GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

STATE UNIVERSITIES RETIREMENT SYSTEM OF ILLINOIS

ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2013

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

October 8, 2013

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, 2013. 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 the System 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, 2015, 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 the Annual Required Contribution ("ARC") as determined pursuant to the Governmental Accounting Standards Board ("GASB") and information as required by GASB Statement No. 25 and No. 27. This report should not be relied on for any purpose other than the purpose described.

The Statutory funding policy does not currently meet the requirements for amortizing the unfunded liability provided under GASB Statement No. 25. The Statutory contribution is projected to first exceed the GASB Annual Required Contribution under Statement No. 25 in fiscal year 2016.

This valuation is based on the provisions of SURS in effect as of June 30, 2013, data on the SURS membership and information on the asset value of the trust fund as of that date. 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 change in the Effective Rate of Interest assumption used to credit member contribution balances, which affects the benefits calculated under Rule 2 (money purchase formula) and lump sum retirement and refund benefits to Portable Plan members. 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 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, 2013, 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, is a cumulative $8.886 billion dollar shortfall in required contributions.

The signing actuaries are independent of the plan sponsor.

The undersigned 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,

Leslie L. Thompson

Amy Williams

Lance J. Weiss

Leslie L. Thompson, FSA, EA, MAAA
Senior Consultant

Amy Williams, ASA, MAAA
Consultant

Lance Weiss, EA, MAAA
Senior Consultant

LLT/AW/LW:kb

TABLE OF CONTENTS

TABLE OF CONTENTS

SUMMARY OF THE VALUATION

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, 2013.

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 determine the Annual Required Contribution under the standards set by the Governmental Accounting Standards Board ("GASB"); 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, 2015, and to estimate contributions required under that Section for the subsequent years of the funding period ending in the year 2045.

REPORT HIGHLIGHTS

The Net Annual Required Contribution (Table 11) for FY 2012 was $1.443 billion, and increased to $1.549 billion for FY 2013. For FY 2012, the actual State contribution to the SURS defined benefit plans was about $0.986 billion, and for FY 2013 was $1.401 billion. The shortfalls in the actual State contributions received compared to the Net Annual Required Contribution become a part of the Net Pension Obligation, which as of this valuation totaled $8.886 billion dollars. This Net Pension Obligation represents a running total of the annual contribution shortfalls.

The Statutory contribution for FY 2015 is $1.588 billion, and includes the State's projected normal cost of $399.9 million and the Self-Managed Plan ("SMP") contribution of $52.8 million. The 2012 valuation had projected the Statutory contribution would increase, from $1.552 billion for FY 2014 to $1.626 billion for FY 2015. The key reasons for the decrease in the Statutory contribution over that which was projected in the prior valuation are:

1. A change in the Effective Rate of Interest assumption from 7.75% to 7.00% which decreased the actuarial accrued liability;
2. Actual investment return during FY 2013 of 12.5%, compared to the assumption of 7.75%; and
3. An increase in total active full time membership which increases the total expected contributions from members.

In the past 10 years, SURS experienced investment gains (compared to the actuarial assumption) in fiscal years 2004 through 2007, and 2010, 2011, and 2013. 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, 2013 was about 12.5% compared to a 0.5% return in FY 2012. The average market value investment return over the most recent 10 years has been approximately 8%.

The funded ratio decreased from 42.1% as of June 30, 2012, to 41.5% as of June 30, 2013, based on the actuarial value of assets and increased from 41.3% as of June 30, 2012, to 43.7% as of June 30, 2013, 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 investment rate of return assumption of 7.75% was decreased from 8.50% as of June 30, 2010, the ERI assumption of 7.00% was decreased from 7.75% as of June 30, 2013, and other actuarial assumptions were first adopted 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, 2012.

Experience During 2013

The fund earned 12.5% on a market value basis during FY 2013 which exceeded the assumption of 7.75%. However, the fund earned 4.91% on an actuarial value of assets basis during FY 2013, due to recognition of deferred investment gains and losses under the asset smoothing method. Because 4.91% compares to the assumed rate of investment return of 7.75%, there was an asset loss of $391.8 million on the actuarial value of assets. Led by this actuarial loss on assets, the SURS defined benefit programs experienced an overall actuarial loss of $540.5 million. There was a loss of $148.7 million from actuarial liabilities, including a loss of about $202.3 million from demographic experience which was partially offset by a gain of $53.6 million from lower than expected pay increases.

There was a decrease in the liabilities of $157.0 million due to the decrease in the ERI assumption from 7.75% to 7.00%.

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

1.	AAL - Prior Year	$ 33,170.2
2.	Normal Cost - Prior Year [1]	699.7
3.	Benefits and Admin Expenses Paid in FY 2013	(2,009.4)
4.	Interest on the above items	2,520.9
5.	Expected AAL 6/30/2013 (1+2+3+4)	34,381.4
6.	Impact of Change in Actuarial Assumptions and Methods	(157.0)
7.	Actual AAL 6/30/2013	34,373.1
8.	Actuarial (Gain)/Loss on Liabilities (7-6)	$ 148.7

[1] *Total Normal Cost from the previous valuation which includes both employee and employer portion.*

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

1. Actuarial (Gain)/Loss on Assets	$	391.8
2. Actuarial (Gain)/Loss on Liabilities		148.7
3. Total Actuarial (Gain)/Loss (1+2)	$	540.5

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 small losses on retirement, disability and termination. In addition, the benefits for some new retirees were higher than projected. Retiree mortality experience produced a loss, meaning retirees 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 in 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 2015 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 payroll[1] 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%.

   [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.

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

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 2015 and estimates of the required contributions for the subsequent five fiscal years follow. The estimates for fiscal years 2016-2020 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 2014 for comparison purposes, as calculated in the actuarial valuation as of June 30, 2012.

Fiscal Year [1]	Estimated Statutory Contribution (in Millions) 15% of New Members to SMP SURS	SMP [2]	Total
2014	$ 1,499.731	$ 52.035	$ 1,551.766
2015	$ 1,535.439	$ 52.761	$ 1,588.200
2016	$ 1,536.171	$ 53.502	$ 1,589.673
2017	$ 1,552.295	$ 55.174	$ 1,607.469
2018	$ 1,598.757	$ 56.968	$ 1,655.725
2019	$ 1,630.015	$ 58.872	$ 1,688.887
2020	$ 1,672.575	$ 60.864	$ 1,733.439
Seven year total	$ 11,024.983	$ 390.176	$ 11,415.159

[1]*FY 2014 Contribution based on June 30, 2012, valuation. FY 2015 Contribution and projected FY 2016-2020 contributions based on June 30, 2013, valuation. The Statutory contribution does not include debt service.*
[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.*

The Statutory contribution for FY 2015 is $1,588,200,000. This is equal to a gross Statutory contribution of $1,591,645,000 less $3,445,000 in SMP forfeitures. The projected SMP contributions for FY 2016-2020 are net of assumed projected SMP forfeitures.

The Statutory contribution increased from $1.552 billion for fiscal year 2014 to $1.588 billion for fiscal year 2015.

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.

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 $13,705.1 million as of June 30, 2012, to $15,037.1 million as of June 30, 2013. This increase is due to a favorable return on fund assets. The actuarial value of assets is $14,262.6 million, which is $774.5 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 $774.5 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 2010 and FY 2011 will be smoothed in over the next one and two years, respectively, the remaining asset loss from FY 2012 will be smoothed in over the next three years, and the FY 2013 asset gain will be smoothed in over the next four 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 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 decreased from 42.1% at June 30, 2012, to 41.5% at June 30, 2013. The funded ratio is 43.7% based on the market value of assets at June 30, 2013. The asset losses from FY 2009 have been fully recognized, 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 2013 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 38.7% as of June 30, 2012 to 38.2% as of June 30, 2013.

Percentage of Benefits Covered by Net Assets
(in Millions)

Fiscal Year	Member Acc Contrib. (1)	Members Receiving Benefits (2)	Act/Inact Employer Portion (3)	Net Actuarial Value of Assets	% of Benefits Covered by 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%

ACTUARIAL FUNDING AND STATUTORY FUNDING

GASB requirements, as amplified by the Actuarial Standards of Practice, provide guidance on how to determine the Annual Required Contribution ("ARC") 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.

The actual SURS contribution (excluding SMP) for FY 2013 was $1.401 billion, which was the same as the projected SURS contribution determined in the valuation as of June 30, 2011, and the FY 2013 ARC of $1.549 billion.

The Total Actuarially Determined Contribution ("ADC") for FY 2014 is $1.844 billion (Table 11, page 19). Projected member contributions for FY 2014 are $0.290 billion, for an estimated net ARC of about $1.554 billion. The total Statutory contribution (including SMP) for FY 2014 (from the June 30, 2012 report) was $1.552 billion, and is projected to be $1.500 billion net of SMP contributions. 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.

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 will exceed the GASB ARC (calculated using 30-open period level percent of pay amortization of the unfunded liability). In the earlier years until 2016, the Statute determines a contribution that is less than the ARC – thereby adding to the NPO. As shown in Table 12 (page 20) of this report, the NPO (accumulated missed contributions) is almost $9.0 billion as of June 30, 2013. A large and growing NPO may raise concerns in the capital markets and impact the cost of debt and borrowing for the State. Beginning in 2016, the Statutory contributions are projected to exceed the ARC and 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 15, page 26) and an investment return of 7.75% each year, the funded ratio is projected to begin to increase from about 41% 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 7.75%, 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 $34.373 billion as of the end of FY 2013 to $52.370 billion as of the end of FY 2045 (as shown in Graph 2, page 23). Total benefit payments are projected to increase from $1.996 billion in fiscal year 2013 to $4.514 billion in fiscal year 2045. Graph 3 (page 24) shows projected benefit payments separately for retirees as of June 30, 2013, active and inactive members as of June 30, 2013, 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. In addition, maintaining the Statutory funding policy in combination with the benefit provision changes for new hires further delays funding of benefits.

We recommend a funding policy that contributes normal cost plus 30-year (or shorter) closed period amortization 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 2044 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 2015 contribution would be $1,726.724 (including SMP) under this funding policy. An open amortization policy (the current method for calculating the Annual Required Contribution for accounting purposes) resets the funding period to 30 years each year, and pushes a portion of the unfunded accrued liability beyond the 30 year period. 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. Using an actuarial value of assets that is significantly higher than the market value of assets delays funding to the system by further deferring the contributions into the future. The plan is already in serious funding jeopardy, and we cannot recommend a policy such as “no corridor” which could further bring risk to the funding of the benefit obligations if another downturn occurred.

We recognize that the 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 determined funding policy and to highlight the risks and additional costs of underfunding the System.

GASB DISCLOSURE

The accounting policies of the State of Illinois relative to its retirement systems are currently 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.

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 having a pension expense that requires a much shorter amortization period than 30 years.

Illustrations of the impact of GASB Statements 67 and 68 have previously been performed outside of this report.

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 contribution amounts that would have otherwise been made. We recognize that this is the effect of the statute. However, the change in the investment return assumption and other assumptions to align the assumptions with current market expectations 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 41.5% to 90.0% by 2045, assuming the statutory contributions are received and the actuarial assumptions are met, including a 7.75% 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.

