

Commission on Government Forecasting and Accountability

PENSION IMPACT NOTE 103RD General Assembly

BILL NO: **HB 4873, as amended by HA 001** April 12, 2024

SPONSOR (S): Kifowit

SYSTEM: Five State-funded Retirement Systems (SERS, SURS, TRS, JRS, and

GARS), Downstate Police, Downstate Firefighters, Chicago Police, Chicago Firefighters, Chicago Teachers' Pension Fund (CTPF), and

Illinois Municipal Retirement Fund (IMRF)

FISCAL IMPACT

An actuarial study has been performed on the major provisions of HB 4873, as amended by HA 001, by the Commission's consulting actuary, Segal Consultants. The change in State Contributions to the Big 3 State Systems (TRS, SURS, and SERS) resulting from the benefit changes set forth in HB 4873, as amended by HA 001, is shown below for FY 2026 – FY 2045. For the full actuarial study, please refer to Appendix I.

| State Contribution (Saving (\$ in M | _ | rough FY | 2045 | |
|---------------------------------------|-----------|----------|---------|-----------|
| | TRS | SERS | SURS | Total |
| Baseline | - | - | - | - |
| Change #1 - Tier 2 Salary Cap to SSWB | \$2,959 | \$1,197 | \$642 | \$4,798 |
| Change #2 - Tier 2 COLA Update | \$151 | \$10 | \$34 | \$195 |
| Change #4 - DROP Implementation (3- | | | | |
| Year Offer) | \$85 | \$38 | \$40 | \$163 |
| Change #5 - Additional \$500 M | | | | |
| Contributions | (\$2,381) | (\$926) | (\$880) | (\$4,187) |
| Change #7 - Tier 2 NRA Update | \$2,179 | \$511 | \$366 | \$3,056 |
| Change #8 - Members of Depts of Human | | | | |
| Services and Lottery Eligible for | | | | |
| Alternate SERS Benefit | - | \$48 | - | \$48 |
| Combined Changes | \$3,420 | \$983 | \$231 | \$4,634 |

<u>SUBJECT MATTER</u>: HB 4873, as amended by HA 001, is a pension reform omnibus bill that adjusts various components of the Tier 2 benefit structure of the five State-funded Retirement Systems, Downstate Police & Fire Systems, Chicago Police & Fire Systems, the Chicago Teachers' Pension Fund, and the Illinois Municipal Retirement Fund. Each change is summarized below in the Comment Section.

COMMENT:

*All provisions of HB 4873, as amended by HA 001, would become effective July 1, 2025.

Increasing the Tier 2 Pensionable Salary Cap to Social Security Wage Base in SERS, SURS, TRS, GARS, JRS, & the Chicago Teachers' Pension Fund (CTPF)

Current Law

- Currently, the Tier 2 pensionable salary cap is equal to \$125,773.73.
 - o Members do not make contributions on wages above the cap.
- The Tier 2 cap is increased annually by the lesser of:
 - o 3%; or
 - o ½ the increase in CPI-U for preceding 12 months.
 - If CPI-U = 0, no increase is paid.

HB 4873, as amended by HA 001

Under HB 4873, as amended by HA 001, the Tier 2 pensionable salary cap for the State Systems and CTPF is brought into line with the Social Security Wage Base (SSWB), which as of 2024 is \$168,600. The bill provides a 3-year "ramp" from the current Tier 2 pensionable salary cap to the SSWB, to take place during Calendar Years 2026 – 2029. Beginning on Jan. 1, 2029, the Tier 2 pensionable salary cap will be equal to the Social Security Wage Base.

- The bill specifies that the "wage base adjustment" shall mean the product that results from multiplying the difference between the federal Social Security Wage Base for the coming calendar year and the then-current Tier 2 pensionable salary cap by the "smoothing factor" for that calendar year, as shown below:
 - 1. For calendar year 2026, 25%;
 - 2. For calendar year 2027, 50%; and
 - 3. For calendar year 2028, 75%.

Change to the Tier 2 Automatic Annual Increase for SERS, SURS, TRS, JRS, GARS, & CTPF

Current Law

- SERS, SURS, TRS, and CTPF Tier 2 automatic annual increases are non-compounded, and are calculated at the lesser of:
 - o 3%; or
 - o ½ the annual unadjusted percentage increase (not less than zero) in the CPI-U.
 - o If the increase in CPI-U is 0, no increase is payable
- JRS & GARS Tier 2 automatic annual increases are compounded, and are calculated at the lesser of:
 - o 3%; or
 - o The annual unadjusted percentage increase in the CPI-U.
- Tier 2 COLA's are payable at the latter of age 67 or the first anniversary of retirement.

HB 4873, as amended by HA 001

- Beginning January 1, 2026, both active and retired Tier 2 members of SERS, TRS, SURS, GARS, JRS, and CTPF shall receive a simple 3% annual increase starting on the January 1 occurring after the first anniversary of the member's annuity start date;
 - o GARS & JRS members will still receive their 3% compounded increase.
 - o GARS members may receive their initial COLA in July if it occurs first following the first anniversary of retirement).
- The COLA change is prospective only; the bill does not provide for a recalculation of any Tier 2 COLAs already paid.

Change to the Tier 2 Automatic Annual Increase for Downstate Police, Downstate Firefighters, Chicago Police, & Chicago Firefighters

Current Law

- Currently, Downstate Police, Downstate Firefighters, Chicago Police, and Chicago Firefighters' Tier 2 automatic annual increases are non-compounded, and are calculated at the lesser of:
 - o 3%;
 - o ½ the annual unadjusted percentage increase (not less than zero) in the CPI-U;
 - o If the increase in CPI-U is 0, no increase is payable.
- Tier 2 COLAs are payable at the latter of age 60 or the first anniversary of retirement.

HB 4873, as amended by **HA 001**

• Beginning January 1, 2026, both active and retired Tier 2 members of the Downstate Police, Downstate Firefighters, Chicago Police and Chicago Firefighters systems shall

receive a simple 3% annual increase, payable on the latter of age 60 or the first anniversary of retirement.

Accelerated Pension Benefit for GARS, JRS, & CTPF

Current Law

- PA 100-0587 implemented an accelerated pension benefit payment in lieu of any pension benefit for SERS, SURS, & TRS ("Total Buyout"), as follows:
 - o Inactive vested Tier 1 & Tier 2 members may elect to receive an accelerated pension payment equal to 60% of the present value of the member's pension benefits in lieu of receiving a traditional retirement annuity.
- PA 100-0587 also established an accelerated pension benefit for a <u>reduction</u> in annual Tier 1 retirement annuity and survivor's annuity increases in SERS, SURS, and TRS ("COLA Buyout"), as follows:
 - A member may elect to receive a lump sum payment equal to 70% of the difference of the present value of the Tier One 3% compounded COLA and the present value of a reduced COLA (simple 1.5%); and
 - Annual increases begin on the January 1 occurring on or after the first anniversary of retirement.
- If an eligible member returns to service, all benefits earned are based solely on service after returning; the accelerated payment may not be repaid and credit cannot be reinstated.
- P.A. 102-0718 extended the sunset date of the two buyout programs to June 30, 2026.

HB 4873, as amended by HA 001

- HB 4873, as amended by HA 001, establishes both a "Total Buyout" and "COLA Buyout" plan within GARS, JRS, and CTPF;
- The buyout plans mirror the existing plans in SERS, SURS, & TRS, except that:
 - Funding for the buyout programs will come from the General Revenue Fund and not from proceeds from the State Pension Obligation Acceleration Bonds, as is the case with the existing buyout programs; and
 - The reduced COLA under the COLA Buyout plan is payable on the first anniversary of retirement or age 67, whichever is later.
- HB 4873, as amended by HA 001, establishes June 30, 2027 as the sunset date for the GARS, JRS, and CTPF buyout programs.

<u>Deferred Retirement Option Plan (DROP) for SERS, SURS, TRS, CTPF, IMRF, and Downstate</u> Fire & Downstate Police

DROP Explanation

- Deferred Retirement Option Plans (DROP) are designed to encourage continued employment past the eligible retirement age for a period of time (usually 3-5 years). Below is a summary of the salient features of DROP plans:
 - Workers continue to draw a salary but are considered retired (for annuity purposes);
 - The pension annuity amount the worker is entitled to starting at the date they are considered "retired" (DROP date) is credited to the member's individual DROP account; and
 - Upon completion of the DROP period, the member's DROP account balance is available as lump-sum amount, which can be distributed in any of the following ways:
 - a one-time payment;
 - a payment plan over time;
 - a payment rolled into an IRA.

HB 4873, as amended by HA 001 DROP Provisions

- No later than January 1, 2026, a DROP plan will be made available in SERS, SURS, TRS, CTPF, Downstate Police & Fire, and IMRF for both Tier 1 and Tier 2 members. Eligible participants must meet the following criteria:
 - The member must be eligible to retire with a full and unreduced pension as determined by the pertinent system;
 - The member must not be in receipt of a disability or retirement annuity at the time of election:
 - The member must be actively employed in a position that is covered under a collective bargaining agreement; and
 - DROP participants must make active member contributions to the pertinent fund for the entirety of the DROP period. DROP participants do not accrue additional service credit during the DROP period.
- Participation in the DROP must be elected by the eligible members no later than January 1, 2029 and is irrevocable, unless:
 - The DROP participant terminates employment prior to the expiration of the designated DROP period;
 - The DROP participant becomes eligible for and begins collecting a disability benefit from the pension fund or retirement system;
 - o The death of the DROP participant occurs during the designated DROP period;
- The DROP duration is not to exceed 5 years.
- SERS, SURS, TRS, and CTPF will administer individual DROP accounts for the DROP participants within their respective systems. Individual DROP accounts for Downstate Fire & Police and IMRF participants will be administered by the pertinent fund, unless the responsibility for the DROP administration is transferred to the State Treasurer through an affirmative vote of the board of trustees of the pertinent fund.

- Individual DROP accounts shall consist of:
 - The monthly retirement annuity the participant would have been eligible to receive
 if the participant had terminated service on the date of participation in the DROP,
 as well as any benefits from a reciprocal system;
 - o Employee contributions paid by the participant during the DROP period; and
 - o Any auto-increases the member would have been eligible to receive if the participant had terminated service on the date he or she entered the DROP.
- Upon expiration or termination of the member's participation in the DROP, the member will receive the retirement annuity that they would have received had they retired on the date they entered the DROP with applicable automatic increases accrued during the DROP duration, plus the balance in their individual DROP account.
 - Expiration or termination of a DROP member's participation in the DROP may not occur after January 1, 2034.

Additional Funding to Pension Unfunded Liability Reduction Fund

HB 4873, as amended by HA 001, amends the General Obligation Bond Act, such that every fiscal year after all bonds authorized by PA 93-0002 are retired in FY 2033, the State Comptroller shall order and the State Treasurer shall transfer \$500 million from the General Revenue Fund to the newly created Pension Unfunded Liability Reduction Fund for each fiscal year (as of January 31, 2024, \$9.92 billion of debt service from the 2003 POB issuance was outstanding). This fund shall be used to make additional contributions to the five State-funded systems plus CPTF based on the pro rata share of the State's annual obligation to each pension fund relative to the total contribution to all 6 pension funds for the ensuing fiscal year.

Pursuant to P.A. 100-0465, which became effective on August 31, 2017, the State currently pays an amount equal to the CTPF employer normal cost on an annual basis. Under the Act, these State contributions to CTPF began in FY 2019.

Closure of GARS & JRS in 2027

HB 4873, as amended by HA 001, closes the window to join GARS & JRS after Jan 13, 2027. Active participants in GARS & JRS may elect to terminate participation in the system and transfer up to 10 years of accumulated service credit from GARS or JRS to SERS. The payment amount required for such service credit transfer will be equal to the amount of employee and employer contributions that would have been required had the member participated in SERS, plus interest at the service credit purchase rate of 6.5%, from the date of service to the date of payment, and those contributions must be paid no later than 10 years after the election.

HB 4873, as amended by HA 001, also allows active participants in GARS & JRS to elect to terminate <u>all</u> participation in the system and transfer all credits and creditable service to SERS upon payment of an amount equal to:

- The difference between the actual funds transferred and the employer & employee contributions that would have been required had they participated in SERS during the period, plus interest at the 6.5% service credit purchase rate; and
- 6.5% interest thereon from the start date of participation in SERS to the date of payment.

Adjustment of Tier 2 Age & Service Requirements in SERS, SURS, TRS, & CTPF

Current Law

• Tier 2 members in the aforementioned systems are entitled to a retirement annuity upon written application if they have attained age 67 and have at least 10 years of service credit. Tier 2 members can also retire at age 62, with annuities reduced by ½ of 1% for each month under age 67.

HB 4873, as amended by HA 001

- The bill makes changes to the age at which Tier 2 members in SERS, SURS, TRS, and CTPF may retire with an unreduced annuity, as follows:
 - o Age 62 with at least 35 years of service credit;
 - o Age 64 with at least 20 years of service credit;
 - o Age 67 with at least 10 years of service credit.
- The early retirement reduction for Tier 2 members who retire at age 62 under current law would remain in force.
- Beginning July 1, 2025, a Tier 2 member of SURS with twenty years of service as a police officer or firefighter is entitled to an unreduced retirement annuity at age 55. This change would bring the retirement age for Tier 2 SURS public safety personnel into line with the retirement age granted to Tier 2 police officers in SERS under P.A. 102-0719, which took effect on May 6, 2022.

Alternative Formula Eligibility for Investigators/Security Employees of the Departments of Lottery and Human Services

Current Law

The chart below details the current SERS Alternative Formula eligibility status of security employees and investigators employed the Department of Human Services and the Illinois State Lottery:

| | Alternative Formula Participation for Security Employees of the Departments of Human Services and Lottery | | | | | | | |
|---------------------------------------|---|----|--|--|--|--|--|--|
| Security Employee / Investigator for: | Tier I Tier 2 | | | | | | | |
| Department of Human Services | Yes | No | | | | | | |
| Department of the Lottery | No | No | | | | | | |

The current retirement requirements for the above-mentioned employees are detailed in the chart on the next page:

| Retirement Req | uiremen | ts for Emplo | yees Current | ly Ineligible | for the Alterna | tive Formula |
|--|---------|---------------------|----------------------|---------------|---|--|
| Employee | Tier | SS- Coordinated? | Contribution Rate | Multiplier | Full Retirement | Reduced Retirement |
| DHS Security Employee | 2 | Yes | 4% | 1.67% | Age 67 with 10 years service credit | Ages 62-67 with 10 years (Reduced 1/2 of 1% every year under age 67) |
| Investigator for the Dept. of Lottery | 1 | No | 8% | 2.20% | years of service | Ages 55-60 with 25-30 years (Reduced 1/2 of 1% every year under age 60) |
| Investigator for the Dept. of Lottery | 2 | No | 8% | 2.20% | Age 67 with 10 years service credit | Ages 62-67 with 10 years (Reduced 1/2 of 1% every year under age 67) |

HB 4873, as amended by HA 001

HB 4873, as amended by HA 001, amends the Illinois Pension Code to allow participation in the SERS Alternative Formula for Tier 1 and Tier 2 investigators for the Department of the Lottery, and for Tier 2 DHS security employees

HB 4873, as amended by HA 001, allows affected Department of Human Services (DHS) Tier 2 security employees to convert up to 12 years of regular formula service credit as a Human Services security employee into alternative formula service no later than 2 years after the effective date of the bill. Members must pay an amount equal to the difference between the employee contributions for that period of service and the amounts that would have been contributed had the member been participating in the alternative formula, plus interest at the service credit purchase rate of 6.5%, compounded annually, from the date of service to the date

of payment. The bill does not require the payment of the employer's normal cost for the periods of regular formula service that the member wishes to upgrade.

<u>Alternative Formula Participation for Certain Security Employees of the Department of Juvenile</u> Justice

Currently, in order for a security employee of the Department of Juvenile Justice to participate in the SERS alternative formula, the employee must be employed in a position at a DJJ facility and have involvement in areas such as training of delinquent youths, providing rehabilitative and vocational training, and assisting other personnel who perform these duties. Additionally, the employee must:

- Be over the age of 21; and
- Possess a high school diploma or equivalent and either:
 - o A bachelor's or advanced degree from an accredited college or university; or
 - o 2 or more years of experience providing direct care to youth in the form of residential care, coaching, case management, or mentoring.

