



Commission on Government Forecasting and Accountability

703 Stratton Ofc. Bldg., Springfield, IL 62706

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SPECIAL PENSION BRIEFING

STATE RETIREMENT SYSTEMS OVERVIEW

Dan Hankiewicz, Pension Manager

NOTE: As of this writing, the General Assembly is considering significant changes to the Tier 1 structure of the State Retirement Systems as contained in Conference Committee Report to SB 1. This summary does not reflect these changes. If CCR 1 to SB 1 should be signed into law, updated funding projections will be published in a future monthly briefing.

CGFA staff has reviewed the State-funded retirement systems' FY 2013 actuarial reports, which were issued prior to November 1st, pursuant to P.A. 97-0694, the State Actuary Law. Under the State Actuary Law, the systems must annually submit a proposed certification for the following fiscal year prior to November 1st of the current year. The State Actuary then must issue a preliminary report concerning the systems' proposed certification by January 1st. The State Actuary's report must identify any recommend changes in actuarial assumptions based upon the review of the retirement systems' actuarial assumptions.

Using the actuarial (smoothed) value of assets, the total unfunded liabilities of the State systems totaled \$100.5 billion on June 30, 2013, led by the Teachers' Retirement System (TRS), whose unfunded liabilities amounted to \$55.7 billion. As the largest of the State systems, TRS accounts for over half of the total assets and liabilities of the five State systems combined. Table 1, on the following page, provides a summary of the financial condition of each of the five State retirement systems, showing their respective liabilities and assets as well as their accumulated unfunded liabilities and funded ratios.

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SPECIAL PENSION BRIEFING:
State Retirement Systems Overview

TABLE 1

Summary of Financial Condition FY 2013				
State Retirement Systems Combined				
Assets at Actuarial Value / With Asset Smoothing (P.A. 96-0043)				
(\$ in Millions)				
System	Accrued <u>Liability</u>	Actuarial <u>Assets</u>	Unfunded <u>Liability</u>	Funded <u>Ratio</u>
TRS	\$93,887.0	\$38,155.2	\$55,731.8	40.6%
SERS	\$34,720.8	\$11,877.4	\$22,843.4	34.2%
SURS	\$34,373.1	\$14,262.6	\$20,110.5	41.5%
JRS	\$2,156.8	\$610.2	\$1,546.6	28.3%
GARS	\$320.5	\$51.9	\$268.6	16.2%
TOTAL	\$165,458.2	\$64,957.3	\$100,500.9	39.3%

A much more realistic valuation of the true financial position of the State retirement systems would be based upon the market value of the assets, as shown in Table 2 below. Based upon the market value of assets, the total unfunded liabilities of the State systems totaled \$97.5 billion on June 30, 2013. The Teachers' Retirement System (TRS), whose unfunded liabilities amounted to \$54.0 billion, again represents over 50% of the combined total unfunded balance. Table 2 provides a summary of the financial condition of each of the five State retirement systems, showing their respective liabilities and assets as well as their accumulated unfunded liabilities and funded ratios.