APPENDICES

APPENDIX A

ASSET INFORMATION

TABLE 1
STATEMENT OF PLAN NET ASSETS
AS OF JUNE 30, 2013 AND JUNE 30, 2012

	Defined Benefit Plan	Self Managed Plan	Reporting Entity Totals 2013	2012
Assets				
Cash and short-term investments	$ 564,599,292	-	$ 564,599,292	$ 499,250,768
Receivables				
Participants	11,754,805	$ 2,947,717	14,702,522	15,177,808
Federal, trust funds, and other	273,081,081	1,798,439	274,879,520	209,717,932
Pending investment sales	388,643,715	-	388,643,715	369,412,417
Interest and dividends	39,318,325	-	39,318,325	33,913,766
Total receivables	712,797,926	4,746,156	717,544,082	628,221,923
Prepaid expenses	116,380	-	116,380	243,561
Investments, at fair value				
Equity investments	10,269,713,779	50,612,435	10,320,326,214	9,283,732,530
Fixed income investments	3,802,118,087	23,210,852	3,825,328,939	3,662,881,949
Real estate investments	381,873,880	881,635	382,755,515	417,259,556
Mutual fund and variable annuities		1,179,889,253	1,179,889,253	971,088,663
Total investments	14,453,705,746	1,254,594,175	15,708,299,921	14,334,962,698
Securities lending collateral	646,999,435	-	646,999,435	12,121,093
Capital assets, at cost, net of accum deprec $ 17,989,458 and $ 18,428,111 respectively	6,215,304	-	6,215,304	5,777,719
Total assets	16,384,434,083	1,259,340,331	17,643,774,414	15,480,577,762
Liabilities				
Benefits payable	7,262,371	-	7,262,371	5,093,488
Refunds payable	6,112,384	-	6,112,384	4,758,501
Securities lending collateral	646,877,066	-	646,877,066	11,758,885
Payable to brokers for unsettled trades	666,401,158	-	666,401,158	696,571,091
Administrative expenses payable	20,679,277	-	20,679,277	14,433,274
Total liabilities	1,347,332,256	-	1,347,332,256	732,615,239
Net assets held in trust for pension benefits	$ 15,037,101,827	$ 1,259,340,331	$ 16,296,442,158	$ 14,747,962,523

TABLE 2
STATEMENT OF CHANGES IN PLAN NET ASSETS
FOR YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012

	Defined Benefit Plan	Self Managed Plan	Reporting Entity Totals 2013	Reporting Entity Totals 2012
Additions				
Contributions				
Employer	$ 1,401,481,111	$ 49,239,184	$ 1,450,720,295	$ 1,031,738,495
Participant	245,141,327	59,937,848	305,079,175	312,357,812
Total Contributions	1,646,622,438	109,177,032	1,755,799,470	1,344,096,307
Investment Income				
Net appreciation in fair value of investments	1,402,340,853	147,495,690	1,549,836,543	(218,846,087)
Interest	100,489,294	-	100,489,294	81,396,519
Dividends	237,085,587	-	237,085,587	200,831,741
Securities lending	4,404,538	-	4,404,538	5,641,433
Gross Investment Income	1,744,320,272	147,495,690	1,891,815,962	69,023,606
Less investment expense				
Asset management expense	49,174,215	-	49,174,215	42,734,709
Securities lending expense	373,983	-	373,983	562,132
Net investment income	1,694,772,074	147,495,690	1,842,267,764	25,726,765
Total additions	3,341,394,512	256,672,722	3,598,067,234	1,369,823,072
Deductions				
Benefits	1,914,554,567	19,581,671	1,934,136,238	1,748,672,457
Refunds of contributions	81,454,902	20,143,894	101,598,796	94,173,484
Administrative expense	13,426,494	426,071	13,852,565	13,555,757
Total deductions	2,009,435,963	40,151,636	2,049,587,599	1,856,401,698
Net increase	1,331,958,549	216,521,086	1,548,479,635	(486,578,626)
Net assets held in trust for pension benefits				
Beginning of year	13,705,143,278	1,042,819,245	14,747,962,523	15,234,541,149
End of Year	$ 15,037,101,827	$ 1,259,340,331	$ 16,296,442,158	$ 14,747,962,523

APPENDIX B

MEMBERSHIP DATA

TABLE 3
SUMMARY OF DATA CHARACTERISTICS
($ IN MILLIONS)

	June 30, 2012		June 30, 2013	
	Number	**Earnings**	**Number**	**Earnings**
Active Members				
Full time				
Traditional SURS	47,048	$2,238.2	46,971	$2,262.4
Portable SURS	18,546	1,079.8	18,751	1,110.9
SMP	9,548	601.2	10,252	668.1
Total Full Time [1]	75,142	$3,919.2	75,974	$4,041.4
Part time				
Traditional SURS	4,571	$ 26.8	4,074	$ 26.9
Portable SURS	891	6.6	760	5.9
SMP	552	4.0	494	3.9
Total Part Time	6,014	$ 37.4	5,328	$ 36.7
Total	81,156	$3,956.6	81,302	$4,078.1
Inactive Members				
Traditional SURS	64,659		64,706	
Portable SURS	9,375		9,863	
SMP	7,307		7,627	
Total	81,341		82,196	

[1] *Includes 666 police officers and firefighters as of June 30, 2012 and 695 as of June 30, 2013.*

	Number	**Annual Benefits**	**Number**	**Annual Benefits**
Benefit Recipients				
Retirement				
Traditional SURS	42,547	$ 1,552.3	44,503	$ 1,658.8
Portable SURS	3,001	82.0	3,639	105.5
Total Retirement	45,548	$ 1,634.3	48,142	$ 1,764.3
Survivor				
Traditional SURS	7,777	$ 114.9	7,885	$ 122.7
Portable SURS	93	1.3	116	1.6
Total Survivor	7,870	$ 116.2	8,001	$ 124.3
Disability				
Traditional SURS	933	$ 16.9	911	$ 16.8
Portable SURS	181	4.1	175	4.0
Total Disability	1,114	$ 21.0	1,086	$ 20.8
Total	54,532	$ 1,771.5	57,229	$ 1,909.4
Total Participants				
Total Traditional SURS	167,535		169,050	
Total Portable SURS	32,087		33,304	
Total SMP	17,407		18,373	
Total	217,029		220,727	

TABLE 4
DISTRIBUTION OF FULL-TIME* ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE
AS OF JUNE 30, 2013

Age	Years of Service								Totals
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 20	18	7	-	-	-	-	-	-	25
	$ 59,018	$ 90,624	$ -	$ -	$ -	$ -	$ -	$ -	$ 149,642
20-24	334	714	30	-	-	-	-	-	1,078
	$ 2,838,035	$ 18,493,929	$ 673,966	$ -	$ -	$ -	$ -	$ -	$ 22,005,931
25-29	664	3,530	834	15	-	-	-	-	5,043
	$ 8,116,635	$ 128,778,973	$ 33,097,060	$ 477,458	$ -	$ -	$ -	$ -	$ 170,470,126
30-34	572	4,129	2,745	564	14	-	-	-	8,024
	$ 8,465,979	$ 179,934,149	$ 126,983,850	$ 27,681,613	$ 750,738	$ -	$ -	$ -	$ 343,816,329
35-39	405	2,943	3,107	1,724	363	8	-	-	8,550
	$ 6,287,428	$ 142,271,162	$ 169,095,352	$ 99,032,221	$ 20,302,752	$ 388,622	$ -	$ -	$ 437,377,537
40-44	302	2,359	2,958	2,290	1,213	350	23	-	9,495
	$ 4,831,301	$ 112,024,472	$ 167,833,316	$ 147,018,060	$ 79,531,385	$ 20,664,451	$ 1,303,892	$ -	$ 533,206,875
45-49	250	1,957	2,661	2,271	1,551	1,025	435	6	10,156
	$ 3,987,972	$ 86,365,785	$ 134,390,428	$ 145,609,422	$ 107,553,300	$ 71,596,427	$ 27,034,604	$ 352,143	$ 576,890,082
50-54	276	1,781	2,518	2,305	1,865	1,464	1,062	177	11,448
	$ 5,205,690	$ 78,499,198	$ 120,341,152	$ 136,410,354	$ 124,745,015	$ 113,480,887	$ 78,209,344	$ 13,046,971	$ 669,938,611
55-59	168	1,414	2,228	2,099	1,685	1,486	967	275	10,322
	$ 3,037,429	$ 60,840,239	$ 106,271,038	$ 118,068,558	$ 106,627,638	$ 114,012,677	$ 88,073,515	$ 25,773,036	$ 622,704,130
60-64	79	915	1,710	1,507	1,198	1,087	598	338	7,432
	$ 1,381,824	$ 35,543,574	$ 74,078,643	$ 82,476,520	$ 70,796,572	$ 76,272,412	$ 54,693,456	$ 39,250,450	$ 434,493,450
65 & Over	30	409	1,045	963	719	620	295	320	4,401
	$ 280,390	$ 12,783,920	$ 34,752,360	$ 46,982,562	$ 38,847,351	$ 31,558,264	$ 26,906,032	$ 38,202,333	$ 230,313,212
Total Count	3,098	20,158	19,836	13,738	8,608	6,040	3,380	1,116	75,974
Total Payroll	$ 44,491,702	$ 855,626,025	$ 967,517,165	$ 803,756,766	$ 549,154,750	$ 427,973,741	$ 276,220,842	$ 116,624,934	$ 4,041,365,926

** Includes part-time members with at least three years of service.*

TABLE 5
DISTRIBUTION OF BENEFIT RECIPIENTS BY AGE
AS OF JUNE 30, 2013

Age	Number	Annual Benefit
Retirees and Survivors		
Under 50	522	$ 4,118,246
50-54	676	23,438,451
55-59	4,492	150,093,585
60-64	9,592	326,880,389
65-69	11,785	415,478,503
70-74	10,168	378,953,909
75-79	7,388	260,841,064
80-84	5,636	181,825,520
85-89	3,715	99,484,051
90 & Over	2,169	47,556,002
Total	56,143	$ 1,888,669,720
Disabilitants		
Under 50	177	$ 3,356,950
50-54	194	4,012,857
55-59	205	4,110,830
60-64	243	4,675,844
65-69	127	2,663,138
70-74	69	1,103,913
75-79	35	508,739
80-84	24	266,561
85-89	7	82,893
90 & Over	5	43,675
Total	1,086	$ 20,825,400

APPENDIX C

ACTUARIAL DETERMINATIONS

TABLE 6
SUMMARY OF ACTUARIAL VALUES
AS OF JUNE 30, 2013
($ IN MILLIONS)

	Actuarial Present Value of Projected Benefits (APV)	Projected Unit Credit Values: Actuarial Accrued Liability (AAL)	Projected Unit Credit Values: Gross Normal Cost (NC) [1]	Gross NC % of Pay [1]
1. Active Members				
a. Retirement	$13,187.7	$ 8,570.3	$509.4	14.38%
b. Death	274.4	174.5	11.5	0.32%
c. Disability	648.8	401.7	37.1	1.05%
d. Termination	1,653.9	1,042.3	125.5	3.54%
Total - Active Members	$15,764.8	$ 10,188.8	$683.5	19.30%
2. Benefit Recipients				
a. Retirement	$20,678.1	$20,678.1	$ 0.0	
b. Survivor	1,105.1	1,105.1	0.0	
c. Disability	316.7	316.7	0.0	
Total - Benefit Recipients	$22,099.9	$22,099.9	$ 0.0	
3. Other Inactive	$ 2,084.4	$ 2,084.4		
4. Grand Total	$39,949.1	$34,373.1	$683.5	19.30%
5. Operating Expense			$ 14.7	0.41%
6. Total Normal Cost			$698.2	19.71%
7. Expected Pay During Fiscal Year 2014 for Defined Benefit Plans[1]				$ 3,542.3
8. Present Value of Future Salaries (PVFS) [2]				$ 27,264.8

[1] *For members currently active as of June 30, 2013, in the Traditional and Portable defined benefit plans and includes the use of capped payroll for members hired on or after January 1, 2011.*
[2] *For members currently active in the defined benefits plan as of June 30, 2013.*

TABLE 7

DEFINED BENEFIT PLAN DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

FOR THE YEAR ENDING JUNE 30, 2013

	2012	2013	2014	2015	2016	2017
Beginning of Year:						
(1) Market Value of Assets	$ 14,274,003,297	$ 13,705,143,278				
(2) Actuarial Value of Assets	13,945,680,453	13,949,905,108				
End of Year:						
(3) Market Value of Assets	13,705,143,278	15,037,101,827				
(4) Net of Contributions and Disbursements	(577,927,428)	(362,813,525)				
(5) Total Investment Income						
=(3)-(1)-(4)	9,067,409	1,694,772,074				
(6) Projected Rate of Return	7.75%	7.75%				
(7) Projected Investment Income						
=(1)x(6)+([1+(6)]^.5-1)x(4)	1,084,258,424	1,048,351,903				
(8) Investment Income in						
Excess of Projected Income	(1,075,191,015)	646,420,171				
(9) Excess Investment Income Recognized						
This Year (5 year recognition)						
(9a) From This Year	(215,038,203)	129,284,034				
(9b) From One Year Ago	377,271,084	(215,038,203)	$ 129,284,034			
(9c) From Two Years Ago	147,916,952	377,271,084	(215,038,203)	$ 129,284,034		
(9d) From Three Years Ago	(812,256,174)	147,916,952	377,271,084	(215,038,203)	$ 129,284,034	
(9e) From Four Years Ago	0	(812,256,174)	147,916,951	377,271,085	(215,038,203)	$ 129,284,035
(9f) Total Recognized Investment Gain/(Loss)	(502,106,341)	(372,822,307)	439,433,866	291,516,916	(85,754,169)	129,284,035
(10) Change in Actuarial Value of Assets						
=(4)+(7)+9[a..e]	4,224,655	312,716,071				
End of Year:						
(3) Market Value of Assets	**13,705,143,278**	**15,037,101,827**				
(11) Final Actuarial Value of Assets	**13,949,905,108**	**14,262,621,179**				
(12) Difference Between Market & Actuarial Values	(244,761,830)	774,480,648				
(13) Actuarial Value Rate of Return	4.26 %	4.91 %				
(14) Estimated Market Value Rate of Return	0.06 %	12.53 %				
(15) Ratio of Actuarial Value to Market Value	102 %	95 %				
(16) SURS Reported Market Value Rate of Return	0.50 %	12.50 %				