HB 4873, as amended by HA 001, stipulates that the bachelor's or advanced degree requirement shall no longer determine eligibility for the alternative formula for the above-mentioned positions at DJJ. Affected employees may convert their prior regular formula service to alternative formula service by paying the difference between the employee contributions for that period of service and the amounts that would have been contributed had the member been participating in the alternative formula from the date of service to the date of payment. The member is not required to pay the employer's normal cost nor interest for the period of service they wish to upgrade.

<u>Placing Downstate Police & Fire Articles Under the Ambit of the Retirement Systems Reciprocal</u>
Act

Current Law

Under current law, the Downstate Police and Downstate Firefighters' Articles of the Illinois Pension code are not included under the Retirement Systems Reciprocal Act, although reciprocity exists between the funds within each respective article (e.g., members of Downstate police funds can utilize reciprocity with other Downstate Police Funds). The Retirement Systems Reciprocal Act allows for active employees to combine service credit earned from various participating systems to apply towards the minimum vesting requirements of the fund that they participate in currently or the fund that they last participated in before terminating active service. For example, a Tier 2 member in IMRF could utilize reciprocity and combine 4 years of prior service in SERS and 6 years in IMRF to meet the 10-year Tier 2 vesting requirement in IMRF.

HB 4873, as amended by **HA** 001

HB 4873, as amended by HA 001, would place the Downstate Police and Downstate Firefighters' Articles of the Illinois Pension Code under the ambit of the Reciprocal Act. The bill states that participation under the Reciprocal Act would only apply to members who have not yet begun receiving retirement annuities as of the effective date. In other words, retired members would not be entitled to a recalculation of their pensions based upon reciprocal service.

ZH:bs LRB103 35886 RPS 69833 a Appendix I.



April 8, 2024

Via Email

Clayton Klenke
Executive Director
Commission on Government Forecasting and Accountability (CoGFA)
703 Stratton Office Bldg.
Springfield, IL 62706

Re: Actuarial Impact Study – Pension Reform – COGFA HB 4873

Dear Clayton:

As requested, we have analyzed the impact of various benefit changes contained in House Bill 4873 (HB 4873) on projected costs of the Teachers' Retirement System (TRS), the State Employees' Retirement System (SERS), and the State Universities Retirement System (SURS).

The following table provides a high-level summary of the impact of the individual and combined proposed changes outlined in HB 4873 on the State contribution amounts through fiscal year ending June 30, 2045 for each System. Additional details are included later in the letter (NRA = Normal Retirement Age, SSWB = Social Security Wage Base and DROP = Deferred Retirement Option Plan).

| | TRS | SERS | SURS | Total |
|---|---------------|----------|-------|---------|
| (Savings)/Cost on Total State Contributions through FYE | 2045 (\$ in m | illions) | | |
| Baseline | - | - | - | - |
| Change #1 - Tier 2 Salary Cap to SSWB | \$2,959 | \$1,197 | \$642 | \$4,798 |
| Change #2 - Tier 2 COLA Update | 151 | 10 | 34 | 195 |
| Change #4 – DROP Implementation (3-Year Offer) | 85 | 38 | 40 | 163 |
| Change #5 – Additional \$500M Contributions | (2,381) | (926) | (880) | (4,187) |
| Change #7 - Tier 2 NRA Update | 2,179 | 511 | 366 | 3,056 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | - | 48 | - | 48 |
| Combined Changes | 3,420 | 983 | 231 | 4,634 |

The Combined Changes scenarios shown throughout do not necessarily sum to the accumulations of individual change components as the items therein are not additive – the combination of certain individual changes result in dissimilar amounts than those individual components summed. For example, increasing a COLA on a benefit with an increased salary cap results in a higher cost than a COLA on the Baseline benefits.

This analysis is based on the provisions of the respective Plans. The information contained in this document, as well as the accompanying exhibits, were prepared using actuarial assumptions and methods consistent with those employed in the actuarial valuations of the Systems as of June 30, 2022 (dated January 9, 2023 for TRS, December 23, 2022 for SERS, and October 28, 2022 for SURS), except as otherwise noted below.

Proposed Benefit Changes

We have analyzed the proposed benefit / provision changes per HB 4873, as summarized below. For this analysis, we have determined the impact of each change separately, as well as the total impact of all changes combined. Note that, due to constraints of available data, this analysis only considers the impact of benefit changes for the three Systems noted above, and, as such, some changes are not considered for this analysis (which are noted below).

- 1. Revises the Tier 2 salary cap for TRS, SERS, and SURS to equal the Social Security Wage Base (SSWB). The difference between the projected Tier 2 salary cap and SSWB will be phased in uniformly over a three-year period starting in calendar year 2026 and ending in calendar year 2029. This uses increasing "smoothing factors" of 25%, 50%, and 75%, respectively, for 2026, 2027 and 2028, which are multiplied by the difference between the federal Social Security Wage Base and the applicable year's Tier 2 pensionable salary cap, with full recognition in 2029.
- Modifies timing of automatic annual increases for TRS, SERS, and SURS to begin on the January 1 occurring after the first anniversary of the participant's annuity start date, effective January 1, 2026 for active and retired Tier 2 participants (prospective only).
- 3. Expands the existing pension buyout programs to the General Assembly Retirement System (GARS) and Judges' Retirement System of Illinois (JRS). [Not included in this analysis]
- 4. Adds Deferred Retirement Option Plan (DROP) provisions to Tier 1 and Tier 2 members of TRS, SERS, SURS, GARS, and JRS, effective January 1, 2026. Members must be active, employed in a position that is covered by a collective bargaining agreement and elect DROP participation no later than January 1, 2029. DROP duration is not to exceed five years. Participants will receive auto increases that the participant would have been eligible to receive if the participant had terminated service upon entering the DROP but no interest will be credited to participant DROP account balances. [GARS and JRS not included in this analysis]
- Directs an annual \$500 million contribution from the General Revenue Fund (in addition to statutory requirements) to the newly created Pension Unfunded Liability Reduction Fund for each fiscal year starting July 1, 2033 through fiscal year ending June 30, 2045.
- 6. Closes GARS and JRS to new entrants effective January 13, 2027. [Not included in this analysis]
- 7. Changes the eligibility for a retirement annuity for Tier 2 members of TRS, SERS, and SURS, effective July 1, 2025, to include additional combinations of age and service, as summarized below:
 - Age 67 and 10 years of service (current provision)
 - Age 64 and 20 years of service
 - Age 62 and 35 years of service
 - Age 55 and 20 years of service (for SURS police and firefighters only)

There is no change to the early retirement reduction that apply to Tier 2 members who retire prior to normal retirement age (NRA).



Proposed Benefit Changes (continued)

- 8. Amends Illinois Pension Code to allow participation in SERS alternate formula for Security Employees of the Department of Human Services and Investigators for the Department of the Lottery if the member has attained age 55 and possesses 20 or more years of alternate formula service.
 - [Effect of DHS eligible employees converting regular service to alternate formula service is not included in this analysis]
- Expands Department of Juvenile Justice eligibility for creditable service by removing the bachelor's or advanced degree requirement. [Not included in this analysis]
- 10. Downstate Police and Firefighters' Articles of the Illinois Pension Code are placed under the ambit of the Reciprocal Act, which affects reciprocity for vesting. [Not included in this analysis]

Actuarial Analysis

The analysis was based upon the census data and actuarial assumptions used in the June 30, 2022, actuarial valuations for TRS, SERS, and SURS. For purposes of this analysis, all changes are assumed to be effective as described in the 'Proposed Benefit Changes' section.

The following assumptions and methods were implemented for the purpose of determining the impact of the benefit and/or provision changes under the various elements of HB 4873. The numbering below corresponds with the numbers under the 'Proposed Benefit Changes' section:

- No adjustments were made for TRS and SURS Tier 2 participants whose earnings are reported at the current cap (i.e., their actual earnings are unknown).
 - The analysis reflects the known Tier 2 salary limitations applicable for fiscal years ending June 30, 2023, June 30, 2024, and June 30, 2025 (\$119,892, \$123,489, and \$125,774, respectively), as well as the 2024 Social Security Wage Base of \$168,600.
 - The Tier 2 salary cap is assumed to annually increase by 1.25% for TRS and 1.125% for SERS and SURS (considering each System's inflation assumption) and the Social Security Wage Base is assumed to increase 2.50% per year for all Systems.
- No changes were made to automatic annual increase amount, only the timing of increases.
- 3. [Not included in this analysis]
- 4. All active Tier 1 and Tier 2 members of TRS, SERS, and SURS are eligible to participate in the DROP effective January 1, 2026 through January 1, 2029. The DROP duration is assumed to be five years in which the member will receive: 1) the retirement annuity that they would have received had the member retired the date they entered the DROP (including any automatic annual increases) and 2) employee contributions paid by the participant during the DROP period.
 - Upon retirement, the member will begin receiving the retirement annuity they would have received had the member retired on the date they entered the DROP, including any anticipated COLA increases during the five-year period, plus the balance in the member's individual DROP account.



Actuarial Analysis (continued)

- 5. The pro rata share of the additional contributions allocated for each System was determined using the baseline projection of the statutory contribution amounts through FY2045 included in each System's respective June 30, 2022, valuation report. As a result, the average allocation amount and percentage of the \$500M additional contribution to each of the analyzed Systems is as follows:
 - TRS \$261M, or 52%
 - SERS \$100M, or 20%
 - SURS \$93M, or 19%

For consistency with the other changes, the inclusion of the pro rata share of the \$500M additional contributions is first reflected for purposes of determining the FY2026 statutory contribution requirement even though the first pro rata share of the additional contributions will not be paid until FY2034 (i.e., the effects are recognized starting in FY2026).

This analysis assumes that the additional \$500M contributions are treated in a similar manner as Federal Funds and School District contributions (i.e., a stream of projected contributions valued as of the valuation date), resulting in lower statutory contributions needed to attain 90% funded by 2045.

[GARS, JRS, and CTPF are not included in this analysis, though it is assumed that these Systems collectively receive the remaining \$46M allocation of the total \$500M additional contribution amount]

- 6. [Not included in this analysis]
- 7. To reflect the proposed change in retirement ages, the assumed retirement rate at age 67 (the current NRA) was applied for ages 64 and 62 for participants with 20-34 years of service at retirement and 35+ years of service at retirement, respectively.

In addition, for SURS police and firefighters, the following assumed retirement rates were changed to value the impact of the proposed changes:

- The assumed age 55 retirement rate applicable to Tier 2 police officers and firefighters is set to 60% (for under 40 years of service) or 90% (for 40 or more years of service), the current age 60 retirement rate (i.e., the age at first retirement eligibility); and,
- The assumed age 56-60 retirement rates applicable to Tier 2 police officers and firefighters are set to 25% (for under 40 years of service) or 37.5% (for 40 or more years of service), the same retirement rates assumed for Tier 1 members classified as "non-academic" employee type (of which police officers and firefighters are a subset).

Tier 2 early retirement reductions applicable prior to age 67 (the current NRA) have been modified to reflect the additional normal retirement ages permitted under HB 4873.



Actuarial Analysis (continued)

- 8. The following actuarial assumptions are modified to value the impact for the eligible SERS members within the Departments of Human Services and Lottery:
 - The current age 60 retirement rate applicable for members eligible for alternate formula benefits (i.e., the age at first retirement eligibility) is now assumed to apply at age 55; and,
 - The assumed age 56-60 retirement rates are set to the same rates assumed for members eligible for alternate formula benefits.
- 9. [Not included in this analysis]
- 10. [Not included in this analysis]

The following tables summarize the impact of the proposed benefit changes on the System's actuarial accrued liability (AAL) and projected State contribution amounts through FY2045. The attached exhibits show in greater detail the projected contributions, actuarial liabilities, actuarial assets, funded position, and benefit payments through 2045 reflecting the changes outlined above.

This analysis has been prepared at your request and is not to be considered a recommendation by Segal. Numbers shown have been rounded to the nearest million.



(\$ in millions)

<u>Summary of Results for All Systems</u>¹

| | THE REAL PROPERTY. | the section of | | - |
|---|--------------------|---------------------------|------------------|--------------------|
| sicoted AAL on of laws 20, 2045 | TRS | SERS | SURS | Total |
| ojected AAL as of June 30, 2045 Baseline | ¢212 E0E | ¢60.427 | ¢52.472 | \$226 E04 |
| | \$212,595 | \$60,437 | \$53,473 | \$326,505 |
| Change #1 – Tier 2 Salary Cap to SSWB | 218,775 | 62,522 | 55,230 | 336,527 |
| Change #4 - DROP Implementation (2) Year Offer) | 212,967 | 60,478 | 53,548 | 326,993 |
| Change #4 – DROP Implementation (3-Year Offer) | 212,820 | 60,574 | 53,624 | 327,018 |
| Change #5 – Additional \$500M Contributions | 212,595 | 60,437 | 53,473 | 326,50 |
| Change #7 – Tier 2 NRA Update Change #8 – Members of Depts. of Human Services | 217,529 212,595 | 61, 42 7 60,518 | 54,347 53,473 | 333,300 326,586 |
| and Lottery Eligible for Alternate SERS Benefit | | | | |
| Combined Changes | 225,007 | 64,050 | 56,554 | 345,61 |
| crease in Projected AAL as of June 30, 2045 | | | | |
| Baseline | | (e. F. | TF JF- | |
| Change #1 – Tier 2 Salary Cap to SSWB | \$6,180 | \$2,085 | \$1,757 | \$10,02 |
| Change #2 – Tier 2 COLA Update | 372 | 41 | 75 | 48 |
| Change #4 – DROP Implementation (3-Year Offer) | 225 | 137 | 151 | 51: |
| Change #5 – Additional \$500M Contributions | aut 1 ve | 7/2 | | |
| Change #7 – Tier 2 NRA Update | 4,934 | 990 | 874 | 6,79 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | | 81 | | 8 |
| Combined Changes | 12,412 | 3,613 | 3,081 | 19,10 |
| ate Contributions for FYE 2026 | | | | |
| Baseline | \$6,448 | \$2,524 | \$2,264 | \$11,23 |
| Change #1 – Tier 2 Salary Cap to SSWB | 6,497 | 2,526 | 2,263 | 11,28 |
| Change #2 – Tier 2 COLA Update | 6,454 | 2,524 | 2,265 | 11,24 |
| Change #4 – DROP Implementation (3-Year Offer) | 6,451 | 2,526 | 2,265 | 11,24 |
| Change #5 – Additional \$500M Contributions | 6,350 | 2,485 | 2,230 | 11,06 |
| Change #7 - Tier 2 NRA Update | 6,538 | 2,546 | 2,278 | 11,36 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | 6,448 | 2,526 | 2,264 | 11,23 |
| Combined Changes | 6,517 | 2,518 | 2,248 | 11,28 |
| vings)/Cost on State Contribution for FYE 2026 | | | | |
| Baseline | 2.1 | | | |
| Change #1 – Tier 2 Salary Cap to SSWB | \$49 | \$2 | (\$1) | \$50 |
| Change #2 - Tier 2 COLA Update | 6 | 0 | 1 | · L · |
| Change #4 – DROP Implementation (3-Year Offer) | 3 | 2 | 1 | 6 |
| Change #5 - Additional \$500M Contributions | (98) | (39) | (34) | (17 |
| Change #7 – Tier 2 NRA Update | 90 | 22 | 14 | 126 |
| Change #8 - Members of Depts. of Human Services | THE SE | 2 | | 2 |
| and Lottery Eligible for Alternate SERS Benefit | | | | |



 $^{^{\}rm 1}$ Proposed Changes #3, #6, #9, and #10 are not included in this analysis

(\$ in millions)

