007.975	95.03
2027	1,958.194	75.753	2,033.947	33.94	183.195	3.06	2,038.449	96.06
2028	2,009.416	77.686	2,087.102	33.94	191.634	3.12	2,068.108	97.16
2029	2,061.396	79.603	2,140.999	33.93	199.325	3.16	2,098.546	98.23
2030	2,114.365	81.556	2,195.921	33.93	211.160	3.26	2,129.428	99.29
2031	2,168.380	83.637	2,252.017	33.93	221.997	3.34	2,160.321	100.37
2032	2,223.730	85.901	2,309.631	33.93	226.944	3.33	2,190.896	101.50
2033	2,281.003	88.313	2,369.316	33.94	226.249	3.24	2,221.131	102.70
2034	2,339.946	90.882	2,430.828	33.94			2,252.001	103.91
2035	2,399.918	93.538	2,493.456	33.95			2,283.046	105.12
2036	2,461.100	96.298	2,557.398	33.95			2,312.882	106.41
2037	2,523.629	99.230	2,622.859	33.96			2,341.288	107.79
2038	2,588.072	102.378	2,690.450	33.96			2,365.624	109.40
2039	2,654.490	105.713	2,760.203	33.97			2,387.097	111.20
2040	2,722.606	109.152	2,831.758	33.98			2,405.374	113.19
2041	2,793.847	112.804	2,906.651	33.99			2,418.829	115.50
2042	2,867.454	116.606	2,984.060	34.00			2,424.666	118.26
2043	2,943.126	120.582	3,063.708	34.01			2,415.670	121.83
2044	3,020.301	124.747	3,145.048	34.02			2,369.319	127.48
2045	3,098.602	129.077	3,227.679	34.03			2,182.800	141.96
Total	\$ 65,982.512	\$2,585.731	\$ 68,568.243		\$3,023.541		\$ 63,951.567	

¹ Percent of pay amounts are calculated based on pensionable pay. Pensionable pay does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

² Compares SURS Statutory contribution against an alternate funding policy of normal cost plus 30-year closed period amortization of the unfunded liability as a level percentage of capped payroll. Excludes SMP contribution.

GRAPH 4

PROJECTED STATUTORY CONTRIBUTIONS Vs. CONTRIBUTIONS UNDER ALTERNATE POLICY
(NORMAL COST PLUS 30-YEAR CLOSED PERIOD LEVEL PERCENT OF PAY AMORTIZATION)
(\$ IN MILLIONS)

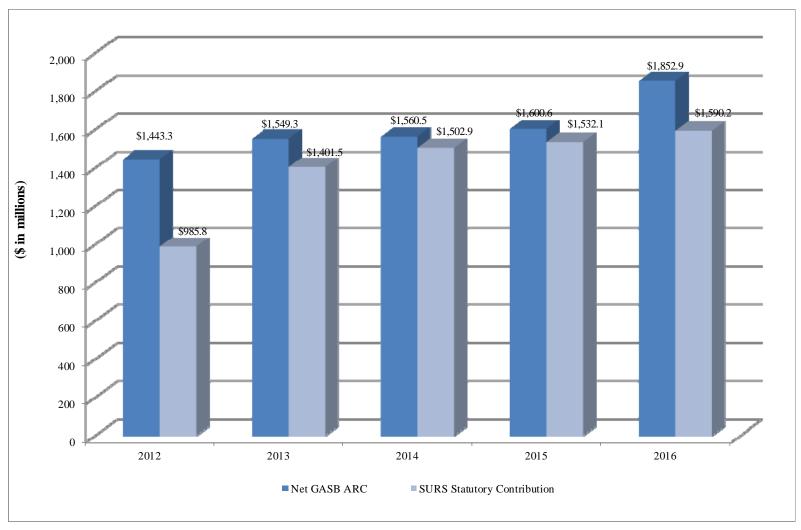


Alternate funding policy is equal to normal cost plus 30-year closed period amortization of the unfunded liability as a level percentage of capped payroll.

GRAPH 5

STATUTORY CONTRIBUTIONS VS. GASB ANNUAL REQUIRED CONTRIBUTIONS ("ARC")

(\$ IN MILLIONS)



Consistent underfunding compared to the Annual Required Contribution ("ARC") is a primary cause of the current low funded status.

Amounts prior to fiscal year 2016 are based on the ARC. Beginning in fiscal year 2016, a contribution equal to normal cost plus 30-year closed period amortization of the unfunded liability as a level percentage of capped payroll is used. Amounts are projected for fiscal years 2015 and 2016.



TABLE 16

PROJECTIONS – DOES NOT REFLECT RECOGNITION OF DEFERRED ASSET GAINS AND LOSSES IN PROJECTED ACTUARIAL VALUE OF ASSETS (IMPACT OF BONDS ISSUED IN 2004 INCLUDED)

ASSUMES INVESTMENT RETURN OF 7.25% EACH YEAR ON ACTUARIAL VALUE OF ASSETS (\$ IN MILLIONS)

Fiscal	m . 1	CMD	D.D.	CLIDG	M 1					F 1'	Debt	Maximum	SURS Contribution
Year	Total	SMP	DB	SURS	Member	- a.	_	Assets		Funding	Service		% of Total Payroll
Ending	Payroll 1	Payroll	Payroll 1	Contributions ²	Contributions	Benefits	Expenses	EOY	AAL	Ratio	Service	Contribution	76 OI TOTAL PAYTOR
2014	\$ 4,130.958	\$ 736.022	\$ 3,394.936	\$ 1,502.864	\$ 283.081	\$ 2,085.767	\$ 13.858	\$ 15,844.714	\$ 37,429.515	42.33 %	\$ 114.000	\$ 1,511.719	36.38%
2015	4,394.286	777.497	3,616.789	1,532.069	289.705	2,245.494	14.925	16,539.188	38,556.638	42.90	113.227	1,545.032	34.87%
2016	4,499.746	793.137	3,706.609	1,590.153	296.899	2,307.349	15.485	17,286.976	39,699.714	43.54	112.435	1,607.800	35.34%
2017	4,614.366	811.989	3,802.378	1,630.658	304.570	2,419.797	16.065	18,021.817	40,807.101	44.16	116.476	1,647.577	35.34%
2018	4,736.582	834.235	3,902.347	1,673.847	312.578	2,533.089	16.668	18,745.004	41,875.898	44.76	120.304	1,690.471	35.34%
2019	4,863.330	858.614	4,004.716	1,718.638	320.778	2,652.044	17.293	19,451.660	42,897.247	45.34	123.920	1,735.311	35.34%
2020	4,992.649	884.722	4,107.927	1,764.338	329.045	2,774.933	17.941	20,137.502	43,864.238	45.91	132.009	1,776.659	35.34%
2021	5,125.153	910.222	4,214.930	1,811.163	337.616	2,895.782	18.614	20,804.586	44,776.031	46.46	139.615	1,819.709	35.34%
2022	5,261.111	935.318	4,325.793	1,859.209	346.496	3,013.660	19.312	21,456.187	45,633.090	47.02	146.736	1,864.565	35.34%
2023	5,401.008	961.275	4,439.733	1,908.647	355.623	3,133.826	20.036	22,090.484	46,429.887	47.58	153.373	1,911.410	35.34%
2024	5,544.082	987.588	4,556.494	1,955.062	364.975	3,254.729	20.788	22,702.534	47,162.227	48.14	164.417	1,955.062	35.26%
2025	5,690.218	1,014.410	4,675.808	2,000.743	374.532	3,367.221	21.567	23,298.857	47,834.899	48.71	174.604	2,000.743	35.16%
2026	5,840.254	1,041.537	4,798.717	2,053.556	384.377	3,475.283	22.376	23,890.556	48,449.093	49.31	179.149	2,053.556	35.16%
2027	5,993.394	1,068.713	4,924.680	2,108.054	394.467	3,578.158	23.215	24,484.633	49,006.653	49.96	183.195	2,108.054	35.17%
2028	6,150.166	1,095.965	5,054.201	2,159.548	404.842	3,677.854	24.086	25,081.705	49,507.624	50.66	191.634	2,159.548	35.11%
2029	6,309.260	1,122.974	5,186.286	2,212.678	415.421	3,774.963	24.989	25,686.540	49,950.967	51.42	199.325	2,212.678	35.07%
2030	6,471.384	1,150.510	5,320.874	2,262.823	426.202	3,811.972	25.926	26,359.023	50,394.822	52.31	211.160	2,262.823	34.97%
2031	6,636.703	1,179.848	5,456.855	2,315.187	437.094	3,899.844	26.898	27,053.761	50,786.369	53.27	221.997	2,315.187	34.88%
2032	6,806.113	1,211.781	5,594.332	2,375.005	448.106	3,980.982	27.907	27,787.149	51,128.769	54.35	226.944	2,375.005	34.90%
2033	6,981.407	1,245.806	5,735.601	2,442.714	459.422	4,055.347	28.953	28,577.449	51,426.275	55.57	226.249	2,442.714	34.99%
2034	7,161.812	1,282.056	5,879.755	2,530.892	470.968	4,123.393	30.039	29,456.728	51,683.101	56.99	NA	2,737.931	35.34%
2035	7,345.368	1,319.555	6,025.813	2,595.759	482.668	4,186.037	31.166	30,413.006	51,902.166	58.60	NA	2,808.103	35.34%
2036	7,532.625	1,358.502	6,174.122	2,661.933	494.547	4,243.601	32.334	31,458.623	52,086.237	60.40	NA	2,879.691	35.34%
2037	7,724.006	1,399.909	6,324.097	2,729.564	506.560	4,296.317	33.547	32,606.680	52,237.999	62.42	NA	2,952.855	35.34%
2038	7,921.245	1,444.368	6,476.877	2,799.266	518.798	4,343.350	34.805	33,872.817	52,361.472	64.69	NA	3,028.259	35.34%
2039	8,124.530	1,491.479	6,633.051	2,871.104	531.307	4,383.190	36.110	35,275.490	52,463.228	67.24	NA	3,105.974	35.34%
2040	8,333.010	1,540.062	6,792.948	2,944.779	544.115	4,415.707	37.464	36,834.342	52,550.837	70.09	NA	3,185.675	35.34%
2041	8,551.057	1,591.664	6,959.393	3,021.834	557.447	4,437.680	38.869	38,575.607	52,636.970	73.29	NA	3,269.033	35.34%
2042	8,776.343	1,645.384	7,130.958	3,101.447	571.190	4,446.951	40.327	40,528.683	52,738.043	76.85	NA	3,355.159	35.34%
2043	9,007.950	1,701.582	7,306.369	3,183.294	585.240	4,447.418	41.839	42,720.621	52,866.915	80.81	NA	3,443.702	35.34%
2044	9,244.156	1,760.441	7,483.716	3,266.766	599.446	4,441.260	43.408	45,177.383	53,034.349	85.19	NA	3,534.002	35.34%
2045	9,483.810	1,821.655	7,662.155	3,351.457	613.739	4,430.414	45.036	47,924.315	53,249.234	90.00	NA	3,625.621	35.34%

