

Commission on Government Forecasting and Accountability

PENSION IMPACT NOTE 104th General Assembly

BILL NO: **SB 1937, as amended by HA 1** May 29, 2025

SPONSOR (S): Martwick (Kifowit – Scherer)

SYSTEM: All systems, except for Chicago Transit Authority (CTA)

FISCAL IMPACT

SB 1937, as amended by HA 1, makes significant changes to the Illinois Pension Code, including modifications to the pension funding plan for the five State-funded systems and Downstate Police/Fire pension funds, along with various changes to Tier 2 provisions.

CGFA's actuary for the State-funded systems, Segal, has conducted a study on SB 2540 from the 104th General Assembly, but with some modification. The study includes provisions similar to some of the main provisions of SB 1937, HA 1. However, please note a key difference: Segal's study is based on a funding goal where the State-funded systems are required to reach 90% funded by FY 2045 and then 100% by FY 2049, whereas SB 1937, HA 1, requires a direct path to 100% funding FY 2049, starting in FY 2027.

A table on the following page is a topline summary of the impact on first-year State contribution in FY 2027, as well as the total State contributions through FY 2049, based on the Segal's study.

Increase (Decrease) in Estimated State Contributions (\$ in Million)						
Age 62 with <u>35 Years</u> , Age 65 with 20 Years, <u>90%/100% by FY 45/ FY 49</u> , and Redirected FY 30 – FY 49 Bond Payments						
Time period	TRS	SERS	SURS	Total		
FY 2027 (first year of implementation)	\$317	\$129	\$95	\$541		
Through FY 2049	\$37,580	\$13,078	\$11,236	\$61,894		

Please refer to Appendix I of this note for the full Segal's study.

CGFA's actuary for Downstate Police and Fire pension funds, Foster & Foster, analyzed the major provisions of SB 1937, HA 1, by selecting four pension funds: Aurora Firefighters' Pension Fund, Harvey Firefighters' Pension Fund, Aurora Police Pension Fund, and East St. Louis Police Pension Fund. However, please note that this study does not account for the DROP plan component, which is included in SB 1937, HA 1.

Below is a topline summary of the impact on first-year employer contribution in MFY 2025.

Increase (Decrease) in Estimated Employer Contributions									
	(\$ in Million)								
Age 52 with 20 Years for Unreduced Pension & 90% by MFY 2055									
Time period	Aurora Fire	Harvey Fire	Aurora Police	East St. Louis Police	Total				
MFY 2025 (first year of implementation)	(\$2.656)	(\$1.203)	(\$4.093)	(\$0.779)	(\$8.731)				
Through MFY 2056	\$222.731	\$61.475	\$310.673	\$36.262	\$631.14				

Please refer to Appendix II of this note for the full Foster & Foster study.

New studies on the main provisions of SB 1937, HA1, will need to be conducted to provide a more reliable assessment of the legislation's impact. Once the new studies from both actuaries are available, this note will be revised accordingly.

SUBJECT MATTER: SB 1937, HA 1, revises the Illinois Pension Code by implementing a new State funding plan targeting 100% funding by FY 2049 and introducing a 20-year layered amortization for the five State systems. The bill also creates additional State contributions from the Pension Stabilization Fund to make extra pension payments from FY 2030 to FY 2049. Additionally, the bill modifies Tier 2 benefits, adjusting Final Average Salary calculations, normal retirement age, and early retirement penalties. More detail is provided below.

COMMENT:

State Funding Plan for the Five State Retirement Systems (TRS, SURS, SERS, JRS, and GARS)

Current Law

- The State shall contribute to the five State retirement systems a minimum required amount such that the required contribution is sufficient to bring the funded ratio of each system up to 90% by the end of FY 2045.
- The annual required State contribution shall be calculated as a level percentage of payroll over the years remaining to and including FY 2045 and shall be determined under the projected unit credit actuarial cost method.
- The 5-year asset and assumption "smoothing" methods shall be used in order to mitigate the impact of any unexpected events or changes that may increase or decrease the State contribution.
 - With asset smoothing, implemented by P.A. 96-0043, which became effective on July 15, 2009, any gains or losses from investment fluctuations would be recognized in an equal annual amount over a period of 5 years.
 - o Similarly, assumption smoothing, implemented by P.A. 100-0023, which became effective on July 6, 2017, serves to spread out the impact of any change in actuarial assumptions over the 5 year-period.
- Beginning in FY 2046, the minimum State contribution shall be the amount required to maintain the funded ratio of each system at 90%.

SB 1937, HA 1

- SB 1937, HA 1, would modify the current State funding plan for the five State retirement systems starting in FY 2027.
 - The FY 2026 State contribution would still be determined under the current funding plan.
- Major changes in the State funding plan would include:
 - o Changing the funding goal to achieve 100% funding by FY 2049;
 - o Starting in FY 2036, implementing a 20-year layered-amortization approach when determining the minimum State contribution; and
 - o Using the entry age normal cost method beginning in FY 2050.

- Details on the modified State funding plan, categorized by three separate time periods, are discussed as follows:
 - o For FY 2027 through FY 2035:
 - The minimum annual State contribution shall be determined by each system to be sufficient to achieve a 100% funded ratio by the end of FY 2049. This contribution shall be calculated as a level percentage of payroll over the remaining years up to and including FY 2049, using the projected unit credit actuarial cost method.
 - The 5-year Asset smoothing and assumption smoothing methods shall continue to be used when determining the required State contribution, consistent with current law.
 - o For FY 2036 through FY 2049:
 - Beginning in FY 2036, a layered-amortization approach for a period of 20 years would be used when determining the minimum annual State contribution.
 - The minimum annual State contribution shall be the amount estimated for the upcoming fiscal year plus an actuarial "layering" component, such that the funded ratio of each system equals 100% 20 years after the fiscal year during which the contribution is made.
 - This adjustment shall be implemented in equal annual amounts over a 20-year period beginning in the fiscal year in which the current actuarial valuation is used to determine the required State contribution.
 - Thus, the 5-year asset smoothing and assumption smoothing methods shall sunset after FY 2035 and would be replaced with the 20-year layered-amortization approach, beginning in FY 2036.

Table 1 below provides a graphic illustration of how a "layered amortization" program functions. **The chart is for illustration purposes only, and is not an actuarial projection**. The chart assumes an unfunded liability is generated in each valuation year shown at left. If the unfunded liability does not increase in the valuation year shown, there would be no 20-year "amortization layer" attributable to that fiscal year.

Table 1

Valuation Date	Fiscal Year State		The Effect of the 20-Year Layered Amortization for Fiscal Year									
June 30 (Fiscal Year)	Contribution Determined	2035	2036	2037	2038	2039		2055	2056	2057	2058	2059
2034	2036		Amortization Layer Based on the FY 2034 Valuation									
2035	2037			Amo	rtization L	ayer Based	on the FY	2035 Valu	ation		_	
2036	2038		Amortization Layer Based on the FY 2036 Valuation									
2037	2039			,		Amo	rtization L	ayer Based	on the FY	2037 Valu	ation	•
The lay	vering process would co	ontinue eac	h year in a	similar fas	hion, exter	nding beyor	nd the deter	rmination o	f FY 2049	State contr	ibution.	

When making these determinations, the annual required State contribution shall be calculated as a level percentage of payroll for the remaining years up to and including FY 2049, using the projected unit credit actuarial cost method.

o Beginning in FY 2050:

- The entry age normal actuarial cost method shall be used instead of the projected unit credit actuarial cost method.
 - PUC and EAN are two methods of calculating a pension fund's normal cost. PUC backloads costs, causing normal costs to rise over time, while EAN spreads costs evenly for stable contributions. Public pensions favor EAN for long-term stability, while PUC can lead to escalating costs. Though total costs are the same under both, the timing of contributions impacts funding patterns and budget stability.
- Any additional State contributions made under the Budget Stabilization Act shall not be considered when determining the minimum State contribution under the modified State funding plan in SB 1937, HA 1.

Funding Plan for Downstate Police/Fire

Currently, the funding goal for Downstate Police/Fire pension funds is to reach 90% funded by Municipal Fiscal Year (MFY) 2040. When determining the required minimum employer contributions, which are calculated as a level percentage of payroll, the projected unit credit actuarial cost method shall be used.

SB 1937, HA 1, expands the funding target year (the amortization period) to MFY 2055 and requires switching from the current projected unit credit actuarial cost method to the entry age normal cost method.

Fire and Pension Investment Fund Governance Changes

SB 1937, as amended by HA 001, makes several miscellaneous changes affecting the governance of the Police Officers' Pension Investment Fund (POPIF) and the Firefighters' Pension Investment Fund (IFPIF).

The membership of both POPIF and IFPIF is expanded from 9 to 10 trustees. For both funds, the chief executive of the Illinois Municipal League (or a designee) is now a mandated member, replacing the previous gubernatorial appointee. IFPIF must also include the president of a statewide labor organization affiliated with the Illinois AFL-CIO (or designee). POPIF must now include four trustees who are elected mayors or village presidents of municipalities with participating pension funds, up from three. A 6-vote majority is required to pass measures. The number of signatures required to run for trustee in IFPIF is lowered from 400 to 200.