<u>Summary of Results for All Systems</u>¹

| | TRS | SERS | SURS | Total |
|---|--------------|-------------|----------|-----------|
| al State Contributions through FYE 2045 | ng-tile ligt | | | |
| Baseline | \$184,544 | \$71,316 | \$66,467 | \$322,327 |
| Change #1 – Tier 2 Salary Cap to SSWB | 187,503 | 72,513 | 67,109 | 327,125 |
| Change #2 – Tier 2 COLA Update | 184,695 | 71,326 | 66,501 | 322,522 |
| Change #4 – DROP Implementation (3-Year Offer) | 184,629 | 71,354 | 66,507 | 322,490 |
| Change #5 – Additional \$500M Contributions | 182,163 | 70,390 | 65,587 | 318,140 |
| Change #7 – Tier 2 NRA Update | 186,723 | 71,827 | 66,833 | 325,383 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | 184,544 | 71,364 | 66,467 | 322,375 |
| Combined Changes | 187,964 | 72,299 | 66,698 | 326,961 |
| rings)/Cost on Total State Contributions through FYE 204 | 5 | | | |
| Baseline | | | | |
| Change #1 - Tier 2 Salary Cap to SSWB | \$2,959 | \$1,197 | \$642 | \$4,798 |
| Change #2 - Tier 2 COLA Update | 151 | 10 | 34 | 195 |
| Change #4 – DROP Implementation (3-Year Offer) | 85 | 38 | 40 | 163 |
| Change #5 – Additional \$500M Contributions | (2,381) | (926) | (880) | (4,187 |
| Change #7 – Tier 2 NRA Update | 2,179 | 511 | 366 | 3,056 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | | 48 | | 48 |
| Combined Changes | 3,420 | 983 | 231 | 4,634 |
| sent Value of Total State Contributions through FYE 2045 | | | | |
| Baseline | \$86,790 | \$34,496 | \$32,563 | \$153,849 |
| Change #1 – Tier 2 Salary Cap to SSWB | 87,844 | 34,902 | 32,796 | 155,542 |
| Change #2 - Tier 2 COLA Update | 86,855 | 34,500 | 32,578 | 153,933 |
| Change #4 – DROP Implementation (3-Year Offer) | 86,826 | 34,513 | 32,581 | 153,920 |
| Change #5 – Additional \$500M Contributions | 85,770 | 34,089 | 32,171 | 152,030 |
| Change #7 - Tier 2 NRA Update | 87,728 | 34,722 | 32,727 | 155,177 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | 86,790 | 34,517 | 32,563 | 153,870 |
| Combined Changes | 88,047 | 34,811 | 32,615 | 155,473 |
| ings)/Cost on Present Value of Total State Contributions | through FYE | 2045 | | |
| Baseline | | ATT, Austra | | |
| Change #1 – Tier 2 Salary Cap to SSWB | \$1,054 | \$406 | \$233 | \$1,693 |
| Change #2 – Tier 2 COLA Update | 65 | 4 | 15 | 84 |
| Change #4 – DROP Implementation (3-Year Offer) | 36 | 17 | 18 | 71 |
| Change #5 – Additional \$500M Contributions | (1,020) | (407) | (392) | (1,819) |
| Change #7 – Tier 2 NRA Update | 938 | 226 | 164 | 1,328 |
| Change #8 – Members of Depts. of Human Services and Lottery Eligible for Alternate SERS Benefit | | 21 | | 21 |
| Lottery Eligible for Alternate SEKS benefit | | | | |



¹ Proposed Changes #3, #6, #9, and #10 are not included in this analysis

Comments about Projections

Projections, by their nature, are not a guarantee of future results. The modeled projections are intended to serve as estimates of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used.

The assumptions for this projection and analysis are based on those listed in the 2022 actuarial valuation report for TRS, SERS, and SURS (except as otherwise noted in this letter). As noted, the results of these projections are based on all assumptions materializing as expected, including the 7.00% investment return for TRS, the 6.75% investment return for SERS, and the 6.50% investment return for SURS. To the extent there is adverse experience, the projection scenarios would generate larger required State contributions. Given the relatively low funded status of the Systems, investment returns that are less than expected represent a significant risk to the magnitude of the State's required contributions. Furthermore, the impact of the national average wage index (the basis for determining increases in the SSWB) growing faster than currently assumed (2.50% per year) would accelerate increases in the projected Tier 2 salary cap, resulting in changes to the pattern of contributions and higher State contribution requirements. Similarly, higher actual inflation than assumed would also result in increased costs related to the Tier 2 COLA. Additionally, the proposed changes outlined in HB 4873 could affect actual patterns of decrement (e.g., termination, retirement) compared to the current assumptions, which may result in larger (or smaller) required State contributions.

Actual experience may differ due to such variables as demographic experience, the economy, stock market performance, and the regulatory environment. The longer the projection period, the less predictable the projections become.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative, and client requirements. Deterministic cost projections are based on our proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility, and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuaries.

Segal is not a law firm and we cannot offer legal advice. Any party seeking a legal opinion should consult with appropriate legal counsel.

This analysis was performed under my supervision. I am a Member of the American Academy of Actuary and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinion contained herein.



Clayton Klenke April 8, 2024 Page 9

Please let us know if you have any questions.

Sincerely,

Matthew A. Strom, FSA, MAAA, EA Senior Vice President and Actuary



Funding Projections for the Teachers' Retirement System

Based on Laws in Effect on June 30, 2022, Baseline Actuarially Assumed Rate of Return: 7.00% (\$ in millions)

| Fiscal Year | Annual | Total | State Contribution | Total | Actuarial | Actuarial | | |
|----------------|-------------------|-----------------------|--------------------------|--------------------------|----------------------|--------------------|-----------------------|-----------------|
| Ending 6/30 | State Payroll* | State Contribution | as Percent of Payroll | Employee Contribution | Accrued Liability | Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11,448.9 | \$5,893.7 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,528.4 | 6,447.6 | 51.5% | 1,150.6 | 159,434.9 | 77,007.1 | 82,427.8 | 48.3% |
| 2027 | 12,843.5 | 6,592.2 | 51.3% | 1,179.5 | 163,572.9 | 80,993.9 | 82,579.0 | 49.5% |
| 2028 | 13,142.4 | 6,809.6 | 51.8% | 1,207.0 | 167,674.0 | 85,176.6 | 82,497.4 | 50.8% |
| 2029 | 13,429.4 | 6,947.7 | 51.7% | 1,233.3 | 171,716.8 | 89,473.6 | 82,243.2 | 52.1% |
| 2030 | 13,718.6 | 7,074.5 | 51.6% | 1,259.9 | 175,685.8 | 93,875.2 | 81,810.6 | 53.4% |
| 2031 | 14,007.3 | 7,204.1 | 51.4% | 1,286.4 | 179,563.0 | 98,383.5 | 81,179.5 | 54.8% |
| 2032 | 14,296.0 | 7,351.4 | 51.4% | 1,312.9 | 183,325.7 | 103,014.2 | 80,311.5 | 56.2% |
| 2033 | 14,581.2 | 7,513.9 | 51.5% | 1,339.1 | 186,946.7 | 107,779.6 | 79,167.1 | 57.7% |
| 2034 | 14,857.2 | 8,280.2 | 55.7% | 1,364.4 | 190,401.3 | 113,306.3 | 77,095.0 | 59.5% |
| 2035 | 15,131.5 | 8,433.1 | 55.7% | 1,389.6 | 193,665.6 | 119,006.2 | 74,659.4 | 61.4% |
| 2036 | 15,409.5 | 8,588.0 | 55.7% | 1,415.2 | 196,723.6 | 124,895.4 | 71,828.1 | 63.5% |
| 2037 | 15,692.7 | 8,745.8 | 55.7% | 1,441.2 | 199,562.4 | 130,995.5 | 68,566.9 | 65.6% |
| 2038 | 15,987.8 | 8,910.3 | 55.7% | 1,468.3 | 202,158.1 | 137,326.2 | 64,831.9 | 67.9% |
| 2039 | 16,285.8 | 9,076.4 | 55.7% | 1,495.6 | 204,486.0 | 143,907.8 | 60,578.2 | 70.4% |
| 2040 | 16,586.5 | 9,244.0 | 55.7% | 1,523.3 | 206,523.2 | 150,762.8 | 55,760.4 | 73.0% |
| 2041 | 16,907.3 | 9,422.8 | 55.7% | 1,552.7 | 208,263.4 | 157,941.2 | 50,322.2 | 75.8% |
| 2042 | 17,244.3 | 9,610.6 | 55.7% | 1,583.7 | 209,711.7 | 165,500.7 | 44,211.0 | 78.9% |
| 2043 | 17,606.3 | 9,812.3 | 55.7% | 1,616.9 | 210,888.2 | 173,518.4 | 37,369.8 | 82.3% |
| 2044 | 17,997.2 | 10,030.2 | 55.7% | 1,652.8 | 211,834.0 | 182,095.0 | 29,739.0 | 86.0% |
| 2045 | 18,419.1 | 10,265.4 | 55.7% | 1,691.6 | 212,595.4 | 191,335.8 | 21,259.5 | 90.0% |
| otal | | \$184,544.1 | | \$31,429.1 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Baseline Actuarially Assumed Rate of Return: 6.75% (\$ in millions)

| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
|----------------------------------|-------------------|--------------------------------|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| 2022 | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0% |
| 2023 | \$4,851.8 | \$2,475.6 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0% |
| 2024 | 4,918.8 | 2,450.3 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9% |
| 2026 | 5,062.6 | 2,523.9 | 49.9% | 277.8 | 56,285.4 | 26,303.5 | 29,981.9 | 46.7% |
| 2027 | 5,139.2 | 2,557.3 | 49.8% | 280.2 | 57,132.6 | 27,214.2 | 29,918.4 | 47.6% |
| 2028 | 5,218.6 | 2,644.4 | 50.7% | 282.9 | 57,889.7 | 28,145.1 | 29,744.5 | 48.6% |
| 2029 | 5,305.6 | 2,667.3 | 50.3% | 286.1 | 58,562.2 | 29,039.6 | 29,522.6 | 49.6% |
| 2030 | 5,399.6 | 2,706.5 | 50.1% | 289.7 | 59,153.3 | 29,918.4 | 29,234.9 | 50.6% |
| 2031 | 5,499.1 | 2,749.7 | 50.0% | 293.8 | 59,663.6 | 30,791.1 | 28,872.5 | 51.6% |
| 2032 | 5,604.7 | 2,801.8 | 50.0% | 298.0 | 60,092.9 | 31,671.0 | 28,421.9 | 52.7% |
| 2033 | 5,713.7 | 2,861.2 | 50.1% | 302.2 | 60,444.0 | 32,573.2 | 27,870.8 | 53.9% |
| 2034 | 5,829.2 | 3,128.7 | 53.7% | 306.8 | 60,721.0 | 33,722.8 | 26,998.2 | 55.5% |
| 2035 | 5,948.8 | 3,192.9 | 53.7% | 311.5 | 60,929.0 | 34,934.2 | 25,994.8 | 57.3% |
| 2036 | 6,071.5 | 3,258.8 | 53.7% | 316.2 | 61,068.1 | 36,218.2 | 24,849.9 | 59.3% |
| 2037 | 6,196.8 | 3,326.1 | 53.7% | 321.0 | 61,143.5 | 37,589.2 | 23,554.3 | 61.5% |
| 2038 | 6,330.3 | 3,397.7 | 53.7% | 326.3 | 61,165.0 | 39,069.3 | 22,095.7 | 63.9% |
| 2039 | 6,470.9 | 3,473.2 | 53.7% | 331.9 | 61,138.8 | 40,679.0 | 20,459.8 | 66.5% |
| 2040 | 6,616.5 | 3,551.3 | 53.7% | 337.7 | 61,070.8 | 42,439.4 | 18,631.4 | 69.5% |
| 2041 | 6,769.6 | 3,633.5 | 53.7% | 343.9 | 60,970.1 | 44,375.1 | 16,595.0 | 72.8% |
| 2042 | 6,929.7 | 3,719.4 | 53.7% | 350.4 | 60,848.3 | 46,511.5 | 14,336.8 | 76.4% |
| 2043 | 7,097.0 | 3,809.2 | 53.7% | 357.3 | 60,715.8 | 48,876.6 | 11,839.2 | 80.5% |
| 2044 | 7,270.9 | 3,902.6 | 53.7% | 364.6 | 60,577.7 | 51,495.7 | 9,082.0 | 85.0% |
| 2045 | 7,448.3 | 3,997.8 | 53.7% | 372.1 | 60,436.5 | 54,392.9 | 6,043.7 | 90.0% |
| otal | | \$71,316.2 | | \$7,170.9 | | | | |

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Baseline Actuarially Assumed Rate of Return: 6.50% (\$ in millions)

| Fiscal Year Ending 6/30 | Annual Payroll* | Total State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
|----------------------------------|--------------------|--------------------------------|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| 2022 | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.2% |
| 2023 | \$5,051.5 | \$2,160.9 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.0% |
| 2024 | 5,208.2 | 2,174.1 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.7% |
| 2025 | 5,316.5 | 2,218.4 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.8% |
| 2026 | 5,433.0 | 2,263.6 | 41.7% | 315.8 | 52,738.9 | 25,032.3 | 27,706.6 | 47.5% |
| 2027 | 5,567.3 | 2,304.2 | 41.4% | 320.4 | 53,291.4 | 25,597.8 | 27,693.6 | 48.0% |
| 2028 | 5,713.6 | 2,400.0 | 42.0% | 325.9 | 53,776.7 | 26,198.0 | 27,578.6 | 48.7% |
| 2029 | 5,865.5 | 2,463.6 | 42.0% | 331.9 | 54,193.9 | 26,805.9 | 27,388.0 | 49.5% |
| 2030 | 6,021.3 | 2,524.8 | 41.9% | 338.0 | 54,541.2 | 27,423.1 | 27,118.1 | 50.3% |
| 2031 | 6,183.2 | 2,589.8 | 41.9% | 344.5 | 54,811.5 | 28,052.3 | 26,759.1 | 51.2% |
| 2032 | 6,349.9 | 2,662.9 | 41.9% | 351.2 | 55,006.9 | 28,710.6 | 26,296.4 | 52.2% |
| 2033 | 6,521.7 | 2,744.1 | 42.1% | 358.1 | 55,141.3 | 29,425.3 | 25,716.1 | 53.4% |
| 2034 | 6,701.8 | 2,847.1 | 42.5% | 365.4 | 55,220.7 | 30,232.1 | 24,988.6 | 54.7% |
| 2035 | 6,886.8 | 2,927.9 | 42.5% | 372.9 | 55,242.2 | 31,116.4 | 24,125.8 | 56.3% |
| 2036 | 7,074.8 | 3,010.1 | 42.5% | 380.6 | 55,205.3 | 32,088.6 | 23,116.7 | 58.1% |
| 2037 | 7,267.9 | 3,094.4 | 42.6% | 388.5 | 55,116.0 | 33,167.3 | 21,948.8 | 60.2% |
| 2038 | 7,466.6 | 3,181.2 | 42.6% | 396.6 | 54,977.2 | 34,368.0 | 20,609.2 | 62.5% |
| 2039 | 7,670.8 | 3,270.4 | 42.6% | 405.0 | 54,801.5 | 35,716.7 | 19,084.9 | 65.2% |
| 2040 | 7,880.8 | 3,362.1 | 42.7% | 413.6 | 54,586.7 | 37,223.9 | 17,362.9 | 68.2% |
| 2041 | 8,094.8 | 3,455.5 | 42.7% | 422.4 | 54,354.5 | 38,922.1 | 15,432.4 | 71.6% |
| 2042 | 8,316.7 | 3,552.2 | 42.7% | 431.8 | 54,114.9 | 40,835.0 | 13,279.9 | 75.5% |
| 2043 | 8,544.6 | 3,651.4 | 42.7% | 441.5 | 53,885.9 | 42,994.3 | 10,891.6 | 79.8% |
| 2044 | 8,778.5 | 3,753.1 | 42.8% | 451.5 | 53,665.7 | 45,413.4 | 8,252.3 | 84.6% |
| 2045 | 9,013.1 | 3,855.3 | 42.8% | 461.4 | 53,472.9 | 48,125.6 | 5,347.3 | 90.0% |
| otal | | \$66,467.1 | | \$8,543.6 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Exhibit 1A - TRS Projection (Change #1 - Tier 2 Salary Cap to SSWB)

