

ACTUARIAL

Letter of Certification

Actuarial Report

Analysis of Funding

Tests of Financial Soundness

SURS2015



LETTER OF CERTIFICATION



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December 21, 2015

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

Re: Certification of Actuarial Results

Dear Members of the Board:

At your request, we have performed an actuarial valuation of the State Universities Retirement System of Illinois ("SURS") as of June 30, 2015. The purpose of this actuarial valuation, which is performed annually, is to determine the funding status and annual contribution requirements of SURS. GRS has prepared this actuarial valuation exclusively at the request of, and for the benefit of, the Trustees of the State Universities Retirement System; GRS is not responsible for reliance upon this valuation for any other purpose or by any other party.

The actuarial valuation is based upon:

- a. Data relative to the Members of SURS Data for all members, including those participating in the Self Managed Plan, was provided by SURS staff. GRS reviewed such data for reasonableness, but did not otherwise verify or audit the data.
- b. Assets of the Fund The values of SURS assets are provided by SURS staff and were reviewed for reasonableness, but were not otherwise verified or audited. First effective with the valuation as of June 30, 2009, the actuarial value of assets, as defined in statute, smoothes investment gains and losses compared to the actuarial assumption of 7.25% (7.75% prior to fiscal year 2015) over a five-year period, and is calculated by the actuary and used to develop actuarial results.
- c. Actuarial Method The actuarial method prescribed in the statute and utilized by SURS is the Projected Unit Credit Cost Method. The objective of this method is to finance the benefits of SURS as such benefits accrue to each member. Any Unfunded Actuarial Accrued Liability (UAAL) under this method is separately financed. All actuarial gains and losses under this method are reflected in the UAAL.
- d. Actuarial Assumptions The actuarial assumptions used in this valuation are summarized in the next few pages. The Effective Rate of Interest (ERI) assumption was decreased from 7.75% to 7.00% first effective with the valuation as of June 30, 2013. The investment return assumption was decreased from 7.75% to 7.25% first effective with the valuation as of June 30, 2014. The remaining assumptions were reviewed and updated as part of the experience study conducted for the period June 30, 2010, through June 30, 2014, and adopted by the Board first effective for the valuation as of June 30, 2015.

The actuarial assumptions and methods used to calculate the actuarial liabilities, including the economic and demographic assumptions, the actuarial cost method and asset method, are in accordance with the Actuarial Standards of Practice and are set by the Board. Calculations performed for GASB Statement Number 67 were performed in accordance with the requirements under the Statement, including the use of the Entry Age Normal Cost Method and a single discount rate of 7.12% for fiscal year ending June 30, 2015. Liabilities as of June 30, 2014 (reflecting updated assumptions that were adopted as of June 30, 2015), projected to June 30, 2015, were used for the GASB 67 schedules.

The trend data in the Financial Section and the schedules and other data in this Section are prepared by SURS staff with our input.

The funding objective as defined in the statute is to collect employer and employee contributions sufficient to provide the benefits of SURS when due and to achieve an asset value equal to 90% of the Actuarial Accrued Liability by the end of fiscal year 2045. The financing objective of SURS and the funding process to reach that objective are set out in Section 15-155 of the SURS Article of the Illinois Pension Code.

The statutory funding policy set out in Section 15-155 of the Illinois Pension Code results in a near-term contribution requirement that is less than a reasonable actuarially determined contribution. We recommend the development and adherence to a funding policy that funds the normal cost of the plan as well as an amortization payment that would seek to pay off any unfunded accrued liability over a closed period at least as long as 15 years and no longer than 30 years. This letter does not certify that the funding method in the statute complies with generally accepted actuarial standards for the funding of retirement systems.

To the best of our knowledge, this actuarial statement is complete and accurate, fairly presents the actuarial position of SURS as of June 30, 2015, based on the data and actuarial techniques described above and applicable statutes, and has been prepared in accordance with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board, except where otherwise noted.

Future actuarial measurements may differ significantly from the current measurements presented in this valuation 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.

The signing actuaries are independent of the plan sponsor.

Amy Williams, Lance Weiss and David Kausch 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,

Amy Williams, ASA, MAAA

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Consultant

Lance Weiss, EA, MAAA

David Kausch, FSA, EA, MAAA

Senior Consultant

Pension Financing

The State Universities Retirement System of Illinois (SURS) is financed by non-employer contributing entity contributions (state appropriations), employee contributions, employer contributions (trust, federal and grant funds), and investment earnings. Employee contributions are established by the Illinois Compiled Statutes at 8% of pay. Investment earnings and state funding are primary determinants of the System's financial status.

Non-employer contributing entity and employer contributions are determined through annual actuarial valuations. Actuaries use demographic data (such as employee age, salary, and service credits), economic assumptions (such as estimated salary increases and interest rates), and decrement assumptions (such as employee turnover, mortality, and disability rates) in performing these valuations.