Change to the Tier 2 Pensionable Salary and the Tier 2 Final Average Salary (FAS) Calculation

Current Law

Under current law, the Tier 2 Final Average Salary (FAS) is the average of the highest 8 consecutive annual salaries (or 96 consecutive monthly salaries) within the last 10 years (or 120 consecutive months). For Downstate police and firefighters as well as Chicago firefighters (excluding Chicago police), the Tier 2 FAS may instead be the average of the highest 48 consecutive monthly salaries within the last 60 months if this amount is greater than the 8-year average FAS.

Additionally, the Tier 2 pensionable salary is capped, and members do not make contributions on salary above the cap. The Tier 2 salary cap started at \$106,800 in Calendar Year (CY) 2011.

- For most pension funds:
 - The salary cap increases annually by the lesser of 3% or **one-half** of the annual unadjusted percentage increase in the Consumer Price Index-U (CPI-U).
 - o As a result, the Tier 2 pensionable salary is capped at \$127,283 in CY 2025.
- For GARS, JRS, and downstate police and firefighter pension funds:
 - The salary cap increases annually by the lesser of 3% or 100% of the annual unadjusted CPI-U.
 - o As a result, the Tier 2 pensionable salary cap is equal to \$141,408 in CY 2025.
- For the Cook County Pension Fund (CCPF):
 - The Tier 2 salary cap has been set at the SSWB beginning January 1, 2024, pursuant to P.A. 103-0529. The Social Security Wage Base (SSWB) is \$176,100 in CY 2025.

SB 1937, HA 1

- Tier 2 Non-public safety members who is active on or after January 1, 2027
 - o FAS equal to average of:
 - the highest 6 years (or 72 consecutive months) within the last 10 years (or 120 months); or

- the highest 8 years (or 96 consecutive months) within the last 10 years (or 120 months), whichever is higher.
- o Beginning on January 1, 2027, the annual earnings of a member shall be capped at the Social Security Wage Base (SSWB) for all funds, except for CCPF and CTA (Note: P.A. 103-0529 has already aligned the Tier 2 pensionable salary cap for CCPF with the SSWB.)
 - Retroactive adjustments as a result of the changes
 - Pensionable Salary Cap
 - The pensionable salary cap for a member's salary received on or after January 1, 2011, and before January 1, 2027, shall be retroactively increased to match the SSWB for that year, if the member is still in service on or after January 1, 2027.
 - No retroactive adjustment of any employee contributions nor benefit adjustments are permitted
- Tier 2 public safety members who are active on or after January 1, 2027
 - Chicago Police, IMRF SLEP, and SERS Alternative Plan members, SURS Police/Firefighters
 - FAS equal to average of:
 - the highest 4 years (48 consecutive months) within the last 5 years (60 months); or
 - the highest 8 years (96 consecutive months) within the last 10 years (120 months), whichever is higher.
 - Basically, this legislation allows Tier 2 public safety members, who currently use the 8-years-out-of-10-years rule, to use the 4-years-out-of-5-years calculation applied to Downstate Police/Fire and Chicago Fire.

New Tier 2 Normal Retirement Eligibilities

Current Law

Under current law, most Tier 2 members can retire at <u>age 67 with 10 years</u> of service for normal retirement, except for GARS/JRS and public safety officials, who qualify with either fewer years of service or an earlier normal retirement age. These exceptions include:

- Tier 2 GARS and JRS: age 67 with 8 years
- Tier 2 Public safety officials
 - o SERS Alternative Formula: age 60 or age 55 with 20 years, depending on applicable cases
 - o SURS Fire/Police: age 60 with 20 years
 - o Downstate Police and Fire: age 55 with 10 years
 - o Chicago Police and Fire: age 55 with 10 years or mandatory retirement at age 63
 - o IMRF Sheriff's plan: age 55

Additionally, each pension system currently requires a different amount of service credit for a member to reach the maximum benefit, expressed as a percentage of the member's Final Average Salary (FAS). For instance, a TRS Tier 2 member would need approximately 34 years of service to reach the 75% maximum annuity cap ($75\% \div 2.2\%$ per year). In contrast, SERS coordinated Regular plan participants would need approximately 45 years of service to reach the 75% max cap ($75\% \div 1.67\%$ per year). The table below summarizes the formula rate per year, maximum annuity, and years of service required to be "maxed out" for the Big 3 systems.

Systems	Formula Rate	Maximum Annuity (% of FAS)	Max Out Years
TRS	2.20%	75%	34.1
SERS (Regular, coordinated plan)	1.67%	75%	44.9
SURS	2.20%	80%	36.4

SB 1937, HA 1

Under this legislation, normal retirement eligibility options for <u>non-public safety</u> Tier 2 members, including GARS and JRS, are as follows:

- Age 62 with the maximum amount of service credit (e.g., approximately 34 years for TRS)
- Age 65 with 20 years of service credit; or
- Age 67 with 10 years of service

For public safety Tier 2 members (Downstate Police/Fire, Chicago Police/Fire, public safety members in other funds such as SURS), the normal retirement eligibility would be lowered to age 52 with 20 years of service, beginning on or after January 1, 2027.

For SERS Tier 2 Alternative Plan Participants, the following individuals would be eligible to retire at age 50 with 25 years or age 55 with 20 years (instead of the current eligibility of age 55 or age 60 with 20 years):

- A firefighter in the fire protection service of a department;
- A security employee of Department of Corrections, Department of Juvenile Justice, the Department of Innovation and Technology, the Department of Human Services;
- An investigator for the Department of the Lottery, the Secretary of State, the Department of Revenue, the Illinois Gaming Board, the Office of the Attorney General;
- A State policeman;
- A conservation police officer;
- A Commerce Commission police officer;
- An arson investigator; or
- A State highway maintenance worker

No retroactive recalculation of retirement benefits shall be permitted as a result of the changes made.

Tier 2 Early Retirement Reduction Penalty

Current Law

Under current law, Tier 2 members are penalized for early retirement based on normal retirement age. If a member retires earlier than the normal retirement <u>age 67</u>, his or her benefit is reduced by 6% for each year (or 0.5% for each month) under the normal retirement age 67. A reduction is subject to up to a maximum reduction of 30% for retiring up to 5 years (or 60 months) early.

For example, the earliest retirement age for a SERS Tier 2 member under the regular formula is 62, instead of the normal retirement age of 67, and the member's benefit is permanently reduced by 30% (6% x 5 years).

SB 1937, HA 1

Under this legislation, the early retirement penalty reduction rule would remain identical to current law—up to a maximum 30% reduction for retiring up to 5 years earlier from normal retirement age. However, under this bill, the applicable normal retirement age would vary based on the member's years of service. The table below compares normal and early retirement eligibility, as well as early retirement reduction for the 5 State-funded systems under current law and the proposed changes in this bill.

Current Law			Proposed Changes			
Normal Retirement (Unreduced)	Early Retirement (Reduced)	Early Retirement Reduction	Normal Retirement (Unreduced)	Early Retirement (Reduced)	Early Retirement Reduction	
Age 67 with 10 years (8 years for GARS/JRS)	Age 62 with 10 years (8 years for GARS/JRS)	6% for each year (0.5% for each month) under age 67, up to a max 30% reduction	Age 62 with max FAS Age 65 with 20 Age 67 with 10 years (8 years for GARS/JRS)	Age 57 with max FAS Age 60 with 20 years Age 62 with 10 years (8 years for GARS/JRS)	6% for each year (0.5% for each month) under applicable normal retirement age, up to a max 30% reduction	

Change to the Tier 2 Automatic Annual Increase

Current Law

- All funds and systems except JRS & GARS have Tier 2 automatic annual increases that 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 COLAs are payable at the later of January 1 occurring either on or after the attainment of age 67 or the first anniversary of retirement, except for public safety officials, who start receiving increases at age 60.

SB 1937, HA 1

Beginning January 1, 2027, each Tier 2 annual increase (COLA) in a retirement annuity or supplemental annuity shall be a <u>non-compounded 3%</u> increase for all pension funds, except for GARS and JRS.

For GARS and JRS, the proposed Tier 2 COLA would be increased to <u>a compounded 3%</u>, matching the current Tier 1 COLA.

The changes would apply regardless of whether a Tier 2 member was in active service on or after the effective date of this bill.

Under this legislation, the starting date of Tier 2 COLAs would be the later of the following dates:

- 1) January 1 occurring on or after the attainment of the normal retirement age (which may vary depending on eligibility criteria); or
- 2) The first anniversary of retirement

"Max and go" provision for Downstate Firefighters

Currently, the earliest retirement age for Tier 2 Downstate firefighters is age 50 with 10 years of service, subject to a 30% reduction in annuity for retiring 5 years earlier than the normal retirement age of 55. Under SB 1937, HA1, a "max and go" provision allows Tier 2 downstate firefighters to retire at any age once they have reached their maximum pension benefits.

Additional Pension Stabilization Fund Payments

SB 1937, HA1, would create a total of \$8.65 billion in <u>additional</u> payments to the Pension Stabilization Fund (PSF), to be deposited from General Revenue Fund and made under the auspices of the Office of the Comptroller, as follows:

- FY 2030: \$300 million
- FY 2031 through 2033: \$400 million annually, totaling \$1.2 billion.
- FY 2034 through 2038: \$600 million annually, totaling \$3.0 billion
- FY 2039: \$550 million
- FY 2040: \$450 million
- FY 2041 through FY 2049: \$350 million annually, totaling \$3.15 billion.