¹ Payroll shown is pensionable pay. It does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

² Excludes SMP contributions.

³Maximum contribution after impact of debt service.

TABLE 17

DEVELOPMENT OF MARKET AND ACTUARIAL VALUE OF ASSETS AS OF JUNE 30, 2014

AFTER BONDS (VALUATION BASIS) AND BEFORE BONDS (HYPOTHETICAL BASIS)

		After Bonds	Before Bonds
		(Valuation Basis)	(Hypothetical)
1	Market Value at 6/30/2013	\$15,037,101,827	\$12,895,217,930
2a	Employer Contributions	1,502,863,618	1,625,719,212
2b	Member Contributions	283,081,326	283,081,326
2c	Benefits and Expenses	2,099,624,042	2,099,624,042
2d	Net Non-Investment Cash Flow	(313,679,098)	(190,823,504)
3	Investment Return	2,667,900,403	2,295,597,761
	(Based on Estimated Rate of 17.93%)		
4	Expected Return	1,153,447,124	992,122,949
	(Based on Estimated Rate of 7.75%)		
5	Market Value at 6/30/2014 (1+2d+3)	17,391,323,132	14,999,992,187
6	Expected Market Value at 6/30/2014 (1+2d+4)	15,876,869,853	13,696,517,375
7a	Actuarial Gain/(Loss) Current Year	1,514,453,279	1,303,474,812
7b	Actuarial Gain/(Loss) 1 Year Prior	646,420,171	553,235,951
7c	Actuarial Gain/(Loss) 2 Years Prior	(1,075,191,015)	(915,795,790)
7d	Actuarial Gain/(Loss) 3 Years Prior	1,886,355,421	1,598,970,107
7e	Actuarial Gain/(Loss) 4 Years Prior	739,584,759	622,380,585
8	Actuarial Value at 6/30/2013	14,262,621,179	12,238,042,464
9	Actuarial Value at 6/30/2014 (8+2d+4+.2*(7a+7b+7c+7d+7e))	15,844,713,727	13,671,795,042

TABLE 18
HYPOTHETICAL ASSETS TO DETERMINE MAXIMUM CONTRIBUTION
PROJECTIONS - REFLECTS RECOGNITION OF DEFERRED ASSET GAINS AND LOSSES IN PROJECTED ACTUARIAL VALUE OF ASSETS (BEFORE IMPACT OF BONDS ISSUED IN 2004)

(\$ IN MILLIONS)