Under the Illinois Compiled Statutes (40 ILCS 5/15-155), the required employer contributions (statutory contribution) under the statutory funding plan are calculated by the actuaries on an annual basis. To determine the statutory contribution, the actuary calculates the actuarial accrued liability and the actuarial value of assets. The normal cost for the active members is equal to the portion of the actuarial accrued liability assigned to this year. Any shortfall between the actuarial value of assets and the actuarial accrued liability is referred to as the unfunded actuarial accrued liability. The unfunded actuarial accrued liability is amortized over a 30-year open amortization period.

Actuarial Asset Valuation

The actuarial value of assets is used in determining the funding progress of the System and in establishing the employer contribution rates necessary to adhere to the statutory funding plan. The actuarial value of assets is based on a smoothed expected income investment rate of 7.25%. Investment income in excess or shortfall of the expected 7.25% rate on fair value is smoothed over a five-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year. The use of this actuarial method began with the valuation for the period ending June 30, 2009, as required by Public Act 96-0043, which was signed into law on July 15, 2009.

Actuarial Cost Method

For financial reporting, the entry age actuarial cost method is applied in accordance with the Governmental Accounting Standards Board (GASB) Statements 67 and 68. For purposes of determining the System's funding calculation of the non-employer contributing entity and employer contribution, the projected unit credit cost method is used as required by Public Act 96-0043. Under this method, the projected pension at retirement age is first calculated and the value thereof at the individual member's current attained age is determined. The normal cost for the member for the current year is equal to the value so determined divided by the member's projected years of service at retirement. The employer normal cost for fiscal year 2015 was 11.71%. The actuarial liability at any point in time is the value of the projected pensions at that time less the value of future normal costs. For ancillary benefits for active members, in particular disability benefits, death and survivor benefits, termination benefits, and the postretirement increases, the same procedure as outlined above is followed. Estimated annual administrative expenses are added to the normal cost.

Employee Data

Employee data are provided by the administrative staff of the State Universities Retirement System. Various tests are applied to check internal consistency as well as consistency from year to year. No calculations are made for employees not yet hired as of the valuation date.

Valuation Results For Fiscal Year Ended June 30, 2015 (\$ millions)

Actuarial Liability Actuarial liability (reserves) For members receiving annuities \$ 26,042.4 28.2% For inactive members 2.338.4 Active Members For active members 11,139.9 5.9% ... Total 39.520.7 Inactive Members Actuarial value of assets 65.9% available for benefits 17,104.6 Annuitants Unfunded accrued actuarial liability \$ 22,416.1

As of June 30, 2015, the Unfunded Actuarial Accrued Liability (UAAL) to be amortized was \$22,416,080,000.

| Calculation of Actuarial Value of Assets Actuarial value of assets, July 1, 2014 | | \$15,844,713.7 |
|--|--|---|
| Net investment income/(loss) Less: projected investment income at 7.25% Investment income/(loss) in excess of projected Less: deferral to smooth asset values over 5 years Recognized investment income – current year Projected investment income Recognized investment loss – prior years Excess of contributions over disbursements | 503,200.0 1,245,500.8 (742,300.8) (593,840.7) | (148,460.1) 1,245,500.8 594,407.5 (431,555.2) |
| Actuarial value of assets, July 1, 2015 | | \$17,104,606.7 ——— |
| Analysis of Financial Experience For Fiscal Year Ended June 30, 2015 (\$ millions) | | |
| Investments other than 7.25% Salary increases other than 3.75% Age and service retirement differences Termination differences Mortality and disability differences Benefit recipient differences New entrants Other actuarial differences | | \$ (558.1) (45.3) (17.0) 8.0 (2.0) (2.0) 82.9 (68.8) |
| Total actuarial gain | | \$ (602.3) |
| Change in the Unfunded Actuarial Accrued Liability (\$ | s millions) | |
| Unfunded actuarial accrued liability at June 30, 2014 | | \$ 21,584.8 |
| Expected increase in unfunded actuarial accrued liability Impact of change in actuarial assumptions | | 460.7 972.9 |
| Total actuarial gain | | (602.3) |
| Unfunded actuarial accrued liability at June 30, 2015 | | \$ 22,416.1 |

Summary of Major Actuarial Assumptions

Interest

7.25% per annum, compounded annually (adopted by the SURS Board effective June 30, 2014) for funding purposes. The actuarial assumption rate credited to member accounts is 7.00% per annum (adopted by the SURS Board effective June 30, 2014).

■ Net Position

Assets available for benefits are used at market value.

■ Expenses

As estimated and advised by the SURS staff, based on current expenses with an allowance for expected increases.

The following assumptions were adopted by the SURS Board effective with the June 30, 2015 actuarial valuation. They were developed based upon an experience study completed in February 2015. These assumptions are the same for financial reporting and funding purposes.

Termination

Rates of withdrawal are based upon ages and years of service as developed from plan experience. Shown at right is a table of termination rates based upon experience in the 2010-2014 period. The assumption consists of a table of ultimate turnover rates by years of service credit.

■ Mortality

Mortality rates are based upon the RP2014 Mortality White Collar Table with gender distinct, projected using MP-2014 two dimensional mortality improvement scale, set forward one year for male and female annuitants.