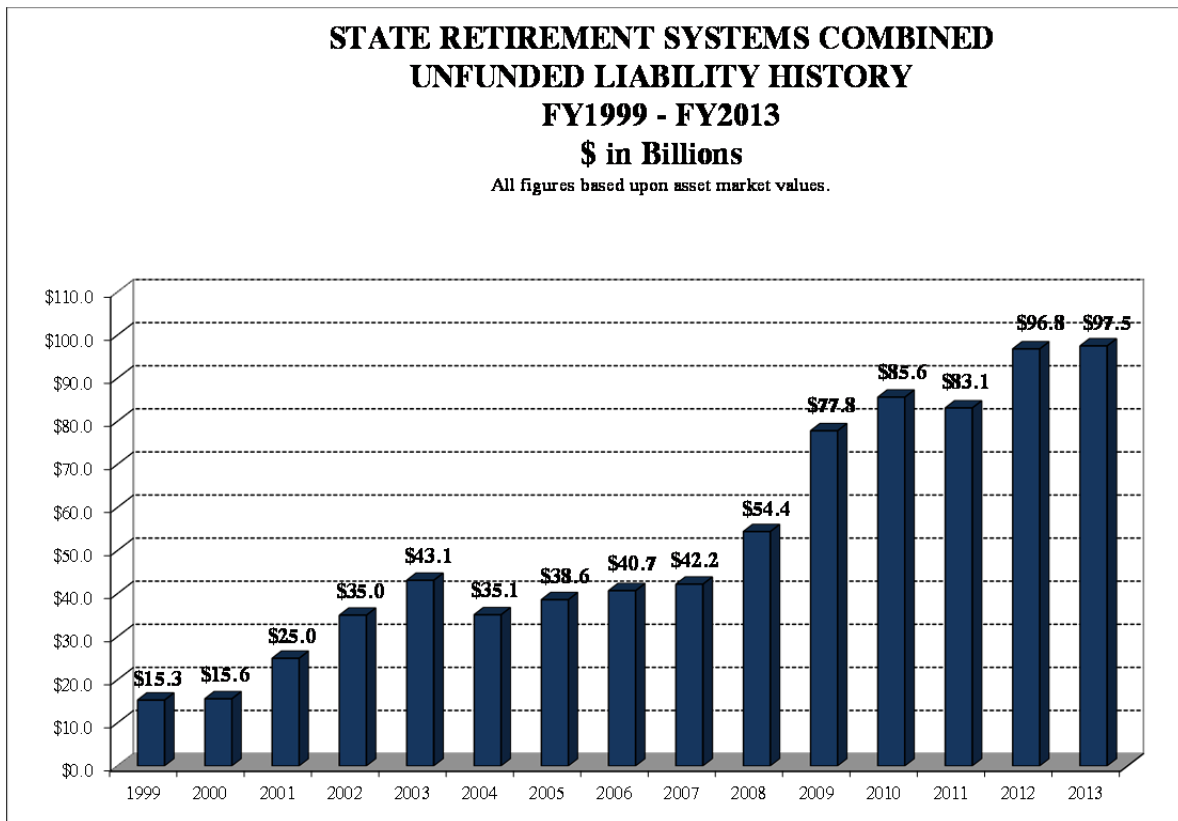
TABLE 2

Summary of Financial Condition FY 2013				
State Retirement Systems Combined				
Assets at Market Value / Without Asset Smoothing				
(\$ in Millions)				
System	Accrued <u>Liability</u>	Net <u>Assets</u>	Unfunded <u>Liability</u>	Funded <u>Ratio</u>
TRS	\$93,887.0	\$39,858.8	\$54,028.2	42.5%
SERS	\$34,720.8	\$12,400.3	\$22,320.5	35.7%
SURS	\$34,373.1	\$15,037.1	\$19,336.0	43.7%
JRS	\$2,156.8	\$643.3	\$1,513.5	29.8%
GARS	\$320.5	\$54.3	\$266.2	16.9%
TOTAL	\$165,458.2	\$67,993.8	\$97,464.4	41.1%

The funded ratios for each of the five State retirement systems may be compared to the aggregate funded ratio of 41.1% for the five systems combined. Although the Judges' Retirement System and the General Assembly Retirement System have the poorest funded ratios, these two systems are much smaller and their unfunded liabilities are thus more manageable than the three larger systems.

Chart 1 below shows a 15-year history of the cumulative unfunded State pension liability and is based upon calculations performed by the retirement system actuaries using the market value of assets for all years, including FY 2013. The historic investment losses sustained by the systems in FY 2009 were the main reason for the significant jump in unfunded liabilities over FY 2008.

CHART 1

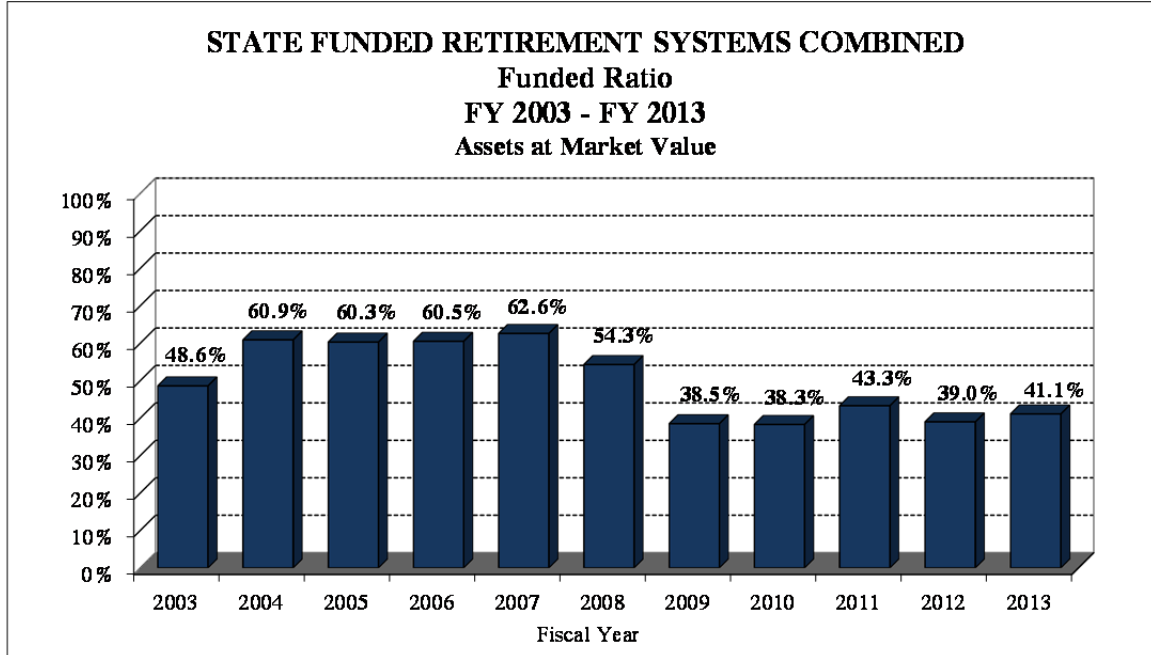


SURS, SERS, and JRS scaled back their respective investment return assumptions in FY 2010, and this change, along with actuarially insufficient contributions by the State, served to drive up the combined FY 2010 unfunded liability to \$85.6 billion. The systems experienced exceptionally strong investment returns in FY 2011, which caused the unfunded liability to drop slightly to \$83.1 billion. Three factors accounted for the significant spike in unfunded liabilities in FY 2012 – investment returns that fell far short of actuarial assumptions, TRS' assumed interest rate reduction from 8.5% to 8.0%, and actuarially insufficient contributions by the State. Strong investment returns in FY 2013 accounted for the relatively small growth in unfunded liability from

FY 2012 to FY 2013 despite State contributions which continued to be actuarially insufficient.

Chart 2 below shows a history of the combined funded ratio for all five State systems:

CHART 2



NOTE: All of the funded ratios shown in Chart 2 are based upon market value of assets without asset smoothing.