Total Payroll	Fiscal												
2014 S 4,130,958 S 736,022 S 3,394,936 S 1,625,719 S 283,081 S 2,085,767 S 13,858 S 13,671,795 S 37,429,515 36,53 % NA 39,35%	Year	Total	SMP	DB	SURS	Member			Assets		Funding	Debt	SURS Contribution
2014 S 4,130,958 S 736,022 S 3,394,936 S 1,625,719 S 283,081 S 2,085,767 S 13,858 S 13,671,795 S 37,429,515 36,53 % NA 39,35%	Ending	Pavroll 1	Payroll	Payroll 1	Contributions ²	Contributions	Benefits	Expenses	EOY	AAL	Ratio	Service	% of Total Payroll
2015 4,394,286 777,497 3,616,789 1,658,259 289,705 2,245,494 14,925 14,943,688 38,556,638 38,76 NA 37,74% 2016 4,499,746 793,137 3,706,609 1,720,234 296,899 2,307,349 15,485 15,958,167 39,699,714 40,20 NA 38,23% 2017 4,614,366 811,989 3,802,378 1,723,937 304,570 2,419,797 16,065 17,110,435 40,807,101 41,93 NA 37,36% 2018 4,736,582 834,235 3,902,447 1,752,861 312,578 2,533,089 16,668 18,128,969 41,875,898 43,29 NA 37,01% 2019 4,863,330 858,614 4,004,716 1,771,029 320,778 2,652,044 17,293 18,845,219 42,897,247 43,93 NA 36,22% 2020 4,992,449 884,722 4,107,927 1,798,466 329,045 2,774,933 17,941 19,222,438 43,864,238 44,51 NA 36,02% 2021 5,125,153 910,222 4,214,930 1,846,197 337,616 2,895,782 18,614 20,181,211 44,776,031 45,07 NA 36,02% 2022 5,261,111 935,318 4,325,793 1,845,166 355,623 3,133,826 20,036 21,451,622 46,429,887 46,20 NA 36,02% 2023 5,401,008 961,275 4,439,733 1,945,566 355,623 3,133,826 20,036 21,451,622 46,429,887 46,20 NA 36,02% 2024 5,544,082 987,588 4,556,494 1,997,105 364,975 3,254,729 20,788 2,060,895 47,162,227 46,78 NA 36,02% 2025 5,800,218 1,014,103 4,676,5808 2,049,747 374,532 3,367,221 21,167 2,261,449 47,834,899 47,37 NA 36,02% 2026 5,840,254 1,041,537 4,798,717 2,103,793 384,377 3,475,283 22,376 23,258,961 48,40,903 48,01 NA 36,02% 2027 5,993,394 1,068,713 4,924,680 2,158,957 394,467 3,578,158 23,15 6,268,961 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809 4,906,653 4,809		•	· ·					•					
2016 4,499.746 793.137 3,706.609 1,720.234 296.899 2,307.349 15.485 15.958.167 39,699.714 40.20 NA 38.23% 2017 4,614.366 811.989 3,802.378 1,723.937 304.570 2,419.797 16.065 17.10.435 40,807.101 41.93 NA 37.36% 2018 4,736.582 834.235 3,002.347 1,752.861 312.578 2,533.089 16.668 18,128.969 41.875.898 43.29 NA 37.019% 2019 4,863.330 858.614 4,004.716 1,771.029 320.778 2,652.044 17.293 18,845.219 42,897.247 43.93 NA 36.42% 2020 4,992.649 844.725 30.124.930 1,846.197 337.616 2,895.782 18,614 2,0181.211 44,776.031 45.07 NA 36.02% 2021 5,125.153 910.222 42,149.30 1,846.197 337.616 2,895.782 18,614 2,0181.211 44,776.031 45.07 NA 36.02% 2022 5,261.111 935.318 4,325.793 1,895.172 346.496 3,013.660 19.312 20,824.862 45,633.090 45.64 NA 36.02% 2023 5,401.008 987.588 4,556.494 1,997.105 364.975 3,254.729 20.788 22,060.895 47,162.227 46.78 NA 36.02% 2024 5,544.082 987.588 4,556.494 1,997.105 364.975 3,254.729 20.788 22,060.895 47,162.227 46.78 NA 36.02% 2025 5,690.218 1,014.410 4,675.808 2,049.747 374.532 3,367.221 21.567 22.661.449 47.843.899 47.37 NA 36.02% 2026 5,840.254 1,044.537 4,798.717 2,103.793 384.377 3,475.283 22.376 23.258.961 48,449.093 48.01 NA 36.02% 2029 6,309.260 1,122.974 5,186.286 2,2172.740 415.421 3,774.963 24.99 25.992.5992.784 4,990.663 48.69 NA 36.02% 2029 6,309.260 1,122.974 5,186.286 2,272.740 41.48.106 3,899.844 26.898 2.692.4283 5,0786.369 52.23 NA 36.02% 2032 6,661.013 1,179.848 5,456.855 2,390.692 47.44.816 47.84.960 22.592.54.283 5,0786.369 52.23 NA 36.02% 2032 6,661.013 1,179.848 5,456.855 2,390.692 47.44.816 47.84.960 30.025.754 5,188.101 5,1456 5,1456 5,1456 5,1456 5,1456 5,1456 5,1456 5,1456 5,1456	2014	\$ 4,130.958	\$ 736.022	\$ 3,394.936	\$ 1,625.719	\$ 283.081	\$ 2,085.767	\$ 13.858	\$ 13,671.795	\$ 37,429.515	36.53 %	NA	39.35%
2017	2015	4,394.286	777.497	3,616.789	1,658.259	289.705	2,245.494	14.925	14,943.688	38,556.638	38.76	NA	37.74%
2018	2016	4,499.746	793.137	3,706.609	1,720.234	296.899	2,307.349	15.485	15,958.167	39,699.714	40.20	NA	38.23%
2019	2017	4,614.366	811.989	3,802.378	1,723.937	304.570	2,419.797	16.065	17,110.435	40,807.101	41.93	NA	37.36%
2020 4,992,649 884,722 4,107,927 1,798,466 329,045 2,774,933 17,941 19,522,438 43,864,238 44,51 NA 36,02% 2021 5,125,153 910,222 4,214,930 1,846,197 337,616 2,895,782 18,614 20,181,211 44,776,031 45,07 NA 36,02% 2023 5,261,111 935,318 4,325,793 1,895,172 346,496 3,013,660 19,312 20,824,862 46,29,887 46,20 NA 36,02% 2024 5,540,108 961,275 4,439,733 1,945,566 355,623 3,133,826 20,036 21,451,622 46,429,887 46,20 NA 36,02% 2024 5,544,028 987,588 4,556,494 1,997,105 364,975 3,254,729 20,788 22,060,895 47,162,227 46,78 NA 36,02% 2026 5,840,254 1,041,537 4,798,717 2,103,793 384,377 3,475,283 22,376 23,258,961 48,449,093 48,01 NA	2018	4,736.582	834.235	3,902.347	1,752.861	312.578	2,533.089	16.668	18,128.969	41,875.898	43.29	NA	37.01%
2021 5,125,153 910,222 4,214,930 1,846,197 337,616 2,895,782 18.614 20,181,211 44,776,031 45.07 NA 36,02% 2022 5,261,111 935,318 4,325,793 1,895,172 346,496 3,013,660 19,312 20,824,862 45,633,090 45,64 NA 36,02% 2024 5,544,082 987,588 4,556,494 1,997,105 364,975 3,254,729 20,788 2,2608,895 47,162,227 46,78 NA 36,02% 2025 5,690,218 1,041,410 4,675,808 2,049,747 374,522 3,367,221 21,567 22,661,499 47,834,899 47,37 NA 36,02% 2026 5,840,254 1,041,537 4,798,717 2,103,793 384,377 3,475,283 22,376 23,258,961 48,449,093 48,01 NA 36,02% 2028 6,150,166 1,095,965 5,054,201 2,215,430 404,842 3,677,854 24,086 24,469,620 49,507,624 49,43 NA </td <td>2019</td> <td>4,863.330</td> <td>858.614</td> <td>4,004.716</td> <td>1,771.029</td> <td>320.778</td> <td>2,652.044</td> <td>17.293</td> <td>18,845.219</td> <td>42,897.247</td> <td>43.93</td> <td>NA</td> <td>36.42%</td>	2019	4,863.330	858.614	4,004.716	1,771.029	320.778	2,652.044	17.293	18,845.219	42,897.247	43.93	NA	36.42%
2022 5,261.111 935.318 4,325.793 1,895.172 346.496 3,013.660 19.312 20,824.862 45,633.090 45.64 NA 36.02% 2023 5,401.008 961.275 4,439.733 1,945.566 355.623 3,133.826 20.036 21,451.622 46,429.887 46.20 NA 36.02% 2024 5,544.082 987.588 4,556.494 1,997.105 364.975 3,254.729 20.788 22,060.895 47,162.227 46.78 NA 36.02% 2026 5,840.254 1,041.537 4,798.717 2,103.793 384.377 3,475.283 22.376 23,258.961 48,449.093 48.01 NA 36.02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24,086 2,496.90 49,506.653 48.69 NA 36.02% 2030 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA <td>2020</td> <td>4,992.649</td> <td>884.722</td> <td>4,107.927</td> <td>1,798.466</td> <td>329.045</td> <td>2,774.933</td> <td>17.941</td> <td>19,522.438</td> <td>43,864.238</td> <td>44.51</td> <td>NA</td> <td>36.02%</td>	2020	4,992.649	884.722	4,107.927	1,798.466	329.045	2,774.933	17.941	19,522.438	43,864.238	44.51	NA	36.02%
2023 5,401.008 961.275 4,439.733 1,945.566 355.623 3,133.826 20.036 21,451.622 46,429.887 46.20 NA 36.02% 2024 5,544.082 987.588 4,556.494 1,997.105 364.975 3,254.729 20.788 22,060.895 47,162.227 46.78 NA 36.02% 2025 5,690.218 1,014.410 4,675.808 2,049.747 374.532 3,367.221 21.567 22,661.449 47.834.899 47.37 NA 36.02% 2026 5,890.254 1,041.537 4,798.717 2,103.793 384.377 3475.283 22.376 23,258.961 48,449.093 48.01 NA 36.02% 2027 5,993.394 1,068.713 4,924.680 2,158.957 394.467 3,578.158 23.215 23,859.964 48,449.093 48.01 NA 36.02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 446.822 3,771.4963 24.989 25,092.278 49,950.967 50.23 NA	2021	5,125.153	910.222	4,214.930	1,846.197	337.616	2,895.782	18.614	20,181.211	44,776.031	45.07	NA	36.02%
2024 5,544.082 987.588 4,556.494 1,997.105 364.975 3,254.729 20.788 22,060.895 47,162.227 46.78 NA 36.02% 2025 5,690.218 1,014.410 4,675.808 2,049.747 374.532 3,367.221 21,567 22,661.449 47,834.899 47,37 NA 36.02% 2026 5,840.254 1,041.537 4,798.717 2,103.793 384.377 3,475.283 23,275.8961 48,449.093 48.01 NA 36.02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24.086 24,469.620 49,507.624 49.43 NA 36.02% 2029 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA 36.02% 2031 6,367.03 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.0	2022	5,261.111	935.318	4,325.793	1,895.172	346.496	3,013.660	19.312	20,824.862	45,633.090	45.64	NA	36.02%
2025 5,690.218 1,014.410 4,675.808 2,049.747 374.532 3,367.221 21.567 2,661.449 47,834.899 47.37 NA 36.02% 2026 5,840.254 1,041.537 4,798.717 2,103.793 384.377 3,475.283 22.376 23,258.961 48,449.093 48.01 NA 36.02% 2027 5,993.394 1,068.713 4,924.680 2,158.957 394.467 3,578.158 23.215 23,859.964 49,006.653 48.69 NA 36.02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24.086 24,469.620 49,507.624 49.43 NA 36.02% 2030 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA 36.02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 <td< td=""><td>2023</td><td>5,401.008</td><td>961.275</td><td>4,439.733</td><td>1,945.566</td><td>355.623</td><td>3,133.826</td><td>20.036</td><td>21,451.622</td><td>46,429.887</td><td>46.20</td><td>NA</td><td>36.02%</td></td<>	2023	5,401.008	961.275	4,439.733	1,945.566	355.623	3,133.826	20.036	21,451.622	46,429.887	46.20	NA	36.02%
2026 5,840.254 1,041.537 4,798.717 2,103.793 384.377 3,475.283 22.376 23,258.961 48,449.093 48.01 NA 36,02% 2027 5,993.394 1,068.713 4,924.680 2,158.957 394.467 3,578.158 23,215 23,859.964 49,006.653 48.69 NA 36,02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24.086 24,469.620 49,507.624 49.43 NA 36,02% 2030 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA 36,02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27.298.728 51,128.769 53.39 <t< td=""><td>2024</td><td>5,544.082</td><td>987.588</td><td>4,556.494</td><td>1,997.105</td><td>364.975</td><td>3,254.729</td><td>20.788</td><td>22,060.895</td><td>47,162.227</td><td>46.78</td><td>NA</td><td>36.02%</td></t<>	2024	5,544.082	987.588	4,556.494	1,997.105	364.975	3,254.729	20.788	22,060.895	47,162.227	46.78	NA	36.02%
2027 5,993.394 1,068.713 4,924.680 2,158.957 394.467 3,578.158 23.215 23,859.964 49,006.653 48.69 NA 36,02% 2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24.086 24,469.620 49,507.624 49.43 NA 36.02% 2029 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA 36,02% 2030 6,471.384 1,150.510 5,320.874 2,331.140 426.202 3,811.972 25,792.428 50,394.822 51.18 NA 36,02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.882 27.907 27,298.728 51,128.769 53.39 NA 36,02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27,298.728 51,128.769 53.39 NA 36	2025	5,690.218	1,014.410	4,675.808	2,049.747	374.532	3,367.221	21.567	22,661.449	47,834.899	47.37	NA	36.02%