All these payments would be paid to the Pension Stabilization Fund in addition to any payments made towards achieving the goal of funding every pension system at 100% by 2049.

Please note that when HB 2540 from the 104th General Assembly—a bill containing similar language regarding additional PSF payments—was introduced, the total amount was \$6.2 billion. The intent was to use approximately half of the principal payments made under the \$6 billion Income Tax Proceed Bonds ending in FY 2030, and half of the last principal payment made under the Pension Obligation Bonds issued under PA 93-0002 ending in FY 2033.

SB 1937, HA 1, states that none of the aforementioned payments made to the Pension Stabilization Fund shall be used in actuarial calculations of required contributions to achieve the 100% funding goal at the end of FY 2049, as mentioned previously.

Placing Downstate Police & Fire and Chicago Police & Fire Articles Under the Ambit of the Retirement Systems Reciprocal Act

Current Law

Under current law, neither the Chicago Police and Chicago Fire, nor the Downstate Police and Downstate Firefighters' Articles of the Illinois Pension code are 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, although this involves the transfer of service credits, whereas the Downstate Fire article has true reciprocity amongst fire pension 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.

SB 1937, as amended by HA 1

SB 1937, as amended by HA 1, would place the Downstate Police, Downstate Fire, Chicago Police, and Chicago Fire 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.

IMRF's Sherriff's Law Enforcement Personnel (SLEP) Formula Eligibility for Certain Public Safety Officials

Under current law, county correctional and probation officers, firefighters, and sworn law enforcement officers working for municipalities without an established Article 3 or Article 4 pension fund, as the case may be, participate in the IMRF Regular Formula. Job titles for those who qualify as a "firefighter" include;

- A licensed emergency medical technician (EMT) who is a sworn member of a public fire department;
- A paramedic employed by a unit of local government; and
- An EMT, emergency medical technician intermediate (EMT-I) or advanced emergency medical technician (A-EMT) employed by a unit of local government.

SB 1937, as amended by HA 1, would make all of these job titles eligible for the IMRF SLEP Formula. The benefits for each formula are shown in the chart below.

	IMRF 1	Regular	IMRF SLEP			
	Tier 1	Tier 2	Tier 1	Tier 2		
Retirement Age	•Age 60 w/8+ years of service •Age 55 w/35+ •Age 55 w/8+ (Reduced)	•Age 67 w/ 10+ •Age 62 w/ 35+ •Age 62 w/ 10+ (Reduced)	Age 50 w/ 20+	•Age 55 w/ 10+ •Age 50 w/ 10+ (Reduced)		
Formula		ach year up to 15, ear after 15	2.5% of FAS each year of service			
Max Annuity	75	5%	80%	75%		
FAS	Avg of 4 highest consecutive years of final 10	Avg of highest 8 consecutive years of final 10	Avg of 4 highest consecutive years of final 10	Avg of highest 8 consecutive years of final 10		
COLA	3% non- compounded	3% non- compounded or 1/2 CPI-U increase	3% non- compounded	3% non- compounded or 1/2 CPI-U increase		
Employee Contributions	4.5% (SS coordinated)	4.5% (SS coordinated)	7%	7.50%		

Disability COLA Eligibility for Tier 2 Downstate Fire

Under current law, disabled Tier 2 firefighters under Article 4 (Downstate Fire) are eligible for COLAs upon the latter of the first anniversary of the disability annuity start date or at age 60. The Tier 2 disability COLA is equal to the lesser of 3% or one-half the increase in the CPI-U, and is non-compounded. Under SB 1937, as amended by HA 1, Tier 2 disabled firefighters would receive a 3% non-compounded COLA, payable at the latter of the first anniversary of the disability annuity start date or age 60. In essence, the Tier 2 disability annuity COLA would be brought into line with the Tier 1 disability annuity COLA.

Addition of "De Facto Firefighters" Under the Downstate Fire Article

Under current law, the definition of "Firefighter" under Article 4, the Downstate Fire Article, includes the following job titles listed under Article 10 of the Illinois Municipal Code, found in the table below:

Division 1 Municipalities	Division 2.1 Municipalities	Municipalities w/o Division Designation*	Not Included			
Firefighter	Firefighter	Firefighter	Anyono activoly			
Fire Engineer	Fire Engineer	Fire Engineer	Anyone actively participating in			
Marine Engineer	Marine Engineer	Marine Engineer	SURS			
Fire Pilot	Fire Pilot	Fire Pilot	3013			
Bomb Technician	Bomb Technician	Bomb Technician				
Scuba Diver	Scuba Diver	Scuba Diver				
*Except those who served as a de facto and not as a de jure firefighter						

SB 1937, as amended by HA 1, adds the definition of a "de facto firefighter" to the larger "Firefighter" definition under Article 4. The definition of a "de facto firefighter" is a firefighter who:

- Spends the majority of working time participating in the work of controlling and extinguishing fires at the location of such fires, preparing for such work, or waiting to respond to calls for such work, and;
- Has scheduled or actually works hours commensurate in duration and frequency with firefighters under both divisions under the Illinois Municipal Code.

This definition **does not** include:

- Part-time firefighters not already covered by the Code;
- Auxiliary, reserve, or voluntary firefighters (including paid-on-call firefighters);
- Clerks, dispatchers, or other civilian employees of fire departments or fire protection districts not routinely expected to perform firefighter duties.

Adjustment to Amount of Service Credit Allowed for Conversion of Unused Sick Time in SURS

Current Law

Prior to PA 98-0599, effective June 1, 2014, SURS participants were entitled, within 60 days immediately preceding retirement, to convert unused sick leave time into credit for service in accordance with the following schedule:

• 30-90 full calendar days and 20-59 full work days of unused sick leave = \(\frac{1}{4} \) year of service

- 91-180 full calendar days and 60-119 full work days of unused sick leave = ½ year of service
- 181-270 full calendar days and 120-179 full work days of unused sick leave = \(\frac{3}{4} \) year of service
- 271-360 full calendar days and 180-240 full work days of unused sick leave = 1 year of service.

PA 98-0599 was ruled unconstitutional due to changes that impacted Tier 1 benefit accruals. The Act limited this conversion of credit to participants who joined the fund before the effective date (June 1, 2014), adding language eliminating participants who joined on or after the date from receiving service credit for unused sick leave time. Current law includes the accrual schedule shown above, which is interpreted by SURS as imposing a 1-year cap on the amount of unused sick leave a member can convert into service credit, as long as the member elects to do so within the 60 days immediately preceding retirement.

SB 1937, HA 1

This legislation sets a limit on the amount of service credit a participant can earn from the conversion of unused sick leave time to a maximum of 2 years of service credit, matching the capped amount of service credit a member of TRS can receive for unused sick leave.

Reduction of Minimum Age for Firefighter Eligibility

Current law stipulates that no one under the age of 21 is eligible to become a firefighter under the Illinois Municipal Code. SB 1937, as amended by HA 1, amends the Illinois Municipal code to reduce the age to 18. Therefore, SB 1937, as amended by HA 1, reduces the minimum age at which a person is eligible to become a firefighter.

Deferred Retirement Option Plan (DROP) - Downstate and Chicago 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:
 - o Workers continue to draw a salary but are considered retired (for annuity purposes);
 - The pension annuity amount the worker is entitled to receive starting on 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 in a 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.

SB 1937, as amended by HA 1 DROP Provisions

- No later than July 1, 2026, a DROP plan will be made available in the Downstate and Chicago Police articles, regardless of Tier status. 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 not be subject to mandatory retirement under the law and will not become subject to such a retirement age during participation in the DROP;
 - o The member must be actively employed as a police officer or policeman in the above-mentioned articles of the Pension Code; 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.
- The contributions made by the employee during the DROP period are in an amount equal to the employee contributions otherwise required of the participant if they were not participating in DROP.
 - O Amounts shall be credited to the member's account and shall be kept by the pension fund to be attributable to the administration of the DROP benefits experienced by the Fund, when the investment returns of the DROP account are is less than the amount necessary to cover administrative costs.
 - Any investment returns in excess of the administrative costs shall be applied toward the UAAL of the fund or deposited with the fund by the employer within 120 days of the end of the DROP period.
- Participation in the DROP must be elected by the eligible members no later than July 1, 2031 and is irrevocable, unless:
 - The DROP participant terminates employment prior to the expiration of the designated DROP period;
 - o The DROP participant becomes eligible for and begins collecting a disability benefit from the pension fund or retirement system; or
 - o The death of the DROP participant occurs during the designated DROP period.
- The DROP duration is not to exceed 5 years.
- Individual DROP accounts shall consist of:
 - The monthly retirement annuity the participant would have been eligible to receive
 if the participant had terminated serviced on the date of participation in the DROP,
 as well as any benefits from a reciprocal system;
 - o Employee contributions paid by the participant and credited to their notional account 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.
- Individual notional DROP accounts accrue interest based on the actual rate of return experienced by the Fund, and the following rules apply to these accounts:
 - There are no prohibitions on investing notional accounts differently than other assets also held by the Fund;
 - o There are no prohibitions on assigning an interest rate to these notional accounts that differs from an interest rate otherwise used by the Fund for other assets; and
 - o If the interest rate experienced by the Fund is less than zero, the notional account shall have no interest rate applied.
- An employer of a participant electing a DROP shall participate in the DROP. For all
 other employers of employees covered by this provision, the implementation of a DROP
 and the positions covered by the DROP shall be subject to collective bargaining. An
 employer under this provision may manage the notional DROP accounts instead of a
 pension fund.
- 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 July 1, 2036

Ensuring the Tier 1 Status across All Pension Funds

SB 1937, HA1, would add a new provision to clarify a "once in Tier 1, always in Tier 1" standard for all Tier 1 members across all pension funds. This provision overrules any conflicting provisions in the Pension Code.