Termination Rates

| Years of Service | All Members |
|------------------|-------------|
| 0 | .200 |
| 1 | .200 |
| 2 | .150 |
| 3 | .140 |
| 4 | .120 |
| 5 | .100 |
| 6 | .090 |
| 7 | .075 |
| 8 | .068 |
| 9 | .060 |
| 10 | .053 |
| 15 | .030 |
| 20-24 | .025 |
| 25-29 | .020 |
| | |

■ Salary 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 as shown at right.

The payroll of the entire system is assumed to increase at 3.75% per year for purposes of calculating employer required contributions.

■ Retirement Age

Upon eligibility, active members are assumed to retire as shown below.

■ Other Assumptions

The disability rates are graduated based on age. The Cost of Living Adjustment (COLA) 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 1.37% for members hired on or after January 1, 2011, based on the provision of increases equal to half of the increase in the Consumer Price Index with a maximum increase of 3.00%. The female spouse is assumed to be three years younger than the male spouse.

Annual Compensation Increases

| Years of Service | All Members |
|------------------|-------------|
| 0 | .1500 |
| 1 | .1200 |
| 2 | .0900 |
| 3 | .0725 |
| 4 | .0650 |
| 5 | .0600 |
| 6 | .0575 |
| 7 | .0550 |
| 8 | .0525 |
| 9 | .0500 |
| 10 | .0475 |
| 11 | .0450 |
| 12-13 | .0425 |
| 14-33 | .0400 |
| 34 & over | .0375 |

Retirement Rates

| Members Hired Before |
|----------------------------------|
| January 1, 2011 and Eligible for |

Members Hired On or After January 1, 2011 and Eligible for

| Age | Normal Retirement | Early Retirement | Normal Retirement | Early Retirement |
|----------|----------------------|---------------------|----------------------|---------------------|
| Under 50 | 50% | -% | -% | -% |
| 50 | 45 | - | - | - |
| 51 | 45 | - | - | - |
| 52 | 45 | - | - | - |
| 53 | 40 | - | - | - |
| 54 | 40 | - | - | - |
| 55 | 38 | 7.5 | - | - |
| 56 | 36 | 6.0 | - | - |
| 57 | 30 | 4.5 | - | - |
| 58 | 30 | 5.5 | - | - |
| 59 | 30 | 6.0 | - | - |
| 60 | 11 | - | - | - |
| 61 | 11 | - | - | - |
| 62 | 13 | - | - | 35 |
| 63 | 13 | - | - | 15 |
| 64 | 13 | - | - | 15 |
| 65 | 17 | - | - | 15 |
| 66 | 17 | - | - | 15 |
| 67 | 15 | - | 50 | - |
| 68 | 15 | - | 35 | - |
| 69 | 15 | - | 30 | - |
| 70-74 | 15 | - | 15 | - |
| 75-79 | 20 | - | 20 | - |
| 80+ | 100 | - | 100 | - |

Funding Objective

Beginning in fiscal year 1996 the required contribution rates were based upon Public Act 88-0593, which calls for a 15-year phase-in to a 35-year funding plan which provides for adequate annual funding of the employer's normal cost while amortizing the unfunded actuarial accrued liability. Annual funding under this plan will occur as a continuing appropriation. This method does not conform with the provisions of GASB 67 and 68 for financial reporting. The statutory funding plan requires the State to contribute annually an amount equal to a constant percent of payroll necessary to allow SURS to achieve a 90% funded ratio by fiscal year 2045, subject to any revisions necessitated by actuarial gains or losses, or actuarial assumptions.

Defined Benefit Plan

Employer Contributions Received in Fiscal Year 2015

| State appropriations | \$ 1,291,591,489 |
|---|-------------------------|
| State pension fund | 197,000,000 |
| Federal/trust/employer funds/other | 39,933,909 |
| Total | \$ 1,528,525,398 |
| Reconciliation to Total State Appropriations | |
| Defined benefit plan-State appropriations received | \$ 1,488,591,489 |
| Defined contribution plan-State appropriations received | 55,608,511 |
| Total State appropriations received | \$ 1,544,200,000 |

The projected required contribution rates and amounts are as follows:

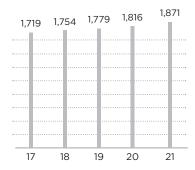
| | Assumed | Required | |
|--------|------------|---------------|---------------|
| Fiscal | Percentage | Payroll | Contribution |
| Year | of Payroll | (\$ billions) | (\$ millions) |
| 2017 | 37.3% | \$ 4.61 | \$ 1,718.9 |
| 2018 | 37.2% | 4.72 | 1,753.7 |
| 2019 | 36.8% | 4.84 | 1,779.2 |
| 2020 | 36.6% | 4.96 | 1,816.1 |
| 2021 | 37.0% | 5.09 | 1,871.1 |

The net State appropriation requirements can be determined by adjusting for such items as State Pension Fund appropriations and contributions from federal and trust funds. The results are based on the projected unit credit actuarial cost method, and on the data provided, and assumptions used, for the June 30, 2015 actuarial valuation. In order to determine projected contribution rates and amounts, the following additional assumptions and estimates were used:

- 1) Covered payroll of \$4.52 billion for fiscal year 2016.
- 2) 3.75% per annum rate of increase in covered payroll.
- 3) Total employer contributions of \$1,601,480,000 for fiscal year 2016.