2028 6,150.166 1,095.965 5,054.201 2,215.430 404.842 3,677.854 24.086 24,469.620 49,507.624 49.43 NA 36.02% 2029 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24.989 25,092.278 49,950.967 50.23 NA 36.02% 2030 6,471.384 1,150.510 5,320.874 2,331.140 426.202 3,811.972 25.926 25,792.428 50,394.822 51.18 NA 36.02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27.298.728 51,128.769 53.39 NA 36.02% 2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 <t< td=""><td>2026</td><td>5,840.254</td><td>1,041.537</td><td>4,798.717</td><td>2,103.793</td><td>384.377</td><td>3,475.283</td><td>22.376</td><td>23,258.961</td><td>48,449.093</td><td>48.01</td><td>NA</td><td>36.02%</td></t<>	2026	5,840.254	1,041.537	4,798.717	2,103.793	384.377	3,475.283	22.376	23,258.961	48,449.093	48.01	NA	36.02%
2029 6,309.260 1,122.974 5,186.286 2,272.740 415.421 3,774.963 24,989 25,092.278 49,950.967 50.23 NA 36.02% 2030 6,471.384 1,150.510 5,320.874 2,331.140 426.202 3,811.972 25.926 25,792.428 50,394.822 51.18 NA 36.02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27,298.728 51,128.769 53.39 NA 36.02% 2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 NA 36.02% 2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 <t< td=""><td>2027</td><td>5,993.394</td><td>1,068.713</td><td>4,924.680</td><td>2,158.957</td><td>394.467</td><td>3,578.158</td><td>23.215</td><td>23,859.964</td><td>49,006.653</td><td>48.69</td><td>NA</td><td>36.02%</td></t<>	2027	5,993.394	1,068.713	4,924.680	2,158.957	394.467	3,578.158	23.215	23,859.964	49,006.653	48.69	NA	36.02%
2030 6,471.384 1,150.510 5,320.874 2,331.140 426.202 3,811.972 25.926 25,792.428 50,394.822 51.18 NA 36.02% 2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27,298.728 51,128.769 53.39 NA 36.02% 2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 NA 36.02% 2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 NA 36.02% 2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 <t< td=""><td>2028</td><td>6,150.166</td><td>1,095.965</td><td>5,054.201</td><td>2,215.430</td><td>404.842</td><td>3,677.854</td><td>24.086</td><td>24,469.620</td><td>49,507.624</td><td>49.43</td><td>NA</td><td>36.02%</td></t<>	2028	6,150.166	1,095.965	5,054.201	2,215.430	404.842	3,677.854	24.086	24,469.620	49,507.624	49.43	NA	36.02%
2031 6,636.703 1,179.848 5,456.855 2,390.692 437.094 3,899.844 26.898 26,524.283 50,786.369 52.23 NA 36.02% 2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27,298.728 51,128.769 53.39 NA 36.02% 2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 NA 36.02% 2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 NA 36.02% 2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 NA 36.02% 2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.343 31,071.986 52,085.237 59.65 <t< td=""><td>2029</td><td>6,309.260</td><td>1,122.974</td><td>5,186.286</td><td>2,272.740</td><td>415.421</td><td>3,774.963</td><td>24.989</td><td>25,092.278</td><td>49,950.967</td><td>50.23</td><td>NA</td><td>36.02%</td></t<>	2029	6,309.260	1,122.974	5,186.286	2,272.740	415.421	3,774.963	24.989	25,092.278	49,950.967	50.23	NA	36.02%
2032 6,806.113 1,211.781 5,594.332 2,451.717 448.106 3,980.982 27.907 27,298.728 51,128.769 53.39 NA 36.02% 2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 NA 36.02% 2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 NA 36.02% 2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 NA 36.02% 2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.34 31,071.986 52,086.237 59.65 NA 36.02% 2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 <td< td=""><td>2030</td><td>6,471.384</td><td>1,150.510</td><td>5,320.874</td><td>2,331.140</td><td>426.202</td><td>3,811.972</td><td>25.926</td><td>25,792.428</td><td>50,394.822</td><td>51.18</td><td>NA</td><td>36.02%</td></td<>	2030	6,471.384	1,150.510	5,320.874	2,331.140	426.202	3,811.972	25.926	25,792.428	50,394.822	51.18	NA	36.02%
2033 6,981.407 1,245.806 5,735.601 2,514.862 459.422 4,055.347 28.953 28,128.336 51,426.275 54.70 NA 36.02% 2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 NA 36.02% 2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 NA 36.02% 2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.334 31,071.986 52,086.237 59.65 NA 36.02% 2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 NA 36.02% 2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 <t< td=""><td>2031</td><td>6,636.703</td><td>1,179.848</td><td>5,456.855</td><td>2,390.692</td><td>437.094</td><td>3,899.844</td><td>26.898</td><td>26,524.283</td><td>50,786.369</td><td>52.23</td><td>NA</td><td>36.02%</td></t<>	2031	6,636.703	1,179.848	5,456.855	2,390.692	437.094	3,899.844	26.898	26,524.283	50,786.369	52.23	NA	36.02%
2034 7,161.812 1,282.056 5,879.755 2,579.848 470.968 4,123.393 30.039 29,025.754 51,683.101 56.16 NA 36.02% 2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 NA 36.02% 2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.34 31,071.986 52,086.237 59.65 NA 36.02% 2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 NA 36.02% 2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 NA 36.02% 2049 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 <td< td=""><td>2032</td><td>6,806.113</td><td>1,211.781</td><td>5,594.332</td><td>2,451.717</td><td>448.106</td><td>3,980.982</td><td>27.907</td><td>27,298.728</td><td>51,128.769</td><td>53.39</td><td>NA</td><td>36.02%</td></td<>	2032	6,806.113	1,211.781	5,594.332	2,451.717	448.106	3,980.982	27.907	27,298.728	51,128.769	53.39	NA	36.02%
2035 7,345.368 1,319.555 6,025.813 2,645.969 482.668 4,186.037 31.166 30,002.785 51,902.166 57.81 NA 36.02% 2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.334 31,071.986 52,086.237 59.65 NA 36.02% 2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 NA 36.02% 2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 NA 36.02% 2039 8,124.530 1,491.479 6,633.051 2,926.641 531.307 4,383.190 36.110 34,979.066 52,463.228 66.67 NA 36.02% 2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 <t< td=""><td>2033</td><td>6,981.407</td><td>1,245.806</td><td>5,735.601</td><td>2,514.862</td><td>459.422</td><td>4,055.347</td><td>28.953</td><td>28,128.336</td><td>51,426.275</td><td>54.70</td><td>NA</td><td>36.02%</td></t<>	2033	6,981.407	1,245.806	5,735.601	2,514.862	459.422	4,055.347	28.953	28,128.336	51,426.275	54.70	NA	36.02%
2036 7,532.625 1,358.502 6,174.122 2,713.423 494.547 4,243.601 32.334 31,071.986 52,086.237 59.65 NA 36.02% 2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 NA 36.02% 2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 NA 36.02% 2039 8,124.530 1,491.479 6,633.051 2,926.641 531.307 4,383.190 36.110 34,979.066 52,463.228 66.67 NA 36.02% 2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 NA 36.02% 2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2034	7,161.812	1,282.056	5,879.755	2,579.848	470.968	4,123.393	30.039	29,025.754	51,683.101	56.16	NA	36.02%
2037 7,724.006 1,399.909 6,324.097 2,782.363 506.560 4,296.317 33.547 32,246.691 52,237.999 61.73 NA 36.02% 2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 NA 36.02% 2039 8,124.530 1,491.479 6,633.051 2,926.641 531.307 4,383.190 36.110 34,979.066 52,463.228 66.67 NA 36.02% 2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 NA 36.02% 2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 <t< td=""><td>2035</td><td>7,345.368</td><td>1,319.555</td><td>6,025.813</td><td>2,645.969</td><td>482.668</td><td>4,186.037</td><td>31.166</td><td>30,002.785</td><td>51,902.166</td><td>57.81</td><td>NA</td><td>36.02%</td></t<>	2035	7,345.368	1,319.555	6,025.813	2,645.969	482.668	4,186.037	31.166	30,002.785	51,902.166	57.81	NA	36.02%
2038 7,921.245 1,444.368 6,476.877 2,853.413 518.798 4,343.350 34.805 33,542.804 52,361.472 64.06 NA 36.02% 2039 8,124.530 1,491.479 6,633.051 2,926.641 531.307 4,383.190 36.110 34,979.066 52,463.228 66.67 NA 36.02% 2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 NA 36.02% 2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 <t< td=""><td>2036</td><td>7,532.625</td><td>1,358.502</td><td>6,174.122</td><td>2,713.423</td><td>494.547</td><td>4,243.601</td><td>32.334</td><td>31,071.986</td><td>52,086.237</td><td>59.65</td><td>NA</td><td>36.02%</td></t<>	2036	7,532.625	1,358.502	6,174.122	2,713.423	494.547	4,243.601	32.334	31,071.986	52,086.237	59.65	NA	36.02%
2039 8,124.530 1,491.479 6,633.051 2,926.641 531.307 4,383.190 36.110 34,979.066 52,463.228 66.67 NA 36.02% 2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 NA 36.02% 2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2037	7,724.006	1,399.909	6,324.097	2,782.363	506.560	4,296.317	33.547	32,246.691	52,237.999	61.73	NA	36.02%
2040 8,333.010 1,540.062 6,792.948 3,001.741 544.115 4,415.707 37.464 36,575.418 52,550.837 69.60 NA 36.02% 2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2038	7,921.245	1,444.368	6,476.877	2,853.413	518.798	4,343.350	34.805	33,542.804	52,361.472	64.06	NA	36.02%
2041 8,551.057 1,591.664 6,959.393 3,080.286 557.447 4,437.680 38.869 38,358.445 52,636.970 72.87 NA 36.02% 2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2039	8,124.530	1,491.479	6,633.051	2,926.641	531.307	4,383.190	36.110	34,979.066	52,463.228	66.67	NA	36.02%
2042 8,776.343 1,645.384 7,130.958 3,161.439 571.190 4,446.951 40.327 40,357.906 52,738.043 76.53 NA 36.02% 2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2040	8,333.010	1,540.062	6,792.948	3,001.741	544.115	4,415.707	37.464	36,575.418	52,550.837	69.60	NA	36.02%
2043 9,007.950 1,701.582 7,306.369 3,244.869 585.240 4,447.418 41.839 42,601.231 52,866.915 80.58 NA 36.02% 2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2041	8,551.057	1,591.664	6,959.393	3,080.286	557.447	4,437.680	38.869	38,358.445	52,636.970	72.87	NA	36.02%
2044 9,244.156 1,760.441 7,483.716 3,329.956 599.446 4,441.260 43.408 45,114.778 53,034.349 85.07 NA 36.02%	2042	8,776.343	1,645.384	7,130.958	3,161.439	571.190	4,446.951	40.327	40,357.906	52,738.043	76.53	NA	36.02%
	2043	9,007.950	1,701.582	7,306.369	3,244.869	585.240	4,447.418	41.839	42,601.231	52,866.915	80.58	NA	36.02%
	2044	9,244.156	1,760.441	7,483.716	3,329.956	599.446	4,441.260	43.408	45,114.778	53,034.349	85.07	NA	36.02%
	2045	9,483.810	1,821.655	7,662.155	3,416.285	613.739	4,430.414	45.036	47,924.309	53,249.234	90.00		36.02%