Under this legislation, a member of a pension fund would be allowed to establish or regain service if the following conditions are met:

- Being active in any pension fund, regardless of which pension fund the service credit is re-established for;
- Paying the employee and employer contributions that would have been required, or in the case of refund, making refund payments, plus interest;
- Completing any required forms; and
- Meeting all the requirements within one year of the effective date of this bill, unless installment payments are allowed for paying the required contributions or refund payments.

A pension fund shall not be required to recalculate a final determined benefit unless a member has a pending action against a pension fund regarding a final determined benefit as of the effective date of this bill.

Estimated Payment - SERS Alternative Formula

SB 1937, as amended by HA 1, amends the SERS Article of the Pension Code to add language to the provision regulating the Alternative Formula that creates an "estimated payment" of a retirement annuity to commence no later than 30 days after:

- the member's last day of employment, or;
- the date the member files for benefits, whichever is later.

The estimated payment shall be:

- the best estimate of SERS; and
- based on information that the System possesses at the time of the estimate.

In the event that a discrepancy exists between the "estimated payment" and the annuity a member is eligible to receive under statute, the System shall either pay or recover the difference within 6 months of the start of the affected annuity.

According to SERS, the Tier 1 Alternative Formula final average salary (FAS) calculation is a very complex exercise, without factoring in the various types of non-pensionable payments issued to employees during their final years of service. SERS asserts that there are often instances in which members have received non-pensionable compensation with the retirement contributions erroneously deducted by their payroll offices. The system maintains that substantial effort is required to sift through and rectify these errors before the proper annuity calculation can be made.

Alternative Formula Eligibility and Applicable Service Credit Upgrade Provisions for Investigators/Security Employees of the Departments of Lottery and Human Services

The current SERS retirement benefits for both Tier 1 & 2 Investigators for the Department of the Lottery are detailed in the chart found below:

Current Law							
Employee	Tier	SS- Coordinated?	Contribution Rate	Multiplier	Full Retirement	Reduced Retirement	
Investigator for the Dept. of Lottery	1	No	8%	2.20%	Age 60 with 8 years of service credit OR Rule of 85	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)	
		SB 193	7, as amended	l by HA 1			
Investigator for the Dept. of Lottery	1	No	12.5%	3.00%	Age 55 with 20 years of service OR Age 50 with 25 years of service	N/A	
Investigator for the Dept. of Lottery	2	No	12.5%	3.00%	Age 55 with 20 years of service	N/A	

SB 1937, as amended by HA 1, amends the Illinois Pension Code to allow participation in the SERS Alternative Formula for investigators for the Department of the Lottery.

SB 1937, as amended by HA 1, also allows a security employee of the Department of Human Services in the Alternative Formula to elect to convert up to 13 years of prior service credit as a security employee in the Department of Human Services into service credit under the Alternative Formula. SB 1937, as amended by HA 1, also allows a State highway maintenance worker in the Alternative Formula to elect to convert up to 8 years of prior service credit. In both cases, the employee is required to pay an amount equal to the difference between the employee contributions already made and those that would have been paid had their prior service been rendered under the Alternative Formula, plus interest thereon at the statutory service credit purchase rate (the "effective rate") of 6%, compounded annually, from the date of service to the date of payment.

Alternative Formula Participation for Certain Security Employees of the Department of Juvenile 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.

SB 1937, as amended by HA 1, 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.

JB/ZH:bs LRB104 09509 RPS 26789 a

Appendix I



Matthew Strom, FSA, MAAA, EA Senior Vice President, Actuary T 312.984.8534 M 648.688.1425 mstrom@segalco.com 101 North Wacker Drive Suite 1800 Chicago, IL 60606-1722 segalco.com

May 13, 2025

Via Email

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

Re: Actuarial Impact Study – Revised House Bill 2540 (Reflecting Updated Tier 2 Retirement Eligibilities, 90% Funded by FY 2045 and 100% Funded by FY 2049, and Updated Redirected Bond Payments Through FY 2049)

Dear Clayton:

As requested, we have updated our House Bill 2540 (HB 2540) analyses, previously sent on April 3, 2025 and April 23, 2025, to reflect the impact of additional modifications to the Tier 2 unreduced and reduced retirement ages, inclusion of 90% and 100% funded targets for FY 2045 and FY 2049, respectively, and updated redirected bond payments through FY 2049 on projected costs of the Teachers' Retirement System (TRS), the State Employees' Retirement System (SERS), and the State Universities Retirement System (SURS). Due to limited data available, this analysis does not consider the impact of these changes for General Assembly Retirement System (GARS), Judges' Retirement System of Illinois (JRS), Chicago Teachers' Pension Fund (CTPF), Illinois Municipal Retirement Fund (IMRF), nor the Downstate or Chicago Police and Firefighters' Pension Funds.

The following table provides a high-level summary of the impact of the proposed changes outlined in HB 2540 (and additional modifications noted in this letter) on the increase in State contribution amounts through fiscal year ending June 30, 2049, for each System that was analyzed. Additional details are included later in the letter.

(\$ in millions)	TRS	SERS	SURS	Total
Increase in Total State Contributions through FY 2049				
Baseline	-	-	-	-
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	\$39,529	\$13,548	\$11,439	\$64,516
Combined HB 2540 Benefit Changes (Age 62 & 35, 65 & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	37,580	13,078	11,236	61,894

This analysis is based on the provisions of the respective plans. The information contained in this document, as well as the accompanying exhibits, was prepared using census data, actuarial assumptions and methods consistent with those employed in the actuarial valuations as of June 30, 2024, for TRS (dated January 14, 2025), SERS (dated December 27, 2024), and SURS (dated November 15, 2024), except as otherwise noted in this letter.

Proposed Benefit and Contribution Changes

We analyzed the following proposed benefit changes per HB 2540 (further revised to reflect updated Tier 2 retirement eligibility requirements and early retirement reductions) and determined the impact of all proposed benefit changes combined. Please see our prior HB 2540 analysis, dated April 3, 2025, to see the stepwise impact of proposed benefit changes. All changes are effective January 1, 2028, unless otherwise noted.

- Lowers the unreduced and reduced retirement age requirements for non-public safety Tier 2 members with 20 or more years of service from age 67 to age 64 (or age 65) and age 62 to age 59 (or age 60), respectively, and adds an additional unreduced retirement eligibility at age 60 (or age 62) for members with 35 or more years of service. The current retirement eligibility (i.e., earliest unreduced retirement age of 67 and earliest reduced retirement age of 62) is unchanged for members who retire with less than 20 years of service.
- Early retirement reductions are applied based on the lesser of 1) months from unreduced retirement age and 2) months from reaching their applicable maximum benefit.
- 3. Changes the automatic annual cost-of-living adjustment (COLA) increases for Tier 2 members to 3% per year (increases are based on a member's original benefit amount at retirement), with the first increase payable on the later of the following dates: 1) January 1st occurring on or after age 67, age 64 (or age 65) with at least 20 years of service, or age 60 (or age 62) with 35 years of service; or 2) the first anniversary of retirement.
- Revises the Tier 2 final average salary (FAS) definition from 8 consecutive years (or 96
 consecutive months) to 6 consecutive years (or 72 consecutive months).
- Updates the Tier 2 salary cap to be equal to the Social Security Wage Base (SSWB).
- 6. [For SERS Only] Allows participation in SERS Alternative Formula for Security Employees of the Department of Human Services and Investigators for the Department of the Lottery, as well as certain members of the Department of Juvenile Justice (due to expansion of Department of Juvenile Justice eligibility for creditable service by removing the bachelor's or advanced degree requirement).

The following proposed benefit changes contained in HB 2540 and summarized by CoGFA are **not** reflected in this analysis due to limited available data:

- Lowers unreduced retirement age for Police and Fire funds.
- Expands the existing pension buyout programs to GARS, JRS, and CTPF.
- Places Downstate Police and Firefighters' Articles of the Illinois Pension Code under the ambit of the Reciprocal Act, which affects reciprocity for vesting.
- Includes a new provision to clarify a "once in Tier 1, always in Tier 1" standard for all Tier 1
 members across all pension funds.
- Creates an "estimated payment" requirement for members who retire under the SERS
 Alternative Formula to aid with commencing benefits in a timely manner.