TABLE 8
ANALYSIS OF CHANGE IN
UNFUNDED ACTUARIAL ACCRUED LIABILITY
FOR THE YEAR ENDING JUNE 30, 2013
($ IN MILLIONS)

1. Actuarial (Gain)/Loss on AAL		
(a) AAL 6/30/12		$ 33,170.2
(b) Normal Cost FY13	$ 699.7	
(c) Benefits and Admin Expenses Paid FY13	(2,009.4)	
(d) Interest on (a), (b), and (c) at 7.75%	2,520.9	
(e) Expected AAL 6/30/2013 (a+b+c+d)		34,381.4
(f) Actual AAL 6/30/2013		34,530.1
(g) Actuarial (Gain)/Loss on AAL (f-e)		$ 148.7
(h) Impact of Benefit Changes		0.0
(i) Impact of Change in Actuarial Assumptions and Methods		(157.0)
(j) Actual AAL After Changes (f+h+i)		$ 34,373.1
2. Actuarial (Gain)/Loss on Assets		
(a) Actuarial Value of Assets 6/30/12		$ 13,949.9
(b) Contributions FY13	1,646.6	
(c) Benefits and Admin Expenses	(2,009.4)	
(d) Interest on (a), (b), and (c) at 7.75%	1,067.3	
(e) Expected Assets 6/30/2013 (a+b+c+d)		$ 14,654.4
(f) Actual Actuarial Value of Assets 6/30/2013		14,262.6
(g) Actuarial (Gain)/Loss on Assets (e-f)		$ 391.8
3. Total Actuarial (Gain)/Loss		
(a) (Gain)/Loss on AAL		$ 148.7
(b) (Gain)/Loss on Assets		391.8
(c) Net (Gain)/Loss (a+b)		$ 540.5

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

	Amount of (Gain) or Loss			
	FY 2010	**FY 2011**	**FY 2012**	**FY 2013**
Investment Return[1]	$ 940.5	$ 430.0	$ 476.7	$ 391.8
Salary Increase	(113.1)	(172.3)	(4.0)	(53.6)
Age and Service Retirement	(59.2)	(31.4)	126.3	14.3
General Employment Termination	32.0	34.0	59.9	9.1
Disability Incidence	(6.1)	(5.2)	5.9	2.3
In Service Mortality	2.3	(2.6)	2.2	4.2
Benefit Recipient[2]	104.7	100.8	55.5	31.2
New Entrants	65.6	75.0	75.2	77.4
Other	71.5	81.2	56.2	63.8
Total Actuarial (Gain)/Loss	$ 1,038.2	$ 509.5	$ 853.9	$ 540.5

[1]*Gain/Loss is based on market value of assets prior to FY 2010, and actuarial value of assets thereafter.*

[2]*Benefit 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.*

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

AAL - Actuarial Accrued Liability
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.*

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.

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
2000			$ 547.8	$ 222.5	$ 325.3	$ 241.1	74.11 %
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				

** 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.*
*** 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.*
Beginning in fiscal year 2011, dollars are shown rounded to three decimal places.

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.

TABLE 12
GENERAL INFORMATION GASB NO. 25 AND NO. 27
($ IN MILLIONS)

Fiscal Year	(1) Total ADC	(2) Interest on NPO	(3) NPO Adjustment	(4) (1) + (2) + (3) Total Expense	(5) Member Contributions	(6) (4) - (5) State Expense	(7) Actual State Contribution	(8) Beg. of Year NPO	(9) (8) + (6) - (7) End of Year 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				8,885.533	

Notes in Trend Data

Information	Data
Valuation Date	June 30, 2013
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*	7.75%
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%

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.

APPENDIX D

ACTUARIAL PROJECTIONS

TABLE 13

BASELINE PROJECTIONS – ACTUARIAL VALUATION JUNE 30, 2013

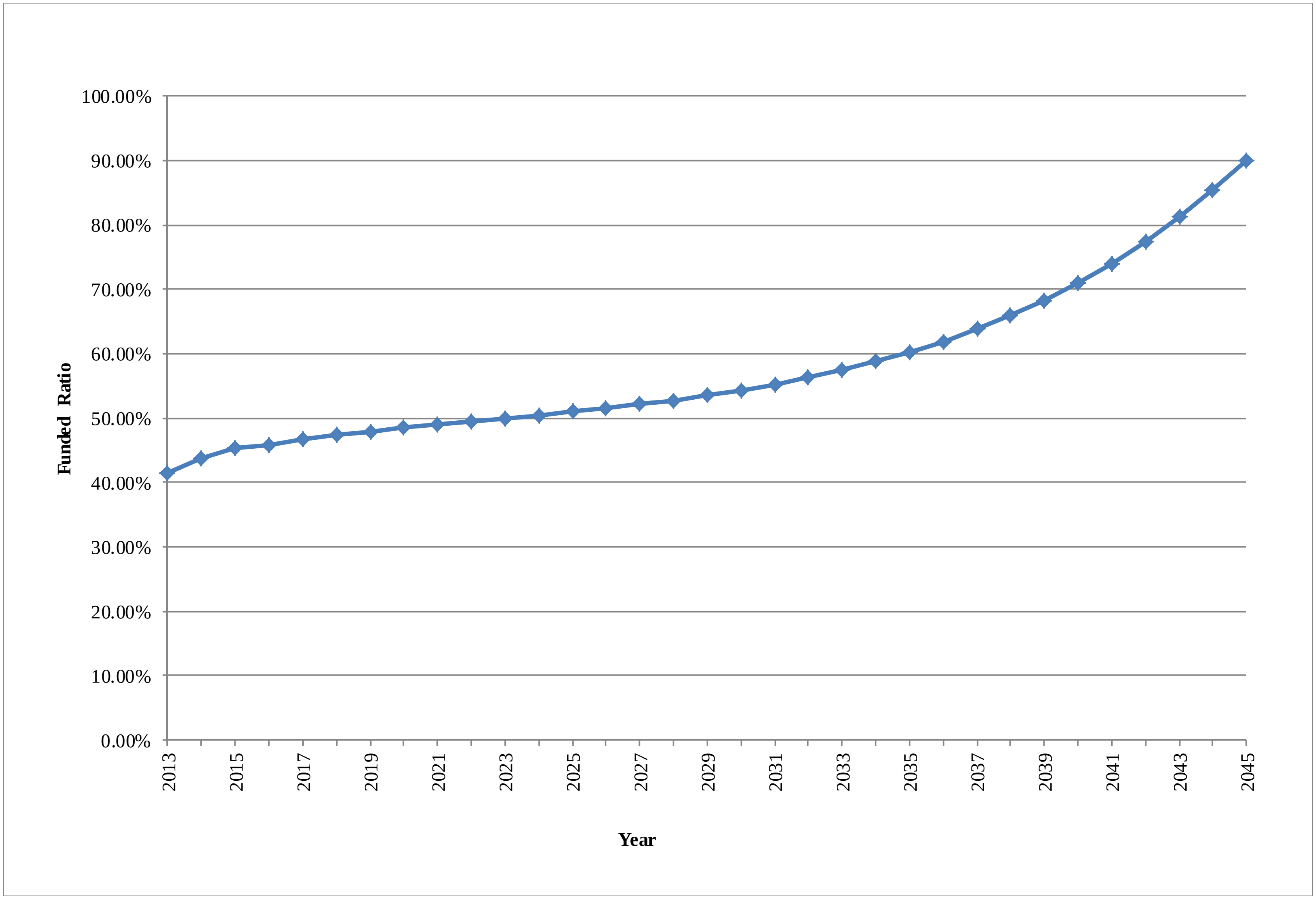
ASSUMES CONTRIBUTIONS BASED ON TABLE 15 & INVESTMENT RETURN OF 7.75% EACH YEAR

($ IN MILLIONS)