Payroll shown is pensionable pay. It does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

² Excludes SMP contributions.

TABLE 19
HYPOTHETICAL ASSETS TO DETERMINE MAXIMUM CONTRIBUTION
PROJECTIONS – DOES NOT REFLECT RECOGNITION OF DEFERRED ASSET GAINS AND LOSSES IN PROJECTED ACTUARIAL VALUE OF ASSETS (BEFORE IMPACT OF BONDS ISSUED IN 2004)
ASSUMES INVESTMENT RETURN OF 7.25% EACH YEAR ON ACTUARIAL VALUE OF ASSETS
(\$ IN MILLIONS)

Fiscal Debt **SURS Contribution** Year Total **SMP** DB **SURS** Member Assets **Funding** Contributions ² Service % of Total Payroll Payroll Payroll Payroll 1 Contributions **Benefits** EOY AAL Ratio Ending Expenses 2014 \$ 4,130.958 \$ 736.022 \$ 3,394.936 \$ 1,625.719 \$ 283.081 \$ 2,085.767 \$ 13.858 \$ 13,671.795 \$ 37,429.515 36.53 % NA 39.35% 2015 4.394.286 777,497 3,616,789 1.658.259 289.705 2,245,494 14.925 14,339,417 38,556,638 37.19 NA 37.74% 4,499,746 793.137 3,706,609 37.94 38.23% 2016 1,720,234 296,899 2,307,349 15.485 15,062.437 39,699.714 NA 3,802.378 304.570 2,419.797 40,807.101 2017 4,614.366 811.989 1,764.053 16.065 15,774.145 38.66 NA 38.23% 2018 4,736.582 834.235 3,902.347 1,810.775 312.578 2,533.089 16.668 16,476.180 41,875.898 39.35 NA 38.23% 2019 4.863.330 858.614 4.004.716 1,859.231 320,778 2,652,044 17.293 17,163.946 42.897.247 40.01 NA 38.23% 4.992.649 884.722 4.107.927 1.908.669 329.045 2,774,933 17.941 17.833.400 43,864,238 40.66 38.23% 2020 NA 2021 5.125.153 910.222 4.214.930 1.959.324 337.616 2,895,782 18.614 18,486,874 44,776.031 41.29 NA 38.23% 4,325.793 41.92 2022 5,261.111 935.318 2,011.301 346.496 3,013.660 19.312 19,127.950 45,633.090 NA 38.23% 2023 5,401.008 961.275 4,439.733 2,064.783 355.623 3,133.826 20.036 19,755.146 46,429.887 42.55 NA 38.23% 2024 5,544,082 987.588 4.556.494 2.119.479 364.975 3.254.729 20.788 20.368.157 47.162.227 43.19 NA 38.23% 2025 5,690.218 1,014.410 4,675.808 2,175.347 374.532 3,367.221 20,976.061 47,834.899 43.85 38.23% 21.567 NA 2026 5,840.254 1,041.537 4,798.717 2,232.705 384.377 3,475.283 22.376 21,584.886 48,449.093 44.55 38.23% NA 1,068.713 49,006.653 2027 5,993.394 4,924.680 2,291.249 394.467 3,578.158 23.215 22,201.522 45.30 NA 38.23% 2028 6.150.166 1.095.965 5.054.201 2,351,183 404.842 3,677,854 24.086 22.831.528 49,507,624 46.12 NA 38.23% 2029 6,309,260 1.122.974 5.186.286 2,412,004 415.421 3,774,963 24.989 23,479,649 49,950,967 47.01 NA 38.23% 5,320.874 50,394.822 48.04 2030 6,471.384 1,150.510 2,473.983 426.202 3,811.972 25.926 24,210.813 NA 38.23% 5,456.855 2031 6,636.703 1,179.848 2,537.184 437.094 3,899.844 26.898 24,979.710 50,786.369 49.19 NA 38.23% 2032 6.806.113 1.211.781 5.594.332 2,601,948 448.106 3.980.982 27.907 25,797,755 51.128.769 50.46 NA 38.23% 2033 6,981.407 1,245.806 5,735.601 2,668.963 459,422 4.055.347 28.953 26,678.131 51,426,275 51.88 NA 38.23% 7.161.812 1.282.056 5,879.755 4,123.393 27,634.122 51,683.101 53.47 38.23% 2034 2,737,931 470.968 30.039 NA 2035 7,345.368 1,319.555 6,025.813 2,808.103 482.668 4,186.037 31.166 28,678.168 51,902.166 55.25 NA 38.23% 2036 7,532.625 1,358.502 6,174.122 2,879.691 494.547 4,243.601 32.334 29,823.523 52,086.237 57.26 NA 38.23% 2037 7,724,006 1.399.909 6,324.097 2,952,855 506.560 4.296.317 33.547 31.084.278 52,237,999 59.51 NA 38.23% 2038 7,921.245 3,028.259 4,343,350 32,477.190 52,361,472 62.02 38.23% 1,444.368 6,476.877 518.798 34.805 NA 8,124.530 1,491.479 6,633.051 3,105.974 531.307 4,383.190 34,021.914 52,463.228 38.23% 2039 36.110 64.85 NA 2040 8,333.010 1,540.062 6,792.948 35,739.358 52,550.837 68.01 38.23% 3,185.675 544.115 4,415.707 37.464 NA 2041 8,551.057 1,591.664 6,959,393 3,269,033 557.447 4,437.680 38.869 37,657.240 52,636.970 71.54 NA 38.23% 2042 8,776.343 1,645.384 7,130,958 3,355.159 571.190 4,446,951 40.327 39,806.483 52,738,043 75.48 NA 38.23% 2043 9,007.950 1,701.582 7,306.369 3,443.702 585.240 4,447.418 41.839 52,866.915 79.85 38.23% 42,215.744 NA 2044 9,244.156 1,760.441 7,483.716 3,534.002 599.446 4,441.260 43.408 44,912.656 53,034.349 84.69 NA 38.23% 2045 9,483.810 1,821.655 7,662.155 3,625.621 613.739 4,430.414 45.036 47,924.324 53,249.234 90.00 NA 38.23%