The funded ratio at any single point in time is less important than the trend over time. In FY 2004, the State sold \$10 billion in pension obligation bonds and used part of the proceeds to pay all of the contributions for FY 2004. The bond sale generated \$7.3 billion to reduce unfunded liabilities of the state-funded retirement systems. In the wake of the bond sale, the funded ratio remained relatively stable from FY 2004 through FY 2007.

In FY 2008 and FY 2009, the funded ratio fell significantly due to much lower-than-expected investment revenues and actuarially insufficient employer contributions. The funded ratio remained relatively stable in FY 2010 due in large part to higher-than-expected investment returns. FY 2011 also saw exceptionally strong investment returns, which caused the funding ratio to increase. However, these gains were largely erased by poor investment returns in FY 2012. As was previously mentioned, actuarially insufficient State contributions and TRS' change in investment return assumption from 8.5% to 8.0% played a significant role in lowering the FY 2012 cumulative funded ratio of the five State systems to 39%. Higher-than-expected investment returns were the largest driver of the slight uptick in the funding ratio from FY 2012 to FY 2013.

Charts 3 and 4 below show the factors that have caused the unfunded liability to change over a given period of time. Chart 3 outlines the growth in the unfunded liability for FY 2013 only, whereas Chart 4 shows the growth in unfunded liability since the enactment of P.A. 88-593 in FY 1996, which created the 50-year funding plan that governs annual State contributions to the five State systems.