Proposed Benefit and Contribution Changes continued

We also analyzed the following proposed contribution changes per HB 2540 (further revised to reflect 90% and 100% funded targets and updated redirected bond payment schedule).

- 7. Modifies the Illinois Pension Code to include a new State funding plan with a goal of achieving 100% funding by FY 2049 and the implementation of a 20-year layered-amortization approach for any unfunded liabilities incurred from FY 2036 through FY 2049 under the projected unit credit actuarial cost method and after FY 2050 under the entry age normal actuarial cost method. The current State funding plan to achieve a 90% funded ratio by FY 2045 is unchanged.
- 8. Directs additional annual payments to the Pension Stabilization Fund (PSF) as follows:

Fiscal Years Ending June 30	Total Additional Payments to PSF
2030	\$300M
2031 - 2033	400M
2034 - 2038	600M
2039	550M
2040	450M
2041 - 2049	350M

These payments are <u>not</u> used in determining statutory contributions to achieve the 90% funded goal by FY 2045 nor the 100% funded goal by the end of FY 2049.

For consistency with the proposed benefit changes, the recognition of all proposed contribution changes, including the additional PSF payments, is first effective with the determination of the FY 2027 State contribution.

Actuarial Analysis

The analysis is based upon the census data and actuarial assumptions used in the June 30, 2024, 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 and Contribution Changes' section above.

The following assumptions and methods are reflected in this analysis. The numbering below corresponds with the numbers in the previous section of this letter:

Assumed retirement rates are shifted as needed to be applicable at earlier retirement ages
for members who retire with 20 or more years of service (e.g., the current assumed
retirement rate at ages 62 through 67 are now applicable at ages 59 through 64 or ages 60
through 65). The penultimate retirement rate was extended such that no changes were
made to the assumed ultimate retirement age.

To reflect the impact of the proposed additional unreduced retirement eligibility at age 60 (or 62) with 35 years of service, the assumed retirement rates are increased by 20 percentage points at each age the participant is eligible for this unreduced retirement (e.g., if the assumed age 60 retirement rate is currently 15%, the rate increases to 35% for members who attain unreduced retirement eligibility at age 60).



Actuarial Analysis continued

Tier 2 members under the Alternative Formula or Tier 2 police / firefighters are not eligible for this additional unreduced retirement provision.

- Eligibility for unreduced early retirement is set at 35 years of service for TRS, SERS, and SURS, and does not reflect the assumed years of service needed to reach the maximum percentage of salary (as modeled in the prior HB 2540 analysis).
- No changes are made to the Tier 2 automatic COLA method (i.e., increases are applied to the original granted annuity benefit and the first increase percentage does not consider the number of years elapsed from date of retirement to the effective date of the initial increase).
- 4. No additional assumptions or methods implemented to value the change in FAS period.
- In many instances, Tier 2 member data is reported to the Systems with the salary information limited to the current law applicable Tier 2 cap; as such, salary amounts over the cap may be unknown.

For Tier 2 participants whose earnings were reported at the current salary cap (i.e., actual earnings are not reported), their actual earnings are estimated for the Plan Year ended June 30, 2023 (for TRS) and the Plan Year ended June 30, 2024 (for SERS and SURS) to be 3/4th of the way between the applicable Tier 2 cap and SSWB. This analysis does not assume any retroactive recalculation of benefits.

The analysis reflects the known Tier 2 salary limitations and SSWB as summarized below:

Applicable Year	Tier 2 Salary Cap	SSWB
2023	\$119,892	\$160,200
2024	123,489	168,600
2025	125,774	176,100

The current Tier 2 salary cap is assumed to annually increase by ½ of the System's inflation assumption and the Social Security Wage Base is assumed to increase 4.00% per year (based on the ultimate rate of the Social Security Administration's intermediate projection assumption used in the 2024 OASDI Trustees Report).

6. The analysis assumes 100% of current and future Tier 1 and Tier 2 investigators for the Department of Lottery opt to participate in the SERS Alternative Formula as well as applicable current and future Tier 1 and Tier 2 members of the Department of Juvenile Justice (according to position codes received from CoGFA on October 1, 2024, identifying affected members).

The following actuarial assumptions are modified to value the impact for eligible Tier 2 members:

- The current age 60 retirement rate applicable for Tier 2 members eligible for Alternative Formula benefits (i.e., the age at first retirement eligibility under current provisions) is now assumed to apply at age 55; and,
- The assumed age 56-60 retirement rates are set to the same rates assumed for Tier 1 members eligible for Alternative Formula benefits.



Actuarial Analysis continued

- For the Baseline scenario, projected contributions are determined to attain a 90% funded percentage by FY 2045 and maintain this funded percentage for all subsequent years.
 - For the HB 2540 scenarios, projected contributions are determined to attain a 90% and 100% funded percentage by FY 2045 and FY 2049, respectively.
 - All actuarial assumptions are assumed to materialize as expected in all future years. As a result, no new sources of unfunded liabilities are projected after FY 2036 and, therefore, this analysis does not attempt to include any impact resulting from the implementation of the 20-year layered amortization approach.
- 8. The assumed pro rata shares of the additional payments to the PSF allocated for each System are based on the projected Unfunded Actuarial Accrued Liability (UAAL) for FY 2030 through FY 2049 using the baseline projection included in each System's respective June 30, 2024, valuation report. As a result, the average allocation amounts of the additional payments to the PSF is as follows:

Fiscal Years Ending June 30	TRS	SERS	SURS	JRS	GARS	Total
2030	\$175.0M	\$62.6M	\$58.8M	\$3.2M	\$0.4M	\$300M
2031 - 2033	235.2M	82.2M	77.7M	4.3M	0.6M	400M
2034 - 2038	356.7M	121.2M	115.2M	6.1M	0.8M	600M
2039	329.7M	109.8M	104.4M	5.4M	0.7M	550M
2040	270.8M	89.5M	84.9M	4.2M	0.6M	450M
2041 - 2049	217.6M	67.9M	61.5M	2.7M	0.3M	350M

HB 2540 states that <u>none</u> of the additional payments made to the Pension Stabilization Fund should be considered in the actuarial calculations of required contributions to achieve the 90% and 100% funding goal by FY 2045 and FY 2049, respectively. As such, the pro rata shares of the additional payments, in addition to the modified statutory contribution requirements under HB 2540, will result in a funded percentage over 90% by 2045 and over 100% by 2049, as shown in the table below:

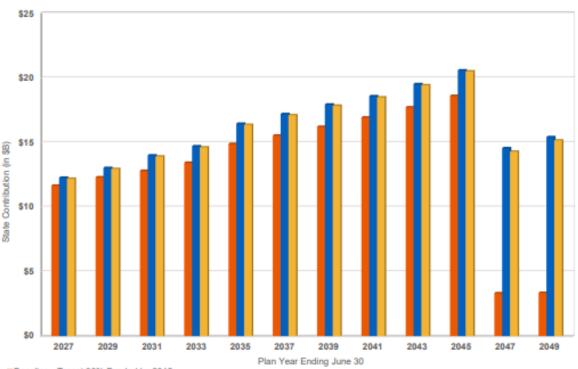
	TRS	SERS	SURS	Total
Funded Percentage as of June 30, 2045				
Baseline	90.0%	90.0%	90.0%	90.0%
Combined HB 2540 Benefit Changes, 90%/100% Funded by FY 2045/2049 & Redirected FY 2030 – FY 2049 Bond Payments	93.3%	93.5%	93.7%	93.4%
Funded Percentage as of June 30, 2049				
Baseline	90.0%	90.0%	90.0%	90.0%
Combined HB 2540 Benefit Changes, 90%/100% Funded by FY 2045/2049 & Redirected FY 2030 – FY 2049 Bond Payments	104.4%	104.8%	104.8%	104.6%



Actuarial Analysis continued

The following graphs and tables summarize the impact of the proposed changes on the System's Actuarial Accrued Liability (AAL) and projected State contribution amounts through FY 2049. The attached exhibits show in greater detail the projected contributions, actuarial liabilities, actuarial assets, and funded position through 2049 reflecting the changes outlined above, including exhibits that show the total impact of the proposed benefit and contribution changes under HB 2540 for TRS, SERS, and SURS combined.

Projected Annual State Contributions (Every Other Year) - TRS, SERS, and SURS Combined



- ■Baseline Target 90% Funded by 2045
- Combined Benefit Changes (60 & 35 YOS, 64 & 20 YOS), Target 90%/100% Funded by 2045/2049, Redirected FY30-FY49 Bond Payments
 Combined Benefit Changes (62 & 35 YOS, 65 & 20 YOS), Target 90%/100% Funded by 2045/2049, Redirected FY30-FY49 Bond Payments

As shown in the graph above, maintaining the current 90% funded target by FY 2045 and adding the 100% funding target by FY 2049 (along with the implementation of the other proposed benefit changes under HB 2540) results in statutory contribution requirements that are higher in both the short-term and long-term.

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.

The increases and costs shown in the tables on the following pages are based on comparisons to the Baseline results.