Payroll shown is pensionable pay. It does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

² Excludes SMP contributions.

TABLE 20 ADDITIONAL DETAILS

(\$ IN MILLIONS)

Fiscal		Normal	Cost 1			Member Co	ntributions			DB Pa	yroll ²		Expected D	B Pay During	Following Fis	cal Year ³
Year		Tie	· 2			Tier	r 2			Tie	r 2		_	Tier	· 2	
Ending	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total	Tier 1	Current	Future	Total
2014	\$ 660.012	\$ 55.083	\$ 0.000	\$ 715.095				\$ 283.081	\$ 2,913.209	\$ 481.726	\$ 0.000	\$ 3,394.936	\$ 2,974.389	\$ 554.468	\$ 0.000	\$ 3,528.857
2015	633.403	50.232	29.838	713.473	225.980	39.911	23.814	289.705	2,821.223	498.261	297.305	3,616.789	2,827.211	489.116	296.531	3,612.858
2016	607.754	46.398	57.344	711.496	215.253	35.529	46.117	296.899	2,687.309	443.560	575.741	3,706.610	2,691.317	436.186	568.871	3,696.374
2017	582.377	43.712	83.975	710.064	205.065	32.045	67.461	304.571	2,560.115	400.057	842.206	3,802.378	2,561.704	398.842	832.871	3,793.417
2018	557.343	42.084	109.012	708.439	195.244	29.956	87.378	312.578	2,437.500	373.987	1,090.861	3,902.348	2,437.272	376.358	1,075.515	3,889.145
2019	532.447	41.149	133.803	707.399	185.752	28.677	106.349	320.778	2,319.003	358.016	1,327.697	4,004.716	2,316.213	361.585	1,308.982	3,986.780
2020	508.140	40.494	158.679	707.313	176.422	27.750	124.873	329.045	2,202.522	346.437	1,558.968	4,107.927	2,199.119	349.562	1,538.281	4,086.962
2021	484.837	39.760	183.971	708.568	167.526	26.888	143.203	337.617	2,091.455	335.675	1,787.800	4,214.930	2,086.658	338.147	1,769.116	4,193.921
2022	462.156	38.993	209.454	710.603	158.900	26.030	161.566	346.496	1,983.772	324.970	2,017.050	4,325.792	1,977.572	327.543	1,998.155	4,303.270
2023	439.870	38.317	235.352	713.539	150.513	25.269	179.840	355.622	1,879.061	315.473	2,245.199	4,439.733	1,871.029	318.436	2,226.573	4,416.038
2024	418.014	37.810	261.375	717.199	142.273	24.624	198.078	364.975	1,776.192	307.421	2,472.881	4,556.494	1,766.888	310.947	2,452.893	4,530.728
2025	396.742	37.540	287.467	721.749	134.267	24.114	216.151	374.532	1,676.239	301.050	2,698.520	4,675.809	1,665.556	305.011	2,679.123	4,649.690
2026	375.954	37.448	313.583	726.985	126.449	23.722	234.206	384.377	1,578.642	296.153	2,923.922	4,798.717	1,566.655	300.101	2,904.302	4,771.058
2027	355.605	37.531	339.913	733.049	118.824	23.372	252.271	394.467	1,483.448	291.781	3,149.450	4,924.679	1,470.147	296.137	3,129.921	4,896.205
2028	335.209	37.802	366.467	739.478	111.374	23.124	270.343	404.841	1,390.433	288.693	3,375.075	5,054.201	1,374.780	293.215	3,355.814	5,023.809
2029	314.279	38.154	393.545	745.978	103.909	22.930	288.583	415.422	1,297.238	286.266	3,602.781	5,186.285	1,279.292	290.669	3,584.640	5,154.601
2030	292.628	38.574	421.098	752.300	96.431	22.744	307.026	426.201	1,203.887	283.949	3,833.038	5,320.874	1,183.458	288.156	3,815.491	5,287.105
2031	270.388	39.027	449.183	758.598	88.888	22.572	325.635	437.095	1,109.710	281.794	4,065.351	5,456.855	1,087.604	285.471	4,048.569	5,421.644
2032	248.442	39.486	477.737	765.665	81.410	22.356	344.340	448.106	1,016.349	279.107	4,298.876	5,594.332	994.119	282.516	4,282.960	5,559.595
2033	226.957	39.985	506.678	773.620	74.245	22.135	363.041	459.421	926.903	276.347	4,532.351	5,735.601	903.483	279.515	4,517.684	5,700.682
2034	205.202	40.511	536.121	781.834	67.204	21.903	381.862	470.969	838.995	273.444	4,767.316	5,879.755	813.741	276.309	4,753.346	5,843.396
2035	183.076	41.012	566.192	790.280	60.175	21.656	400.836	482.667	751.250	270.365	5,004.197	6,025.812	724.831	272.676	4,990.916	5,988.423
2036	160.644	41.403	596.867	798.914	53.269	21.346	419.933	494.548	665.027	266.488	5,242.608	6,174.123	637.104	268.186	5,229.936	6,135.226
2037	138.120	41.684	628.200	808.004	46.423	20.960	439.178	506.561	579.561	261.670	5,482.866	6,324.097	551.194	262.991	5,470.822	6,285.007
2038	116.377	41.828	660.018	818.223	39.807	20.536	458.455	518.798	496.960	256.382	5,723.535	6,476.877	469.549	257.031	5,711.803	6,438.383
2039	95.937	41.810	692.193	829.940	33.638	20.025	477.644	531.307	419.955	250.000	5,963.096	6,633.051	393.593	250.211	5,951.572	6,595.376
2040	78.046	41.594	724.694	844.334	27.916	19.465	496.734	544.115	348.512	243.012	6,201.424	6,792.948	326.697	242.479	6,189.886	6,759.062
2041	63.607	41.195	757.166	861.968	23.189	18.810	515.449	557.448	289.500	234.827	6,435.066	6,959.393	271.225	233.969	6,423.456	6,928.650
2042	51.892	40.672	789.600	882.164	19.251	18.130	533.809	571.190	240.335	226.343	6,664.280	7,130.958	224.997	225.050	6,652.398	7,102.445
2043	42.338	39.838	821.998	904.174	15.967	17.408	551.866	585.241	199.335	217.325	6,889.709	7,306.369	186.286	215.031	6,877.222	7,278.539
2044	34.457	38.531	854.386	927.374	13.200	16.553	569.693	599.446	164.789	206.658	7,112.268	7,483.715	153.544	203.133	7,098.851	7,455.528
2045	27.903	36.691	886.856	951.450	10.846	15.531	587.361	613.738	135.407	193.899	7,332.850	7,662.156	125.736	189.165	7,318.585	7,633.486

¹ Normal Cost excludes expense portion and is for the following fiscal year.

²Payroll shown is pensionable pay at the valuation date. It does not include amounts in excess of the pay cap that is applicable to members hired on or after January 1, 2011, participating in the Traditional and Portable plans.