<u>Funding Projections for the Teachers' Retirement System</u>
CoGFA Projections Based on Laws in Effect on June 30, 2022, Tier 2 Salary Cap to SSWB Actuarially Assumed Rate of Return: 7.00% (\$ in millions)

| | | 8 | | to Exhibit A | | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|--|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11,448.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,538.1 | 6,496.3 | 48.6 | 38.4 | 51.8% | 1,151.5 | 159,483.9 | 77,059.5 | 82,424.3 | 48.3% |
| 2027 | 12,860.7 | 6,646.6 | 54.5 | 40.2 | 51.7% | 1,181.1 | 163,681.6 | 81,109.3 | 82,572.3 | 49.6% |
| 2028 | 13,166.9 | 6,868.5 | 58.9 | 40.6 | 52.2% | 1,209.2 | 167,855.2 | 85,365.0 | 82,490.2 | 50.9% |
| 2029 | 13,461.9 | 7,012.1 | 64.4 | 41.5 | 52.1% | 1,236.3 | 171,984.9 | 89,746.8 | 82,238.2 | 52.2% |
| 2030 | 13,759.9 | 7,144.9 | 70.4 | 42.4 | 51.9% | 1,263.7 | 176,057.5 | 94,246.3 | 81,811.2 | 53.5% |
| 2031 | 14,059.1 | 7,281.4 | 77.3 | 43.5 | 51.8% | 1,291.1 | 180,057.0 | 98,867.8 | 81,189.2 | 54.9% |
| 2032 | 14,359.7 | 7,436.4 | 85.0 | 44.7 | 51.8% | 1,318.7 | 183,963.5 | 103,629.3 | 80,334.3 | 56.3% |
| 2033 | 14,658.7 | 7,607.7 | 93.8 | 46.1 | 51.9% | 1,346.2 | 187,752.4 | 108,545.1 | 79,207.3 | 57.8% |
| 2034 | 14,950.3 | 8,384.4 | 104.1 | 47.8 | 56.1% | 1,373.0 | 191,402.4 | 114,245.3 | 77,157.1 | 59.7% |
| 2035 | 15,242.4 | 8,548.2 | 115.1 | 49.4 | 56.1% | 1,399.8 | 194,892.8 | 120,144.1 | 74,748.7 | 61.6% |
| 2036 | 15,540.5 | 8,715.3 | 127.3 | 51.1 | 56.1% | 1,427.2 | 198,211.5 | 126,261.0 | 71,950.5 | 63.7% |
| 2037 | 15,846.3 | 8,886.8 | 141.0 | 52.9 | 56.1% | 1,455.3 | 201,349.6 | 132,621.2 | 68,728.4 | 65.9% |
| 2038 | 16,166.9 | 9,066.6 | 156.3 | 54.8 | 56.1% | 1,484.7 | 204,287.6 | 139,248.7 | 65,038.9 | 68.2% |
| 2039 | 16,493.8 | 9,250.0 | 173.6 | 56.8 | 56.1% | 1,514.7 | 207,005.6 | 146,168.3 | 60,837.3 | 70.6% |
| 2040 | 16,827.1 | 9,436.9 | 192.9 | 59.0 | 56.1% | 1,545.3 | 209,486.0 | 153,408.1 | 56,077.9 | 73.2% |
| 2041 | 17,184.9 | 9,637.5 | 214.7 | 61.4 | 56.1% | 1,578.2 | 211,727.9 | 161,023.9 | 50,704.0 | 76.1% |
| 2042 | 17,566.6 | 9,851.6 | 241.0 | 64.4 | 56.1% | 1,613.3 | 213,742.7 | 169,082.3 | 44,660.4 | 79.1% |
| 2043 | 17,983.8 | 10,085.6 | 273.3 | 68.3 | 56.1% | 1,651.6 | 215,556.3 | 177,671.5 | 37,884.8 | 82.4% |
| 2044 | 18,440.1 | 10,341.4 | 311.2 | 72.7 | 56.1% | 1,693.5 | 217,216.2 | 186,903.7 | 30,312.5 | 86.0% |
| 2045 | 18,939.1 | 10,621.3 | 356.0 | 77.7 | 56.1% | 1,739.3 | 218,774.5 | 196,897.1 | 21,877.5 | 90.0% |
| Total | | \$187,503.5 | \$2,959.4 | \$1,053.7 | | \$31,738.8 | | | | |

^{*} Does not include Federal Payroll

<u>Funding Projections for the State Employees' Retirement System</u>
CoGFA Projections Based on Laws in Effect on June 30, 2022, Tier 2 Salary Cap to SSWB Actuarially Assumed Rate of Return: 6.75% (\$ in millions)

| | | : | Compared | to Exhibit B | 5 | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|--|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0% |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0% |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9% |
| 2026 | 5,078.1 | 2,526.0 | 2.1 | 1.7 | 49.7% | 278.6 | 56,309.9 | 26,306.4 | 30,003.5 | 46.7% |
| 2027 | 5,163.3 | 2,564.0 | 6.7 | 5.0 | 49.7% | 281.6 | 57,185.9 | 27,225.2 | 29,960.8 | 47.6% |
| 2028 | 5,250.2 | 2,654.3 | 9.8 | 6.9 | 50.6% | 284.6 | 57,976.7 | 28,168.3 | 29,808.4 | 48.6% |
| 2029 | 5,344.7 | 2,681.0 | 13.6 | 8.9 | 50.2% | 288.2 | 58,688.4 | 29,080.0 | 29,608.4 | 49.5% |
| 2030 | 5,446.3 | 2,724.1 | 17.6 | 10.8 | 50.0% | 292.2 | 59,324.6 | 29,981.5 | 29,343.1 | 50.5% |
| 2031 | 5,554.4 | 2,771.7 | 22.1 | 12.7 | 49.9% | 296.8 | 59,886.7 | 30,883.3 | 29,003.4 | 51.6% |
| 2032 | 5,669.5 | 2,828.8 | 27.1 | 14.6 | 49.9% | 301.5 | 60,375.1 | 31,799.7 | 28,575.4 | 52.7% |
| 2033 | 5,789.0 | 2,893.8 | 32.5 | 16.4 | 50.0% | 306.2 | 60,793.5 | 32,746.7 | 28,046.8 | 53.9% |
| 2034 | 5,916.2 | 3,167.6 | 38.8 | 18.3 | 53.5% | 311.4 | 61,146.5 | 33,950.7 | 27,195.8 | 55.5% |
| 2035 | 6,048.9 | 3,238.6 | 45.7 | 20.2 | 53.5% | 316.8 | 61,440.3 | 35,227.4 | 26,212.8 | 57.3% |
| 2036 | 6,186.2 | 3,312.1 | 53.3 | 22.1 | 53.5% | 322.2 | 61,675.7 | 36,589.2 | 25,086.5 | 59.3% |
| 2037 | 6,327.6 | 3,387.8 | 61.7 | 24.0 | 53.5% | 327.8 | 61,859.0 | 38,051.8 | 23,807.2 | 61.5% |
| 2038 | 6,478.4 | 3,468.5 | 70.9 | 25.8 | 53.5% | 334.0 | 62,000.9 | 39,639.1 | 22,361.8 | 63.9% |
| 2039 | 6,637.5 | 3,553.7 | 80.6 | 27.4 | 53.5% | 340.4 | 62,108.3 | 41,373.2 | 20,735.1 | 66.6% |
| 2040 | 6,802.4 | 3,642.0 | 90.7 | 28.9 | 53.5% | 347.1 | 62,187.2 | 43,276.2 | 18,911.0 | 69.6% |
| 2041 | 6,975.5 | 3,734.7 | 101.2 | 30.2 | 53.5% | 354.3 | 62,247.5 | 45,374.4 | 16,873.1 | 72.9% |
| 2042 | 7,156.6 | 3,831.7 | 112.3 | 31.4 | 53.5% | 361.9 | 62,302.7 | 47,694.4 | 14,608.2 | 76.6% |
| 2043 | 7,346.4 | 3,933.3 | 124.1 | 32.5 | 53.5% | 369.9 | 62,364.1 | 50,266.1 | 12,098.0 | 80.6% |
| 2044 | 7,543.9 | 4,039.0 | 136.5 | 33.5 | 53.5% | 378.3 | 62,436.8 | 53,116.1 | 9,320.7 | 85.1% |
| 2045 | 7,745.9 | 4,147.2 | 149.4 | 34.4 | 53.5% | 387.0 | 62,522.4 | 56,270.1 | 6,252.2 | 90.0% |
| otal | | \$72,512.7 | \$1,196.7 | \$405.5 | | \$7,301.3 | | | | |

Exhibit 1C - SURS Projection (Change #1 - Tier 2 Salary Cap to SSWB)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Tier 2 Salary Cap to SSWB Actuarially Assumed Rate of Return: 6.50%
(\$ in millions)

| | | 1 | Compared | | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.29 |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.00 |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.7 |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.89 |
| 2026 | 5,540.8 | 2,262.5 | (1.1) | (0.9) | 40.8% | 324.4 | 52,763.1 | 25,040.1 | 27,723.0 | 47.59 |
| 2027 | 5,690.2 | 2,309.8 | 5.6 | 4.2 | 40.6% | 330.2 | 53,342.6 | 25,622.0 | 27,720.7 | 48.09 |
| 2028 | 5,847.8 | 2,407.5 | 7.5 | 5.3 | 41.2% | 336.7 | 53,858.5 | 26,242.6 | 27,615.8 | 48.79 |
| 2029 | 6,010.3 | 2,474.2 | 10.7 | 7.1 | 41.2% | 343.5 | 54,310.1 | 26,876.4 | 27,433.7 | 49.59 |
| 2030 | 6,175.9 | 2,538.3 | 13.5 | 8.4 | 41.1% | 350.4 | 54,696.0 | 27,524.7 | 27,171.3 | 50.39 |
| 2031 | 6,347.6 | 2,606.1 | 16.2 | 9.5 | 41.1% | 357.7 | 55,009.8 | 28,190.8 | 26,819.0 | 51.29 |
| 2032 | 6,522.9 | 2,681.4 | 18.4 | 10.1 | 41.1% | 365.1 | 55,254.5 | 28,891.7 | 26,362.8 | 52.39 |
| 2033 | 6,704.1 | 2,765.1 | 21.0 | 10.8 | 41.2% | 372.7 | 55,444.8 | 29,655.8 | 25,789.0 | 53.59 |
| 2034 | 6,894.0 | 2,871.4 | 24.3 | 11.8 | 41.7% | 380.8 | 55,587.0 | 30,519.8 | 25,067.2 | 54.99 |
| 2035 | 7,089.4 | 2,954.9 | 27.0 | 12.3 | 41.7% | 389.2 | 55,678.8 | 31,468.4 | 24,210.4 | 56.59 |
| 2036 | 7,288.2 | 3,039.9 | 29.8 | 12.7 | 41.7% | 397.7 | 55,721.1 | 32,513.2 | 23,207.9 | 58.39 |
| 2037 | 7,492.8 | 3,127.3 | 32.8 | 13.2 | 41.7% | 406.5 | 55,720.0 | 33,672.9 | 22,047.2 | 60.49 |
| 2038 | 7,703.6 | 3,217.3 | 36.1 | 13.6 | 41.8% | 415.5 | 55,679.6 | 34,964.0 | 20,715.6 | 62.89 |
| 2039 | 7,921.3 | 3,310.2 | 39.9 | 14.1 | 41.8% | 425.0 | 55,613.4 | 36,413.3 | 19,200.2 | 65.59 |
| 2040 | 8,146.8 | 3,406.4 | 44.3 | 14.7 | 41.8% | 434.9 | 55,521.0 | 38,033.1 | 17,487.9 | 68.5% |
| 2041 | 8,377.8 | 3,504.9 | 49.4 | 15.4 | 41.8% | 445.1 | 55,423.2 | 39,855.4 | 15,567.8 | 71.99 |
| 2042 | 8,619.2 | 3,607.6 | 55.4 | 16.2 | 41.9% | 456.0 | 55,332.9 | 41,906.8 | 13,426.1 | 75.79 |
| 2043 | 8,869.2 | 3,713.7 | 62.4 | 17.1 | 41.9% | 467.5 | 55,267.1 | 44,218.7 | 11,048.3 | 80.09 |
| 2044 | 9,127.5 | 3,823.3 | 70.2 | 18.1 | 41.9% | 479.5 | 55,226.5 | 46,807.6 | 8,418.9 | 84.8% |
| 2045 | 9,388.3 | 3,934.1 | 78.7 | 19.1 | 41.9% | 491.5 | 55,230.4 | 49,707.4 | 5,523.0 | 90.0% |
| otal | | \$67,109.3 | \$642.1 | \$232.8 | | \$8,896.5 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Funding Projections for the Teachers' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 COLA Actuarially Assumed Rate of Return: 7.00%
(\$ in millions)

| | | | | to Exhibit A | | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11,448.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,528.4 | 6,453.8 | 6.2 | 4.9 | 51.5% | 1,150.6 | 159,438.8 | 77,013.8 | 82,425.0 | 48.3% |
| 2027 | 12,843.5 | 6,598.5 | 6.3 | 4.7 | 51.4% | 1,179.5 | 163,581.5 | 81,008.1 | 82,573.5 | 49.5% |
| 2028 | 13,142.4 | 6,816.0 | 6.5 | 4.5 | 51.9% | 1,207.0 | 167,688.3 | 85,199.0 | 82,489.3 | 50.8% |
| 2029 | 13,429.4 | 6,954.3 | 6.6 | 4.3 | 51.8% | 1,233.3 | 171,737.8 | 89,505.1 | 82,232.7 | 52.1% |
| 2030 | 13,718.6 | 7,081.3 | 6.7 | 4.1 | 51.6% | 1,259.9 | 175,714.7 | 93,916.6 | 81,798.0 | 53.4% |
| 2031 | 14,007.3 | 7,210.9 | 6.9 | 3.9 | 51.5% | 1,286.4 | 179,600.9 | 98,435.8 | 81,165.1 | 54.8% |
| 2032 | 14,296.0 | 7,358.4 | 7.0 | 3.7 | 51.5% | 1,312.9 | 183,374.0 | 103,078.4 | 80,295.6 | 56.2% |
| 2033 | 14,581.2 | 7,521.1 | 7.2 | 3.5 | 51.6% | 1,339.1 | 187,006.8 | 107,856.6 | 79,150.2 | 57.7% |
| 2034 | 14,857.2 | 8,287.5 | 7.3 | 3.4 | 55.8% | 1,364.4 | 190,474.9 | 113,397.2 | 77,077.7 | 59.5% |
| 2035 | 15,131.5 | 8,440.5 | 7.4 | 3.2 | 55.8% | 1,389.6 | 193,754.3 | 119,112.1 | 74,642.2 | 61.5% |
| 2036 | 15,409.5 | 8,595.6 | 7.6 | 3.0 | 55.8% | 1,415.2 | 196,829.3 | 125,017.5 | 71,811.8 | 63.5% |
| 2037 | 15,692.7 | 8,753.5 | 7.7 | 2.9 | 55.8% | 1,441.2 | 199,687.2 | 131,135.0 | 68,552.2 | 65.7% |
| 2038 | 15,987.8 | 8,918.2 | 7.9 | 2.8 | 55.8% | 1,468.3 | 202,304.1 | 137,484.5 | 64,819.7 | 68.0% |
| 2039 | 16,285.8 | 9,084.4 | 8.0 | 2.6 | 55.8% | 1,495.6 | 204,655.7 | 144,086.2 | 60,569.5 | 70.4% |
| 2040 | 16,586.5 | 9,252.1 | 8.2 | 2.5 | 55.8% | 1,523.3 | 206,719.0 | 150,962.8 | 55,756.2 | 73.0% |
| 2041 | 16,907.3 | 9,431.1 | 8.3 | 2.4 | 55.8% | 1,552.7 | 208,488.1 | 158,164.5 | 50,323.6 | 75.9% |
| 2042 | 17,244.3 | 9,619.1 | 8.5 | 2.3 | 55.8% | 1,583.7 | 209,968.2 | 165,748.9 | 44,219.4 | 78.9% |
| 2043 | 17,606.3 | 9,821.0 | 8.7 | 2.2 | 55.8% | 1,616.9 | 211,179.7 | 173,793.3 | 37,386.4 | 82.3% |
| 2044 | 17,997.2 | 10,039.1 | 8.8 | 2.1 | 55.8% | 1,652.8 | 212,163.7 | 182,398.6 | 29,765.1 | 86.0% |
| 2045 | 18,419.1 | 10,274.4 | 9.1 | 2.0 | 55.8% | 1,691.6 | 212,966.7 | 191,670.0 | 21,296.7 | 90.0% |
| Total | | \$184,694.8 | \$150.9 | \$65.0 | | \$31,429.1 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 COLA Actuarially Assumed Rate of Return: 6.75%