CHART 3

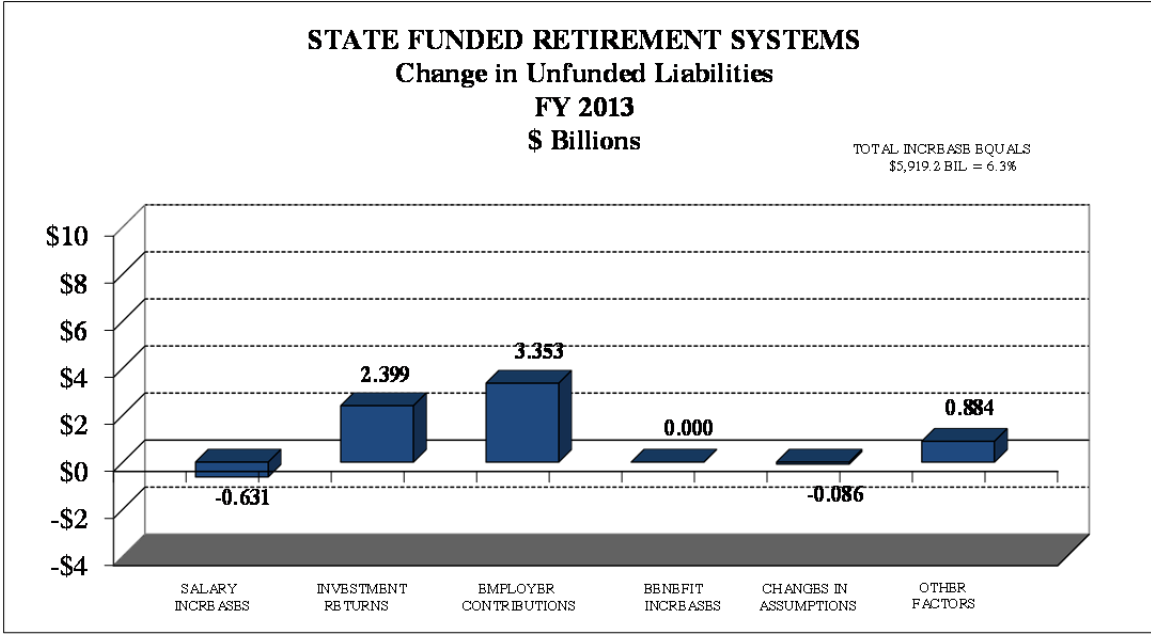


CHART 4

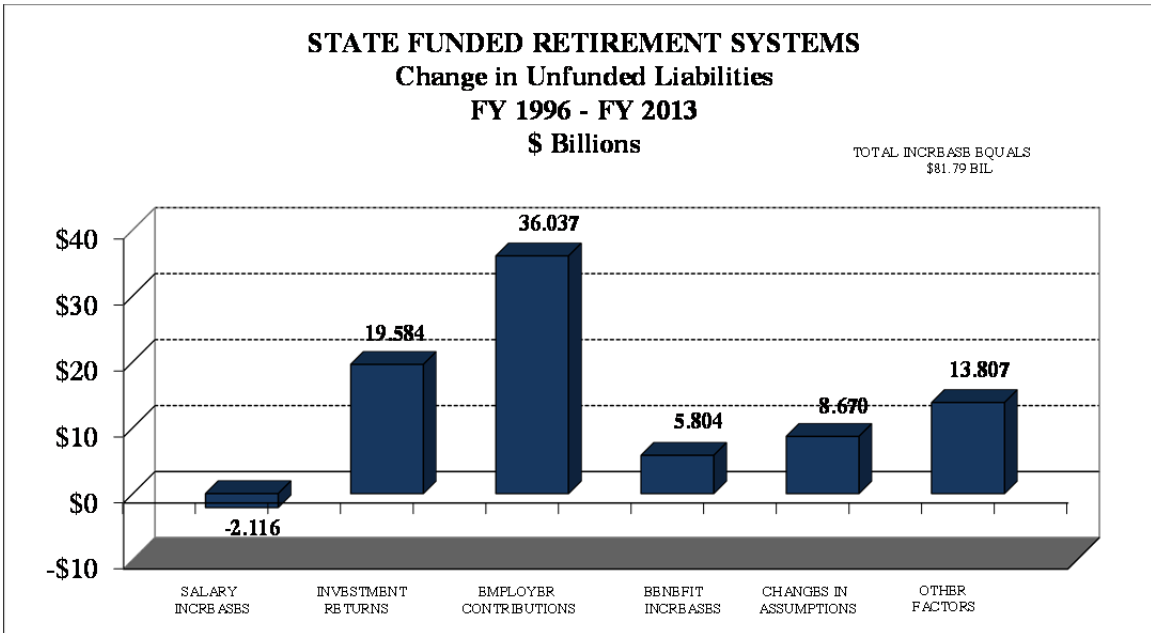


TABLE 3

FY 2014 Pension Appropriation by Fund P.A. 98-0017 (HB 206) (\$ Millions)			
System	GRF	Other State Funds	Total
TRS	\$3,438.6	\$0.0	\$3,438.6
SURS	\$1,311.8	\$198.0	\$1,509.8
* SERS	\$1,097.4	\$646.5	\$1,743.9
GARS	\$13.9	\$0.0	\$13.9
JRS	\$126.8	\$0.0	\$126.8
Total	\$5,988.5	\$844.5	\$6,833.0

* SERS total appropriation includes \$81.2 million in 2003 POB debt service. Approximately \$51.2 million of this amount comes from GRF, whereas \$30.0 million is paid from other non-GRF state funds.

TABLE 4

FY 2015 Estimated Pension Appropriation (\$ Millions)			
System	GRF	Other State Funds	Total*
TRS	3,412.9	\$0.0	\$3,412.9
SURS	1,341.7	\$202.5	\$1,544.2
SERS	1,188.9	\$640.2	\$1,829.1
GARS	15.8	\$0.0	\$15.8
JRS	134.0	\$0.0	\$134.0
Total	\$6,093.3	\$842.7	\$6,936.0

* The amounts shown above in the "Total" column reflect the systems' preliminary FY 2015 certification pursuant to P.A. 97-0694, the State Actuary Law. The FY 2015 certification amounts do not become official until the State Actuary's review has been completed. Final certifications for FY 2015 are due by January 15, 2014. This chart is meant to be an estimate only insofar as the FY 2015 appropriation by fund is concerned. The SERS "Other State Funds" amount is based upon an assumption that 65% of SERS' total annual appropriation comes from GRF, while 35% comes from other State funds. The SURS "Other State Funds" amount assumes that SURS will receive an FY 2015 appropriation from the State Pension Fund commensurate with the amount that was received by the system in FY 2014. SURS' historical appropriation from the State Pension Fund varies widely from year to year.

Total FY 2015 Pension Appropriation: \$6,936.0 Million
Total FY 2014 Pension Appropriation: \$6,833.0 Million
Total Increase, FY 15 over FY 14: \$103.0 Million

Note- the "Total 2015 Pension Appropriation reflects the preliminary certified amounts submitted by the State systems pursuant to P.A. 97-0694, the State Actuary Law

The following pages show pension funding projections for the five State retirement systems based on the laws in effect on June 30, 2013. These projections were generated by the retirement systems' respective actuaries.

FUNDING PROJECTIONS FOR THE STATE RETIREMENT SYSTEMS								
All Five Systems Combined								
System Projections Based on Laws in Effect on June 30, 2013								
(\$ in millions)								
Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	18,829.9	6,831.9	36.3%	1,553.1	172,236.9	71,011.8	101,225.1	41.2%
2015	19,352.3	6,936.0	35.8%	1,601.2	179,154.7	76,606.7	102,548.1	42.8%
2016	20,040.4	6,983.6	34.8%	1,655.8	186,150.2	80,641.9	105,508.2	43.3%
2017	20,758.2	7,131.6	34.4%	1,716.6	193,207.7	85,721.2	107,486.5	44.4%
2018	21,491.4	7,405.9	34.5%	1,780.4	200,303.3	90,306.4	109,997.0	45.1%
2019	22,250.4	7,626.9	34.3%	1,843.5	207,433.7	94,966.1	112,467.6	45.8%
2020	23,035.4	7,880.4	34.2%	1,909.8	214,573.6	99,722.4	114,851.2	46.5%
2021	23,854.3	8,147.9	34.2%	1,980.7	221,721.3	104,595.6	117,125.7	47.2%
2022	24,703.8	8,427.6	34.1%	2,053.0	228,858.8	109,601.8	119,257.0	47.9%
2023	25,579.7	8,718.7	34.1%	2,132.1	235,970.7	114,760.2	121,210.5	48.6%
2024	26,488.1	8,994.4	34.0%	2,214.6	243,054.4	120,077.5	122,976.8	49.4%
2025	27,412.7	9,298.9	33.9%	2,298.4	250,082.0	125,561.3	124,520.7	50.2%
2026	28,362.4	9,623.8	33.9%	2,379.6	257,037.1	131,253.1	125,784.0	51.1%
2027	29,333.3	9,960.0	34.0%	2,465.1	263,892.3	137,165.6	126,726.7	52.0%
2028	30,325.4	10,284.8	33.9%	2,554.2	270,618.4	143,266.3	127,352.1	52.9%
2029	31,338.7	10,621.1	33.9%	2,636.7	277,248.1	149,639.3	127,608.9	54.0%
2030	32,355.6	10,934.8	33.8%	2,723.1	283,711.0	156,231.9	127,479.1	55.1%
2031	33,369.0	11,253.8	33.7%	2,817.9	289,979.4	163,071.6	126,907.9	56.2%
2032	34,360.4	11,596.1	33.7%	2,929.2	296,021.4	170,200.0	125,821.4	57.5%
2033	35,330.0	11,959.5	33.9%	3,019.0	301,779.9	177,613.2	124,166.8	58.9%
2034	36,248.4	12,933.1	35.7%	3,104.8	307,202.1	185,941.1	121,261.1	60.5%
2035	37,150.0	13,251.3	35.7%	3,176.8	312,270.0	194,577.9	117,692.1	62.3%
2036	38,044.8	13,567.9	35.7%	3,249.9	316,974.9	203,557.4	113,417.5	64.2%
2037	38,918.1	13,880.1	35.7%	3,322.0	321,299.8	212,934.2	108,365.6	66.3%
2038	39,777.4	14,191.5	35.7%	3,389.4	323,223.4	222,736.6	100,486.8	68.9%
2039	40,616.9	14,497.1	35.7%	3,457.9	328,721.7	232,987.7	95,734.0	70.9%
2040	41,436.8	14,796.3	35.7%	3,509.3	331,769.7	243,713.3	88,056.4	73.5%
2041	42,249.7	15,093.3	35.7%	3,550.4	334,384.6	254,961.9	79,422.7	76.2%
2042	43,066.1	15,393.3	35.7%	3,578.8	336,607.1	266,830.1	69,777.0	79.3%
2043	43,901.5	15,699.0	35.8%	3,594.8	338,502.0	279,442.7	59,059.3	82.6%
2044	42,763.1	16,014.9	37.5%	3,588.2	340,146.7	292,918.7	47,228.0	86.1%
2045	45,654.0	16,340.3	35.8%	3,671.6	341,629.6	307,468.3	34,161.3	90.0%