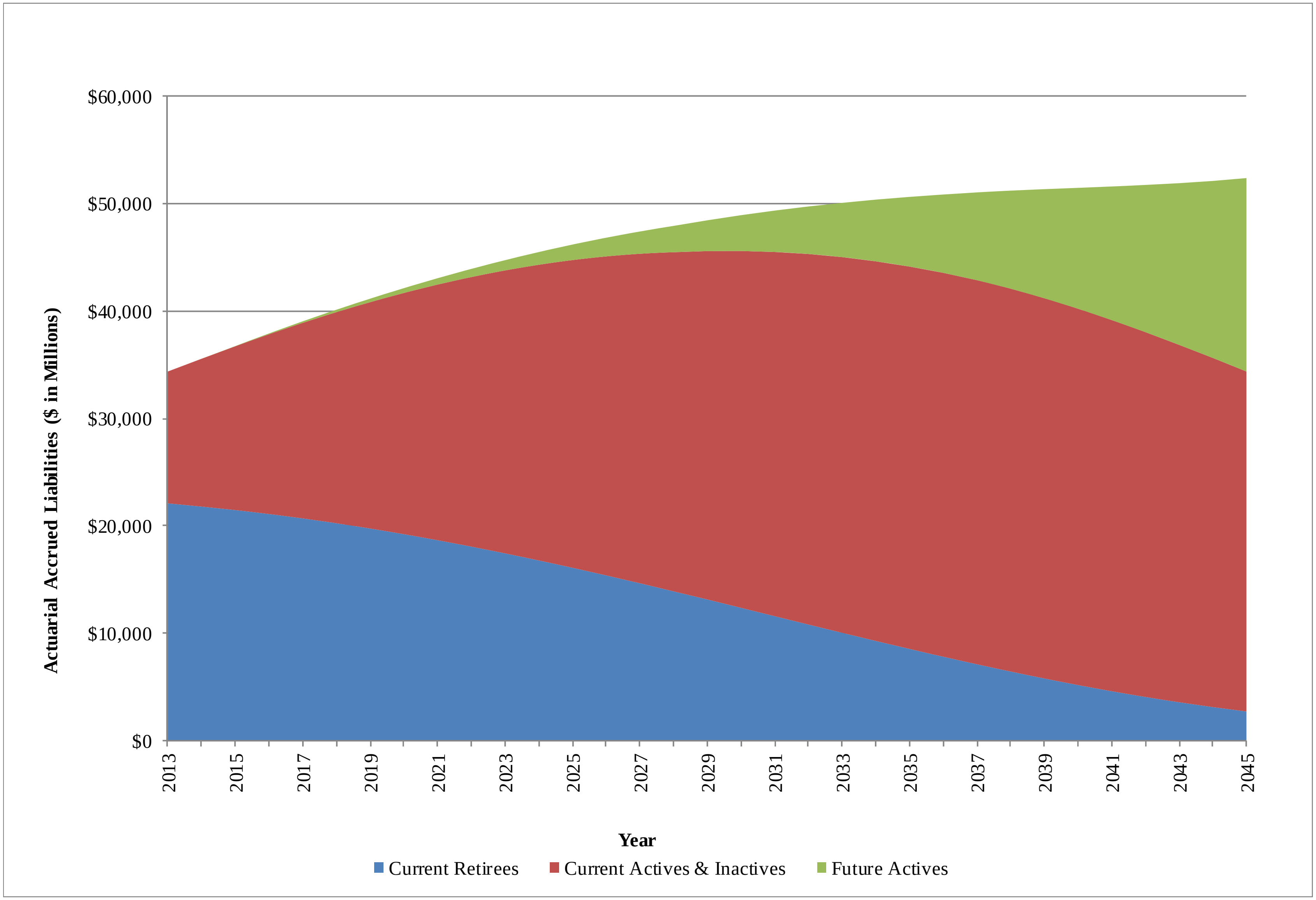
Fiscal Year Ending	Total Payroll [1]	SMP Payroll	DB Payroll [1]	SURS Contributions [2]	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	Debt Service	Maximum Contribution	SURS Contribution % of Total Payroll
2013	$ 4,078.054	$ 671.925	$ 3,406.128	$ 1,401.481	$ 245.141	$ 1,996.009	$ 13.426	$ 14,262.621	$ 34,373.104	41.49 %	$ 114.754	$ 1,412.821	34.37%
2014	4,336.087	715.074	3,621.013	1,499.731	290.043	2,116.687	14.737	15,512.789	35,556.668	43.63	114.000	1,516.846	34.59%
2015	4,435.596	733.671	3,701.925	1,535.439	296.524	2,191.704	15.290	16,643.221	36,742.115	45.30	113.227	1,548.402	34.62%
2016	4,545.248	755.014	3,790.234	1,536.171	303.598	2,301.292	15.863	17,355.150	37,902.543	45.79	112.435	1,560.912	33.80%
2017	4,662.024	778.622	3,883.402	1,552.295	311.061	2,417.659	16.458	18,247.012	39,029.528	46.75	116.476	1,580.870	33.30%
2018	4,783.229	803.982	3,979.247	1,598.757	318.738	2,540.802	17.075	18,996.422	40,113.229	47.36	120.304	1,626.153	33.42%
2019	4,908.148	830.885	4,077.263	1,630.015	326.589	2,666.556	17.715	19,713.306	41,148.297	47.91	123.920	1,659.458	33.21%
2020	5,036.302	859.040	4,177.262	1,672.575	334.599	2,796.757	18.380	20,402.399	42,127.177	48.43	132.009	1,697.933	33.21%
2021	5,168.704	886.493	4,282.212	1,716.546	343.005	2,920.162	19.069	21,070.455	43,053.607	48.94	139.615	1,738.436	33.21%
2022	5,304.123	913.740	4,390.383	1,761.519	351.670	3,044.773	19.784	21,715.870	43,923.347	49.44	146.736	1,780.519	33.21%
2023	5,444.006	941.891	4,502.115	1,807.975	360.619	3,170.642	20.526	22,337.391	44,731.875	49.94	153.373	1,824.709	33.21%
2024	5,586.646	970.502	4,616.144	1,855.346	369.753	3,289.311	21.296	22,941.753	45,482.625	50.44	164.417	1,865.493	33.21%
2025	5,732.970	999.337	4,733.633	1,903.941	379.164	3,404.313	22.094	23,532.960	46,175.596	50.96	174.604	1,908.473	33.21%
2026	5,882.659	1,028.050	4,854.609	1,953.653	388.854	3,515.595	22.923	24,115.274	46,810.940	51.52	179.149	1,958.318	33.21%
2027	6,035.923	1,056.829	4,979.094	2,004.553	398.825	3,621.129	23.782	24,695.463	47,390.992	52.11	183.195	2,009.960	33.21%
2028	6,192.794	1,085.397	5,107.398	2,056.650	409.103	3,723.093	24.674	25,278.596	47,916.011	52.76	191.634	2,058.520	33.21%
2029	6,352.529	1,113.836	5,238.694	2,108.869	419.619	3,766.732	25.599	25,925.783	48,442.755	53.52	199.325	2,108.869	33.20%
2030	6,514.773	1,142.674	5,372.099	2,155.985	430.305	3,859.799	26.559	26,585.525	48,920.060	54.34	211.160	2,155.985	33.09%
2031	6,680.567	1,173.297	5,507.270	2,205.389	441.132	3,949.714	27.555	27,264.551	49,347.286	55.25	221.997	2,205.389	33.01%
2032	6,850.849	1,206.701	5,644.149	2,262.315	452.096	4,033.153	28.589	27,978.989	49,727.366	56.26	226.944	2,262.315	33.02%
2033	7,027.614	1,242.376	5,785.238	2,327.237	463.398	4,109.897	29.661	28,747.142	50,064.400	57.42	226.249	2,327.237	33.12%
2034	7,208.676	1,279.874	5,928.802	2,394.029	474.897	4,179.878	30.773	29,582.299	50,362.916	58.74	NA	2,619.275	33.21%
2035	7,392.990	1,318.758	6,074.232	2,455.240	486.546	4,246.980	31.927	30,486.960	50,623.137	60.22	NA	2,686.246	33.21%
2036	7,581.226	1,359.204	6,222.021	2,517.754	498.384	4,309.392	33.124	31,472.883	50,847.137	61.90	NA	2,754.641	33.21%
2037	7,773.642	1,402.212	6,371.430	2,581.656	510.352	4,366.270	34.367	32,553.638	51,037.958	63.78	NA	2,824.556	33.21%
2038	7,971.318	1,448.314	6,523.004	2,647.305	522.493	4,416.932	35.655	33,744.975	51,199.687	65.91	NA	2,896.381	33.21%
2039	8,175.146	1,497.541	6,677.606	2,714.997	534.876	4,459.529	36.992	35,066.156	51,339.327	68.30	NA	2,970.442	33.21%
2040	8,384.268	1,548.545	6,835.723	2,784.447	547.541	4,494.718	38.380	36,537.000	51,464.136	71.00	NA	3,046.427	33.21%
2041	8,602.853	1,602.454	7,000.399	2,857.040	560.732	4,517.137	39.819	38,186.114	51,588.961	74.02	NA	3,125.850	33.21%
2042	8,829.155	1,658.830	7,170.325	2,932.196	574.343	4,527.152	41.312	40,043.231	51,730.105	77.41	NA	3,208.077	33.21%
2043	9,061.555	1,717.730	7,343.825	3,009.377	588.240	4,528.492	42.861	42,135.817	51,900.489	81.19	NA	3,292.519	33.21%
2044	9,298.475	1,779.110	7,519.365	3,088.059	602.301	4,523.578	44.468	44,490.281	52,110.746	85.38	NA	3,378.604	33.21%
2045	9,539.189	1,842.974	7,696.215	3,168.001	616.467	4,514.021	46.136	47,133.092	52,370.102	90.00	NA	3,466.068	33.21%

[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.*

GRAPH 1
PROJECTED FUNDED RATIO BASED ON STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2013



GRAPH 2
PROJECTED ACTUARIAL ACCRUED LIABILITIES
ACTUARIAL VALUATION AS OF JUNE 30, 2013



Graph 3
Projected Benefit Payments
Actuarial Valuation as of June 30, 2013

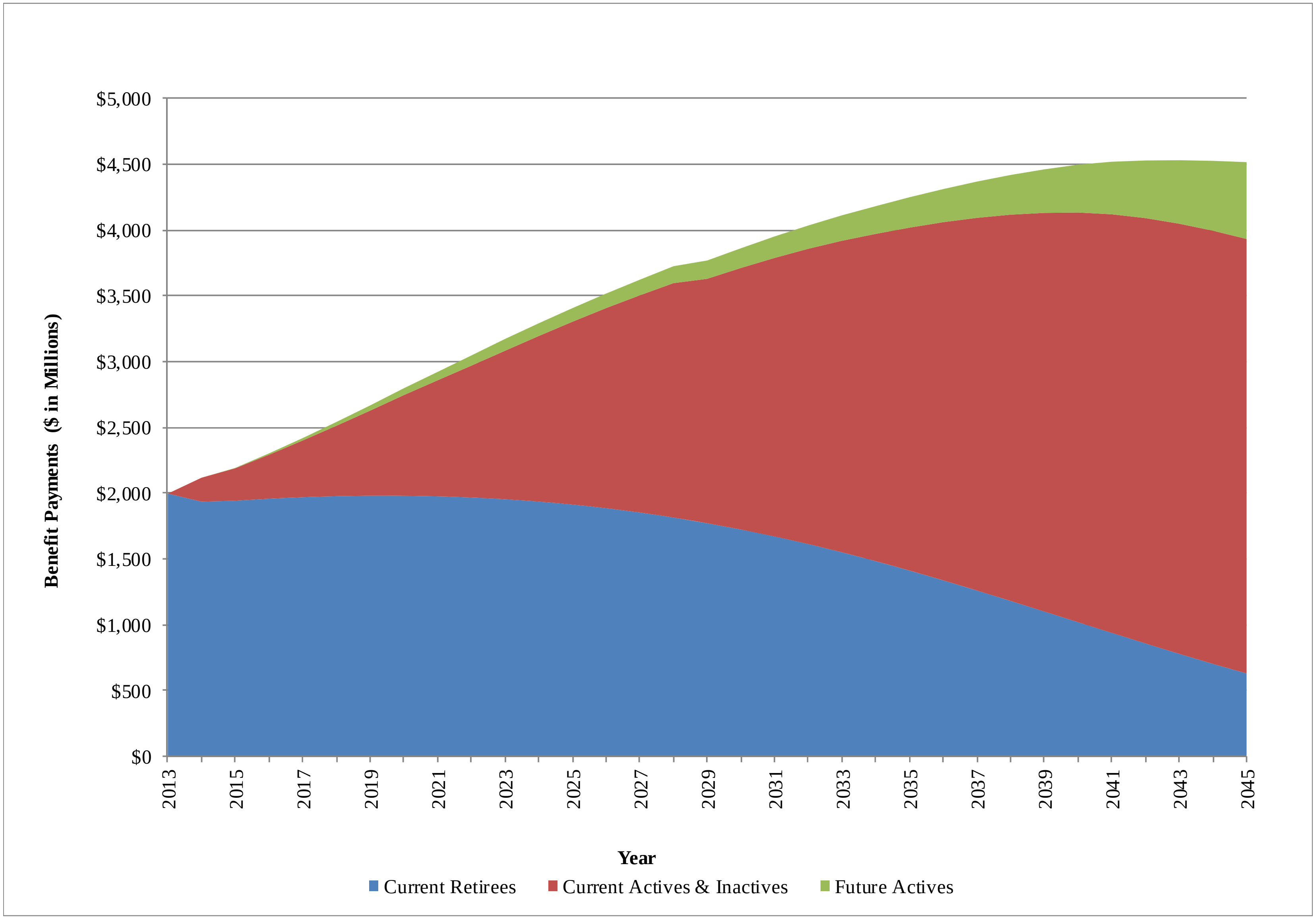


TABLE 14
PROJECTED STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2013
BEFORE IMPACT OF BONDS ISSUED IN 2004
($ IN MILLIONS)

	15% of New Members to SMP			
			Total Contribution	
FYE	SURS Cont.	SMP Cont.	$	% of Pay [1]
2015	$ 1,661.629	$ 52.761	$ 1,714.390	38.65 %
2016	1,673.347	53.502	1,726.849	37.99
2017	1,697.346	55.174	1,752.520	37.59
2018	1,746.457	56.969	1,803.426	37.70
2019	1,783.378	58.872	1,842.250	37.53
2020	1,829.942	60.864	1,890.806	37.54
2021	1,878.051	62.807	1,940.858	37.55
2022	1,927.255	64.736	1,991.991	37.56
2023	1,978.082	66.728	2,044.810	37.56
2024	2,029.910	68.754	2,098.664	37.57
2025	2,083.077	70.795	2,153.872	37.57
2026	2,137.466	72.829	2,210.295	37.57
2027	2,193.155	74.868	2,268.023	37.58
2028	2,250.154	76.892	2,327.046	37.58
2029	2,308.194	78.907	2,387.101	37.58
2030	2,367.145	80.951	2,448.096	37.58
2031	2,427.386	83.121	2,510.507	37.58
2032	2,489.259	85.486	2,574.745	37.58
2033	2,553.486	88.013	2,641.499	37.59
2034	2,619.275	90.667	2,709.942	37.59
2035	2,686.246	93.420	2,779.666	37.60
2036	2,754.641	96.283	2,850.924	37.61
2037	2,824.556	99.326	2,923.882	37.61
2038	2,896.381	102.588	2,998.969	37.62
2039	2,970.442	106.070	3,076.512	37.63
2040	3,046.427	109.677	3,156.104	37.64
2041	3,125.850	113.489	3,239.339	37.65
2042	3,208.077	117.476	3,325.553	37.67
2043	3,292.519	121.641	3,414.160	37.68
2044	3,378.604	125.980	3,504.584	37.69
2045	3,466.068	130.494	3,596.562	37.70
Total	$75,283.805	$2,620.141	$77,903.945	