⁵Expected pay during the following fiscal year for members in the defined benefit plans at June 30. Used to develop normal cost as a percent of pay.

TABLE 21
ADDITIONAL DETAILS

(\$ IN MILLIONS)

Fiscal		Pre	esent Value of F	uture Benef	its				Benefit P	ayments					Actuarial Accru	ed Liability		
Year	Current	Current	Tier 1	Tier 2	Actives		Current	Current	Tier 1	Tier 2	Actives		Current	Current	Tier 1	Tier 2	Actives	
Ending	Retirees	Inactives	Actives	Current	Future	Total	Retirees	Inactives	Actives	Current	Future	Total	Retirees	Inactives	Actives	Current	Future	Total
2014	\$ 24,388.621	\$ 2,373.564	\$ 16,017.769	\$ 672.132	\$ 0.000	\$ 43,452.086						\$ 2,085.767	\$ 24,388.621	\$ 2,373.564	\$ 10,550.825	\$ 116.505	\$ 0.000	\$ 37,429.515
2015	23,999.690	2,493.466	17,079.233	702.893	238.996	44,514.278	2,081.429	50.387	96.328	17.350	0.000	2,245.494	23,999.690	2,493.466	11,899.455	164.028	0.000	38,556.639
2016	23,598.783	2,609.063	18,158.030	731.273	505.144	45,602.293	2,065.776	62.938	153.864	21.803	2.968	2,307.349	23,598.783	2,609.063	13,258.680	205.361	27.827	39,699.714
2017	23,153.596	2,723.646	19,233.677	758.826	804.809	46,674.554	2,080.456	72.010	232.380	24.588	10.363	2,419.797	23,153.596	2,723.646	14,608.523	242.836	78.500	40,807.101
2018	22,664.876	2,835.891	20,300.091	788.572	1,130.479	47,719.909	2,091.319	82.288	316.544	24.400	18.538	2,533.089	22,664.876	2,835.891	15,942.732	280.441	151.958	41,875.898
2019	22,133.734	2,943.407	21,351.647	820.849	1,482.041	48,731.678	2,098.063	94.713	405.491	24.039	29.738	2,652.044	22,133.734	2,943.407	17,255.573	319.461	245.072	42,897.247
2020	21,561.229	3,043.004	22,380.819	856.331	1,860.888	49,702.271	2,100.818	109.887	500.662	23.203	40.363	2,774.933	21,561.229	3,043.004	18,539.190	361.207	359.608	43,864.238
2021	20,948.929	3,132.302	23,382.186	900.691	2,266.614	50,630.722	2,099.166	126.803	599.497	17.114	53.201	2,895.781	20,948.929	3,132.302	19,788.277	411.607	494.914	44,776.029
2022	20,298.615	3,210.730	24,350.370	954.723	2,700.824	51,515.262	2,093.013	143.552	701.579	10.880	64.636	3,013.660	20,298.615	3,210.730	20,998.007	471.357	654.380	45,633.089
2023	19,612.405	3,277.816	25,280.426	1,015.973	3,162.925	52,349.545	2,082.156	159.993	806.109	7.694	77.874	3,133.826	19,612.405	3,277.816	22,163.633	537.944	838.089	46,429.887
2024	18,892.784	3,332.296	26,167.072	1,082.242	3,653.971	53,128.365	2,066.390	176.862	913.070	7.136	91.272	3,254.730	18,892.784	3,332.296	23,279.848	609.238	1,048.061	47,162.227
2025	18,142.529	3,374.166	27,004.911	1,151.514	4,184.121	53,857.241	2,045.607	192.853	1,022.203	8.874	97.685	3,367.222	18,142.529	3,374.166	24,341.265	683.374	1,293.566	47,834.900
2026	17,364.843	3,401.663	27,790.521	1,223.980	4,755.642	54,536.649	2,019.590	209.663	1,131.223	10.640	104.167	3,475.283	17,364.843	3,401.663	25,344.632	760.776	1,577.178	48,449.092
2027	16,563.205	3,415.998	28,519.354	1,299.762	5,370.380	55,168.699	1,988.297	224.297	1,240.977	12.511	112.075	3,578.157	16,563.205	3,415.998	26,285.482	841.758	1,900.209	49,006.652
2028	15,741.443	3,414.917	29,187.335	1,379.026	6,029.913	55,752.634	1,951.637	240.186	1,350.692	14.454	120.885	3,677.854	15,741.443	3,414.917	27,159.777	926.684	2,264.803	49,507.624
2029	14,903.766	3,396.767	29,788.661	1,461.953	6,737.705	56,288.852	1,909.504	256.593	1,461.750	16.466	130.650	3,774.963	14,903.766	3,396.767	27,961.253	1,015.965	2,673.217	49,950.968
2030	14,054.715	3,419.479	30,316.848	1,548.560	7,496.085	56,835.687	1,861.880	215.865	1,574.400	18.718	141.108	3,811.971	14,054.715	3,419.479	28,682.426	1,109.751	3,128.452	50,394.823
2031	13,199.091	3,430.666	30,765.453	1,638.900	8,307.092	57,341.202	1,808.824	228.585	1,688.153	21.177	153.106	3,899.845	13,199.091	3,430.666	29,315.585	1,208.225	3,632.802	50,786.369
2032	12,341.907	3,432.236	31,129.153	1,732.887	9,172.206	57,808.389	1,750.474	238.653	1,801.474	23.979	166.401	3,980.981	12,341.907	3,432.236	29,854.187	1,311.404	4,189.034	51,128.768
2033	11,488.324	3,423.964	31,404.925	1,830.446	10,092.471	58,240.130	1,687.033	248.267	1,911.771	27.109	181.166	4,055.346	11,488.324	3,423.964	30,294.815	1,419.299	4,799.872	51,426.274
2034	10,643.617	3,404.880	31,589.899	1,931.568	11,071.151	58,641.115	1,618.755	258.128	2,018.688	30.499	197.323	4,123.393	10,643.617	3,404.880	30,634.346	1,532.022	5,468.236	51,683.101
2035	9,813.021	3,375.412	31,679.543	2,036.189	12,111.251	59,015.416	1,546.046	266.819	2,123.623	34.200	215.349	4,186.037	9,813.021	3,375.412	30,867.224	1,649.630	6,196.880	51,902.167
2036	9,001.629	3,335.490	31,669.844	2,144.142	13,214.958	59,366.063	1,469.410	274.851	2,225.763	38.306	235.271	4,243.601	9,001.629	3,335.490	30,988.227	1,772.030	6,988.861	52,086.237
2037	8,214.322	3,284.749	31,557.443	2,255.099	14,385.045	59,696.658	1,389.408	282.502	2,324.194	42.964	257.248	4,296.316	8,214.322	3,284.749	30,992.775	1,898.886	7,847.268	52,238.000
2038	7,455.708	3,223.562	31,339.666	2,368.670	15,622.946	60,010.552	1,306.645	289.037	2,418.019	48.206	281.443	4,343.350	7,455.708	3,223.562	30,877.099	2,029.801	8,775.302	52,361.472
2039	6,729.924	3,152.656	31,016.129	2,484.365	16,929.955	60,313.029	1,221.897	294.138	2,504.845	54.107	308.203	4,383.190	6,729.924	3,152.656	30,640.547	2,164.245	9,775.857	52,463.229
2040	6,040.605	3,071.802	30,588.443	2,601.740	18,308.098	60,610.688	1,135.937	298.780	2,582.713	60.583	337.693	4,415.706	6,040.605	3,071.802	30,284.986	2,301.711	10,851.732	52,550.836
2041	5,390.797	2,981.657	30,062.243	2,720.031	19,756.709	60,911.437	1,049.590	302.092	2,647.860	67.916	370.222	4,437.680	5,390.797	2,981.657	29,817.611	2,441.325	12,005.580	52,636.970
2042	4,782.900	2,883.358	29,446.700	2,838.186	21,277.416	61,228.560	963.692	303.654	2,697.262	76.329	406.014	4,446.951	4,782.900	2,883.358	29,250.205	2,581.937	13,239.643	52,738.043
2043	4,218.597	2,777.904	28,749.206	2,955.053	22,872.065	61,572.825	879.100	303.682	2,733.283	85.844	445.508	4,447.417	4,218.597	2,777.904	28,592.205	2,722.346	14,555.864	52,866.916
2044	3,698.860	2,665.967	27,977.675	3,068.798	24,542.861	61,954.161	796.621	302.559	2,755.930	97.041	489.109	4,441.260	3,698.860	2,665.967	27,853.137	2,860.476	15,955.909	53,034.349
2045	3,223.974	2,548.496	27,139.949	3,177.133	26,291.760	62,381.312	716.985	300.067	2,765.831	110.227	537.305	4,430.415	3,223.974	2,548.496	27,042.066	2,993.611	17,441.087	53,249.234



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. 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 (\$110,631 in 2014, 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.