Required Contribution

Dollars (millions) by FY



Schedule of Employer Contributions (\$ millions)

| Fiscal** | | Member | Net ER | Actual ER | ER Contributions | Total Contributions |
|----------|------------|---------------|----------|---------------|------------------|---------------------|
| Year | Total ADC* | Contributions | ADC | Contributions | as % of Net ADC | as % of Total ADC |
| 2006 | \$ 914.9 | \$ 252.9 | \$ 662.0 | \$ 180.0 | 27.2% | 47.3% |
| 2007 | 968.3 | 262.4 | 705.9 | 261.1 | 37.0 | 54.1 |
| 2008 | 971.6 | 264.1 | 707.5 | 344.9 | 48.8 | 62.7 |
| 2009 | 1,147.3 | 273.3 | 874.0 | 451.6 | 51.7 | 63.2 |
| 2010 | 1,278.3 | 275.0 | 1,003.3 | 696.6 | 69.4 | 76.0 |
| 2011 | 1,519.2 | 260.2 | 1,259.0 | 773.6 | 61.4 | 68.0 |
| 2012 | 1,701.6 | 258.2 | 1,443.3 | 985.8 | 68.3 | 73.1 |
| 2013 | 1,794.4 | 245.1 | 1,549.3 | 1,401.5 | 90.5 | 91.8 |
| 2014 | 1,843.6 | 283.1 | 1,560.5 | 1,502.9 | 96.3 | 96.9 |
| 2015 | 1,858.5 | 267.7 | 1,590.9 | 1,528.5 | 96.1 | 96.6 |

^{*}The source of this schedule is the annual actuarial valuation which is performed for each fiscal year listed.

In an inflationary economy, the value of dollars is decreasing. This environment results in employee pay increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded accrued liabilities increasing in dollar amounts, all at a time when the actual substance of these items may be decreasing. Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities dollars divided by active employee payroll dollars provides a helpful index which shows that the smaller the ratio of unfunded liabilities to active member payroll, the stronger the system. Observation of this relative index over a period of years will give an indication of whether the System is becoming financially stronger or weaker.

Summary of Accrued and Unfunded Accrued Liabilities (\$ millions)

| | | Net Assets at | Assets as a | Unfunded | | UAL as a |
|-------------|-------------|---------------------|--------------|-------------------|----------------|----------------|
| | Accrued | Market/Actuarial | % of Accrued | Accrued | Active | % of Active |
| Fiscal Year | Liabilities | Value of Assets (A) | Liabilities | Liabilities (UAL) | Member Payroll | Member Payroll |
| 2006 | \$ 21,688.0 | \$ 14,175.1 | 65.4% | \$ 7,513.8 | \$ 3,054.1 | 246.0% |
| 2007 | 23,362.1 | 15,985.7 | 68.4 | 7,376.4 | 3,181.0 | 231.9 |
| 2008 | 24,917.7 | 14,586.3 | 58.5 | 10,331.4 | 3,303.2 | 312.8 |
| 2009 | 26,316.2 | 14,282.0 | 54.3 | 12,034.2 | 3,463.9 | 347.4 |
| 2010 | 30,120.4 | 13,966.6 | 46.4 | 16,153.8 | 3,491.1 | 462.7 |
| 2011 | 31,514.3 | 13,945.7 | 44.3 | 17,568.6 | 3,460.8 | 507.6 |
| 2012 | 33,170.2 | 13,949.9 | 42.1 | 19,220.3 | 3,477.2 | 552.8 |
| 2013 | 34,373.1 | 14,262.6 | 41.5 | 20,110.5 | 3,533.9 | 569.1 |
| 2014 | 37,429.5 | 15,844.7 | 42.3 | 21,584.8 | 3,522.2 | 612.8 |
| 2015 | 39,520.7 | 17,104.6 | 43.3 | 22,416.1 | 3,606.5 | 621.5 |

(A) Per Public Act 96-0043, the actuarial value of assets is used in determining the funding progress of the System and in establishing the employer contribution rates necessary to adhere to the statutory funding plan. The actuarial value of assets is based on a smoothed investment income rate. Investment income in excess or shortfall of the expected 7.25% rate on fair value is smoothed over a five-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.

Unfunded Accrued Liabilities as a % of Payroll



An increasing trend indicates a system is becoming financially weaker.

^{**} Prior to 2014, the ADC was defined in GASB Statements 25 and 27 as the ARC (Annual Required Contribution). The ARC is now defined as the Actuarially Determined Contribution ("ADC").