[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.*

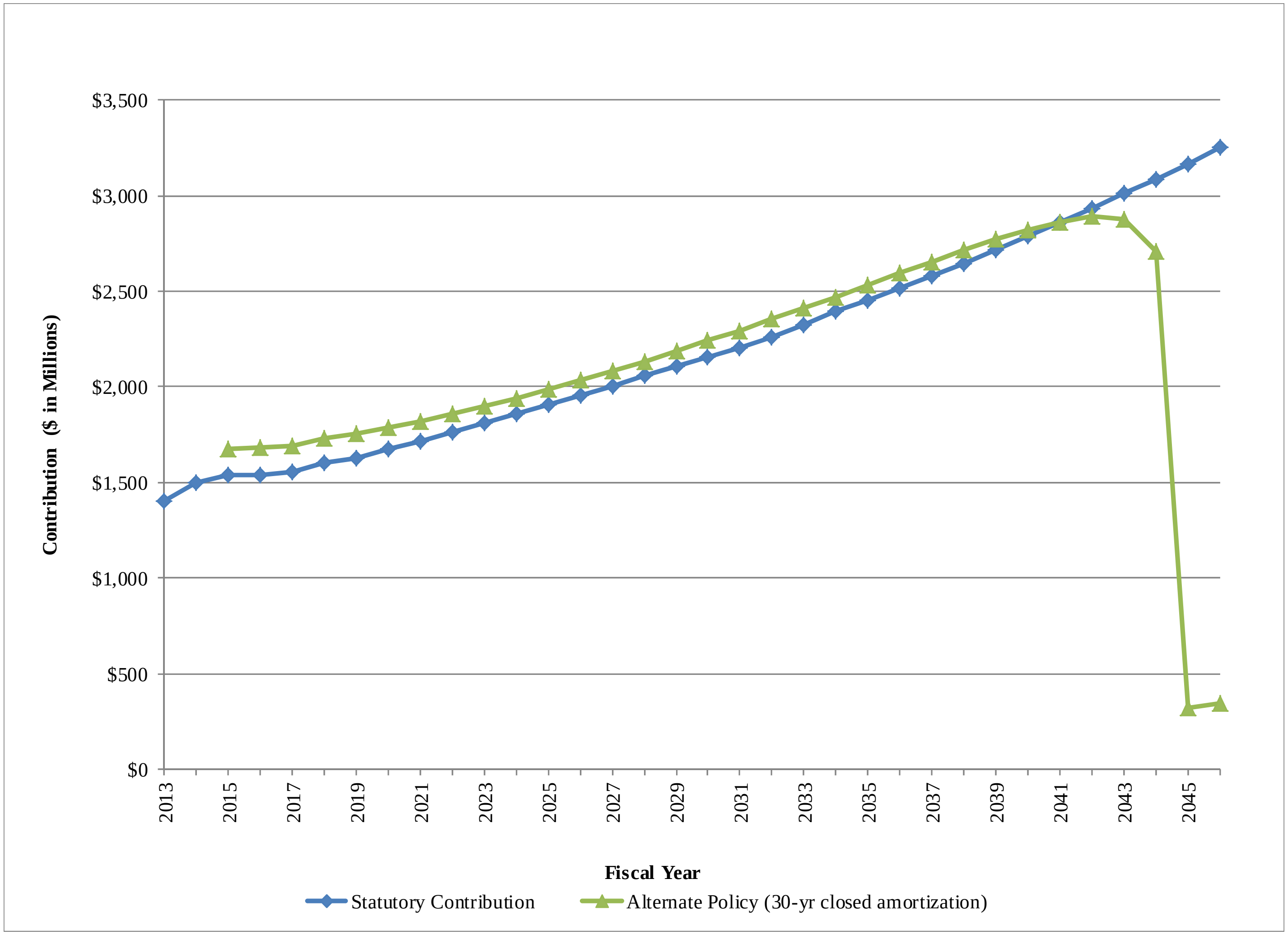
TABLE 15
PROJECTED STATUTORY CONTRIBUTIONS
ACTUARIAL VALUATION AS OF JUNE 30, 2013
INCLUDING IMPACT OF BONDS ISSUED IN 2004
($ IN MILLIONS)

FYE	15% of New Members to SMP				Debt Service		GASB Annual Required Contribution	Projected % of ARC
			Total Contribution					
	SURS Cont.	SMP Cont.	$	% of Pay [1]	$	% of Pay [1]	(ARC)	Contributed [2]
2015	$ 1,535.439	$ 52.761	$ 1,588.200	35.81 %	$ 113.227	2.55 %	$ 1,541.451	99.61 %
2016	1,536.171	53.502	1,589.673	34.97	112.435	2.47	1,535.359	100.05
2017	1,552.295	55.174	1,607.469	34.48	116.476	2.50	1,551.829	100.03
2018	1,598.757	56.968	1,655.725	34.62	120.304	2.52	1,555.669	102.77
2019	1,630.015	58.872	1,688.887	34.41	123.920	2.52	1,565.712	104.11
2020	1,672.575	60.864	1,733.439	34.42	132.009	2.62	1,575.516	106.16
2021	1,716.546	62.807	1,779.353	34.43	139.615	2.70	1,584.335	108.34
2022	1,761.519	64.736	1,826.255	34.43	146.736	2.77	1,592.157	110.64
2023	1,807.975	66.729	1,874.704	34.44	153.373	2.82	1,598.893	113.08
2024	1,855.346	68.754	1,924.100	34.44	164.417	2.94	1,604.014	115.67
2025	1,903.941	70.796	1,974.737	34.45	174.604	3.05	1,607.230	118.46
2026	1,953.653	72.829	2,026.482	34.45	179.149	3.05	1,608.383	121.47
2027	2,004.553	74.868	2,079.421	34.45	183.195	3.04	1,607.310	124.71
2028	2,056.650	76.892	2,133.542	34.45	191.634	3.09	1,603.732	128.24
2029	2,108.869	78.907	2,187.776	34.44	199.325	3.14	1,597.115	132.04
2030	2,155.985	80.951	2,236.936	34.34	211.160	3.24	1,586.823	135.87
2031	2,205.389	83.121	2,288.510	34.26	221.997	3.32	1,572.817	140.22
2032	2,262.315	85.487	2,347.802	34.27	226.944	3.31	1,554.835	145.50
2033	2,327.237	88.013	2,415.250	34.37	226.249	3.22	1,532.618	151.85
2034	2,394.029	90.667	2,484.696	34.47			1,505.527	159.02
2035	2,455.240	93.420	2,548.660	34.47			1,472.521	166.74
2036	2,517.754	96.283	2,614.037	34.48			1,433.389	175.65
2037	2,581.656	99.326	2,680.982	34.49			1,387.571	186.06
2038	2,647.305	102.588	2,749.893	34.50			1,334.524	198.37
2039	2,714.997	106.070	2,821.067	34.51			1,274.158	213.08
2040	2,784.447	109.677	2,894.124	34.52			1,206.128	230.86
2041	2,857.040	113.490	2,970.530	34.53			1,130.878	252.64
2042	2,932.196	117.476	3,049.672	34.54			1,048.375	279.69
2043	3,009.377	121.640	3,131.017	34.55			957.255	314.38
2044	3,088.059	125.979	3,214.038	34.57			856.069	360.73
2045	3,168.001	130.494	3,298.495	34.58			743.448	426.12
Total	$ 68,795.332	$2,620.141	$ 71,415.473		$ 3,136.768		$ 44,325.640	

[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.*

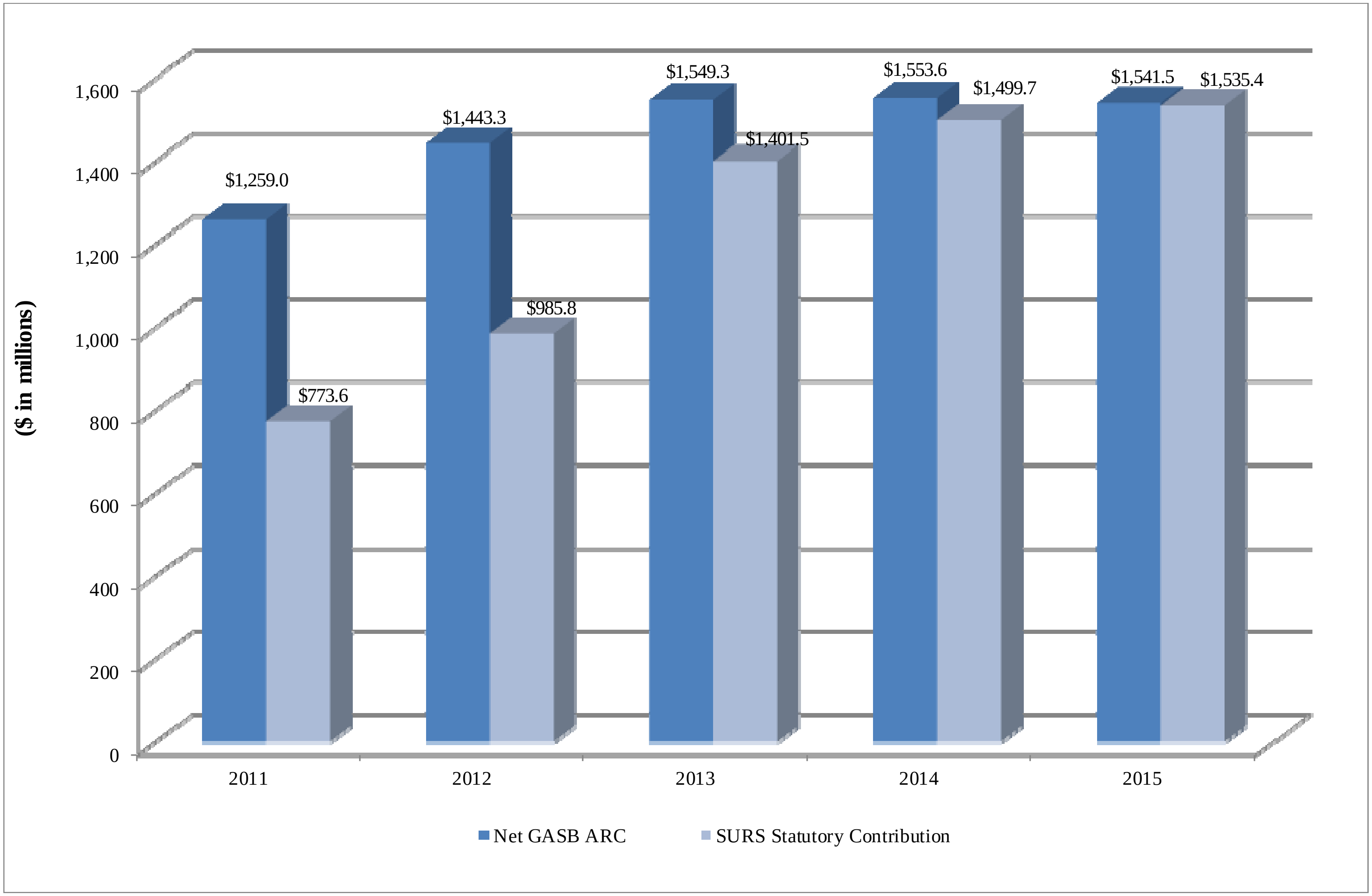
[2] *Compares SURS Contribution against GASB ARC under current GASB Statements 25 and 27 calculated using a 30-year open amortization period as a level percentage of pay. GASB 67 replaces GASB 25 and is first effective for fiscal year 2014 and GASB 68 replaces GASB 27 and is first effective for fiscal year 2015.*

GRAPH 4
PROJECTED STATUTORY CONTRIBUTIONS VS. CONTRIBUTIONS UNDER ALTERNATE POLICY (NORMAL COST PLUS 30-YEAR CLOSED PERIOD LEVEL PERCENT OF PAY AMORTIZATION)



Amounts are projected for fiscal years 2014 and 2015 and ARC is calculated under current GASB Statement 25 and 27 standards using a 30-year open amortization period as a level percentage of pay. GASB 67 replaces GASB 25 and is first effective for fiscal year 2014 and GASB 68 replaces GASB 27 and is first effective for fiscal year 2015.

GRAPH 5
STATUTORY CONTRIBUTIONS VS. ANNUAL REQUIRED CONTRIBUTION ("ARC")



Consistent underfunding compared to the Annual Required Contribution ("ARC") is a primary cause of the current low funded status. Amounts are projected for fiscal years 2014 and 2015.