(\$ in millions)

Summary of Results for All Systems

Summary of Results for All Systems				
	TRS	SERS	SURS	Total
Projected AAL as of June 30, 2049				
Baseline	\$218,981	\$66,335	\$59,233	\$344,549
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	257,393	76,767	69,602	403,762
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	254,240	76,134	69,526	399,900
Increase in Projected AAL as of June 30, 2049				
Baseline	-	-	-	-
Combined HB 2540 Benefit Changes (Age 60 & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	\$38,412	\$10,432	\$10,369	\$59,213
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	35,259	9,799	10,293	55,351
Estimated State Contributions for FY 2027	-			
Baseline	\$6,651	\$2,623	\$2,404	\$11,678
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	7,018	2,767	2,507	12,292
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	6,968	2,752	2,499	12,219
Increase in Estimated State Contribution for FY 2027				
Baseline	-	-	-	-
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	\$367	\$144	\$103	\$614
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	317	129	95	541



(\$ in millions)

Summary of Results for All Systems continued

Commany of Resource for All Systems	TRS	SERS	SURS	Total
Total State Contributions through FY 2049				
Baseline	\$181,792	\$71,180	\$69,164	\$322,136
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	221,320	84,728	80,603	386,651
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	219,371	84,258	80,400	384,029
Increase in Total State Contributions through FY 2049				
Baseline	-	-	-	-
Combined HB 2540 Benefit Changes (Age 60 & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	\$39,528	\$13,548	\$11,439	\$64,515
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	37,579	13,078	11,236	61,893
Present Value of Total State Contributions through FY 20	49			
Baseline	\$89,295	\$35,612	\$34,775	\$159,682
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	100,231	39,836	38,336	178,403
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	99,519	39,647	38,243	177,409
Increase in Present Value of Total State Contributions the	rough FY 2049			
Baseline	-	-	-	-
Combined HB 2540 Benefit Changes (Age <u>60</u> & 35, <u>64</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	\$10,936	\$4,224	\$3,561	\$18,721
Combined HB 2540 Benefit Changes (Age <u>62</u> & 35, <u>65</u> & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments	10,224	4,035	3,468	17,727



Additional Commentary

In addition to modifying the funding goal to achieve 90% funding by FY 2045 and 100% funding by FY 2049, HB 2540 also includes a provision, starting in FY 2036, to implement a 20-year layered amortization approach when determining the minimum State contribution. The implementation approach as explained in HB 2540 is unclear. The proposed statutory language indicates that amortization layers "...shall include an adjustment for differences between the unfunded liability reported in the current actuarial valuation and the unfunded liability reported in the previous year's actuarial valuation...". Unfunded liability changes from one year to the next in ways that are expected as well as unexpected; typically, changes in unfunded liability due to unexpected sources only are used for the basis of establishing amortization layers in a given year.

As noted earlier, this analysis does not attempt to include any impact resulting from the implementation of the 20-year layered amortization approach as all actuarial assumptions are assumed to materialize as expected in all future years (i.e., no future gains or losses due to demographic or economic experience).

Comments about Projections and Risk

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 2024 actuarial valuation report for TRS, SERS, and SURS, except for the additional assumptions noted in the 'Actuarial Analysis' section that were incorporated for the purpose of valuing the proposed benefit and contribution changes under HB 2540. 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. Additionally, if actual increases in the Social Security Wage Base are greater than assumed (4.00% per year), the State contribution requirements would increase over time, resulting in further backloading on contributions leading up to the June 30, 2049, 100% funded target date. Furthermore, the proposed changes outlined in HB 2540 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.

Additional risks to the Systems include, but are not limited to, contribution risk (the risk that the State does not pay the statutorily required amount or contributions will otherwise be less than assumed), longevity risk (the risk that plan participants will collect benefits longer than assumed), and employment risk (the risk that the number of active participants will be different than assumed).



Comments about Projections and Risk continued

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.

Please let us know if you have any questions.

Sincerely,

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



Exhibit A - TRS Projection (Baseline)

Funding Projections for the Teachers' Retirement System

Based on Laws in Effect on June 30, 2024 Actuarially Assumed Rate of Return: 7.00% (\$ in millions)

Fiscal Year Ending 6/30	Annual State Payroll	State Contribution	State Contribution as Percent of Payroll	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024					\$154,325.2	\$70,687.6	\$83,637.6	45.8%
2025	\$12,542.5	\$6,203.6	49.5%	\$1,151.9	158,427.3	75,370.1	83,057.2	47.6%
2026	12,983.0	6,495.5	50.0%	1,192.3	162,496.1	78,408.4	84,087.6	48.3%
2027	13,334.0	6,651.1	49.9%	1,224.5	166,707.5	82,601.2	84,106.3	49.5%
2028	13,681.0	6,883.2	50.3%	1,256.4	170,870.5	86,974.5	83,896.1	50.9%
2029	14,025.8	7,041.7	50.2%	1,288.1	175,037.2	91,312.7	83,724.5	52.2%
2030	14,367.9	7,185.9	50.0%	1,319.5	179,120.1	95,758.1	83,362.0	53.5%
2031	14,705.9	7,337.2	49.9%	1,350.5	183,098.5	100,316.7	82,781.8	54.8%
2032	15,038.7	7,503.5	49.9%	1,381.1	186,947.8	105,001.2	81,946.6	56.2%
2033	15,364.0	7,682.7	50.0%	1,411.0	190,638.8	109,821.8	80,817.0	57.6%
2034	15,679.7	8,450.0	53.9%	1,440.0	194,145.2	115,388.1	78,757.1	59.4%
2035	15,994.4	8,619.6	53.9%	1,468.9	197,444.0	121,131.7	76,312.3	61.3%
2036	16,305.5	8,787.3	53.9%	1,497.4	200,511.7	127,061.0	73,450.7	63.4%
2037	16,615.9	8,954.6	53.9%	1,526.0	203,328.6	133,192.4	70,136.2	65.5%
2038	16,930.9	9,124.4	53.9%	1,554.9	205,870.0	139,544.8	66,325.1	67.8%
2039	17,247.1	9,294.7	53.9%	1,583.9	208,120.0	146,146.0	61,974.0	70.2%
2040	17,571.6	9,469.6	53.9%	1,613.7	210,066.1	153,032.8	57,033.2	72.8%
2041	17,912.7	9,653.5	53.9%	1,645.0	211,712.8	160,261.7	51,451.1	75.7%
2042	18,276.9	9,849.7	53.9%	1,678.5	213,074.4	167,900.8	45,173.6	78.8%
2043	18,671.3	10,062.3	53.9%	1,714.7	214,180.4	176,038.3	38,142.1	82.2%
2044	19,099.6	10,293.1	53.9%	1,754.0	215,084.8	184,785.2	30,299.5	85.9%
2045	19,570.8	10,547.0	53.9%	1,797.3	215,857.1	194,271.4	21,585.7	90.0%
2046	20,095.3	1,438.6	7.2%	1,845.5	216,579.1	194,921.2	21,657.9	90.0%
2047	20,655.8	1,424.0	6.9%	1,897.0	217,313.3	195,582.0	21,731.3	90.0%
2048	21,238.7	1,418.3	6.7%	1,950.5	218,103.5	196,293.2	21,810.4	90.0%
2049	21,828.7	1,420.4	6.5%	2,004.7	218,980.7	197,082.6	21,898.1	90.0%
Total Throug	ah 2049	\$181,791.5		\$38,547.3				

Exhibit B - SERS Projection (Baseline)

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024, 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
2024					\$55,499.8	\$25,528.8	\$29,971.0	46.0%
2025	\$5,765.6	\$2,813.0	48.8%	\$316.9	56,677.1	27,094.1	29,583.0	47.8%
2026	5,861.6	2,595.3	44.3%	319.8	57,776.9	27,700.9	30,075.9	47.9%
2027	5,959.0	2,622.9	44.0%	322.9	58,799.4	28,905.4	29,894.0	49.2%
2028	6,055.1	2,702.4	44.6%	325.8	59,743.8	30,152.7	29,591.1	50.5%
2029	6,158.1	2,712.6	44.0%	329.3	60,614.6	31,238.6	29,376.0	51.5%
2030	6,267.0	2,740.6	43.7%	333.3	61,414.3	32,305.8	29,108.5	52.6%
2031	6,380.8	2,783.3	43.6%	337.7	62,143.5	33,374.1	28,769.4	53.7%
2032	6,500.0	2,834.6	43.6%	342.2	62,800.4	34,456.0	28,344.4	54.9%
2033	6,621.0	2,892.1	43.7%	346.6	63,384.5	35,563.0	27,821.5	56.1%
2034	6,748.2	3,164.0	46.9%	351.3	63,898.0	36,925.0	26,973.0	57.8%
2035	6,881.8	3,226.6	46.9%	356.2	64,345.1	38,348.6	25,996.6	59.6%
2036	7,018.9	3,290.9	46.9%	361.1	64,725.4	39,843.8	24,881.6	61.6%
2037	7,157.4	3,355.9	46.9%	366.0	65,042.3	41,422.5	23,619.8	63.7%
2038	7,304.0	3,424.6	46.9%	371.4	65,305.2	43,105.8	22,199.4	66.0%
2039	7,458.0	3,496.8	46.9%	377.1	65,518.9	44,911.3	20,607.6	68.5%
2040	7,618.2	3,571.9	46.9%	383.0	65,689.5	46,859.5	18,829.9	71.3%
2041	7,786.4	3,650.7	46.9%	389.3	65,824.3	48,973.1	16,851.2	74.4%
2042	7,960.9	3,732.6	46.9%	396.1	65,932.8	51,274.5	14,658.3	77.8%
2043	8,142.2	3,817.6	46.9%	403.0	66,022.9	53,788.2	12,234.7	81.5%
2044	8,330.1	3,905.7	46.9%	410.1	66,098.0	56,537.0	9,561.0	85.5%
2045	8,524.1	3,996.6	46.9%	417.4	66,161.9	59,545.7	6,616.2	90.0%
2046	8,724.8	952.1	10.9%	425.1	66,215.8	59,594.2	6,621.6	90.0%
2047	8,927.0	963.1	10.8%	432.8	66,267.8	59,641.0	6,626.8	90.0%
2048	9,130.6	964.8	10.6%	440.5	66,306.6	59,675.9	6,630.7	90.0%
2049	9,334.4	969.5	10.4%	448.1	66,335.1	59,701.6	6,633.5	90.0%
Total Throug	jh 2049	\$71,180.2		\$9,303.0				