Defined Benefit Plan Schedule of Funding Progress (\$ millions)

| Fiscal Year** | Actuarial Value of Assets (A) | Actuarial Accrued Liabilities | Unfunded Actuarial Accrued Liabilities | Funding Ratio | Covered Payroll | UAAL as % of Covered Payroll |
|------------------|-------------------------------------|-------------------------------------|---|------------------|--------------------|---------------------------------|
| 2006 | \$14,175.1 | \$ 21,688.0 | \$ 7,513.8 | 65.4% | \$ 3,054.1 | 246.0% |
| 2007 | 15,985.7 | 23,362.1 | 7,376.4 | 68.4 | 3,181.0 | 231.9 |
| 2008 | 14,586.3 | 24,917.7 | 10,331.4 | 58.5 | 3,303.2 | 312.8 |
| 2009 | 14,282.0 | 26,316.2 | 12,034.2 | 54.3 | 3,463.9 | 347.4 |
| 2010 | 13,966.6 | 30,120.4 | 16,153.8 | 46.4 | 3,491.1 | 462.7 |
| 2011 | 13,945.7 | 31,514.3 | 17,568.6 | 44.3 | 3,460.8 | 507.6 |
| 2012 | 13,949.9 | 33,170.2 | 19,220.3 | 42.1 | 3,477.2 | 552.8 |
| 2013 | 14,262.6 | 34,373.1 | 20,110.5 | 41.5 | 3,533.9 | 569.1 |
| 2014 | 15,844.7 | 37,429.5 | 21,584.8 | 42.3 | 3,522.2 | 612.8 |
| 2015 | 17,104.6 | 39.520.7 | 22,416.1 | 43.3 | 3,606.5 | 621.5 |

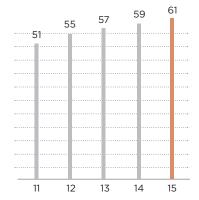
(A) Per Public Act 96-0043, beginning fiscal year 2009, measures of financial soundness will be calculated using an actuarial value of assets based on a smoothed investment income rate. Investment income in excess or shortfall of the expected 7.25% rate on fair value is smoothed over a five-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.

Schedule of Increases and Decreases of Benefit Recipients 10-Year Summary

Fiscal Beginning **Ending** Balance Additions Subtractions Balance Year 2006 39.800 3,140 1.302 41.638 2007 41,638 3,325 1,568 43,395 2008 43,395 3,498 1.547 45,346 2009 3,017 1,553 46,810 45,346 2010 46,810 3,599 1,506 48,903 4,207 2011 48,903 1,740 51,370 2012 51.370 4.782 1.620 54.532 2013 54,532 4,529 1,832 57,229 2014 57,229 4,073 1,896 59,406 2015 59,406 3,511 1,897 61,020

Benefit Recipients

Persons (thousands) by FY



Active Participant Statistics 10-Year Summary

| Fiscal Year | Males | Females | Total Actives | Percent Change | Average Salary | Percent Change | Average Age | Average Service Credit |
|----------------|--------|---------|------------------|-------------------|-------------------|-------------------|----------------|------------------------------|
| 2006 | 31,024 | 40,735 | 71,759 | 0.1% | 40,696 | 3.8% | 47.0 | 9.8 |
| 2007 | 31,019 | 41,073 | 72,092 | 0.5 | 42,373 | 4.1 | 47.0 | 9.8 |
| 2008 | 31,158 | 41,928 | 73,086 | 1.4 | 43,460 | 2.6 | 47.0 | 9.8 |
| 2009 | 31,185 | 42,514 | 73,699 | 0.8 | 45,204 | 4.0 | 47.3 | 9.9 |
| 2010 | 30,935 | 42,061 | 72,996 | (1.0) | 45,988 | 1.7 | 47.4 | 10.1 |
| 2011 | 30,448 | 41,440 | 71,888 | (1.5) | 46,402 | 0.9 | 47.4 | 10.1 |
| 2012 | 30,198 | 40,858 | 71,056 | (1.2) | 47,167 | 1.6 | 47.1 | 9.8 |
| 2013 | 29,963 | 40,593 | 70,556 | (0.7) | 48,276 | 2.4 | 47.1 | 9.9 |
| 2014 | 29,423 | 40,013 | 69,436 | (2.3) | 48,893 | 3.7 | 47.1 | 9.8 |
| 2015 | 29,420 | 39,961 | 69,381 | (2.4) | 50,103 | 6.2 | 47.2 | 10.0 |

Analysis of Change in Membership 10-Year Summary

| Fiscal Year | Beginning Members | Additions | Retired | Died | Other Terminations | Ending Members |
|----------------|----------------------|-----------|---------|------|-----------------------|-------------------|
| 2006 | 71,662 | 10,199 | 1,864 | 160 | 8,078 | 71,759 |
| 2007 | 71,759 | 10,021 | 1,749 | 173 | 7,766 | 72,092 |
| 2008 | 72,092 | 10,548 | 1,903 | 88 | 7,563 | 73,086 |
| 2009 | 73,086 | 9,610 | 1,484 | 120 | 7,393 | 73,699 |
| 2010 | 73,699 | 8,341 | 1,761 | 115 | 7,168 | 72,996 |
| 2011 | 72,996 | 8,434 | 2,200 | 106 | 7,236 | 71,888 |
| 2012 | 71,888 | 9,739 | 2,553 | 110 | 7,908 | 71,056 |
| 2013 | 71,056 | 9,188 | 1,811 | 118 | 7,759 | 70,556 |
| 2014 | 70,556 | 8,962 | 2,098 | 91 | 7,893 | 69,436 |
| 2015 | 69,436 | 9,021 | 1,425 | 102 | 7,549 | 69,381 |