APPENDIX E

ADDITIONAL PROJECTION DETAILS

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 7.75% EACH YEAR ON ACTUARIAL VALUE OF ASSETS

($ IN MILLIONS)

Fiscal Year Ending	Total Payroll [1]	SMP Payroll	DB Payroll [1]	SURS Contributions [2]	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	Debt Service	Maximum Contribution	SURS Contribution % of Total Payroll
2013	$ 4,078.054	$ 671.925	$ 3,406.128	$ 1,401.481	$ 245.141	$ 1,996.009	$ 13.426	$ 14,262.621	$ 34,373.104	41.49 %	$ 114.754	$ 1,412.821	34.37%
2014	4,336.087	715.074	3,621.013	1,499.731	290.043	2,116.687	14.737	15,013.333	35,556.668	42.22	114.000	1,516.846	34.59%
2015	4,435.596	733.671	3,701.925	1,535.439	296.524	2,191.704	15.290	15,787.574	36,742.115	42.97	113.227	1,548.402	34.62%
2016	4,545.248	755.014	3,790.234	1,573.396	303.598	2,301.292	15.863	16,554.212	37,902.543	43.68	112.435	1,590.272	34.62%
2017	4,662.024	778.622	3,883.402	1,613.820	311.061	2,417.659	16.458	17,308.561	39,029.528	44.35	116.476	1,629.976	34.62%
2018	4,783.229	803.982	3,979.247	1,655.776	318.738	2,540.802	17.075	18,044.429	40,113.229	44.98	120.304	1,671.553	34.62%
2019	4,908.148	830.885	4,077.263	1,699.019	326.589	2,666.556	17.715	18,759.162	41,148.297	45.59	123.920	1,714.733	34.62%
2020	5,036.302	859.040	4,177.262	1,743.381	334.599	2,796.757	18.380	19,447.808	42,127.177	46.16	132.009	1,754.652	34.62%
2021	5,168.704	886.493	4,282.212	1,789.214	343.005	2,920.162	19.069	20,117.313	43,053.607	46.73	139.615	1,796.646	34.62%
2022	5,304.123	913.740	4,390.383	1,836.091	351.670	3,044.773	19.784	20,766.266	43,923.347	47.28	146.736	1,840.254	34.62%
2023	5,444.006	941.891	4,502.115	1,884.513	360.619	3,170.642	20.526	21,393.641	44,731.875	47.83	153.373	1,886.020	34.62%
2024	5,586.646	970.502	4,616.144	1,928.410	369.753	3,289.311	21.296	22,000.705	45,482.625	48.37	164.417	1,928.410	34.52%
2025	5,732.970	999.337	4,733.633	1,973.038	379.164	3,404.313	22.094	22,590.705	46,175.596	48.92	174.604	1,973.038	34.42%
2026	5,882.659	1,028.050	4,854.609	2,024.568	388.854	3,515.595	22.923	23,173.606	46,810.940	49.50	179.149	2,024.568	34.42%
2027	6,035.923	1,056.829	4,979.094	2,077.937	398.825	3,621.129	23.782	23,756.990	47,390.992	50.13	183.195	2,077.937	34.43%
2028	6,192.794	1,085.397	5,107.398	2,128.263	409.103	3,723.093	24.674	24,341.727	47,916.011	50.80	191.634	2,128.263	34.37%
2029	6,352.529	1,113.836	5,238.694	2,180.411	419.619	3,766.732	25.599	24,990.570	48,442.755	51.59	199.325	2,180.411	34.32%
2030	6,514.773	1,142.674	5,372.099	2,229.354	430.305	3,859.799	26.559	25,653.992	48,920.060	52.44	211.160	2,229.354	34.22%
2031	6,680.567	1,173.297	5,507.270	2,280.626	441.132	3,949.714	27.555	26,338.922	49,347.286	53.37	221.997	2,280.626	34.14%
2032	6,850.849	1,206.701	5,644.149	2,339.470	452.096	4,033.153	28.589	27,061.712	49,727.366	54.42	226.944	2,339.470	34.15%
2033	7,027.614	1,242.376	5,785.238	2,406.382	463.398	4,109.897	29.661	27,840.931	50,064.400	55.61	226.249	2,406.382	34.24%
2034	7,208.676	1,279.874	5,928.802	2,495.376	474.897	4,179.878	30.773	28,711.058	50,362.916	57.01	NA	2,700.459	34.62%
2035	7,392.990	1,318.758	6,074.232	2,559.179	486.546	4,246.980	31.927	29,656.089	50,623.137	58.58	NA	2,769.506	34.62%
2036	7,581.226	1,359.204	6,222.021	2,624.339	498.384	4,309.392	33.124	30,688.258	50,847.137	60.35	NA	2,840.021	34.62%
2037	7,773.642	1,402.212	6,371.430	2,690.947	510.352	4,366.270	34.367	31,821.652	51,037.958	62.35	NA	2,912.103	34.62%
2038	7,971.318	1,448.314	6,523.004	2,759.375	522.493	4,416.932	35.655	33,072.591	51,199.687	64.60	NA	2,986.155	34.62%
2039	8,175.146	1,497.541	6,677.606	2,829.933	534.876	4,459.529	36.992	34,460.969	51,339.327	67.12	NA	3,062.511	34.62%
2040	8,384.268	1,548.545	6,835.723	2,902.323	547.541	4,494.718	38.380	36,007.268	51,464.136	69.97	NA	3,140.851	34.62%
2041	8,602.853	1,602.454	7,000.399	2,977.989	560.732	4,517.137	39.819	37,740.875	51,588.961	73.16	NA	3,222.735	34.62%
2042	8,829.155	1,658.830	7,170.325	3,056.326	574.343	4,527.152	41.312	39,692.337	51,730.105	76.73	NA	3,307.511	34.62%
2043	9,061.555	1,717.730	7,343.825	3,136.774	588.240	4,528.492	42.861	41,889.971	51,900.489	80.71	NA	3,394.571	34.62%
2044	9,298.475	1,779.110	7,519.365	3,218.787	602.301	4,523.578	44.468	44,361.081	52,110.746	85.13	NA	3,483.324	34.62%
2045	9,539.189	1,842.974	7,696.215	3,302.113	616.467	4,514.021	46.136	47,133.092	52,370.102	90.00	NA	3,573.498	34.62%

[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.*

TABLE 17

DEVELOPMENT OF MARKET AND ACTUARIAL VALUE OF ASSETS AS OF JUNE 30, 2013
AFTER BONDS (VALUATION BASIS) AND BEFORE BONDS (HYPOTHETICAL BASIS)

		After Bonds (Valuation Basis)	Before Bonds (Hypothetical)
1	Market Value at 6/30/2012	$13,705,143,278	$11,682,323,469
2a	Employer Contributions	1,401,481,111	1,527,574,816
2b	Member Contributions	245,141,327	245,141,327
2c	Benefits and Expenses	2,009,435,963	2,009,435,963
2d	Net Non-Investment Cash Flow	-362,813,525	-236,719,820
3	Investment Return	1,694,772,074	1,449,614,281
	(Based on Estimated Rate of 12.53%)		
4	Expected Return	1,048,351,903	896,378,330
	(Based on Estimated Rate of 7.75%)		
5	Market Value at 6/30/2013 (1+2d+3)	15,037,101,827	12,895,217,930
6	Expected Market Value at 6/30/2013 (1+2d+4)	14,390,681,656	12,341,981,979
7a	Actuarial Gain/(Loss) Current Year	646,420,171	553,235,951
7b	Actuarial Gain/(Loss) 1 Year Prior	-1,075,191,015	-915,795,790
7c	Actuarial Gain/(Loss) 2 Years Prior	1,886,355,421	1,598,970,107
7d	Actuarial Gain/(Loss) 3 Years Prior	739,584,759	622,380,585
7e	Actuarial Gain/(Loss) 4 Years Prior	-4,061,280,870	-3,409,515,486
8	Actuarial Value at 6/30/2012	13,949,905,108	11,888,528,880
9	Actuarial Value at 6/30/2013 (8+2d+4+.2*(7a+7b+7c+7d+7e))	14,262,621,179	12,238,042,464

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)

Fiscal Year Ending	Total Payroll [1]	SMP Payroll	DB Payroll [1]	SURS Contributions [2]	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	Debt Service	SURS Contribution % of Total Payroll
2013	$ 4,078.054	$ 671.925	$ 3,406.128	$ 1,527.575	$ 245.141	$ 1,996.009	$ 13.426	$ 12,238.042	$ 34,373.104	35.60 %	NA	37.46%
2014	4,336.087	715.074	3,621.013	1,630.846	290.043	2,116.687	14.737	13,390.639	35,556.668	37.66	NA	37.61%
2015	4,435.596	733.671	3,701.925	1,661.629	296.524	2,191.704	15.290	14,439.513	36,742.115	39.30	NA	37.46%
2016	4,545.248	755.014	3,790.234	1,673.347	303.598	2,301.292	15.863	15,135.870	37,902.543	39.93	NA	36.82%
2017	4,662.024	778.622	3,883.402	1,697.346	311.061	2,417.659	16.458	15,986.224	39,029.528	40.96	NA	36.41%
2018	4,783.229	803.982	3,979.247	1,746.457	318.738	2,540.802	17.075	16,713.739	40,113.229	41.67	NA	36.51%
2019	4,908.148	830.885	4,077.263	1,783.378	326.589	2,666.556	17.715	17,412.910	41,148.297	42.32	NA	36.34%
2020	5,036.302	859.040	4,177.262	1,829.942	334.599	2,796.757	18.380	18,087.075	42,127.177	42.93	NA	36.34%
2021	5,168.704	886.493	4,282.212	1,878.051	343.005	2,920.162	19.069	18,743.338	43,053.607	43.53	NA	36.34%
2022	5,304.123	913.740	4,390.383	1,927.255	351.670	3,044.773	19.784	19,380.439	43,923.347	44.12	NA	36.34%
2023	5,444.006	941.891	4,502.115	1,978.082	360.619	3,170.642	20.526	19,997.540	44,731.875	44.71	NA	36.34%
2024	5,586.646	970.502	4,616.144	2,029.910	369.753	3,289.311	21.296	20,601.766	45,482.625	45.30	NA	36.34%
2025	5,732.970	999.337	4,733.633	2,083.077	379.164	3,404.313	22.094	21,197.571	46,175.596	45.91	NA	36.34%
2026	5,882.659	1,028.050	4,854.609	2,137.466	388.854	3,515.595	22.923	21,789.695	46,810.940	46.55	NA	36.34%
2027	6,035.923	1,056.829	4,979.094	2,193.155	398.825	3,621.129	23.782	22,385.426	47,390.992	47.24	NA	36.34%
2028	6,192.794	1,085.397	5,107.398	2,250.154	409.103	3,723.093	24.674	22,990.392	47,916.011	47.98	NA	36.34%
2029	6,352.529	1,113.836	5,238.694	2,308.194	419.619	3,766.732	25.599	23,667.149	48,442.755	48.86	NA	36.34%
2030	6,514.773	1,142.674	5,372.099	2,367.145	430.305	3,859.799	26.559	24,371.037	48,920.060	49.82	NA	36.34%
2031	6,680.567	1,173.297	5,507.270	2,427.386	441.132	3,949.714	27.555	25,108.879	49,347.286	50.88	NA	36.34%
2032	6,850.849	1,206.701	5,644.149	2,489.259	452.096	4,033.153	28.589	25,891.826	49,727.366	52.07	NA	36.34%
2033	7,027.614	1,242.376	5,785.238	2,553.486	463.398	4,109.897	29.661	26,733.076	50,064.400	53.40	NA	36.34%
2034	7,208.676	1,279.874	5,928.802	2,619.275	474.897	4,179.878	30.773	27,645.955	50,362.916	54.89	NA	36.34%
2035	7,392.990	1,318.758	6,074.232	2,686.246	486.546	4,246.980	31.927	28,640.339	50,623.137	56.58	NA	36.34%
2036	7,581.226	1,359.204	6,222.021	2,754.641	498.384	4,309.392	33.124	29,729.044	50,847.137	58.47	NA	36.34%
2037	7,773.642	1,402.212	6,371.430	2,824.556	510.352	4,366.270	34.367	30,926.789	51,037.958	60.60	NA	36.34%
2038	7,971.318	1,448.314	6,523.004	2,896.381	522.493	4,416.932	35.655	32,250.593	51,199.687	62.99	NA	36.34%
2039	8,175.146	1,497.541	6,677.606	2,970.442	534.876	4,459.529	36.992	33,721.119	51,339.327	65.68	NA	36.34%
2040	8,384.268	1,548.545	6,835.723	3,046.427	547.541	4,494.718	38.380	35,359.664	51,464.136	68.71	NA	36.34%
2041	8,602.853	1,602.454	7,000.399	3,125.850	560.732	4,517.137	39.819	37,196.566	51,588.961	72.10	NA	36.34%
2042	8,829.155	1,658.830	7,170.325	3,208.077	574.343	4,527.152	41.312	39,263.365	51,730.105	75.90	NA	36.34%
2043	9,061.555	1,717.730	7,343.825	3,292.519	588.240	4,528.492	42.861	41,589.421	51,900.489	80.13	NA	36.34%
2044	9,298.475	1,779.110	7,519.365	3,378.604	602.301	4,523.578	44.468	44,203.133	52,110.746	84.83	NA	36.34%
2045	9,539.189	1,842.974	7,696.215	3,466.068	616.467	4,514.021	46.136	47,133.092	52,370.102	90.00	NA	36.34%