(\$ in millions)

| | | 3 | | to Exhibit B Present Value of | | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payro!l | Total State Contribution | (Reduction)/ Increase in State Contribution | (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0% |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0% |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9% |
| 2026 | 5,062.6 | 2,524.3 | 0.4 | 0.3 | 49.9% | 277.8 | 56,285.6 | 26,303.9 | 29,981.6 | 46.7% |
| 2027 | 5,139.2 | 2,557.7 | 0.4 | 0.3 | 49.8% | 280.2 | 57,132.9 | 27,215.1 | 29,917.8 | 47.6% |
| 2028 | 5,218.6 | 2,644.9 | 0.4 | 0.3 | 50.7% | 282.9 | 57,890.2 | 28,146.5 | 29,743.7 | 48.6% |
| 2029 | 5,305.6 | 2,667.8 | 0.4 | 0.3 | 50.3% | 286.1 | 58,563.1 | 29,041.5 | 29,521.6 | 49.6% |
| 2030 | 5,399.6 | 2,706.9 | 0.4 | 0.3 | 50.1% | 289.7 | 59,154.6 | 29,920.9 | 29,233.7 | 50.6% |
| 2031 | 5,499.1 | 2,750.1 | 0.4 | 0.3 | 50.0% | 293.8 | 59,665.5 | 30,794.3 | 28,871.2 | 51.6% |
| 2032 | 5,604.7 | 2,802.2 | 0.5 | 0.2 | 50.0% | 298.0 | 60,095.5 | 31,675.0 | 28,420.4 | 52.7% |
| 2033 | 5,713.7 | 2,861.7 | 0.5 | 0.2 | 50.1% | 302.2 | 60,447.4 | 32,578.2 | 27,869.3 | 53.9% |
| 2034 | 5,829.2 | 3,129.2 | 0.5 | 0.2 | 53.7% | 306.8 | 60,725.4 | 33,728.8 | 26,996.6 | 55.5% |
| 2035 | 5,948.8 | 3,193.4 | 0.5 | 0.2 | 53.7% | 311.5 | 60,934.7 | 34,941.4 | 25,993.3 | 57.3% |
| 2036 | 6,071.5 | 3,259.3 | 0.5 | 0.2 | 53.7% | 316.2 | 61,075.3 | 36,226.9 | 24,848.4 | 59.3% |
| 2037 | 6,196.8 | 3,326.6 | 0.5 | 0.2 | 53.7% | 321.0 | 61,152.5 | 37,599.5 | 23,553.0 | 61.5% |
| 2038 | 6,330.3 | 3,398.2 | 0.5 | 0.2 | 53.7% | 326.3 | 61,176.1 | 39,081.6 | 22,094.6 | 63.9% |
| 2039 | 6,470.9 | 3,473.7 | 0.5 | 0.2 | 53.7% | 331.9 | 61,152.5 | 40,693.5 | 20,459.0 | 66.5% |
| 2040 | 6,616.5 | 3,551.9 | 0.5 | 0.2 | 53.7% | 337.7 | 61,087.5 | 42,456.5 | 18,631.1 | 69.5% |
| 2041 | 6,769.6 | 3,634.0 | 0.5 | 0.2 | 53.7% | 343.9 | 60,990.4 | 44,395.2 | 16,595.3 | 72.8% |
| 2042 | 6,929.7 | 3,719.9 | 0.6 | 0.2 | 53.7% | 350.4 | 60,872.8 | 46,535.0 | 14,337.8 | 76.4% |
| 2043 | 7,097.0 | 3,809.8 | 0.6 | 0.2 | 53.7% | 357.3 | 60,745.2 | 48,904.1 | 11,841.1 | 80.5% |
| 2044 | 7,270.9 | 3,903.1 | 0.6 | 0.1 | 53.7% | 364.6 | 60,612.7 | 51,527.8 | 9,084.9 | 85.0% |
| 2045 | 7,448.3 | 3,998.4 | 0.6 | 0.1 | 53.7% | 372.1 | 60,478.1 | 54,430.2 | 6,047.8 | 90.0% |
| otal | | \$71,325.8 | \$9.8 | \$4.3 | | \$7,170.9 | | | | |
| | | | | | | | | | | |

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 COLA Actuarially Assumed Rate of Return: 6.50% (\$ in millions)

| | | % | | to Exhibit C | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.2% |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.0% |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.7% |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.8% |
| 2026 | 5,433.0 | 2,264.9 | 1.3 | 1.1 | 41.7% | 315.8 | 52,739.7 | 25,033.8 | 27,705.9 | 47.5% |
| 2027 | 5,567.3 | 2,305.6 | 1.3 | 1.0 | 41.4% | 320.4 | 53,293.3 | 25,601.1 | 27,692.2 | 48.0% |
| 2028 | 5,713.6 | 2,401.4 | 1.4 | 1.0 | 42.0% | 325.9 | 53,779.7 | 26,203.1 | 27,576.6 | 48.7% |
| 2029 | 5,865.5 | 2,465.0 | 1.4 | 0.9 | 42.0% | 331.9 | 54,198.3 | 26,813.0 | 27,385.3 | 49.5% |
| 2030 | 6,021.3 | 2,526.2 | 1.5 | 0.9 | 42.0% | 338.0 | 54,547.3 | 27,432.3 | 27,114.9 | 50.3% |
| 2031 | 6,183.2 | 2,591.3 | 1.5 | 0.9 | 41.9% | 344.5 | 54,819.5 | 28,064.0 | 26,755.5 | 51.2% |
| 2032 | 6,349.9 | 2,664.5 | 1.5 | 0.8 | 42.0% | 351.2 | 55,017.1 | 28,724.7 | 26,292.3 | 52.2% |
| 2033 | 6,521.7 | 2,745.7 | 1.6 | 0.8 | 42.1% | 358.1 | 55,154.0 | 29,442.2 | 25,711.8 | 53.4% |
| 2034 | 6,701.8 | 2,848.7 | 1.6 | 0.8 | 42.5% | 365.4 | 55,236.1 | 30,252.0 | 24,984.1 | 54.8% |
| 2035 | 6,886.8 | 2,929.6 | 1.7 | 0.8 | 42.5% | 372.9 | 55,261.1 | 31,139.8 | 24,121.3 | 56.4% |
| 2036 | 7,074.8 | 3,011.8 | 1.7 | 0.7 | 42.6% | 380.6 | 55,227.6 | 32,115.2 | 23,112.4 | 58.2% |
| 2037 | 7,267.9 | 3,096.2 | 1.8 | 0.7 | 42.6% | 388.5 | 55,142.2 | 33,197.4 | 21,944.8 | 60.2% |
| 2038 | 7,466.6 | 3,183.0 | 1.8 | 0.7 | 42.6% | 396.6 | 55,007.7 | 34,402.0 | 20,605.7 | 62.5% |
| 2039 | 7,670.8 | 3,272.2 | 1.9 | 0.7 | 42.7% | 405.0 | 54,836.9 | 35,754.8 | 19,082.1 | 65.2% |
| 2040 | 7,880.8 | 3,364.0 | 1.9 | 0.6 | 42.7% | 413.6 | 54,627.7 | 37,266.5 | 17,361.1 | 68.2% |
| 2041 | 8,094.8 | 3,457.4 | 2.0 | 0.6 | 42.7% | 422.4 | 54,401.5 | 38,969.6 | 15,431.9 | 71.6% |
| 2042 | 8,316.7 | 3,554.2 | 2.0 | 0.6 | 42.7% | 431.8 | 54,168.4 | 40,887.5 | 13,280.9 | 75.5% |
| 2043 | 8,544.6 | 3,653.4 | 2.1 | 0.6 | 42.8% | 441.5 | 53,946.1 | 43,051.6 | 10,894.5 | 79.8% |
| 2044 | 8,778.5 | 3,755.3 | 2.1 | 0.5 | 42.8% | 451.5 | 53,733.0 | 45,475.7 | 8,257.3 | 84.6% |
| 2045 | 9,013.1 | 3,857.5 | 2.2 | 0.5 | 42.8% | 461.4 | 53,547.6 | 48,192.8 | 5,354.8 | 90.0% |
| Total | | \$66,501.3 | \$34.3 | \$15.2 | | \$8,543.6 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Exhibit 4A - TRS Projection (Change #4 - DROP Implementation - 3-Year Offer)

Funding Projections for the Teachers' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Implement DROP Actuarially Assumed Rate of Return: 7.00%
(\$ in millions)

| | | 9 | | to Exhibit A | | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11,448.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,528.4 | 6,451.1 | 3.5 | 2.7 | 51.5% | 1,150.6 | 159,446.4 | 77,015.5 | 82,430.9 | 48.3% |
| 2027 | 12,843.5 | 6,595.7 | 3.6 | 2.6 | 51.4% | 1,179.5 | 163,597.0 | 81,011.5 | 82,585.5 | 49.5% |
| 2028 | 13,142.4 | 6,813.2 | 3.7 | 2.5 | 51.8% | 1,207.0 | 167,713.8 | 85,204.3 | 82,509.4 | 50.8% |
| 2029 | 13,429.4 | 6,951.5 | 3.7 | 2.4 | 51.8% | 1,233.3 | 171,775.8 | 89,512.6 | 82,263.2 | 52.1% |
| 2030 | 13,718.6 | 7,078.3 | 3.8 | 2.3 | 51.6% | 1,259.9 | 175,768.1 | 93,926.5 | 81,841.6 | 53.4% |
| 2031 | 14,007.3 | 7,208.0 | 3.9 | 2.2 | 51.5% | 1,286.4 | 179,541.5 | 98,320.0 | 81,221.6 | 54.8% |
| 2032 | 14,296.0 | 7,355.4 | 4.0 | 2.1 | 51.5% | 1,312.9 | 183,195.0 | 102,834.2 | 80,360.8 | 56.1% |
| 2033 | 14,581.2 | 7,517.9 | 4.1 | 2.0 | 51.6% | 1,339.1 | 186,694.7 | 107,476.4 | 79,218.3 | 57.6% |
| 2034 | 14,857.2 | 8,284.4 | 4.1 | 1.9 | 55.8% | 1,364.4 | 190,169.8 | 113,024.8 | 77,145.0 | 59.4% |
| 2035 | 15,131.5 | 8,437.3 | 4.2 | 1.8 | 55.8% | 1,389.6 | 193,457.0 | 118,749.0 | 74,708.0 | 61.4% |
| 2036 | 15,409.5 | 8,592.3 | 4.3 | 1.7 | 55.8% | 1,415.2 | 196,540.9 | 124,665.6 | 71,875.3 | 63.4% |
| 2037 | 15,692.7 | 8,750.2 | 4.4 | 1.6 | 55.8% | 1,441.2 | 199,408.7 | 130,796.5 | 68,612.3 | 65.6% |
| 2038 | 15,987.8 | 8,914.7 | 4.4 | 1.6 | 55.8% | 1,468.3 | 202,036.9 | 137,161.6 | 64,875.3 | 67.9% |
| 2039 | 16,285.8 | 9,080.9 | 4.5 | 1.5 | 55.8% | 1,495.6 | 204,400.8 | 143,781.3 | 60,619.5 | 70.3% |
| 2040 | 16,586.5 | 9,248.6 | 4.6 | 1.4 | 55.8% | 1,523.3 | 206,478.0 | 150,678.6 | 55,799.3 | 73.0% |
| 2041 | 16,907.3 | 9,427.5 | 4.7 | 1.3 | 55.8% | 1,552.7 | 208,262.2 | 157,903.8 | 50,358.4 | 75.8% |
| 2042 | 17,244.3 | 9,615.4 | 4.8 | 1.3 | 55.8% | 1,583.7 | 209,759.3 | 165,514.9 | 44,244.4 | 78.9% |
| 2043 | 17,606.3 | 9,817.2 | 4.9 | 1.2 | 55.8% | 1,616.9 | 210,989.3 | 173,589.4 | 37,399.9 | 82.3% |
| 2044 | 17,997.2 | 10,035.2 | 5.0 | 1.2 | 55.8% | 1,652.8 | 211,994.1 | 182,228.6 | 29,765.5 | 86.0% |
| 2045 | 18,419.1 | 10,270.5 | 5.1 | 1.1 | 55.8% | 1,691.6 | 212,820.2 | 191,538.1 | 21,282.0 | 90.0% |
| Total | | \$184,629.3 | \$85.3 | \$36.4 | | \$31,429.1 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Implement DROP Actuarially Assumed Rate of Return: 6.75% (\$ in millions)

| | | | | to Exhibit B | · | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.09 |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,203.6 | 23,926.9 | 29,276.7 | 45.09 |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,280.8 | 24,894.6 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,278.4 | 25,914.1 | 29,364.3 | 46.9% |
| 2026 | 5,062.6 | 2,525.5 | 1.6 | 1.3 | 49.9% | 277.8 | 56,205.0 | 26,222.8 | 29,982.2 | 46.7% |
| 2027 | 5,139.2 | 2,558.9 | 1.6 | 1.2 | 49.8% | 280.2 | 57,045.3 | 27,125.6 | 29,919.8 | 47.6% |
| 2028 | 5,218.6 | 2,646.1 | 1.6 | 1.1 | 50.7% | 282.9 | 57,800.4 | 28,052.4 | 29,748.0 | 48.5% |
| 2029 | 5,305.6 | 2,669.0 | 1.7 | 1.1 | 50.3% | 286.1 | 58,476.1 | 28,946.6 | 29,529.5 | 49.5% |
| 2030 | 5,399.6 | 2,708.2 | 1.7 | 1.0 | 50.2% | 289.7 | 59,076.0 | 29,829.0 | 29,247.0 | 50.5% |
| 2031 | 5,499.1 | 2,751.4 | 1.7 | 1.0 | 50.0% | 293.8 | 59,523.3 | 30,633.0 | 28,890.3 | 51.5% |
| 2032 | 5,604.7 | 2,803.5 | 1.7 | 0.9 | 50.0% | 298.0 | 59,885.7 | 31,442.2 | 28,443.5 | 52.5% |
| 2033 | 5,713.7 | 2,863.0 | 1.8 | 0.9 | 50.1% | 302.2 | 60,170.6 | 32,276.8 | 27,893.8 | 53.6% |
| 2034 | 5,829.2 | 3,130.6 | 1.8 | 0.9 | 53.7% | 306.8 | 60,452.5 | 33,431.7 | 27,020.9 | 55.3% |
| 2035 | 5,948.8 | 3,194.8 | 1.9 | 0.8 | 53.7% | 311.5 | 60,669.7 | 34,652.6 | 26,017.2 | 57.1% |
| 2036 | 6,071.5 | 3,260.7 | 1.9 | 0.8 | 53.7% | 316.2 | 60,822.5 | 35,950.7 | 24,871.8 | 59.1% |
| 2037 | 6,196.8 | 3,328.0 | 1.9 | 0.8 | 53.7% | 321.0 | 60,916.7 | 37,341.0 | 23,575.7 | 61.3% |
| 2038 | 6,330.3 | 3,399.7 | 2.0 | 0.7 | 53.7% | 326.3 | 60,962.1 | 38,845.7 | 22,116.4 | 63.7% |
| 2039 | 6,470.9 | 3,475.2 | 2.0 | 0.7 | 53.7% | 331.9 | 60,965.4 | 40,485.6 | 20,479.8 | 66.4% |
| 2040 | 6,616.5 | 3,553.4 | 2.1 | 0.7 | 53.7% | 337.7 | 60,932.9 | 42,282.1 | 18,650.7 | 69.4% |
| 2041 | 6,769.6 | 3,635.6 | 2.1 | 0.6 | 53.7% | 343.9 | 60,873.7 | 44,260.3 | 16,613.4 | 72.7% |
| 2042 | 6,929.7 | 3,721.6 | 2.2 | 0.6 | 53.7% | 350.4 | 60,800.0 | 46,445.7 | 14,354.3 | 76.4% |
| 2043 | 7,097.0 | 3,811.4 | 2.2 | 0.6 | 53.7% | 357.3 | 60,722.2 | 48,866.7 | 11,855.6 | 80.5% |
| 2044 | 7,270.9 | 3,904.8 | 2.3 | 0.6 | 53.7% | 364.6 | 60,645.7 | 51,548.6 | 9,097.1 | 85.0% |
| 2045 | 7,448.3 | 4,000.1 | 2.3 | 0.5 | 53.7% | 372.1 | 60,573.6 | 54,516.2 | 6,057.4 | 90.0% |
| otal | | \$71,354.0 | \$38.1 | \$16.7 | | \$7,170.9 | | | | |
| | | | | | | | | | | |