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls - Defined Benefit Plan 10-Year Summary

| | Beginning | Number | Number | | | End of | | Average | % Increase |
|---------|-----------|----------|--------------|-----------|--------------|---------|-----------------|-----------|------------|
| Fiscal | of Year | Added | | Removed | | Year | Pension Benefit | Annual | in Average |
| Year | Balance | to Rolls | Allowances f | rom Rolls | Allowances | Balance | Amount | Benefit | Benefit |
| 2006 | 39,800 | 3,140 | - | 1,302 | - | 41,638 | \$1,067,075,275 | \$ 25,627 | 3.7% |
| 2007 | 41,638 | 3,325 | - | 1,568 | - | 43,395 | 1,155,124,989 | 26,619 | 3.9 |
| 2008 | 43,395 | 3,498 | - | 1,547 | - | 45,346 | 1,254,030,795 | 27,655 | 3.9 |
| 2009(A) | 45,346 | 3,017 | 127,710,300 | 1,553 | (30,203,460) | 46,810 | 1,351,537,635 | 28,873 | 4.4 |
| 2010 | 46,810 | 3,599 | 139,122,054 | 1,506 | (33,710,616) | 48,903 | 1,454,470,195 | 29,742 | 3.0 |
| 2011 | 48,903 | 4,207 | 169,921,275 | 1,740 | (40,835,477) | 51,370 | 1,619,615,689 | 31,528 | 6.0 |
| 2012 | 51,370 | 4,782 | 191,103,116 | 1,620 | (39,279,398) | 54,532 | 1,771,439,407 | 32,484 | 3.0 |
| 2013 | 54,532 | 4,529 | 184,293,143 | 1,832 | (46,183,430) | 57,229 | 1,909,495,120 | 33,366 | 2.7 |
| 2014 | 57,229 | 4,073 | 166,748,080 | 1,896 | (51,879,123) | 59,406 | 1,984,416,426 | 33,404 | 0.1 |
| 2015 | 59,406 | 3,511 | 158,067,006 | 1,897 | (53,610,853) | 61,020 | 2,112,232,940 | 34,615 | 3.7 |

⁽A) FY 2009 is the first year in which the allowances related to retirees added to or removed from the rolls have been calculated as part of the actuarial valuation.

TESTS OF FINANCIAL SOUNDNESS

The following four exhibits illustrate different measures of the financial soundness of the System. The Schedule of Funding compares State appropriations to the actuarial funding requirements, statutory funding requirement, and System expense.

Schedule of Funding: Fiscal Year 2006-2015 (\$ millions)

| _ | | Funding Req | uirements | Covered Percentages | | | |
|----------------|-------------------------|----------------------|-----------------------------|------------------------------------|------------------------|----------------------|-----------------------------|
| Fiscal Year | Gross ADC {1} (A) | Net ADC {2}(B) | System Expense {3}(C) | Employer Contribution {4}(D) | Gross ADC {5}(E) | Net ADC {6}(F) | System Expense {7}(G) |
| 2006 | \$ 914.9 | \$ 662.0 | \$1,097.4 | \$ 180.0 | 19.7% | 27.2% | 16.4% |
| 2007 | 968.3 | 705.9 | 1,189.1 | 261.1 | 27.0 | 37.0 | 22.0 |
| 2008 | 971.6 | 707.5 | 1,287.8 | 344.9 | 35.5 | 48.8 | 26.8 |
| 2009 | 1,147.3 | 874.0 | 1,384.9 | 451.6 | 39.4 | 51.7 | 32.6 |
| 2010 | 1,278.3 | 1,003.3 | 1,489.6 | 696.6 | 54.5 | 69.4 | 46.8 |
| 2011 | 1,519.2 | 1,259.0 | 1,623.5 | 773.6 | 50.9 | 61.4 | 47.6 |
| 2012 | 1,701.6 | 1,443.3 | 1,756.9 | 985.8 | 57.9 | 68.3 | 56.1 |
| 2013 | 1,794.4 | 1,549.3 | 1,928.0 | 1,401.5 | 78.1 | 90.5 | 72.7 |
| 2014 | 1,843.6 | 1,560.5 | 2,016.7 | 1,502.9 | 81.5 | 96.3 | 74.5 |
| 2015 | 1,858.5 | 1,622.6 | 2,144.0 | 1,528.5 | 82.2 | 96.1 | 71.3 |

- (A) Prior to 2014, the ADC (Actuarially Determined Contribution) was defined in GASB Statements 25 and 27 as the ARC (Annual Required Contribution).
- (B) The annual required contribution per Note A, less member contributions.
- (C) Benefit and administrative expense.
- (D) Contributions from The State of Illinois employer units and Pension Fund, and employer contributions from trust and federal funds.
- (E) Employer contributions divided by the total required contribution (Column 4 divided by Column 1).
- (F) Employer contributions divided by the employer required contribution (Column 4 divided by Column 2).
- (G) Employer contributions divided by System expense (Column 4 divided by Column 3).