Exhibit C - SURS Projection (Baseline)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024 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
2024					\$53,307.6	\$24,312.6	\$28,995.0	45.6%
2025	\$5,812.5	\$2,268.0	39.0%	\$347.9	54,111.8	25,248.1	28,863.7	46.7%
2026	6,099.0	2,367.2	38.8%	364.1	54,884.9	25,574.2	29,310.6	46.6%
2027	6,248.5	2,404.3	38.5%	369.0	55,589.1	26,319.8	29,269.3	47.3%
2028	6,418.4	2,504.5	39.0%	375.5	56,220.6	27,126.6	29,094.0	48.3%
2029	6,599.5	2,571.4	39.0%	382.7	56,777.9	27,869.6	28,908.4	49.1%
2030	6,794.7	2,638.1	38.8%	390.3	57,263.8	28,628.3	28,635.5	50.0%
2031	6,978.2	2,707.2	38.8%	398.3	57,673.1	29,405.2	28,267.9	51.0%
2032	7,176.9	2,788.4	38.9%	406.6	58,010.9	30,223.5	27,787.4	52.1%
2033	7,383.8	2,878.6	39.0%	415.2	58,289.4	31,110.8	27,178.5	53.4%
2034	7,599.7	2,977.4	39.2%	424.4	58,509.1	32,083.4	26,425.7	54.8%
2035	7,821.8	3,067.0	39.2%	433.8	58,674.0	33,144.4	25,529.5	56.5%
2036	8,050.1	3,159.1	39.2%	443.6	58,784.7	34,306.5	24,478.1	58.4%
2037	8,282.3	3,252.8	39.3%	453.4	58,851.3	35,591.9	23,259.4	60.5%
2038	8,519.6	3,348.7	39.3%	463.4	58,872.1	37,011.4	21,860.7	62.9%
2039	8,762.9	3,447.0	39.3%	473.6	58,865.9	38,596.8	20,269.1	65.6%
2040	9,015.1	3,548.7	39.4%	484.3	58,829.9	40,359.0	18,470.9	68.6%
2041	9,273.8	3,653.1	39.4%	495.3	58,785.6	42,333.4	16,452.2	72.0%
2042	9,538.6	3,759.9	39.4%	506.7	58,736.7	44,538.4	14,198.3	75.8%
2043	9,809.2	3,868.9	39.4%	518.3	58,702.7	47,008.0	11,694.7	80.1%
2044	10,086.7	3,980.8	39.5%	530.3	58,688.1	49,763.7	8,924.4	84.8%
2045	10,367.9	4,094.1	39.5%	542.4	58,708.2	52,837.4	5,870.8	90.0%
2046	10,654.1	952.4	8.9%	554.4	58,762.9	52,886.6	5,876.3	90.0%
2047	10,941.8	963.9	8.8%	566.2	58,867.3	52,980.6	5,886.7	90.0%
2048	11,232.8	975.4	8.7%	577.9	59,023.3	53,121.0	5,902.3	90.0%
2049	11,527.6	986.9	8.6%	589.4	59,232.8	53,309.5	5,923.3	90.0%
Total Throug	jh 2049	\$69,163.8		\$11,507.0				

* Includes payroll from Retirement Savings Plan (RSP)

^{**} Includes RSP contributions

Exhibit D - TRS, SERS, and SURS Projection Combined (Baseline)

Combined Funding Projections for the TRS, SERS, and SURS

CoGFA Projections Based on Laws in Effect on June 30, 2024, Baseline
Actuarially Assumed Rate of Return: 7.00% for TRS, 6.75% for SERS, and 6.50% for SURS
(\$ in millions)

Fiscal Year Ending 6/30	Annual State Payroll*	Total State Contribution**	State Contribution as Percent of Payroll	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024					\$263,132.6	\$120,529.0	\$142,603.6	45.8%
2025	\$24,120.6	\$11,284.6	46.8%	\$1,816.7	269,216.2	127,712.3	141,503.9	47.4%
2026	\$24,943.6	\$11,458.0	45.9%	\$1,876.2	275,157.9	131,683.5	143,474.4	47.9%
2027	\$25,541.5	\$11,678.3	45.7%	\$1,916.4	281,096.0	137,826.4	143,269.6	49.0%
2028	\$26,154.5	\$12,090.1	46.2%	\$1,957.7	286,834.9	144,253.8	142,581.1	50.3%
2029	\$26,783.4	\$12,325.7	46.0%	\$2,000.1	292,429.7	150,420.9	142,008.8	51.4%
2030	\$27,429.6	\$12,564.6	45.8%	\$2,043.1	297,798.2	156,692.2	141,106.0	52.6%
2031	\$28,064.9	\$12,827.7	45.7%	\$2,086.5	302,915.1	163,096.0	139,819.1	53.8%
2032	\$28,715.6	\$13,126.5	45.7%	\$2,129.9	307,759.1	169,680.7	138,078.4	55.1%
2033	\$29,368.8	\$13,453.4	45.8%	\$2,172.8	312,312.7	176,495.6	135,817.1	56.5%
2034	\$30,027.6	\$14,591.4	48.6%	\$2,215.7	316,552.3	184,396.5	132,155.8	58.3%
2035	\$30,698.0	\$14,913.2	48.6%	\$2,258.9	320,463.1	192,624.7	127,838.4	60.1%
2036	\$31,374.5	\$15,237.3	48.6%	\$2,302.1	324,021.8	201,211.3	122,810.5	62.1%
2037	\$32,055.6	\$15,563.3	48.6%	\$2,345.4	327,222.2	210,206.8	117,015.4	64.2%
2038	\$32,754.5	\$15,897.7	48.5%	\$2,389.7	330,047.3	219,662.0	110,385.3	66.6%
2039	\$33,468.0	\$16,238.5	48.5%	\$2,434.6	332,504.8	229,654.1	102,850.7	69.1%
2040	\$34,204.9	\$16,590.2	48.5%	\$2,481.0	334,585.5	240,251.3	94,334.2	71.8%
2041	\$34,972.9	\$16,957.3	48.5%	\$2,529.6	336,322.7	251,568.2	84,754.5	74.8%
2042	\$35,776.4	\$17,342.2	48.5%	\$2,581.3	337,743.9	263,713.7	74,030.2	78.1%
2043	\$36,622.7	\$17,748.8	48.5%	\$2,636.0	338,906.0	276,834.5	62,071.5	81.7%
2044	\$37,516.4	\$18,179.6	48.5%	\$2,694.4	339,870.9	291,085.9	48,785.0	85.6%
2045	\$38,462.8	\$18,637.7	48.5%	\$2,757.1	340,727.2	306,654.5	34,072.7	90.0%
2046	\$39,474.2	\$3,343.1	8.5%	\$2,825.0	341,557.8	307,402.0	34,155.8	90.0%
2047	\$40,524.6	\$3,351.0	8.3%	\$2,896.0	342,448.4	308,203.6	34,244.8	90.0%
2048	\$41,602.1	\$3,358.5	8.1%	\$2,968.9	343,433.4	309,090.1	34,343.3	90.0%
2049	\$42,690.7	\$3,376.8	7.9%	\$3,042.2	344,548.6	310,093.7	34,454.9	90.0%
Fotal Throug	h 2049	\$322,135.5		\$59,357.3				

^{&#}x27; Includes payroll from Retirement Savings Plan (RSP) for SURS

^{*} Includes RSP contributions for SURS

Exhibit 1A – TRS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Funding Projections for the Teachers' Retirement System

Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS)

Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 – FY 2049 Bond Payments

Actuarially Assumed Rate of Return: 7.00%

(\$ in millions)