[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.*

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 7.75% EACH YEAR ON ACTUARIAL VALUE OF ASSETS

($ IN MILLIONS)

Fiscal Year Ending	Total Payroll [1]	SMP Payroll	DB Payroll [1]	SURS Contributions [2]	Member Contributions	Benefits	Expenses	Assets EOY	AAL	Funding Ratio	Debt Service	SURS Contribution % of Total Payroll
2013	$ 4,078.054	$ 671.925	$ 3,406.128	$ 1,527.575	$ 245.141	$ 1,996.009	$ 13.426	$ 12,238.042	$ 34,373.104	35.60 %	NA	37.46%
2014	4,336.087	715.074	3,621.013	1,630.846	290.043	2,116.687	14.737	12,967.950	35,556.668	36.47	NA	37.61%
2015	4,435.596	733.671	3,701.925	1,661.629	296.524	2,191.704	15.290	13,714.663	36,742.115	37.33	NA	37.46%
2016	4,545.248	755.014	3,790.234	1,702.706	303.598	2,301.292	15.863	14,454.877	37,902.543	38.14	NA	37.46%
2017	4,662.024	778.622	3,883.402	1,746.452	311.061	2,417.659	16.458	15,184.204	39,029.528	38.90	NA	37.46%
2018	4,783.229	803.982	3,979.247	1,791.857	318.738	2,540.802	17.075	15,896.689	40,113.229	39.63	NA	37.46%
2019	4,908.148	830.885	4,077.263	1,838.653	326.589	2,666.556	17.715	16,589.917	41,148.297	40.32	NA	37.46%
2020	5,036.302	859.040	4,177.262	1,886.661	334.599	2,796.757	18.380	17,259.174	42,127.177	40.97	NA	37.46%
2021	5,168.704	886.493	4,282.212	1,936.261	343.005	2,920.162	19.069	17,911.699	43,053.607	41.60	NA	37.46%
2022	5,304.123	913.740	4,390.383	1,986.990	351.670	3,044.773	19.784	18,546.355	43,923.347	42.22	NA	37.46%
2023	5,444.006	941.891	4,502.115	2,039.392	360.619	3,170.642	20.526	19,162.456	44,731.875	42.84	NA	37.46%
2024	5,586.646	970.502	4,616.144	2,092.827	369.753	3,289.311	21.296	19,767.272	45,482.625	43.46	NA	37.46%
2025	5,732.970	999.337	4,733.633	2,147.642	379.164	3,404.313	22.094	20,365.425	46,175.596	44.10	NA	37.46%
2026	5,882.659	1,028.050	4,854.609	2,203.717	388.854	3,515.595	22.923	20,961.827	46,810.940	44.78	NA	37.46%
2027	6,035.923	1,056.829	4,979.094	2,261.132	398.825	3,621.129	23.782	21,563.960	47,390.992	45.50	NA	37.46%
2028	6,192.794	1,085.397	5,107.398	2,319.897	409.103	3,723.093	24.674	22,177.658	47,916.011	46.28	NA	37.46%
2029	6,352.529	1,113.836	5,238.694	2,379.736	419.619	3,766.732	25.599	22,865.691	48,442.755	47.20	NA	37.46%
2030	6,514.773	1,142.674	5,372.099	2,440.515	430.305	3,859.799	26.559	23,583.626	48,920.060	48.21	NA	37.46%
2031	6,680.567	1,173.297	5,507.270	2,502.623	441.132	3,949.714	27.555	24,338.541	49,347.286	49.32	NA	37.46%
2032	6,850.849	1,206.701	5,644.149	2,566.413	452.096	4,033.153	28.589	25,141.875	49,727.366	50.56	NA	37.46%
2033	7,027.614	1,242.376	5,785.238	2,632.631	463.398	4,109.897	29.661	26,007.159	50,064.400	51.95	NA	37.46%
2034	7,208.676	1,279.874	5,928.802	2,700.459	474.897	4,179.878	30.773	26,948.050	50,362.916	53.51	NA	37.46%
2035	7,392.990	1,318.758	6,074.232	2,769.506	486.546	4,246.980	31.927	27,974.773	50,623.137	55.26	NA	37.46%
2036	7,581.226	1,359.204	6,222.021	2,840.021	498.384	4,309.392	33.124	29,100.523	50,847.137	57.23	NA	37.46%
2037	7,773.642	1,402.212	6,371.430	2,912.103	510.352	4,366.270	34.367	30,340.433	51,037.958	59.45	NA	37.46%
2038	7,971.318	1,448.314	6,523.004	2,986.155	522.493	4,416.932	35.655	31,711.982	51,199.687	61.94	NA	37.46%
2039	8,175.146	1,497.541	6,677.606	3,062.511	534.876	4,459.529	36.992	33,236.335	51,339.327	64.74	NA	37.46%
2040	8,384.268	1,548.545	6,835.723	3,140.851	547.541	4,494.718	38.380	34,935.324	51,464.136	67.88	NA	37.46%
2041	8,602.853	1,602.454	7,000.399	3,222.735	560.732	4,517.137	39.819	36,839.909	51,588.961	71.41	NA	37.46%
2042	8,829.155	1,658.830	7,170.325	3,307.511	574.343	4,527.152	41.312	38,982.282	51,730.105	75.36	NA	37.46%
2043	9,061.555	1,717.730	7,343.825	3,394.571	588.240	4,528.492	42.861	41,392.487	51,900.489	79.75	NA	37.46%
2044	9,298.475	1,779.110	7,519.365	3,483.324	602.301	4,523.578	44.468	44,099.638	52,110.746	84.63	NA	37.46%
2045	9,539.189	1,842.974	7,696.215	3,573.498	616.467	4,514.021	46.136	47,133.092	52,370.102	90.00	NA	37.46%

[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.*

TABLE 20
ADDITIONAL DETAILS
($ IN MILLIONS)

Fiscal Year Ending	Normal Cost[1]				Member Contributions				DB Payroll[2]				Expected DB Pay During Following Fiscal Year[3]			
	Tier 1	Tier 2 Current	Tier 2 Future	Total	Tier 1	Tier 2 Current	Tier 2 Future	Total	Tier 1	Tier 2 Current	Tier 2 Future	Total	Tier 1	Tier 2 Current	Tier 2 Future	Total
2013	$ 645.346	$ 38.142	$ 0.000	$ 683.488	$ 249.939	$ 34.048	$ 0.000	$ 283.987	$ 3,059.723	$ 346.405	$ 0.000	$ 3,406.128	$ 3,124.384	$ 417.946	$ 0.000	$ 3,542.330
2014	619.619	33.979	27.501	681.099	237.112	29.748	23.183	290.043	2,960.205	425.066	289.427	3,674.698	2,965.799	361.958	288.715	3,616.472
2015	594.412	30.759	53.203	678.374	225.550	25.910	45.064	296.524	2,815.853	371.382	562.602	3,749.837	2,820.429	316.062	555.937	3,692.428
2016	569.766	28.638	77.765	676.169	214.782	22.959	65.857	303.598	2,681.424	323.470	822.180	3,827.074	2,683.579	284.609	813.148	3,781.336
2017	545.413	27.289	100.974	673.676	204.444	21.228	85.388	311.060	2,552.366	286.630	1,066.015	3,905.011	2,552.684	266.067	1,051.385	3,870.136
2018	521.515	26.427	123.948	671.890	194.489	20.180	104.068	318.737	2,428.083	265.022	1,299.230	3,992.335	2,426.627	254.110	1,281.029	3,961.766
2019	497.948	25.972	146.998	670.918	184.866	19.437	122.286	326.589	2,307.937	251.934	1,526.671	4,086.542	2,304.142	245.433	1,507.013	4,056.588
2020	475.032	25.615	170.304	670.951	175.437	18.894	140.268	334.599	2,190.223	242.655	1,751.162	4,184.040	2,185.851	237.853	1,733.361	4,157.065
2021	453.147	25.120	193.738	672.005	166.443	18.313	158.249	343.005	2,077.941	235.877	1,975.648	4,289.466	2,072.464	230.089	1,957.795	4,260.348
2022	432.019	24.594	217.560	674.173	157.765	17.717	176.188	351.670	1,969.595	228.623	2,199.606	4,397.824	1,963.028	222.934	2,181.933	4,367.895
2023	411.364	24.194	241.449	677.007	149.371	17.209	194.040	360.620	1,864.801	221.183	2,422.472	4,508.456	1,856.464	217.190	2,403.753	4,477.407
2024	391.118	23.949	265.431	680.498	141.133	16.827	211.794	369.754	1,761.957	214.842	2,644.118	4,620.917	1,752.343	212.659	2,625.963	4,590.965
2025	371.455	23.835	289.428	684.718	133.127	16.512	229.525	379.164	1,662.007	210.069	2,865.482	4,737.558	1,651.208	208.919	2,847.232	4,707.359
2026	352.314	23.831	313.590	689.735	125.339	16.263	247.252	388.854	1,564.780	206.143	3,086.796	4,857.719	1,552.782	205.795	3,068.668	4,827.245
2027	333.587	23.947	338.017	695.551	117.758	16.041	265.027	398.826	1,470.134	203.033	3,308.698	4,981.865	1,456.799	203.341	3,291.015	4,951.155
2028	314.852	24.182	362.801	701.835	110.343	15.892	282.868	409.103	1,377.569	200.262	3,531.430	5,109.261	1,362.086	201.570	3,514.875	5,078.531
2029	295.638	24.469	388.022	708.129	102.947	15.771	300.901	419.619	1,285.227	198.398	3,756.570	5,240.195	1,267.355	199.990	3,740.716	5,208.061
2030	275.775	24.805	413.765	714.345	95.519	15.660	319.126	430.305	1,192.497	196.897	3,984.100	5,373.494	1,172.389	198.314	3,969.054	5,339.757
2031	255.423	25.155	440.056	720.634	88.061	15.541	337.530	441.132	1,099.393	195.503	4,213.859	5,508.755	1,077.622	196.398	4,199.799	5,473.819
2032	235.326	25.508	466.855	727.689	80.666	15.384	356.046	452.096	1,007.061	194.018	4,445.024	5,646.103	985.226	194.359	4,432.285	5,611.870
2033	215.639	25.884	494.016	735.539	73.587	15.232	374.579	463.398	918.687	192.064	4,676.395	5,787.146	895.663	192.239	4,664.419	5,752.321
2034	195.619	26.263	521.711	743.593	66.627	15.062	393.207	474.896	831.800	190.156	4,908.956	5,930.912	806.902	189.852	4,897.770	5,894.524
2035	175.133	26.630	550.041	751.804	59.671	14.871	412.004	486.546	744.957	188.045	5,143.619	6,076.621	718.939	187.140	5,133.097	6,039.176
2036	154.229	26.933	578.945	760.107	52.842	14.646	430.897	498.385	659.695	185.656	5,379.485	6,224.836	632.118	183.886	5,369.625	6,185.629
2037	132.995	27.140	608.463	768.598	46.061	14.364	449.927	510.352	575.038	182.842	5,617.061	6,374.941	546.699	180.043	5,607.633	6,334.375
2038	112.181	27.245	638.494	777.920	39.455	14.045	468.993	522.493	492.570	179.331	5,855.097	6,526.998	464.863	175.632	5,845.921	6,486.416
2039	92.355	27.241	668.866	788.462	33.245	13.672	487.960	534.877	415.039	175.337	6,091.886	6,682.262	388.219	170.638	6,082.757	6,641.614
2040	74.965	27.099	699.561	801.625	27.457	13.260	506.824	547.541	342.778	170.681	6,327.397	6,840.856	320.846	164.985	6,318.189	6,804.020
2041	61.088	26.848	730.120	818.056	22.724	12.781	525.227	560.732	283.696	165.549	6,557.139	7,006.384	265.622	158.900	6,547.625	6,972.147
2042	49.965	26.507	760.544	837.016	18.834	12.306	543.203	574.343	235.127	159.565	6,781.563	7,176.255	220.128	152.552	6,771.535	7,144.215
2043	40.957	25.925	790.879	857.761	15.619	11.783	560.838	588.240	194.993	153.635	7,001.726	7,350.354	182.307	145.333	6,990.927	7,318.567
2044	33.515	25.026	821.220	879.761	12.924	11.167	578.210	602.301	161.342	147.106	7,218.606	7,527.054	150.353	136.793	7,207.120	7,494.266
2045	27.277	23.687	851.558	902.522	10.622	10.437	595.408	616.467	132.607	139.417	7,433.309	7,705.333	123.147	126.305	7,420.660	7,670.112