Exhibit 4C - SURS Projection (Change #4 - DROP Implementation - 3-Year Offer)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Implement DROP Actuarially Assumed Rate of Return: 6.50% (\$ in millions)

| | | | Compared | | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.29 |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.09 |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.79 |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.89 |
| 2026 | 5,433.0 | 2,265.1 | 1.5 | 1.2 | 41.7% | 315.8 | 52,718.0 | 25,010.5 | 27,707.5 | 47.49 |
| 2027 | 5,567.3 | 2,305.8 | 1.6 | 1.2 | 41.4% | 320.4 | 53,253.3 | 25,557.2 | 27,696.0 | 48.0% |
| 2028 | 5,713.6 | 2,401.6 | 1.6 | 1.1 | 42.0% | 325.9 | 53,725.4 | 26,141.9 | 27,583.5 | 48.79 |
| 2029 | 5,865.5 | 2,465.2 | 1.7 | 1.1 | 42.0% | 331.9 | 54,134.3 | 26,737.6 | 27,396.7 | 49.49 |
| 2030 | 6,021.3 | 2,526.5 | 1.7 | 1.1 | 42.0% | 338.0 | 54,478.8 | 27,346.4 | 27,132.4 | 50.29 |
| 2031 | 6,183.2 | 2,591.6 | 1.7 | 1.0 | 41.9% | 344.5 | 54,699.0 | 27,919.7 | 26,779.3 | 51.0% |
| 2032 | 6,349.9 | 2,664.7 | 1.8 | 1.0 | 42.0% | 351.2 | 54,841.5 | 28,521.1 | 26,320.4 | 52.0% |
| 2033 | 6,521.7 | 2,746.0 | 1.8 | 1.0 | 42.1% | 358.1 | 54,922.1 | 29,180.7 | 25,741.4 | 53.19 |
| 2034 | 6,701.8 | 2,849.0 | 1.9 | 0.9 | 42.5% | 365.4 | 54,998.9 | 29,985.3 | 25,013.6 | 54.5% |
| 2035 | 6,886.8 | 2,929.9 | 1.9 | 0.9 | 42.5% | 372.9 | 55,022.7 | 30,872.3 | 24,150.4 | 56.1% |
| 2036 | 7,074.8 | 3,012.1 | 2.0 | 0.9 | 42.6% | 380.6 | 54,993.2 | 31,852.3 | 23,140.9 | 57.9% |
| 2037 | 7,267.9 | 3,096.5 | 2.1 | 0.8 | 42.6% | 388.5 | 54,917.0 | 32,944.6 | 21,972.4 | 60.0% |
| 2038 | 7,466.6 | 3,183.3 | 2.1 | 0.8 | 42.6% | 396.6 | 54,797.4 | 34,165.2 | 20,632.2 | 62.3% |
| 2039 | 7,670.8 | 3,272.6 | 2.2 | 0.8 | 42.7% | 405.0 | 54,647.4 | 35,540.3 | 19,107.1 | 65.0% |
| 2040 | 7,880.8 | 3,364.3 | 2.2 | 0.7 | 42.7% | 413.6 | 54,465.1 | 37,080.8 | 17,384.3 | 68.1% |
| 2041 | 8,094.8 | 3,457.8 | 2.3 | 0.7 | 42.7% | 422.4 | 54,272.5 | 38,819.7 | 15,452.8 | 71.5% |
| 2042 | 8,316.7 | 3,554.5 | 2.4 | 0.7 | 42.7% | 431.8 | 54,079.9 | 40,780.7 | 13,299.2 | 75.4% |
| 2043 | 8,544.6 | 3,653.8 | 2.4 | 0.7 | 42.8% | 441.5 | 53,905.4 | 42,995.7 | 10,909.7 | 79.8% |
| 2044 | 8,778.5 | 3,755.6 | 2.5 | 0.6 | 42.8% | 451.5 | 53,747.2 | 45,478.3 | 8,269.0 | 84.6% |
| 2045 | 9,013.1 | 3,857.9 | 2.5 | 0.6 | 42.8% | 461.4 | 53,624.4 | 48,261.9 | 5,362.4 | 90.0% |
| otal | | \$66,507.2 | \$39.9 | \$17.8 | | \$8,543,6 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Funding Projections for the Teachers' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Additional \$500M Funding to Pension Unfunded Liability Reduction Fund Actuarially Assumed Rate of Return: 7.00%

(\$ in millions)

| | | | Compared t | | 2 | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11,448.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,528.4 | 6,350.4 | (97.3) | (76.8) | 50.7% | 1,150.6 | 159,434.9 | 76,906.4 | 82,528.5 | 48.2% |
| 2027 | 12,843.5 | 6,492.4 | (99.7) | (73.6) | 50.6% | 1,179.5 | 163,572.9 | 80,782.9 | 82,789.9 | 49.4% |
| 2028 | 13,142.4 | 6,707.5 | (102.0) | (70.3) | 51.0% | 1,207.0 | 167,674.0 | 84,845.2 | 82,828.8 | 50.6% |
| 2029 | 13,429.4 | 6,843.4 | (104.3) | (67.2) | 51.0% | 1,233.3 | 171,716.8 | 89,011.2 | 82,705.6 | 51.8% |
| 2030 | 13,718.6 | 6,968.0 | (106.5) | (64.1) | 50.8% | 1,259.9 | 175,685.8 | 93,270.1 | 82,415.7 | 53.1% |
| 2031 | 14,007.3 | 7,095.3 | (108.8) | (61.2) | 50.7% | 1,286.4 | 179,563.0 | 97,623.4 | 81,939.5 | 54.4% |
| 2032 | 14,296.0 | 7,240.4 | (111.0) | (58.4) | 50.6% | 1,312.9 | 183,325.7 | 102,086.1 | 81,239.6 | 55.7% |
| 2033 | 14,581.2 | 7,400.7 | (113.2) | (55.6) | 50.8% | 1,339.1 | 186,946.7 | 106,669.4 | 80,277.3 | 57.1% |
| 2034 | 14,857.2 | 8,164.9 | (115.4) | (53.0) | 55.0% | 1,364.4 | 190,401.3 | 112,271.7 | 78,129.6 | 59.0% |
| 2035 | 15,131.5 | 8,315.6 | (117.5) | (50.4) | 55.0% | 1,389.6 | 193,665.6 | 118,049.8 | 75,615.8 | 61.0% |
| 2036 | 15,409.5 | 8,468.4 | (119.7) | (48.0) | 55.0% | 1,415.2 | 196,723.6 | 124,020.0 | 72,703.6 | 63.0% |
| 2037 | 15,692.7 | 8,624.0 | (121.9) | (45.7) | 55.0% | 1,441.2 | 199,562.4 | 130,203.8 | 69,358.6 | 65.2% |
| 2038 | 15,987.8 | 8,786.2 | (124.1) | (43.5) | 55.0% | 1,468.3 | 202,158.1 | 136,621.4 | 65,536.7 | 67.6% |
| 2039 | 16,285.8 | 8,950.0 | (126.5) | (41.4) | 55.0% | 1,495.6 | 204,486.0 | 143,292.9 | 61,193.2 | 70.1% |
| 2040 | 16,586.5 | 9,115.2 | (128.8) | (39.4) | 55.0% | 1,523.3 | 206,523.2 | 150,241.1 | 56,282.1 | 72.7% |
| 2041 | 16,907.3 | 9,291.5 | (131.3) | (37.5) | 55.0% | 1,552.7 | 208,263.4 | 157,516.2 | 50,747.2 | 75.6% |
| 2042 | 17,244.3 | 9,476.7 | (133.9) | (35.8) | 55.0% | 1,583.7 | 209,711.7 | 165,176.0 | 44,535.7 | 78.8% |
| 2043 | 17,606.3 | 9,675.6 | (136.7) | (34.2) | 55.0% | 1,616.9 | 210,888.2 | 173,297.8 | 37,590.4 | 82.2% |
| 2044 | 17,997.2 | 9,890.5 | (139.7) | (32.6) | 55.0% | 1,652.8 | 211,834.0 | 181,982.5 | 29,851.5 | 85.9% |
| 2045 | 18,419.1 | 10,122.3 | (143.0) | (31.2) | 55.0% | 1,691.6 | 212,595.4 | 191,335.8 | 21,259.5 | 90.0% |
| Γotal | | \$182,163.0 | (\$2,381.3) | (\$1,019.9) | | \$31,429.1 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Additional \$500M Funding to Pension Unfunded Liability Reduction Fund Actuarially Assumed Rate of Return: 6.75%

(\$ in millions)

| | | | Compared | | | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0% |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0% |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9% |
| 2026 | 5,062.6 | 2,485.4 | (38.5) | (30.6) | 49.1% | 277.8 | 56,285.4 | 26,263.8 | 30,021.6 | 46.7% |
| 2027 | 5,139.2 | 2,518.3 | (39.0) | (29.1) | 49.0% | 280.2 | 57,132.6 | 27,131.5 | 30,001.1 | 47.5% |
| 2028 | 5,218.6 | 2,604.8 | (39.6) | (27.7) | 49.9% | 282.9 | 57,889.7 | 28,015.9 | 29,873.8 | 48.4% |
| 2029 | 5,305.6 | 2,627.1 | (40.3) | (26.4) | 49.5% | 286.1 | 58,562.2 | 28,859.9 | 29,702.2 | 49.3% |
| 2030 | 5,399.6 | 2,665.5 | (41.0) | (25.1) | 49.4% | 289.7 | 59,153.3 | 29,684.2 | 29,469.0 | 50.2% |
| 2031 | 5,499.1 | 2,707.9 | (41.8) | (24.0) | 49.2% | 293.8 | 59,663.6 | 30,498.0 | 29,165.6 | 51.1% |
| 2032 | 5,604.7 | 2,759.2 | (42.6) | (22.9) | 49.2% | 298.0 | 60,092.9 | 31,314.1 | 28,778.7 | 52.1% |
| 2033 | 5,713.7 | 2,817.8 | (43.4) | (21.9) | 49.3% | 302.2 | 60,444.0 | 32,147.5 | 28,296.6 | 53.2% |
| 2034 | 5,829.2 | 3,084.5 | (44.3) | (20.9) | 52.9% | 306.8 | 60,721.0 | 33,325.5 | 27,395.5 | 54.9% |
| 2035 | 5,948.8 | 3,147.8 | (45.2) | (20.0) | 52.9% | 311.5 | 60,929.0 | 34,566.4 | 26,362.6 | 56.7% |
| 2036 | 6,071.5 | 3,212.7 | (46.1) | (19.1) | 52.9% | 316.2 | 61,068.1 | 35,881.1 | 25,187.0 | 58.8% |
| 2037 | 6,196.8 | 3,279.0 | (47.1) | (18.3) | 52.9% | 321.0 | 61,143.5 | 37,283.9 | 23,859.6 | 61.0% |
| 2038 | 6,330.3 | 3,349.6 | (48.1) | (17.5) | 52.9% | 326.3 | 61,165.0 | 38,797.2 | 22,367.7 | 63.4% |
| 2039 | 6,470.9 | 3,424.0 | (49.1) | (16.7) | 52.9% | 331.9 | 61,138.8 | 40,441.5 | 20,697.3 | 66.1% |
| 2040 | 6,616.5 | 3,501.1 | (50.3) | (16.0) | 52.9% | 337.7 | 61,070.8 | 42,237.8 | 18,833.0 | 69.2% |
| 2041 | 6,769.6 | 3,582.1 | (51.4) | (15.4) | 52.9% | 343.9 | 60,970.1 | 44,210.8 | 16,759.3 | 72.5% |
| 2042 | 6,929.7 | 3,666.8 | (52.6) | (14.7) | 52.9% | 350.4 | 60,848.3 | 46,386.1 | 14,462.2 | 76.2% |
| 2043 | 7,097.0 | 3,755.3 | (53.9) | (14.1) | 52.9% | 357.3 | 60,715.8 | 48,791.6 | 11,924.2 | 80.4% |
| 2044 | 7,270.9 | 3,847.3 | (55.2) | (13.6) | 52.9% | 364.6 | 60,577.7 | 51,452.5 | 9,125.2 | 84.9% |
| 2045 | 7,448.3 | 3,941.2 | (56.6) | (13.0) | 52.9% | 372.1 | 60,436.5 | 54,392.9 | 6,043.7 | 90.0% |
| otal | | \$70,390.0 | (\$926.1) | (\$406.8) | | \$7,170.9 | | | | |

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Additional \$500M Funding to Pension Unfunded Liability Reduction Fund Actuarially Assumed Rate of Return: 6.50%

(\$ in millions)

| | | | Compared | | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll* | Totał State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Fundeđ Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.29 |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.0% |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.79 |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.89 |
| 2026 | 5,433.0 | 2,229.8 | (33.8) | (27.1) | 41.0% | 315.8 | 52,738.9 | 24,997.4 | 27,741.5 | 47.49 |
| 2027 | 5,567.3 | 2,269.6 | (34.7) | (26.1) | 40.8% | 320.4 | 53,291.4 | 25,524.9 | 27,766.5 | 47.9% |
| 2028 | 5,713.6 | 2,364.4 | (35.6) | (25.2) | 41.4% | 325.9 | 53,776.7 | 26,083.7 | 27,693.0 | 48.5% |
| 2029 | 5,865.5 | 2,427.1 | (36.5) | (24.2) | 41.4% | 331.9 | 54,193.9 | 26,646.4 | 27,547.4 | 49.29 |
| 2030 | 6,021.3 | 2,487.3 | (37.5) | (23.4) | 41.3% | 338.0 | 54,541.2 | 27,214.5 | 27,326.6 | 49.9% |
| 2031 | 6,183.2 | 2,551.3 | (38.5) | (22.5) | 41.3% | 344.5 | 54,811.5 | 27,790.5 | 27,020.9 | 50.7% |
| 2032 | 6,349.9 | 2,623.4 | (39.5) | (21.7) | 41.3% | 351.2 | 55,006.9 | 28,391.0 | 26,616.0 | 51.6% |
| 2033 | 6,521.7 | 2,703.5 | (40.6) | (21.0) | 41.5% | 358.1 | 55,141.3 | 29,043.0 | 26,098.3 | 52.7% |
| 2034 | 6,701.8 | 2,805.4 | (41.7) | (20.2) | 41.9% | 365.4 | 55,220.7 | 29,875.7 | 25,345.0 | 54.1% |
| 2035 | 6,886.8 | 2,885.1 | (42.9) | (19.5) | 41.9% | 372.9 | 55,242.2 | 30,786.9 | 24,455.3 | 55.7% |
| 2036 | 7,074.8 | 2,966.0 | (44.0) | (18.8) | 41.9% | 380.6 | 55,205.3 | 31,787.0 | 23,418.3 | 57.6% |
| 2037 | 7,267.9 | 3,049.2 | (45.2) | (18.2) | 42.0% | 388.5 | 55,116.0 | 32,894.7 | 22,221.3 | 59.7% |
| 2038 | 7,466.6 | 3,134.8 | (46.5) | (17.5) | 42.0% | 396.6 | 54,977.2 | 34,125.6 | 20,851.6 | 62.1% |
| 2039 | 7,670.8 | 3,222.6 | (47.7) | (16.9) | 42.0% | 405.0 | 54,801.5 | 35,505.5 | 19,296.0 | 64.8% |
| 2040 | 7,880.8 | 3,313.0 | (49.1) | (16.3) | 42.0% | 413.6 | 54,586.7 | 37,045.1 | 17,541.6 | 67.9% |
| 2041 | 8,094.8 | 3,405.1 | (50.4) | (15.7) | 42.1% | 422.4 | 54,354.5 | 38,776.9 | 15,577.6 | 71.3% |
| 2042 | 8,316.7 | 3,500.4 | (51.8) | (15.2) | 42.1% | 431.8 | 54,114.9 | 40,724.4 | 13,390.4 | 75.39 |
| 2043 | 8,544.6 | 3,598.2 | (53.2) | (14.6) | 42.1% | 441.5 | 53,885.9 | 42,919.5 | 10,966.4 | 79.6% |
| 2044 | 8,778.5 | 3,698.5 | (54.6) | (14.1) | 42.1% | 451.5 | 53,665.7 | 45,375.5 | 8,290.2 | 84.6% |
| 2045 | 9,013.1 | 3,799.2 | (56.1) | (13.6) | 42.2% | 461.4 | 53,472.9 | 48,125.6 | 5,347.3 | 90.0% |
| otal | | \$65,587.3 | (\$879.9) | (\$391.8) | | \$8,543.6 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Funding Projections for the Teachers' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 NRA
Actuarially Assumed Rate of Return: 7.00%
(\$ in millions)