ASSET VALUATION METHOD

Prior to the valuation as of June 30, 2009, market value of assets was used. Beginning with the June 30, 2009, valuation, the asset value is the actuarial value of assets which is calculated by recognizing 20% of the investment gain or loss (the difference between the actual investment return and the expected investment return, which is 8.5% prior to June 30, 2010, 7.75% through June 30, 2013, and 7.25% thereafter) on the market value of assets for each of the five following fiscal years. This method was not applied retroactively to recognize a portion of investment gains or losses from previous fiscal years.

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	12.00%
1	10.00%
2	8.50%
3	7.25%
4	6.50%
5	6.25%
6	6.00%
7	5.75%
8	5.50%
9-13	5.00%
14-19	4.75%
19-33	4.25%
34+	3.75%

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

Mortality. The mortality assumption for retirees, beneficiaries and disabilities is based on the RP2000 Combined Mortality table, projected with Scale AA to 2017, sex-distinct, with rates multiplied by 0.80 for males and 0.85 for females. The assumed mortality rates for active members are 85 percent of the postretirement assumption for males and 60 percent for females. Based on the most recent experience study, the current mortality assumption has an estimated margin of 10% for future mortality improvements.

Sample Mortality Rates

	Postreti	rement	Preretirement					
Age	Male	Female	Male	Female				
35	0.0568%	0.0335%	0.0483%	0.0201%				
40	0.0753%	0.0464%	0.0640%	0.0278%				
45	0.0966%	0.0726%	0.0821%	0.0436%				
50	0.1256%	0.1064%	0.1068%	0.0639%				
55	0.2093%	0.2015%	0.1779%	0.1209%				
60	0.4103%	0.3946%	0.3488%	0.2367%				
65	0.8018%	0.7576%	0.6815%	0.4546%				
70	1.3740%	1.3068%	1.1679%	0.7841%				
75	2.3817%	2.0841%	2.0244%	1.2505%				

Future Life Expectancy (years)

	Postretin	ement	Preret	irement
Age	Male	Female	Male	Female
35	48.87	50.62	50.37	55.85
40	44.02	45.72	45.50	50.91
45	39.19	40.84	40.65	45.99
50	34.39	36.00	35.83	41.10
55	29.64	31.23	31.04	36.26
60	25.02	26.62	26.39	31.53
65	20.65	22.26	21.95	26.99
70	16.60	18.22	17.81	22.70
75	12.85	14.52	13.96	18.69

Disability. A table of disability incidence with rates follows:

Age	Males/Females	Age	Males/Females
20	0.050%	50	0.270%
21	0.053%	51	0.285%
22	0.055%	52	0.300%
23	0.058%	53	0.315%
24	0.060%	54	0.330%
25	0.063%	55	0.345%
26	0.065%	56	0.360%
27	0.068%	57	0.375%
28	0.070%	58	0.390%
29	0.073%	59	0.405%
30	0.075%	60	0.420%
31	0.078%	61	0.435%
32	0.080%	62	0.450%
33	0.083%	63	0.465%
34	0.085%	64	0.480%
35	0.095%	65	0.495%
36	0.105%	66	0.510%
37	0.115%	67	0.525%
38	0.125%	68	0.540%
39	0.135%	69	0.555%
40	0.145%	70	0.570%
41	0.155%	71	0.570%
42	0.165%	72	0.570%
43	0.175%	73	0.570%
44	0.185%	74	0.570%
45	0.195%	75	0.570%
46	0.210%	76	0.570%
47	0.225%	77	0.570%
48	0.240%	78	0.570%
49	0.255%	79	0.570%

Disability rates apply during the retirement eligibility period.

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

	Members Hired Bef and Elig	- · · · · · · · · · · · · · · · · · · ·	Members Hired on 2011 and F	· · · · · · · · · · · · · · · · · · ·
Age	Normal Retirement	Early Retirement	Normal Retirement	Early Retirement
Under 50	40.0%	-	-	-
50	38.0	-	-	-
51	38.0	-	-	-
52	38.0	-	-	-
53	38.0	-	-	-
54	34.0	-	-	-
55	32.0	7.0%	-	-
56	26.0	5.0	-	-
57	26.0	4.5	-	-
58	26.0	5.5	-	-
59	26.0	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	15.0	-	-	15.0
67	15.0	-	50.0%	-
68	15.0	-	35.0	-
69	15.0	-	30.0	-
70-79	30.0	-	30.0	-
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.

General Turnover. A table of termination rates based on experience in the 2006-2010 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	22.0%
1	22.0
2	16.0
3	14.0
4	12.0
5	10.5
6	9.0
7	7.5
8	6.5
9	6.0
10	5.5
11	4.5
12	4.0
13	3.7
14	3.2
15	3.0
16	2.6
17	2.3
18	2.1
19	2.0
20	1.7
21	1.5
22	1.5
23	1.5
24	1.5
25	1.5
26	1.5
27	1.5
28	1.5
29	1.5

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.

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.

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 30 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.

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 will remain the same as the total number of active members in the current valuation throughout the projection period.

15% of total future hires will elect to participate in the Self Managed Plan.

New entrants have an average age of 37.4 and average capped pay of \$37,110 and average uncapped pay of \$38,446 (2014 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 2014 dollars) of current active members with service between one and four years.

	_	Avera	ge Pay	_	Avera	ge Pay	_	Avera	ge Pay
	Number	Capped	Uncapped	Number	Capped	Uncapped	Total	Capped	Uncapped
Age	Males	Male	Male	Females	Female	Female	Number	Total	Total
<20	58	\$16,376	\$16,376	49	\$15,324	\$15,324	107	\$15,894	\$15,894
20 - 24	753	29,317	29,317	1,157	27,738	27,738	1,910	28,361	28,361
25 - 29	1,798	37,988	38,535	2,387	34,646	34,706	4,185	36,082	36,351
30 - 34	1,524	44,079	45,869	1,900	38,187	38,940	3,424	40,809	42,024
35 - 39	1,045	46,052	48,994	1,333	37,416	38,315	2,378	41,211	43,008
40 - 44	793	42,787	45,824	1,177	36,524	37,410	1,970	39,045	40,797
45 - 49	682	44,228	49,236	966	34,004	35,079	1,648	38,235	40,938
50 - 54	658	43,205	47,082	844	32,245	33,573	1,502	37,047	39,491
55 - 59	477	40,233	43,799	599	31,559	32,503	1,076	35,404	37,511
60 - 64	256	35,278	40,574	249	28,655	29,720	505	32,012	35,222
65 - 69	17	25,437	25,437	8	24,799	24,799	25	25,233	25,233
Total	8,061	40,666	42,926	10,669	34,423	35,061	18,730	37,110	38,446

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 2015 are \$486,184 and SMP employer forfeitures used to reduce the certified contributions for FY 2016 are \$3,451,060. Estimated SMP expenses for FY 2016 and after are assumed to increase by 2.75%. Estimated SMP employer forfeitures used to reduce the certified contributions for FY 2017 and after are assumed to be 7.5% of the gross SMP employer contribution.

APPENDIX G

SUMMARY OF BENEFIT PROVISIONS OF TRADITIONAL SURS

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 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. A more precise description of the provisions of SURS is contained in the Member's Guide, published by SURS staff. Of course, the statute is controlling.

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

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 (\$110,631 in 2014), 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
1 st 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%

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.

APPENDIX H

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability ("AAL"). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or "people" assumptions, include rates of mortality, retirement and separation. Economic, or "money" assumptions, include expected investment return, inflation and salary increases.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Present Value of Future Plan Benefits ("APV"). The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets ("AVA"). Smoothed value of assets that recognizes the difference between the expected investment return using the valuation assumption of 8.0 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Actuarially Determined Contribution ("ADC"). The sum of the gross normal cost (including employee contributions) and amortization of the unfunded actuarial accrued liability over a period not to exceed 30 years.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution ("ARC"). The sum of the normal cost (net of employee contributions) and amortization of the unfunded actuarial accrued liability over a period not to exceed 30 years. Currently required for accounting purposes by the Governmental Accounting Standards Board (GASB).

Asset Return. The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.08 after a year, the asset return is 8.00 percent.

Funded Ratio. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

GLOSSARY OF TERMS

Market Value of Assets ("*MVA*"). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market

Net Pension Obligation ("NPO"). The accumulated value of contribution variances (the difference between the Annual Pension Contribution and the actual employer contributions). Currently required for accounting purposes by the Governmental Accounting Standards Board (GASB).

Normal Cost ("NC"). The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Unfunded Actuarial Accrued Liability ("UAAL"). The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."