[1] *Normal Cost excludes expense portion and is for the following fiscal year.*
[2] *Payroll 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.*
[3] *Expected 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 Year Ending	Present Value of Future Benefits					
	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives Current	Tier 2 Actives Future	Total
2013	$ 22,099.894	$ 2,084.375	$ 15,357.278	$ 407.519	$ 0.000	$ 39,949.066
2014	21,802.533	2,203.259	16,422.421	426.703	209.979	41,064.895
2015	21,474.422	2,319.489	17,510.163	443.072	445.579	42,192.725
2016	21,105.488	2,436.273	18,600.330	460.037	710.650	43,312.778
2017	20,696.085	2,552.091	19,684.189	478.366	999.985	44,410.716
2018	20,246.981	2,665.089	20,755.566	497.654	1,313.302	45,478.592
2019	19,759.195	2,770.801	21,809.844	518.994	1,651.087	46,509.921
2020	19,233.731	2,867.537	22,839.613	542.765	2,012.795	47,496.441
2021	18,672.080	2,954.175	23,839.921	574.356	2,399.949	48,440.481
2022	18,075.965	3,030.276	24,805.181	613.218	2,812.730	49,337.370
2023	17,447.423	3,094.683	25,730.836	656.374	3,251.455	50,180.771
2024	16,788.845	3,146.051	26,611.816	701.675	3,727.091	50,975.478
2025	16,102.891	3,184.188	27,442.905	749.246	4,241.521	51,720.751
2026	15,392.618	3,207.787	28,220.633	799.222	4,796.462	52,416.722
2027	14,661.325	3,217.561	28,940.848	851.699	5,394.079	53,065.512
2028	13,912.652	3,211.569	29,599.281	906.825	6,036.595	53,666.922
2029	13,150.597	3,245.630	30,190.139	964.733	6,727.142	54,278.241
2030	12,379.439	3,268.761	30,707.361	1,025.474	7,468.156	54,849.191
2031	11,603.703	3,280.381	31,144.567	1,089.095	8,261.886	55,379.632
2032	10,828.085	3,282.199	31,496.385	1,155.534	9,110.112	55,872.315
2033	10,057.403	3,273.893	31,759.635	1,224.768	10,014.306	56,330.005
2034	9,296.534	3,255.305	31,931.470	1,296.789	10,977.865	56,757.963
2035	8,550.294	3,226.356	32,005.256	1,371.540	12,003.994	57,157.440
2036	7,823.329	3,187.279	31,976.126	1,448.977	13,094.904	57,530.615
2037	7,120.047	3,137.739	31,841.260	1,528.871	14,253.695	57,881.612
2038	6,444.564	3,078.201	31,598.581	1,610.882	15,482.299	58,214.527
2039	5,800.510	3,009.084	31,248.835	1,694.648	16,782.176	58,535.253
2040	5,191.016	2,930.094	30,793.961	1,779.797	18,155.766	58,850.634
2041	4,618.642	2,842.006	30,241.812	1,865.792	19,602.040	59,170.292
2042	4,085.321	2,745.761	29,601.856	1,951.863	21,122.796	59,507.597
2043	3,592.308	2,642.687	28,881.577	2,036.934	22,720.166	59,873.672
2044	3,140.197	2,533.368	28,088.824	2,119.629	24,396.160	60,278.178
2045	2,728.952	2,418.705	27,231.456	2,198.304	26,152.161	60,729.578

Fiscal Year Ending	Benefit Payments					
	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives Current	Tier 2 Actives Future	Total
2013	$ 1,996.009	$ 0.000			$ 0.000	$ 1,996.009
2014	1,934.937	49.467	120.342	11.941	0.000	2,116.687
2015	1,942.352	52.341	178.036	16.085	2.890	2,191.704
2016	1,957.171	60.449	256.831	16.732	10.110	2,301.293
2017	1,968.605	70.054	344.212	16.684	18.105	2,417.660
2018	1,976.278	81.364	437.062	17.129	28.970	2,540.803
2019	1,980.010	96.743	533.426	16.591	39.786	2,666.556
2020	1,979.890	113.203	635.645	15.844	52.175	2,796.757
2021	1,975.522	130.070	740.802	10.086	63.682	2,920.162
2022	1,966.797	146.611	849.139	5.442	76.784	3,044.773
2023	1,953.541	163.478	959.247	4.206	90.169	3,170.641
2024	1,935.562	180.766	1,071.280	5.362	96.340	3,289.310
2025	1,912.784	197.271	1,185.001	6.557	102.699	3,404.312
2026	1,885.020	214.047	1,298.341	7.792	110.395	3,515.595
2027	1,852.266	229.064	1,411.697	9.113	118.989	3,621.129
2028	1,814.440	244.914	1,524.871	10.479	128.389	3,723.093
2029	1,771.469	205.809	1,639.013	11.914	138.527	3,766.732
2030	1,723.382	218.810	1,753.948	13.508	150.152	3,859.800
2031	1,670.258	231.554	1,869.530	15.268	163.105	3,949.715
2032	1,612.273	241.807	1,984.314	17.302	177.457	4,033.153
2033	1,549.659	251.641	2,095.790	19.569	193.237	4,109.896
2034	1,482.719	260.874	2,203.401	22.053	210.831	4,179.878
2035	1,411.875	269.419	2,310.578	24.798	230.309	4,246.979
2036	1,337.649	276.973	2,415.125	27.791	251.854	4,309.392
2037	1,260.619	284.095	2,514.710	31.205	275.642	4,366.271
2038	1,181.393	289.995	2,608.409	35.129	302.007	4,416.933
2039	1,100.747	294.751	2,693.347	39.559	331.124	4,459.528
2040	1,019.432	299.077	2,768.435	44.480	363.294	4,494.718
2041	938.230	301.929	2,828.123	50.020	398.834	4,517.136
2042	857.938	303.204	2,871.445	56.365	438.199	4,527.151
2043	779.350	302.599	2,901.016	63.752	481.775	4,528.492
2044	703.197	300.930	2,917.042	72.390	530.019	4,523.578
2045	630.132	297.934	2,920.099	82.433	583.423	4,514.021

Fiscal Year Ending	Actuarial Accrued Liability					
	Current Retirees	Current Inactives	Tier 1 Actives	Tier 2 Actives Current	Tier 2 Actives Future	Total
2013	$ 22,099.894	$ 2,084.375	$ 10,127.889	$ 60.946	$ 0.000	$ 34,373.104
2014	21,802.533	2,203.259	11,457.641	92.863	0.372	35,556.668
2015	21,474.422	2,319.489	12,803.794	118.631	25.779	36,742.115
2016	21,105.488	2,436.273	14,146.233	142.381	72.168	37,902.543
2017	20,696.085	2,552.091	15,476.331	165.818	139.204	39,029.529
2018	20,246.981	2,665.089	16,787.753	189.209	224.197	40,113.229
2019	19,759.195	2,770.801	18,075.872	214.078	328.350	41,148.296
2020	19,233.731	2,867.537	19,333.141	241.177	451.591	42,127.177
2021	18,672.080	2,954.175	20,554.794	275.984	596.573	43,053.606
2022	18,075.965	3,030.276	21,735.836	317.797	763.473	43,923.347
2023	17,447.423	3,094.683	22,872.063	363.588	954.118	44,731.875
2024	16,788.845	3,146.051	23,958.496	411.312	1,177.922	45,482.626
2025	16,102.891	3,184.188	24,989.944	461.239	1,437.335	46,175.597
2026	15,392.618	3,207.787	25,963.147	513.635	1,733.752	46,810.939
2027	14,661.325	3,217.561	26,874.118	568.717	2,069.271	47,390.992
2028	13,912.652	3,211.569	27,718.652	626.770	2,446.368	47,916.011
2029	13,150.597	3,245.630	28,490.586	688.075	2,867.867	48,442.755
2030	12,379.439	3,268.761	29,182.973	752.774	3,336.113	48,920.060
2031	11,603.703	3,280.381	29,788.301	821.009	3,853.893	49,347.287
2032	10,828.085	3,282.199	30,300.145	892.783	4,424.153	49,727.365
2033	10,057.403	3,273.893	30,714.962	968.132	5,050.010	50,064.400
2034	9,296.534	3,255.305	31,029.673	1,047.131	5,734.272	50,362.915
2035	8,550.294	3,226.356	31,236.628	1,129.795	6,480.064	50,623.137
2036	7,823.329	3,187.279	31,329.722	1,216.140	7,290.667	50,847.137
2037	7,120.047	3,137.739	31,304.855	1,305.947	8,169.371	51,037.959
2038	6,444.564	3,078.201	31,158.656	1,398.853	9,119.413	51,199.687
2039	5,800.510	3,009.084	30,891.263	1,494.468	10,144.003	51,339.328
2040	5,191.016	2,930.094	30,504.543	1,592.379	11,246.103	51,464.135
2041	4,618.642	2,842.006	30,007.780	1,691.979	12,428.554	51,588.961
2042	4,085.321	2,745.761	29,413.096	1,792.448	13,693.479	51,730.105
2043	3,592.308	2,642.687	28,730.054	1,892.679	15,042.761	51,900.489
2044	3,140.197	2,533.368	27,968.072	1,991.105	16,478.002	52,110.744
2045	2,728.952	2,418.705	27,136.135	2,085.798	18,000.511	52,370.101

APPENDIX F

ACTUARIAL METHODS AND ASSUMPTIONS

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.* Pensionable pay does not include amounts in excess of the pay cap ($109,971 in 2013, 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, and 7.75% 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.

ACTUARIAL ASSUMPTIONS (MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011 ACTUARIAL VALUATION)

Rate of Investment Return. For all purposes under the system the rate of investment return is assumed to be 7.75% per annum beginning with the **June 30, 2010**, 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%.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011
ACTUARIAL VALUATION)
(CONTINUED)

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

	Postretirement		**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%

ACTUARIAL ASSUMPTIONS (MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011 ACTUARIAL VALUATION) (CONTINUED)

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.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011
ACTUARIAL VALUATION)
(CONTINUED)

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

	Members Hired Before January 1, 2011 and Eligible for		Members Hired on or after January 1, 2011 and Eligible for	
Age	**Normal Retirement**	**Early Retirement**	**Normal Retirement**	**Early Retirement**
Under 50	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.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011
ACTUARIAL VALUATION)
(CONTINUED)

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 are assumed to elect the most valuable option on a present value basis – refund of contributions or a deferred benefit.

ACTUARIAL ASSUMPTIONS
(MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011
ACTUARIAL VALUATION)
(CONTINUED)

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

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

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

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

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

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 inactive members with five 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.

ACTUARIAL ASSUMPTIONS (MOST ADOPTED EFFECTIVE WITH THE JUNE 30, 2011 ACTUARIAL VALUATION) (CONTINUED)

Reciprocal Service. Reciprocal service is included for current inactive members for purposes of determining vesting eligibility and eligibility age to commence benefits. The recently updated actuarial assumptions (including retirement and termination rates) were based on SURS service only.

Therefore, reciprocal service was not included for current active members. Reciprocal service will be collected and analyzed in the future and will be considered in the next experience review.

Projection Assumptions:

The number of total active members 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 37.2 and average pay of $36,040 (2013 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 2013 dollars) of current active members with service between one and four years.

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 2014 are $435,016 and SMP employer forfeitures used to reduce the certified contributions for FY 2015 are $3,445,277. Estimated SMP expenses for FY 2015 and after are assumed to increase by 2.75%. Estimated SMP employer forfeitures used to reduce the certified contributions for FY 2016 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. Members hired on or after January 1, 2011, are eligible to choose one of the benefit plans. Members hired on or after January 1, 2011, 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

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, that 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, broken down as follows:

Retirement Annuity	6.5%
Survivor Benefits	1.0%
Annual Increases in Retirement Benefits	0.5%

Police officers and firefighters contribute a total of 9.5% of compensation, with the additional 1.5% allocated to the retirement annuity.

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

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 ($109,971 in 2013), increased by the lesser of 3% and 1/2 of the increase in CPI-U as measured in the preceding 12-month calendar year.

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

Effective Rate of Interest

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

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

RETIREMENT BENEFITS

Normal Retirement:

Eligibility

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

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

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

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

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

Initial Benefit Amount

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

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

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

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

2. Money Purchase Formula:

   a) The member contributions for retirement benefits 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 table below.

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%

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."