| | | | | to Exhibit A | | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.8% |
| 2023 | \$11, 44 8.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,528.4 | 6,538.0 | 90.4 | 71.3 | 52.2% | 1,150.6 | 159,484.8 | 77,101.9 | 82,382.9 | 48.3% |
| 2027 | 12,843.5 | 6,684.9 | 92.7 | 68.4 | 52.0% | 1,179.5 | 163,682.7 | 81,192.6 | 82,490.1 | 49.6% |
| 2028 | 13,142.4 | 6,904.4 | 94.8 | 65.4 | 52.5% | 1,207.0 | 167,855.5 | 85,489.0 | 82,366.5 | 50.9% |
| 2029 | 13,429.4 | 7,044.6 | 96.9 | 62.4 | 52.5% | 1,233.3 | 171,982.8 | 89,910.1 | 82,072.8 | 52.3% |
| 2030 | 13,718.6 | 7,173.5 | 99.0 | 59.6 | 52.3% | 1,259.9 | 176,050.9 | 94,446.7 | 81,604.2 | 53.6% |
| 2031 | 14,007.2 | 7,305.1 | 101.0 | 56.8 | 52.2% | 1,286.4 | 180,043.3 | 99,101.8 | 80,941.5 | 55.0% |
| 2032 | 14,295.7 | 7,454.4 | 103.0 | 54.2 | 52.1% | 1,312.9 | 183,939.2 | 103,892.0 | 80,047.2 | 56.5% |
| 2033 | 14,580.8 | 7,618.9 | 105.0 | 51.6 | 52.3% | 1,339.0 | 187,713.1 | 108,830.0 | 78,883.1 | 58.0% |
| 2034 | 14,856.5 | 8,387.0 | 106.8 | 49.0 | 56.5% | 1,364.4 | 191,342.6 | 114,543.3 | 76,799.3 | 59.9% |
| 2035 | 15,130.3 | 8,541.6 | 108.5 | 46.6 | 56.5% | 1,389.5 | 194,805.2 | 120,444.2 | 74,361.0 | 61.8% |
| 2036 | 15,407.5 | 8,698.1 | 110.1 | 44.2 | 56.5% | 1,415.0 | 198,087.3 | 126,549.6 | 71,537.7 | 63.9% |
| 2037 | 15,689.9 | 8,857.5 | 111.7 | 41.9 | 56.5% | 1,440.9 | 201,178.2 | 132,881.7 | 68,296.5 | 66.1% |
| 2038 | 15,984.2 | 9,023.6 | 113.3 | 39.7 | 56.5% | 1,467.9 | 204,056.7 | 139,461.6 | 64,595.1 | 68.3% |
| 2039 | 16,281.6 | 9,191.5 | 115.1 | 37.7 | 56.5% | 1,495.2 | 206,699.7 | 146,310.4 | 60,389.3 | 70.8% |
| 2040 | 16,581.2 | 9,360.7 | 116.7 | 35.7 | 56.5% | 1,522.8 | 209,086.6 | 153,451.2 | 55,635.4 | 73.4% |
| 2041 | 16,900.8 | 9,541.1 | 118.3 | 33.8 | 56.5% | 1,552.1 | 211,214.1 | 160,935.1 | 50,279.0 | 76.2% |
| 2042 | 17,237.0 | 9,730.9 | 120.3 | 32.2 | 56.5% | 1,583.0 | 213,090.0 | 168,821.0 | 44,269.0 | 79.2% |
| 2043 | 17,598.1 | 9,934.8 | 122.5 | 30.6 | 56.5% | 1,616.2 | 214,738.0 | 177,187.9 | 37,550.0 | 82.5% |
| 2044 | 17,988.7 | 10,155.2 | 125.0 | 29.2 | 56.5% | 1,652.0 | 216,202.1 | 186,138.0 | 30,064.2 | 86.1% |
| 2045 | 18,410.1 | 10,393.2 | 127.8 | 27.9 | 56.5% | 1,690.7 | 217,529.3 | 195,776.4 | 21,752.9 | 90.0% |
| Total | | \$186,723.0 | \$2,178.9 | \$938.2 | | \$31,423.4 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 NRA
Actuarially Assumed Rate of Return: 6.75%
(\$ in millions)

| | | 118 | | to Exhibit B | | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|--|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0% |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0% |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9% |
| 2026 | 5,062.6 | 2,545.7 | 21.8 | 17.3 | 50.3% | 277.8 | 56,296.9 | 26,326.0 | 29,970.8 | 46.8% |
| 2027 | 5,139.2 | 2,579.4 | 22.1 | 16.5 | 50.2% | 280.2 | 57,157.9 | 27,261.1 | 29,896.9 | 47.7% |
| 2028 | 5,218.6 | 2,666.9 | 22.5 | 15.7 | 51.1% | 282.9 | 57,931.7 | 28,218.4 | 29,713.3 | 48.7% |
| 2029 | 5,305.6 | 2,690.2 | 22.8 | 14.9 | 50.7% | 286.1 | 58,624.0 | 29,141.3 | 29,482.7 | 49.7% |
| 2030 | 5,399.6 | 2,729.7 | 23.2 | 14.2 | 50.6% | 289.7 | 59,238.3 | 30,051.0 | 29,187.3 | 50.7% |
| 2031 | 5,499.1 | 2,773.3 | 23.7 | 13.6 | 50.4% | 293.8 | 59,775.7 | 30,957.1 | 28,818.6 | 51.8% |
| 2032 | 5,604.7 | 2,825.9 | 24.1 | 13.0 | 50.4% | 298.0 | 60,236.2 | 31,873.1 | 28,363.1 | 52.9% |
| 2033 | 5,713.6 | 2,885.8 | 24.5 | 12.4 | 50.5% | 302.2 | 60,622.7 | 32,813.9 | 27,808.8 | 54.1% |
| 2034 | 5,828.9 | 3,153.7 | 24.9 | 11.8 | 54.1% | 306.8 | 60,939.4 | 34,004.7 | 26,934.7 | 55.8% |
| 2035 | 5,948.1 | 3,218.2 | 25.2 | 11.1 | 54.1% | 311.5 | 61,191.6 | 35,259.6 | 25,932.0 | 57.6% |
| 2036 | 6,070.4 | 3,284.3 | 25.5 | 10.6 | 54.1% | 316.2 | 61,379.4 | 36,589.5 | 24,789.9 | 59.6% |
| 2037 | 6,195.4 | 3,352.0 | 25.9 | 10.1 | 54.1% | 321.0 | 61,508.4 | 38,008.8 | 23,499.6 | 61.8% |
| 2038 | 6,328.6 | 3,424.0 | 26.3 | 9.6 | 54.1% | 326.2 | 61,588.5 | 39,539.8 | 22,048.8 | 64.2% |
| 2039 | 6,468.9 | 3,499.9 | 26.7 | 9.1 | 54.1% | 331.8 | 61,626.2 | 41,202.8 | 20,423.5 | 66.9% |
| 2040 | 6,614.2 | 3,578.5 | 27.2 | 8.7 | 54.1% | 337.5 | 61,627.8 | 43,018.9 | 18,608.8 | 69.8% |
| 2041 | 6,767.0 | 3,661.2 | 27.7 | 8.3 | 54.1% | 343.7 | 61,602.3 | 45,012.9 | 16,589.4 | 73.1% |
| 2042 | 6,926.9 | 3,747.7 | 28.3 | 7.9 | 54.1% | 350.3 | 61,561.5 | 47,209.9 | 14,351.6 | 76.7% |
| 2043 | 7,094.0 | 3,838.1 | 28.9 | 7.6 | 54.1% | 357.2 | 61,515.6 | 49,637.6 | 11,878.0 | 80.7% |
| 2044 | 7,267.6 | 3,932.0 | 29.5 | 7.2 | 54.1% | 364.5 | 61,469.8 | 52,321.0 | 9,148.8 | 85.1% |
| 2045 | 7,444.8 | 4,027.9 | 30.1 | 6.9 | 54.1% | 371.9 | 61,426.9 | 55,284.2 | 6,142.7 | 90.0% |
| otal | | \$71,827.1 | \$510.9 | \$226.4 | | \$7,169.8 | | | | |

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Update Tier 2 NRA Actuarially Assumed Rate of Return: 6.50% (\$ in millions)

| | | | | to Exhibit C | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.2 |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.0 |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.7 |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.8 |
| 2026 | 5,433.0 | 2,278.0 | 14.4 | 11.5 | 41.9% | 315.8 | 52,743.2 | 25,047.2 | 27,696.1 | 47.5 |
| 2027 | 5,567.3 | 2,318.9 | 14.7 | 11.1 | 41.7% | 320.4 | 53,301.5 | 25,628.9 | 27,672.6 | 48.1 |
| 2028 | 5,713.6 | 2,415.1 | 15.1 | 10.7 | 42.3% | 325.9 | 53,794.1 | 26,246.7 | 27,547.4 | 48.8 |
| 2029 | 5,865.5 | 2,479.1 | 15.5 | 10.3 | 42.3% | 331.9 | 54,220.9 | 26,873.8 | 27,347.1 | 49.6 |
| 2030 | 6,021.3 | 2,540.7 | 16.0 | 10.0 | 42.2% | 338.0 | 54,580.2 | 27,511.8 | 27,068.4 | 50.4 |
| 2031 | 6,183.2 | 2,606.2 | 16.4 | 9.6 | 42.1% | 344.5 | 54,866.8 | 28,165.1 | 26,701.7 | 51.3 |
| 2032 | 6,349.8 | 2,679.7 | 16.8 | 9.2 | 42.2% | 351.2 | 55,083.6 | 28,851.1 | 26,232.4 | 52.4 |
| 2033 | 6,521.4 | 2,761.3 | 17.2 | 8.9 | 42.3% | 358.1 | 55,244.7 | 29,597.5 | 25,647.2 | 53.6 |
| 2034 | 6,701.5 | 2,864.6 | 17.6 | 8.5 | 42.7% | 365.4 | 55,355.6 | 30,439.2 | 24,916.4 | 55.0 |
| 2035 | 6,886.3 | 2,945.9 | 18.0 | 8.2 | 42.8% | 372.9 | 55,412.7 | 31,360.3 | 24,052.4 | 56.6 |
| 2036 | 7,073.9 | 3,028.4 | 18.4 | 7.8 | 42.8% | 380.5 | 55,417.3 | 32,372.8 | 23,044.5 | 58.4 |
| 2037 | 7,266.6 | 3,113.1 | 18.7 | 7.5 | 42.8% | 388.4 | 55,375.6 | 33,495.3 | 21,880.3 | 60.5 |
| 2038 | 7,465.3 | 3,200.4 | 19.2 | 7.2 | 42.9% | 396.5 | 55,292.3 | 34,744.9 | 20,547.4 | 62.8 |
| 2039 | 7,669.4 | 3,290.1 | 19.7 | 7.0 | 42.9% | 404.9 | 55,176.5 | 36,143.8 | 19,032.8 | 65.5 |
| 2040 | 7,879.0 | 3,382.2 | 20.1 | 6.7 | 42.9% | 413.5 | 55,031.4 | 37,707.5 | 17,323.9 | 68.5 |
| 2041 | 8,092.8 | 3,476.1 | 20.6 | 6.4 | 43.0% | 422.3 | 54,875.4 | 39,465.2 | 15,410.2 | 71.9 |
| 2042 | 8,314.7 | 3,573.3 | 21.2 | 6.2 | 43.0% | 431.6 | 54,717.8 | 41,439.7 | 13,278.1 | 75.7 |
| 2043 | 8,542.2 | 3,673.0 | 21.6 | 5.9 | 43.0% | 441.3 | 54,571.6 | 43,657.0 | 10,914.7 | 80.0 |
| 2044 | 8,775.4 | 3,775.1 | 21.9 | 5.7 | 43.0% | 451.3 | 54,443.6 | 46,138.6 | 8,305.0 | 84.7 |
| 2045 | 9,009.9 | 3,877.9 | 22.5 | 5.5 | 43.0% | 461.2 | 54,346.9 | 48,912.2 | 5,434.7 | 90.0 |
| ıtal | | \$66,832.5 | \$365.6 | \$163.9 | | \$8,542.2 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Members of Depts. of Human Services and Lottery Eligible for Alternate Benefi Actuarially Assumed Rate of Return: 6.75%

(\$ in millions)

| | | | Compared to Exhibit B | | | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.0 |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,224.3 | 23,947.7 | 29,276.7 | 45.0 |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,324.6 | 24,938.4 | 29,386.2 | 45.9 |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,347.6 | 25,983.4 | 29,364.3 | 46.9 |
| 2026 | 5,062.6 | 2,525.9 | 2.0 | 1.6 | 49.9% | 277.8 | 56,286.7 | 26,305.6 | 29,981.1 | 46.7 |
| 2027 | 5,139.2 | 2,559.3 | 2.0 | 1.5 | 49.8% | 280.2 | 57,135.3 | 27,218.5 | 29,916.8 | 47.6 |
| 2028 | 5,218.6 | 2,646.5 | 2.1 | 1.4 | 50.7% | 282.9 | 57,893.9 | 28,151.8 | 29,742.1 | 48.6 |
| 2029 | 5,305.6 | 2,669.4 | 2.1 | 1.4 | 50.3% | 286.1 | 58,568.3 | 29,048.9 | 29,519.4 | 49.6 |
| 2030 | 5,399.6 | 2,708.6 | 2.1 | 1.3 | 50.2% | 289.7 | 59,161.4 | 29,930.5 | 29,230.9 | 50.6 |
| 2031 | 5,499.1 | 2,751.8 | 2.2 | 1.2 | 50.0% | 293.8 | 59,674.0 | 30,806.2 | 28,867.8 | 51.6 |
| 2032 | 5,604.7 | 2,804.0 | 2.2 | 1.2 | 50.0% | 298.0 | 60,105.9 | 31,689.5 | 28,416.4 | 52.7 |
| 2033 | 5,713.7 | 2,863.5 | 2.3 | 1.1 | 50.1% | 302.2 | 60,459.9 | 32,595.2 | 27,864.7 | 53.9 |
| 2034 | 5,829.2 | 3,131.0 | 2.3 | 1.1 | 53.7% | 306.8 | 60,740.1 | 33,748.5 | 26,991.6 | 55.6 |
| 2035 | 5,948.8 | 3,195.3 | 2.3 | 1.0 | 53.7% | 311.5 | 60,951.8 | 34,963.8 | 25,988.0 | 57.4 |
| 2036 | 6,071.5 | 3,261.2 | 2.4 | 1.0 | 53.7% | 316.2 | 61,095.0 | 36,251.8 | 24,843.1 | 59.3 |
| 2037 | 6,196.8 | 3,328.5 | 2.4 | 1.0 | 53.7% | 321.0 | 61,174.9 | 37,627.0 | 23,547.9 | 61.5 |
| 2038 | 6,330.3 | 3,400.2 | 2.5 | 0.9 | 53.7% | 326.3 | 61,201.3 | 39,111.4 | 22,089.9 | 63.9 |
| 2039 | 6,470.9 | 3,475.7 | 2.6 | 0.9 | 53.7% | 331.9 | 61,180.7 | 40,725.6 | 20,455.1 | 66.6 |
| 2040 | 6,616.5 | 3,553.9 | 2.6 | 0.8 | 53.7% | 337.7 | 61,118.7 | 42,490.4 | 18,628.3 | 69.5 |
| 2041 | 6,769.6 | 3,636.1 | 2.7 | 0.8 | 53.7% | 343.9 | 61,024.4 | 44,430.6 | 16,593.8 | 72.8 |
| 2042 | 6,929.7 | 3,722.1 | 2.7 | 0.8 | 53.7% | 350.4 | 60,909.3 | 46,571.5 | 14,337.8 | 76.5 |
| 2043 | 7,097.0 | 3,812.0 | 2.8 | 0.7 | 53.7% | 357.3 | 60,783.8 | 48,941.1 | 11,842.7 | 80.5 |
| 2044 | 7,270.9 | 3,905.4 | 2.9 | 0.7 | 53.7% | 364.6 | 60,652.6 | 51,564.6 | 9,088.1 | 85.0 |
| 2045 | 7,448.3 | 4,000.7 | 2.9 | 0.7 | 53.7% | 372.1 | 60,517.9 | 54,466.1 | 6,051.8 | 90.0 |
| tal | | \$71,364.1 | \$48.1 | \$21.1 | | \$7,170.9 | | | | |