FUNDING PROJECTIONS FOR THE TEACHERS RETIREMENT SYSTEM
System Projections Based on Laws in Effect on June 30, 2013
Actuarially Assumed Rate of Return: 8.00%
(\$ in millions)

Fiscal Year	Annual Payroll	Total State Contribution*	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	9,982.1	3,437.5	34.4%	1,004.4	97,868.6	41,678.9	56,189.7	42.6%
2015	10,416.2	3,412.9	32.8%	1,046.0	101,934.1	44,825.1	57,109.0	44.0%
2016	10,838.0	3,487.2	32.2%	1,085.5	106,087.8	47,092.1	58,995.7	44.4%
2017	11,282.0	3,569.0	31.6%	1,131.0	110,327.6	49,996.2	60,331.4	45.3%
2018	11,738.3	3,729.5	31.8%	1,179.2	114,651.0	52,688.7	61,962.3	46.0%
2019	12,210.8	3,861.6	31.6%	1,226.4	119,065.0	55,484.4	63,580.6	46.6%
2020	12,705.9	4,009.0	31.6%	1,276.6	123,565.9	58,402.1	65,163.8	47.3%
2021	13,224.8	4,166.0	31.5%	1,329.8	128,154.4	61,457.7	66,696.7	48.0%
2022	13,766.4	4,332.4	31.5%	1,385.3	132,832.0	64,674.3	68,157.7	48.7%
2023	14,331.5	4,508.3	31.5%	1,447.4	137,598.2	68,079.9	69,518.3	49.5%
2024	14,916.2	4,667.8	31.3%	1,511.3	142,455.5	71,677.4	70,778.1	50.3%
2025	15,518.1	4,855.8	31.3%	1,577.4	147,392.2	75,481.6	71,910.6	51.2%
2026	16,137.7	5,057.0	31.3%	1,640.5	152,396.7	79,521.4	72,875.3	52.2%
2027	16,769.7	5,264.1	31.4%	1,708.0	157,445.1	83,800.6	73,644.5	53.2%
2028	17,416.1	5,462.8	31.4%	1,778.8	162,508.0	88,282.8	74,225.2	54.3%
2029	18,070.5	5,666.6	31.4%	1,841.4	167,559.8	92,978.9	74,580.9	55.5%
2030	18,725.5	5,858.0	31.3%	1,907.6	172,580.8	97,885.2	74,695.6	56.7%
2031	19,367.2	6,047.9	31.2%	1,981.3	177,542.4	103,012.2	74,530.2	58.0%
2032	19,982.2	6,246.3	31.3%	2,071.8	182,411.1	108,372.5	74,038.6	59.4%
2033	20,565.4	6,450.8	31.4%	2,139.4	187,148.5	113,943.1	73,205.4	60.9%
2034	21,118.8	7,035.5	33.3%	2,207.8	191,714.2	120,111.1	71,603.1	62.7%
2035	21,642.8	7,205.2	33.3%	2,260.3	196,069.1	126,465.8	69,603.3	64.5%
2036	22,141.6	7,366.6	33.3%	2,311.5	200,185.7	132,995.7	67,190.0	66.4%
2037	22,614.5	7,520.7	33.3%	2,361.7	204,035.3	139,721.2	64,314.1	68.5%
2038	23,062.7	7,669.7	33.3%	2,406.0	207,578.7	146,626.0	60,952.7	70.6%
2039	23,482.6	7,809.4	33.3%	2,451.2	210,772.9	153,690.1	57,082.8	72.9%
2040	23,874.2	7,939.6	33.3%	2,479.0	213,573.9	160,890.7	52,683.2	75.3%
2041	24,248.1	8,063.9	33.3%	2,494.9	215,971.1	168,219.5	47,751.6	77.9%
2042	24,615.4	8,186.1	33.3%	2,497.7	217,975.6	175,711.6	42,264.0	80.6%
2043	24,990.3	8,310.7	33.3%	2,487.8	219,623.1	183,429.1	36,194.0	83.5%
2044	23,386.6	8,442.5	36.1%	2,455.1	220,969.0	191,433.5	29,535.5	86.6%
2045	25,806.0	8,582.0	33.3%	2,511.2	222,083.7	199,875.4	22,208.3	90.0%

* Pursuant to TRS' preliminary FY 2015 certification letter dated October 31, 2013, the FY 2015 required State Contribution includes \$1 million payable from the Guaranteed Minimum Annuity Reserve.