The Funding Ratios exhibit shows the percentage of the System's accrued benefit cost covered by net position. This funding ratio is used to assess the System's ability to make future benefit payments. The exhibit illustrates the ratio of net position to the System's accrued benefit cost over 10 years, with net position valued both at cost and at market.

Funding Ratios 10-Year Summary (\$ millions)

| | Net Position | Net Position at Market/ | Actuarial Funding | Func | Funding Ratio | | | |
|-------------|--------------|-------------------------------|-------------------|-------|------------------|--|--|--|
| Fiscal Year | at Cost | Actuarial Value of Assets (A) | Requirement | Cost | Market/Actuarial | | | |
| 2006 | \$ 13,414.9 | \$ 14,175.1 | \$ 21,688.9 | 61.9% | 65.4% | | | |
| 2007 | 14,089.0 | 15,985.7 | 23,362.1 | 60.3 | 68.4 | | | |
| 2008 | 14,282.3 | 14,586.3 | 24,917.7 | 57.3 | 58.5 | | | |
| 2009 | 12,485.0 | 14,282.0 | 26,316.2 | 47.4 | 54.3 | | | |
| 2010 | 12,672.7 | 13,966.6 | 30,120.4 | 42.1 | 46.4 | | | |
| 2011 | 13,302.2 | 13,945.7 | 31,514.3 | 42.2 | 44.3 | | | |
| 2012 | 12,806.2 | 13,949.9 | 33,170.2 | 38.6 | 42.1 | | | |
| 2013 | 13,347.7 | 14,262.6 | 34,373.1 | 38.8 | 41.5 | | | |
| 2014 | 14,234.5 | 15,844.7 | 37,429.5 | 38.0 | 42.3 | | | |
| 2015 | 14,930.0 | 17,104.6 | 39,520.7 | 37.8 | 43.3 | | | |

(A) Per Public Act 96-0043, the actuarial value of assets is used in determining the funding progress of the System and in establishing the employer contribution rates necessary to adhere to the statutory funding plan. The actuarial value of assets is based on a smoothed investment income rate. Investment income in excess or shortfall of the expected 7.25% rate on fair value is smoothed over a five-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.

TESTS OF FINANCIAL SOUNDNESS

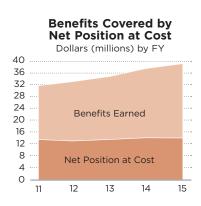
The Percentage of Benefits Covered by Net Position exhibit compares the plan's net position with the members' accumulated contributions, the amount necessary to cover the present value of benefits currently being paid, and the employer's portion of future benefits for active members.

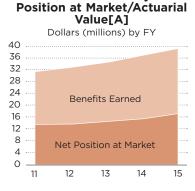
Percentage of Benefits Covered by Net Position 10-Year Summary (\$ millions)

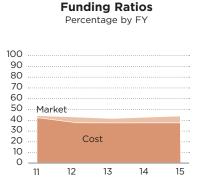
| Fiscal | Member Accumulated Contributions | Members Currently Receiving Benefits | Active/Inactive Members/ Employers' Portion | Net Position/ Actuarial Value of | % of Benefits Covered by Net Position/Actuarial Value of Assets | | |
|--------|--|---|---|--|--|----------|-----|
| Year | {1}(A) | {2}(A) | {3}(A) | Assets (B) | {1} | {2} | {3} |
| 2006 | \$ 4,957.3 | \$ 11,701.3 | \$ 5,030.4 | \$ 14,175.1 | 100.0% | 78.8% | - |
| 2007 | 5,239.9 | 12,838.1 | 5,284.1 | 15,985.7 | 100.0 | 83.7 | - |
| 2008 | 5,426.8 | 13,978.1 | 5,512.8 | 14,586.3 | 100.0 | 65.5 | - |
| 2009 | 5,688.9 | 14,802.6 | 5,824.7 | 14,282.0 | 100.0 | 58.1 | - |
| 2010 | 5,916.3 | 16,834.4 | 7,369.7 | 13,966.6 | 100.0 | 47.8 | - |
| 2011 | 6,007.4 | 18,918.1 | 6,588.8 | 13,945.7 | 100.0 | 42.0 | - |
| 2012 | 5,962.4 | 20,651.4 | 6,556.4 | 13,949.9 | 100.0 | 38.7 | - |
| 2013 | 5,830.1 | 22,099.9 | 6,443.1 | 14,262.6 | 100.0 | 38.2 | - |
| 2014 | 6,094.9 | 24,388.6 | 6,946.0 | 15,844.7 | 100.0 | 40.0 | - |
| 2015 | 6,196.6 | 26,042.4 | 7,281.7 | 17,104.6 | 100.0 | 41.9 (C) | - |