Funding Projections for the Teachers' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Combined Changes
Actuarially Assumed Rate of Return: 7.00%
(\$ in millions)

| | | 01 | Compared to Exhibit A | | | | | | | |
|----------------------------------|-----------------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual State Payroll* | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$143,523.7 | \$62,910.4 | \$80,613.3 | 43.89 |
| 2023 | \$11,448.9 | \$5,893.7 | \$0.0 | \$0.0 | 51.5% | \$1,051.4 | 147,495.4 | 66,184.8 | 81,310.6 | 44.9% |
| 2024 | 11,893.2 | 6,043.2 | 0.0 | 0.0 | 50.8% | 1,092.2 | 151,477.2 | 69,786.7 | 81,690.6 | 46.1% |
| 2025 | 12,211.8 | 6,247.1 | 0.0 | 0.0 | 51.2% | 1,121.5 | 155,459.8 | 74,248.5 | 81,211.4 | 47.8% |
| 2026 | 12,538.1 | 6,516.9 | 69.3 | 54.7 | 52.0% | 1,151.5 | 159,467.1 | 77,080.8 | 82,386.3 | 48.3% |
| 2027 | 12,860.7 | 6,667.8 | 75.6 | 55.8 | 51.8% | 1,181.1 | 163,743.7 | 81,156.2 | 82,587.5 | 49.6% |
| 2028 | 13,166.9 | 6,890.2 | 80.6 | 55.5 | 52.3% | 1,209.2 | 168,013.2 | 85,440.3 | 82,572.9 | 50.9% |
| 2029 | 13,461.9 | 7,034.2 | 86.5 | 55.7 | 52.3% | 1,236.3 | 172,258.5 | 89,853.5 | 82,405.0 | 52.2% |
| 2030 | 13,759.9 | 7,167.5 | 93.0 | 56.0 | 52.1% | 1,263.7 | 176,468.6 | 94,387.6 | 82,081.0 | 53.5% |
| 2031 | 14,058.9 | 7,304.4 | 100.3 | 56.5 | 52.0% | 1,291.1 | 180,498.7 | 98,918.7 | 81,580.1 | 54.8% |
| 2032 | 14,359.4 | 7,459.9 | 108.5 | 57.1 | 52.0% | 1,318.7 | 184,452.7 | 103,590.0 | 80,862.7 | 56.2% |
| 2033 | 14,658.1 | 7,631.5 | 117.6 | 57.8 | 52.1% | 1,346.2 | 188,302.4 | 108,411.4 | 79,890.9 | 57.6% |
| 2034 | 14,949.4 | 8,408.4 | 128.2 | 58.9 | 56.2% | 1,372.9 | 192,182.4 | 114,436.8 | 77,745.6 | 59.5% |
| 2035 | 15,240.9 | 8,572.4 | 139.3 | 59.8 | 56.2% | 1,399.7 | 195,935.4 | 120,683.5 | 75,251.8 | 61.6% |
| 2036 | 15,538.0 | 8,739.4 | 151.4 | 60.7 | 56.2% | 1,427.0 | 199,552.6 | 127,172.7 | 72,379.9 | 63.7% |
| 2037 | 15,842.7 | 8,910.9 | 165.0 | 61.9 | 56.2% | 1,454.9 | 203,028.6 | 133,930.8 | 69,097.8 | 66.0% |
| 2038 | 16,162.2 | 9,090.6 | 180.3 | 63.2 | 56.2% | 1,484.3 | 206,347.6 | 140,983.6 | 65,364.0 | 68.3% |
| 2039 | 16,488.1 | 9,273.8 | 197.4 | 64.6 | 56.2% | 1,514.2 | 209,492.3 | 148,357.4 | 61,134.9 | 70.8% |
| 2040 | 16,819.8 | 9,460.4 | 216.4 | 66.2 | 56.2% | 1,544.7 | 212,448.7 | 156,081.3 | 56,367.4 | 73.5% |
| 2041 | 17,175.8 | 9,660.6 | 237.8 | 68.0 | 56.2% | 1,577.4 | 215,220.4 | 164,213.0 | 51,007.4 | 76.3% |
| 2042 | 17,556.1 | 9,874.6 | 263.9 | 70.6 | 56.2% | 1,612.3 | 217,822.7 | 172,821.0 | 45,001.7 | 79.3% |
| 2043 | 17,971.6 | 10,108.2 | 295.9 | 73.9 | 56.2% | 1,650.4 | 220,286.6 | 181,995.9 | 38,290.7 | 82.6% |
| 2044 | 18,426.4 | 10,364.1 | 333.8 | 77.9 | 56.2% | 1,692.2 | 222,663.9 | 191,851.9 | 30,812.0 | 86.2% |
| 2045 | 18,924.1 | 10,644.0 | 378.6 | 82.6 | 56.2% | 1,737.9 | 225,007.1 | 202,506.4 | 22,500.7 | 90.0% |
| otal | | \$187,963.8 | \$3,419.4 | \$1,257.4 | | \$31,730.8 | | | | |

^{*} Does not include Federal Payroll

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Combined Changes
Actuarially Assumed Rate of Return: 6.75%
(\$ in millions)

| | | | Compared | | | | | | | |
|----------------------------------|-------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | Annual Payroll | Total State Contribution | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$52,049.7 | \$22,892.7 | \$29,157.0 | 44.09 |
| 2023 | \$4,851.8 | \$2,475.6 | \$0.0 | \$0.0 | 51.0% | \$271.6 | 53,203.6 | 23,926.9 | 29,276.7 | 45.09 |
| 2024 | 4,918.8 | 2,450.3 | 0.0 | 0.0 | 49.8% | 273.4 | 54,280.8 | 24,894.6 | 29,386.2 | 45.9% |
| 2025 | 4,989.6 | 2,487.0 | 0.0 | 0.0 | 49.8% | 275.5 | 55,278.4 | 25,914.1 | 29,364.3 | 46.9% |
| 2026 | 5,078.1 | 2,518.1 | (5.8) | (4.6) | 49.6% | 278.6 | 56,244.3 | 26,215.9 | 30,028.5 | 46.6% |
| 2027 | 5,163.3 | 2,555.9 | (1.4) | (1.1) | 49.5% | 281.6 | 57,131.5 | 27,116.1 | 30,015.4 | 47.5% |
| 2028 | 5,250.2 | 2,646.1 | 1.6 | 1.1 | 50.4% | 284.6 | 57,941.8 | 28,043.6 | 29,898.2 | 48.4% |
| 2029 | 5,344.7 | 2,672.6 | 5.3 | 3.5 | 50.0% | 288.2 | 58,682.3 | 28,942.6 | 29,739.7 | 49.3% |
| 2030 | 5,446.3 | 2,715.6 | 9.1 | 5.6 | 49.9% | 292.2 | 59,357.4 | 29,834.3 | 29,523.1 | 50.3% |
| 2031 | 5,554.4 | 2,763.1 | 13.4 | 7.7 | 49.7% | 296.8 | 59,891.6 | 30,653.0 | 29,238.6 | 51.2% |
| 2032 | 5,669.5 | 2,820.0 | 18.2 | 9.8 | 49.7% | 301.5 | 60,353.4 | 31,482.8 | 28,870.7 | 52.2% |
| 2033 | 5,788.8 | 2,884.6 | 23.4 | 11.8 | 49.8% | 306.2 | 60,751.5 | 32,344.6 | 28,407.0 | 53.2% |
| 2034 | 5,915.8 | 3,158.1 | 29.4 | 13.9 | 53.4% | 311.4 | 61,161.8 | 33,637.6 | 27,524.2 | 55.0% |
| 2035 | 6,048.1 | 3,228.7 | 35.7 | 15.8 | 53.4% | 316.7 | 61,523.5 | 35,012.4 | 26,511.2 | 56.9% |
| 2036 | 6,184.9 | 3,301.8 | 43.0 | 17.8 | 53.4% | 322.1 | 61,838.3 | 36,481.6 | 25,356.7 | 59.0% |
| 2037 | 6,325.8 | 3,377.0 | 50.9 | 19.8 | 53.4% | 327.7 | 62,113.5 | 38,062.0 | 24,051.5 | 61.3% |
| 2038 | 6,476.2 | 3,457.3 | 59.6 | 21.7 | 53.4% | 333.8 | 62,360.4 | 39,777.7 | 22,582.7 | 63.8% |
| 2039 | 6,634.9 | 3,541.9 | 68.8 | 23.4 | 53.4% | 340.3 | 62,586.8 | 41,651.3 | 20,935.5 | 66.5% |
| 2040 | 6,799.3 | 3,629.7 | 78.4 | 25.0 | 53.4% | 347.0 | 62,799.8 | 43,705.8 | 19,094.0 | 69.6% |
| 2041 | 6,971.9 | 3,721.9 | 88.4 | 26.4 | 53.4% | 354.1 | 63,009.8 | 45,967.6 | 17,042.2 | 73.0% |
| 2042 | 7,152.5 | 3,818.3 | 98.9 | 27.7 | 53.4% | 361.7 | 63,230.7 | 48,463.9 | 14,766.8 | 76.6% |
| 2043 | 7,341.7 | 3,919.3 | 110.1 | 28.9 | 53.4% | 369.6 | 63,474.6 | 51,224.4 | 12,250.3 | 80.7% |
| 2044 | 7,538.5 | 4,024.3 | 121.8 | 29.9 | 53.4% | 378.0 | 63,746.9 | 54,276.0 | 9,470.9 | 85.1% |
| 2045 | 7,739.8 | 4,131.8 | 134.0 | 30.8 | 53.4% | 386.7 | 64,049.8 | 57,644.8 | 6,405.0 | 90.0% |
| otal | | \$72,298.8 | \$982.8 | \$314.7 | | \$7,299.3 | | | | |
| | | | | | | | | | | |

Combined Exhibit – SURS Projection (Combined Changes)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2022, Combined Changes
Actuarially Assumed Rate of Return: 6.50%
(\$ in millions)

| | Annual Payroll* | Total State Contribution | Compared to Exhibit C | | | | | | | |
|----------------------------------|--------------------|--------------------------------|--|--|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------------|-----------------|
| Fiscal Year Ending 6/30 | | | (Reduction)/ Increase in State Contribution | Present Value of (Reduction)/ Increase in State Contribution | State Contribution as Percent of Payroll | Total Employee Contribution | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Liability | Funded Ratio |
| 2022 | | | | | | | \$49,869.9 | \$22,554.8 | \$27,315.2 | 45.2 |
| 2023 | \$5,051.5 | \$2,160.9 | \$0.0 | \$0.0 | 42.8% | \$303.6 | 50,683.0 | 23,298.6 | 27,384.4 | 46.0 |
| 2024 | 5,208.2 | 2,174.1 | 0.0 | 0.0 | 41.7% | 310.3 | 51,439.8 | 24,033.1 | 27,406.7 | 46.7 |
| 2025 | 5,316.5 | 2,218.4 | 0.0 | 0.0 | 41.7% | 312.7 | 52,123.9 | 24,890.4 | 27,233.5 | 47.8 |
| 2026 | 5,540.8 | 2,247.4 | (16.2) | (13.0) | 40.6% | 324.4 | 52,743.4 | 25,003.7 | 27,739.7 | 47.4 |
| 2027 | 5,690.2 | 2,294.3 | (9.9) | (7.5) | 40.3% | 330.2 | 53,309.0 | 25,551.0 | 27,758.0 | 47.9 |
| 2028 | 5,847.8 | 2,391.6 | (8.4) | (5.9) | 40.9% | 336.7 | 53,816.7 | 26,138.2 | 27,678.5 | 48.6 |
| 2029 | 6,010.3 | 2,457.9 | (5.7) | (3.8) | 40.9% | 343.5 | 54,267.6 | 26,740.2 | 27,527.4 | 49.3 |
| 2030 | 6,175.9 | 2,521.5 | (3.3) | (2.1) | 40.8% | 350.4 | 54,661.5 | 27,358.5 | 27,303.0 | 50.1 |
| 2031 | 6,347.6 | 2,588.8 | (1.0) | (0.6) | 40.8% | 357.7 | 54,941.3 | 27,946.5 | 26,994.8 | 50.9 |
| 2032 | 6,522.8 | 2,663.6 | 0.7 | 0.4 | 40.8% | 365.1 | 55,155.0 | 28,567.6 | 26,587.4 | 51.8 |
| 2033 | 6,703.8 | 2,746.7 | 2.6 | 1.3 | 41.0% | 372.7 | 55,320.6 | 29,253.7 | 26,066.9 | 52.9 |
| 2034 | 6,893.6 | 2,852.4 | 5.3 | 2.6 | 41.4% | 380.8 | 55,495.8 | 30,184.3 | 25,311.5 | 54.4 |
| 2035 | 7,088.8 | 2,935.3 | 7.4 | 3.4 | 41.4% | 389.1 | 55,632.8 | 31,209.6 | 24,423.2 | 56.1 |
| 2036 | 7,287.2 | 3,019.6 | 9.5 | 4.1 | 41.4% | 397.6 | 55,732.4 | 32,340.6 | 23,391.8 | 58.0 |
| 2037 | 7,491.2 | 3,106.2 | 11.8 | 4.7 | 41.5% | 406.3 | 55,804.5 | 33,598.8 | 22,205.7 | 60.2 |
| 2038 | 7,701.8 | 3,195.6 | 14.4 | 5.4 | 41.5% | 415.4 | 55,852.7 | 35,000.1 | 20,852.7 | 62.7 |
| 2039 | 7,919.2 | 3,287.8 | 17.4 | 6.2 | 41.5% | 424.9 | 55,890.9 | 36,570.8 | 19,320.1 | 65.4 |
| 2040 | 8,143.8 | 3,383.0 | 21.0 | 7.0 | 41.5% | 434.7 | 55,922.9 | 38,327.7 | 17,595.2 | 68.5 |
| 2041 | 8,374.3 | 3,480.7 | 25.2 | 7.9 | 41.6% | 444.8 | 55,969.5 | 40,301.8 | 15,667.7 | 72.0 |
| 2042 | 8,615.5 | 3,582.6 | 30.4 | 8.9 | 41.6% | 455.7 | 56,044.4 | 42,520.5 | 13,523.9 | 75.9 |
| 2043 | 8,864.3 | 3,687.6 | 36.3 | 10.0 | 41.6% | 467.1 | 56,159.6 | 45,009.0 | 11,150.6 | 80.1 |
| 2044 | 9,121.2 | 3,795.9 | 42.8 | 11.1 | 41.6% | 479.0 | 56,325.4 | 47,792.8 | 8,532.6 | 84.9 |
| 2045 | 9,381.2 | 3,905.7 | 50.3 | 12.2 | 41.6% | 490.9 | 56,554.2 | 50,898.8 | 5,655.4 | 90.0 |
| tal | | \$66,697.6 | \$230.6 | \$52.3 | | \$8,893.6 | | | | |

^{*} Includes payroll from Self Managed Plan (SMP)