FUNDING PROJECTIONS FOR THE STATE EMPLOYEES RETIREMENT SYSTEM

System Projections Based on Laws in Effect on June 30, 2013

Actuarially Assumed Rate of Return: 7.75%

(\$ in millions)

Fiscal Year	Annual Payroll	Total State Contribution*	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	4,326.0	1,743.9	40.3%	241.0	36,245.0	13,081.0	23,164.0	36.1%
2015	4,320.0	1,829.1	42.3%	241.0	37,825.0	14,317.0	23,508.0	37.9%
2016	4,475.0	1,801.0	40.2%	249.0	39,423.0	15,330.0	24,093.0	38.9%
2017	4,630.0	1,849.0	39.9%	257.0	41,035.0	16,525.0	24,510.0	40.3%
2018	4,784.0	1,913.0	40.0%	265.0	42,650.0	17,611.0	25,039.0	41.3%
2019	4,944.0	1,968.0	39.8%	273.0	44,263.0	18,705.0	25,558.0	42.3%
2020	5,104.0	2,028.0	39.7%	281.0	45,861.0	19,805.0	26,056.0	43.2%
2021	5,270.0	2,091.0	39.7%	290.0	47,439.0	20,909.0	26,530.0	44.1%
2022	5,441.0	2,156.0	39.6%	298.0	48,981.0	22,012.0	26,969.0	44.9%
2023	5,610.0	2,221.0	39.6%	306.0	50,477.0	23,106.0	27,371.0	45.8%
2024	5,789.0	2,286.0	39.5%	315.0	51,919.0	24,188.0	27,731.0	46.6%
2025	5,963.0	2,350.0	39.4%	323.0	53,291.0	25,247.0	28,044.0	47.4%
2026	6,141.0	2,420.0	39.4%	331.0	54,588.0	26,291.0	28,297.0	48.2%
2027	6,324.0	2,494.0	39.4%	339.0	55,804.0	27,322.0	28,482.0	49.0%
2028	6,510.0	2,564.0	39.4%	347.0	56,939.0	28,339.0	28,600.0	49.8%
2029	6,706.0	2,640.0	39.4%	356.0	57,994.0	29,353.0	28,641.0	50.6%
2030	6,902.0	2,711.0	39.3%	365.0	58,969.0	30,366.0	28,603.0	51.5%
2031	7,104.0	2,786.0	39.2%	375.0	59,865.0	31,387.0	28,478.0	52.4%
2032	7,306.0	2,867.0	39.2%	384.0	60,680.0	32,427.0	28,253.0	53.4%
2033	7,511.0	2,954.0	39.3%	394.0	61,391.0	33,485.0	27,906.0	54.5%
2034	7,690.0	3,266.0	42.5%	399.0	61,980.0	34,786.0	27,194.0	56.1%
2035	7,878.0	3,346.0	42.5%	406.0	62,467.0	36,134.0	26,333.0	57.8%
2036	8,080.0	3,431.0	42.5%	415.0	62,868.0	37,561.0	25,307.0	59.7%
2037	8,282.0	3,517.0	42.5%	424.0	63,191.0	39,086.0	24,105.0	61.9%
2038	8,489.0	3,605.0	42.5%	434.0	61,449.0	40,736.0	20,713.0	66.3%
2039	8,698.0	3,694.0	42.5%	444.0	63,653.0	42,533.0	21,120.0	66.8%
2040	8,910.0	3,784.0	42.5%	454.0	63,814.0	44,504.0	19,310.0	69.7%
2041	9,123.0	3,874.0	42.5%	465.0	63,944.0	46,675.0	17,269.0	73.0%
2042	9,338.0	3,966.0	42.5%	476.0	64,056.0	49,076.0	14,980.0	76.6%
2043	9,558.0	4,059.0	42.5%	487.0	64,165.0	51,740.0	12,425.0	80.6%
2044	9,778.0	4,153.0	42.5%	498.0	64,282.0	54,696.0	9,586.0	85.1%
2045	10,000.0	4,247.0	42.5%	510.0	64,415.0	57,975.0	6,440.0	90.0%

*Pursuant to P.A. 93-0589, FY 2015 State Contribution includes \$80.7 million of 2003 POB debt service collected through payroll deduction. State contribution amounts shown for FY 2016 - 2045 do not include projected debt service as future debt service amounts are not finalized until the annual SERS certification letters are issued pursuant to P.A. 97-0694 (State Actuary Law).