- (A) A test of financial soundness of the System is its ability to pay all promised benefits when due. The columns are in the order that assets would be used to cover certain types of obligations. Column 1 represents the value of members' accumulated contributions, which would be refunded first. Column 2 represents the amounts necessary to pay participants currently receiving benefits, which would be covered next. Column 3 represents the employer's portion of future benefits for active members, which would be covered last. If a System is receiving the actuarially determined contribution amounts, the total of the actuarial values in Columns 1 and 2 should generally be fully covered by assets, and the portion of the actuarial values of Column 3 covered by assets should increase over time.
- (B) Per Public Act 96-0043, the actuarial value of assets is used in determining the funding progress of the System and in establishing the employer contribution rates necessary to adhere to the statutory funding plan. The actuarial value of assets is based on a smoothed investment income rate. Investment income in excess or shortfall of the expected 7.25% rate on fair value is smoothed over a five-year period with 20% of a year's excess or shortfall being recognized each year beginning with the current year.
- (C) Per Public Act 96-0043, beginning fiscal year 2009, measures of financial soundness will be calculated using an actuarial value of assets based on a smoothed investment income rate. If the market value of net position is used for fiscal year 2015, the Category (2)(A) Members Currently Receiving Benefits would increase to 43.1%.

Benefits Covered by Net







TESTS OF FINANCIAL SOUNDNESS

The final test, Payroll Percentages, compares member payroll to unfunded accrued benefit cost, normal cost, and total required contributions.

Payroll Percentages: Fiscal Year 2006-2015 (\$ millions)

| | | | d Accrued fit Cost | Employer Cost | | | | | | Employer Contributions | |
|--------|------------|------------|-----------------------|---------------|--------------|-------------|----------|---------|----------|---------------------------|--|
| | | | | | Amortization | | | | | | |
| Fiscal | Member | | % of | Normal | % of | of Unfunded | Total | % of | Emp | % of | |
| Year | Payroll | Amount | Payroll | Cost (A) | Payroll | Liability | (B) | Payroll | Cont | Payroll | |
| 2006 | \$ 3,054.1 | \$ 7,513.8 | 246.0% | \$ 292.3 | 9.6% | \$ 622.6 | \$ 914.9 | 30.0% | \$ 180.0 | 5.9% | |
| 2007 | 3,181.0 | 7,376.4 | 231.9 | 301.4 | 9.5 | 666.9 | 968.3 | 30.4 | 261.1 | 8.2 | |
| 2008 | 3,303.2 | 10,331.4 | 312.8 | 310.4 | 9.1 | 671.9 | 971.6 | 29.4 | 344.9 | 10.4 | |
| 2009 | 3,463.9 | 12,034.2 | 347.4 | 317.9 | 9.2 | 829.4 | 1,147.3 | 33.1 | 451.6 | 13.0 | |
| 2010 | 3,491.1 | 16,153.8 | 462.7 | 355.4 | 10.2 | 922.9 | 1,278.3 | 36.6 | 696.6 | 20.0 | |
| 2011 | 3,460.8 | 17,568.6 | 507.6 | 463.6 | 13.4 | 1,055.6 | 1,519.2 | 43.9 | 773.6 | 22.4 | |
| 2012 | 3,477.2 | 19,220.3 | 552.8 | 465.6 | 13.4 | 1,236.0 | 1,701.6 | 48.9 | 985.8 | 3 28.4 | |
| 2013 | 3,533.9 | 20,110.5 | 569.1 | 454.6 | 12.9 | 1,339.9 | 1,794.4 | 50.8 | 1,401.5 | 39.7 | |
| 2014 | 3,522.2 | 21,584.8 | 612.8 | 415.1 | 11.8 | 1,428.5 | 1,843.6 | 52.3 | 1,502.9 | 42.7 | |
| 2015 | 3,606.5 | 22,416.1 | 621.5 | 462.3 | 12.8 | 1,396.2 | 1,858.5 | 51.6 | 1,528.5 | 42.4 | |

⁽A) Actuarially determined normal cost less member contributions.

CHANGES IN PLAN PROVISIONS

The former Governor Quinn signed on December 29, 2014, Public Act 98-0113, which clarifies that the Illinois attorney general can bring civil action to enjoin the payment of pension benefits to any person convicted of a felony in relation to his or her service as an employee under the Illinois Pension Code. This legislation became effective on June 1, 2015.

In addition, former Governor Quinn signed on December 30, 2014, Public Act 98-1144. This legislation exempts SURS retirees who receive an annualized retirement annuity of less than \$10,000 from the provisions of the Return to Work Policy for Affected Annuitants.

The Return to Work Policy for Affected Annuitants (40 ILCS 5/15-139.5) provides that if a SURS employer hires a SURS annuitant in a position in which the SURS annuitant earns more than 40% of his or her highest annual earnings prior to retirement, then the SURS employer must pay an amount equal to the affected annuitant's annual retirement annuity to SURS. Public Act 98-1144 became effective on June 1, 2015.

⁽B) Prior to 2014, the ADC was defined in GASB Statements 25 and 27 as the ARC (Annual Required Contribution).