FUNDING PROJECTIONS FOR THE STATE UNIVERSITIES RETIREMENT SYSTEM

System Projections Based on Laws in Effect on June 30, 2013

Actuarially Assumed Rate of Return: 7.75%

(\$ in millions)

Fiscal Year	Annual Payroll**	Total State Contribution*	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	4,336.1	1,509.8	34.8%	290.0	35,556.7	15,512.8	20,043.9	43.6%
2015	4,435.6	1,544.2	34.8%	296.5	36,742.1	16,643.2	20,098.9	45.3%
2016	4,545.2	1,545.7	34.0%	303.6	37,902.5	17,335.2	20,567.3	45.7%
2017	4,662.0	1,563.5	33.5%	311.1	39,029.5	18,247.0	20,782.5	46.8%
2018	4,783.2	1,611.7	33.7%	318.7	40,113.2	18,996.4	21,116.8	47.4%
2019	4,908.1	1,644.9	33.5%	326.6	41,148.3	19,713.3	21,435.0	47.9%
2020	5,036.3	1,689.4	33.5%	334.6	42,127.2	20,402.4	21,724.8	48.4%
2021	5,168.7	1,735.4	33.6%	343.0	43,053.4	21,070.5	21,982.9	48.9%
2022	5,304.1	1,782.3	33.6%	351.7	43,923.3	21,715.9	22,207.4	49.4%
2023	5,444.0	1,830.7	33.6%	360.6	44,731.9	22,337.4	22,394.5	49.9%
2024	5,586.6	1,880.1	33.7%	369.8	45,482.6	22,941.8	22,540.8	50.4%
2025	5,733.0	1,930.7	33.7%	379.2	46,175.6	23,533.0	22,642.6	51.0%
2026	5,882.7	1,982.5	33.7%	388.9	46,810.9	24,115.3	22,695.6	51.5%
2027	6,035.9	2,035.4	33.7%	398.8	47,391.0	24,695.5	22,695.5	52.1%
2028	6,192.8	2,089.5	33.7%	409.1	47,916.0	25,278.6	22,637.4	52.8%
2029	6,352.5	2,143.8	33.7%	419.6	48,442.8	25,925.8	22,517.0	53.5%
2030	6,514.8	2,192.9	33.7%	430.3	48,920.1	26,585.5	22,334.6	54.3%
2031	6,680.6	2,244.5	33.6%	441.1	49,347.3	27,264.6	22,082.7	55.3%
2032	6,850.8	2,303.8	33.6%	452.1	49,727.4	27,979.0	21,748.4	56.3%
2033	7,027.6	2,371.3	33.7%	463.4	50,064.4	28,747.1	21,317.3	57.4%
2034	7,208.7	2,440.7	33.9%	474.9	50,362.9	29,582.3	20,780.6	58.7%
2035	7,393.0	2,504.7	33.9%	486.5	50,623.1	30,487.0	20,136.1	60.2%
2036	7,581.2	2,570.0	33.9%	498.4	50,847.1	31,472.9	19,374.2	61.9%
2037	7,773.6	2,637.0	33.9%	510.4	51,038.0	32,553.6	18,484.4	63.8%
2038	7,971.3	2,705.9	33.9%	522.5	51,199.7	33,745.0	17,454.7	65.9%
2039	8,175.1	2,777.1	34.0%	534.9	51,339.3	35,066.2	16,273.1	68.3%
2040	8,384.3	2,850.1	34.0%	547.5	51,464.1	36,537.0	14,927.1	71.0%
2041	8,602.9	2,926.5	34.0%	560.7	51,589.0	38,186.1	13,402.9	74.0%
2042	8,829.2	3,005.7	34.0%	574.3	51,730.1	40,043.2	11,686.9	77.4%
2043	9,061.6	3,087.0	34.1%	588.2	51,900.5	42,135.8	9,764.7	81.2%
2044	9,298.5	3,170.0	34.1%	602.3	52,110.7	44,490.3	7,620.4	85.4%
2045	9,539.2	3,254.5	34.1%	616.5	52,370.1	47,133.1	5,237.0	90.0%

* State Contribution Only - Excludes Estimated \$42 Million In Federal Funds in All Years Shown

** Payroll projections include SMP payroll - 15% of new SURS members are assumed to enter SMP

FUNDING PROJECTIONS FOR THE JUDGES RETIREMENT SYSTEM

System Projections Based on Laws in Effect on June 30, 2013

Actuarially Assumed Rate of Return: 7.00%

(\$ in millions)

Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	171.2	126.8	74.1%	16.2	2,242.2	689.1	1,553.1	30.7%
2015	167.6	134.0	80.0%	16.3	2,325.5	772.0	1,553.5	33.2%
2016	169.2	134.0	79.2%	16.2	2,405.5	838.0	1,567.5	34.8%
2017	170.8	133.9	78.4%	15.9	2,481.2	908.3	1,572.9	36.6%
2018	171.9	134.8	78.4%	15.9	2,552.2	968.4	1,583.8	37.9%
2019	173.0	134.9	78.0%	15.9	2,618.5	1,024.6	1,593.9	39.1%
2020	174.2	135.8	78.0%	15.9	2,679.1	1,077.2	1,601.9	40.2%
2021	175.2	136.6	78.0%	16.1	2,733.0	1,125.8	1,607.3	41.2%
2022	176.0	137.3	78.0%	16.1	2,780.5	1,170.1	1,610.4	42.1%
2023	177.3	138.3	78.0%	16.2	2,821.4	1,210.2	1,611.2	42.9%
2024	178.7	139.4	78.0%	16.5	2,855.6	1,246.5	1,609.1	43.7%
2025	180.4	140.5	77.9%	16.7	2,882.5	1,278.6	1,604.0	44.4%
2026	182.1	141.6	77.7%	17.0	2,902.3	1,306.6	1,595.7	45.0%
2027	184.0	142.9	77.6%	17.1	2,915.0	1,330.6	1,584.4	45.6%
2028	186.2	143.9	77.3%	17.0	2,920.5	1,350.2	1,570.2	46.2%
2029	188.6	145.3	77.0%	17.2	2,919.4	1,366.7	1,552.8	46.8%
2030	191.4	146.6	76.6%	17.7	2,912.0	1,380.2	1,531.8	47.4%
2031	194.5	148.1	76.2%	17.9	2,898.9	1,391.7	1,507.3	48.0%
2032	197.9	150.7	76.1%	18.6	2,880.4	1,402.9	1,477.5	48.7%
2033	201.5	153.9	76.4%	19.4	2,856.9	1,415.5	1,441.4	49.5%
2034	205.6	160.3	78.0%	20.2	2,829.4	1,433.7	1,395.7	50.7%
2035	209.9	163.7	78.0%	21.0	2,798.6	1,455.8	1,342.8	52.0%
2036	214.7	167.4	78.0%	21.8	2,765.3	1,483.2	1,282.1	53.6%
2037	219.7	171.4	78.0%	22.7	2,730.0	1,517.1	1,212.8	55.6%
2038	225.1	175.6	78.0%	23.5	2,693.4	1,559.2	1,134.2	57.9%
2039	230.8	180.0	78.0%	24.3	2,656.6	1,611.1	1,045.5	60.6%
2040	236.8	184.7	78.0%	25.2	2,620.0	1,674.2	945.8	63.9%
2041	243.1	189.6	78.0%	26.0	2,584.6	1,750.4	834.2	67.7%
2042	249.7	194.8	78.0%	26.9	2,550.8	1,841.3	709.5	72.2%
2043	256.6	200.1	78.0%	27.7	2,519.6	1,948.8	570.9	77.3%
2044	263.8	205.8	78.0%	28.6	2,491.5	2,074.5	417.0	83.3%
2045	271.3	211.6	78.0%	29.5	2,467.1	2,220.5	246.7	90.0%

FUNDING PROJECTIONS FOR THE GENERAL ASSEMBLY RETIREMENT SYSTEM

System Projections Based on Laws in Effect on June 30, 2013

Actuarially Assumed Rate of Return: 7.00%

(\$ in millions)

Fiscal Year	Annual Payroll	Total State Contribution	State Contribution as a % of Payroll	Total Employee Contribution	Accrued Liabilities	Actuarial Value of Assets	Unfunded Liabilities	Funded Ratio
2014	14.5	13.9	95.5%	1.5	324.4	50.0	274.4	15.4%
2015	12.9	15.8	122.2%	1.5	328.0	49.3	278.7	15.0%
2016	13.0	15.7	121.3%	1.5	331.4	46.7	284.7	14.1%
2017	13.5	16.2	120.7%	1.6	334.4	44.7	289.7	13.4%
2018	14.0	16.9	120.8%	1.6	336.9	41.9	295.1	12.4%
2019	14.5	17.5	120.6%	1.7	338.9	38.8	300.1	11.5%
2020	15.1	18.2	120.5%	1.7	340.4	35.7	304.7	10.5%
2021	15.7	18.9	120.4%	1.8	341.5	32.7	308.9	9.6%
2022	16.3	19.6	120.5%	1.9	342.0	29.6	312.5	8.6%
2023	16.9	20.4	120.5%	1.9	342.2	26.7	315.5	7.8%
2024	17.5	21.1	120.5%	2.0	341.7	23.8	317.9	7.0%
2025	18.2	21.9	120.3%	2.1	340.7	21.2	319.5	6.2%
2026	18.9	22.8	120.5%	2.2	339.2	18.8	320.4	5.5%
2027	19.6	23.6	120.4%	2.3	337.2	16.9	320.3	5.0%
2028	20.3	24.5	120.5%	2.3	334.9	15.6	319.3	4.7%
2029	21.1	25.4	120.5%	2.4	332.1	14.9	317.2	4.5%
2030	21.9	26.3	120.2%	2.5	329.1	15.0	314.0	4.6%
2031	22.7	27.2	120.0%	2.6	325.8	16.1	309.7	5.0%
2032	23.5	28.3	120.3%	2.7	322.6	18.6	303.9	5.8%
2033	24.4	29.4	120.5%	2.8	319.1	22.5	296.6	7.1%
2034	25.3	30.5	120.5%	2.9	315.6	28.0	287.7	8.9%
2035	26.3	31.7	120.5%	3.0	312.2	35.3	276.9	11.3%
2036	27.3	32.8	120.5%	3.1	308.8	44.7	264.2	14.5%
2037	28.3	34.0	120.5%	3.3	305.6	56.3	249.3	18.4%
2038	29.3	35.3	120.5%	3.4	302.6	70.4	232.2	23.3%
2039	30.4	36.6	120.5%	3.5	299.9	87.4	212.6	29.1%
2040	31.4	37.9	120.5%	3.6	297.7	107.4	190.3	36.1%
2041	32.6	39.3	120.5%	3.8	295.9	130.9	165.0	44.2%
2042	33.8	40.7	120.5%	3.9	294.6	158.0	136.6	53.6%
2043	35.0	42.1	120.5%	4.0	293.7	189.0	104.7	64.4%
2044	36.2	43.7	120.5%	4.2	293.4	224.4	69.1	76.5%
2045	37.5	45.2	120.5%	4.3	293.7	264.3	29.4	90.0%