		-	Compared	to Exhibit A Present Value of							
Fiscal			(Reduction)/	(Reduction)/	State						
Year	Annual		Increase in	Increase in	Contribution	TRS Portion	Total	Actuarial	Actuarial		
Ending 6/30	State Payroll	State Contribution	State Contribution	State Contribution	as Percent of Payroll	of Redirected Bond Payments	Employee Contribution	Accrued Liability	Value of Assets	Unfunded Liability	Funded Ratio
2024								\$154,325.2	\$70,687.6	\$83,637.6	45.8%
2025	\$12,542.5	\$6,203.6	\$0.0	\$0.0	49.5%	\$0.0	\$1,151.9	158,427.3	75,370.1	83,057.2	47.6%
2026	12,983.0	6,495.5	0.0	0.0	50.0%	0.0	1,192.3	162,496.1	78,408.4	84,087.6	48.3%
2027	13,334.0	7,018.4	367.3	310.1	52.6%	0.0	1,224.5	166,707.5	82,981.3	83,726.2	49.8%
2028	13,697.4	7,268.7	385.5	304.2	53.1%	0.0	1,257.9	171,034.7	87,792.1	83,242.6	51.3%
2029	14,068.0	7,451.7	410.0	302.4	53.0%	0.0	1,292.0	175,584.5	92,640.6	82,943.9	52.8%
2030	14,421.7	7,612.2	426.3	293.8	52.8%	175.0	1,324.4	180,123.4	97,833.9	82,289.5	54.3%
2031	14,773.9	7,780.9	443.7	285.8	52.7%	234.2	1,356.8	184,639.8	103,276.6	81,363.3	55.9%
2032	15,123.5	7,965.9	462.4	278.4	52.7%	235.2	1,388.9	189,118.8	108,932.0	80,186.8	57.6%
2033	15,468.3	8,165.3	482.6	271.5	52.8%	236.2	1,420.6	193,541.1	114,817.9	78,723.2	59.3%
2034	15,806.2	8,954.8	504.8	265.4	56.7%	355.0	1,451.6	197,889.4	121,672.0	76,217.4	61.5%
2035	16,145.7	9,147.2	527.5	259.3	56.7%	355.8	1,482.8	202,152.9	128,820.5	73,332.3	63.7%
2036	16,484.6	9,339.2	551.9	253.5	56.7%	356.6	1,513.9	206,320.8	136,281.5	70,039.3	66.1%
2037	16,826.7	9,533.0	578.4	248.3	56.7%	357.5	1,545.3	210,386.3	144,081.3	66,305.0	68.5%
2038	17,177.0	9,731.4	607.1	243.5	56.7%	358.5	1,577.5	214,338.5	152,250.0	62,088.5	71.0%
2039	17,533.0	9,933.1	638.4	239.4	56.7%	329.7	1,610.2	218,177.1	160,796.6	57,380.5	73.7%
2040	17,902.0	10,142.2	672.5	235.6	56.7%	270.8	1,644.1	221,904.2	169,736.7	52,167.5	76.5%
2041	18,291.4	10,362.8	709.3	232.3	56.7%	211.5	1,679.8	225,539.2	179,133.9	46,405.3	79.4%
2042	18,710.0	10,599.9	750.2	229.6	56.7%	212.7	1,718.3	229,110.7	189,127.5	39,983.3	82.5%
2043	19,167.7	10,859.2	797.0	227.9	56.7%	214.2	1,760.3	232,661.9	199,821.0	32,840.9	85.9%
2044	19,669.4	11,143.5	850.4	227.3	56.7%	216.5	1,806.4	236,261.5	211,343.5	24,918.1	89.5%
2045	20,227.8	11,459.8	912.8	228.0	56.7%	220.7	1,857.7	239,992.6	223,846.5	16,146.1	93.3%
2046	20,852.2	8,138.9	6,700.3	1,564.4	39.0%	220.7	1,915.0	243,942.0	233,687.4	10,254.6	95.8%
2047	21,524.8	8,401.4	6,977.4	1,522.5	39.0%	220.7	1,976.8	248,158.1	244,411.0	3,747.1	98.5%
2048	22,215.4	8,670.9	7,252.6	1,479.0	39.0%	220.7	2,040.2	252,649.5	256,073.3	(3,423.8)	101.4%
2049	22,907.0	8,940.9	7,520.5	1,433.3	39.0%	220.7	2,103.7	257,392.6	268,700.6	(11,307.9)	104.4%
Total Throug	gh 2049	\$221,320.4	\$39,528.9	\$10,935.5		\$5,222.5	\$39,292.9				

Exhibit 1B – SERS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS)

Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 – FY 2049 Bond Payments

Actuarially Assumed Rate of Return: 6.75%

(\$ in millions)

		-	Compared	to Exhibit B Present Value of							
Fiscal Year Ending 6/30	Annual Payroll	Total State Contribution	(Reduction)/ Increase in State Contribution	(Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	SERS Portion of Redirected Bond Payments	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024								\$55,499.8	\$25,528.8	\$29,971.00	46.0%
2025	\$5,765.6	\$2,813.0	\$0.0	\$0.0	48.8%	\$0.0	\$316.9	56,677.1	27,094.1	29,583.00	47.8%
2026	5,861.6	2,595.3	0.0	0.0	44.3%	0.0	319.8	57,776.9	27,700.9	30,075.90	47.9%
2027	5,959.0	2,766.9	144.0	122.3	46.4%	0.0	322.9	58,799.4	29,054.1	29,745.30	49.4%
2028	6,085.3	2,862.7	160.3	127.6	47.0%	0.0	327.5	60,672.4	30,467.8	30,204.60	50.2%
2029	6,232.6	2,897.5	184.9	137.8	46.5%	0.0	333.3	61,725.7	31,742.2	29,983.50	51.4%
2030	6,357.3	2,936.2	195.6	136.5	46.2%	62.6	338.1	62,728.6	33,081.0	29,647.60	52.7%
2031	6,488.7	2,990.3	207.0	135.4	46.1%	82.8	343.4	63,684.4	34,467.2	29,217.20	54.1%
2032	6,627.0	3,053.8	219.2	134.3	46.1%	82.3	348.9	64,592.4	35,894.7	28,697.70	55.6%
2033	6,768.1	3,124.2	232.1	133.2	46.2%	81.6	354.3	65,454.3	37,377.4	28,076.80	57.1%
2034	6,916.4	3,409.7	245.7	132.1	49.3%	122.1	360.1	66,273.8	39,189.9	27,083.90	59.1%
2035	7,071.3	3,486.0	259.4	130.7	49.3%	121.6	366.1	67,056.2	41,100.5	25,955.70	61.3%
2036	7,230.0	3,564.3	273.4	129.0	49.3%	121.2	372.0	67,801.4	43,120.5	24,680.90	63.6%
2037	7,390.6	3,643.5	287.6	127.1	49.3%	120.8	378.0	68,514.8	45,264.4	23,250.40	66.1%
2038	7,559.5	3,726.7	302.1	125.1	49.3%	120.3	384.4	69,205.7	47,554.3	21,651.40	68.7%
2039	7,735.5	3,813.5	316.7	122.8	49.3%	109.8	391.1	69,879.2	49,999.3	19,879.90	71.6%
2040	7,916.4	3,902.7	330.8	120.2	49.3%	89.5	398.0	70,538.6	52,607.6	17,931.00	74.6%
2041	8,105.2	3,995.7	345.0	117.4	49.3%	69.3	405.3	71,190.9	55,401.7	15,789.20	77.8%
2042	8,300.1	4,091.8	359.2	114.5	49.3%	69.0	412.9	71,847.6	58,425.0	13,422.60	81.3%
2043	8,502.3	4,191.5	373.9	111.7	49.3%	68.6	420.8	72,513.0	61,700.1	10,812.80	85.1%
2044	8,707.6	4,292.7	387.0	108.3	49.3%	68.1	428.7	73,187.0	65,246.0	7,941.00	89.1%
2045	8,918.8	4,396.8	400.2	104.9	49.3%	67.3	436.8	73,870.3	69,085.9	4,784.40	93.5%
2046	9,136.7	2,936.1	1,984.0	487.1	32.1%	67.3	445.2	74,566.6	71,624.7	2,941.90	96.1%
2047	9,356.8	3,006.8	2,043.7	470.0	32.1%	67.3	453.7	75,285.0	74,358.3	928.70	98.8%
2048	9,580.6	3,078.7	2,113.9	455.5	32.1%	67.3	462.2	76,017.8	77,295.0	(1,277.30)	101.7%
2049	9,806.7	3,151.4	2,181.9	440.4	32.1%	67.3	470.7	76,767.4	80,454.5	(3,687.10)	104.8%
Total Throug	jh 2049	\$84,727.8	\$13,547.6	\$4,223.9		\$1,725.8	\$9,591.1				

Exhibit 1C – SURS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS)

Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 – FY 2049 Bond Payments 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	SURS Portion of Redirected Bond Payments	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024								\$53,307.6	\$24,312.6	\$28,995.0	45.6%
2025	\$5,812.5	\$2,268.0	\$0.0	\$0.0	39.0%	\$0.0	\$347.9	54,111.8	25,248.1	28,863.7	46.7%
2026	6,099.0	2,367.2	0.0	0.0	38.8%	0.0	364.1	54,884.9	25,574.2	29,310.6	46.6%
2027	6,248.5	2,506.7	102.4	87.5	40.1%	0.0	369.0	55,589.1	26,425.5	29,163.6	47.5%
2028	6,447.2	2,617.5	113.1	90.7	40.6%	0.0	377.8	56,695.9	27,359.6	29,336.2	48.3%
2029	6,670.6	2,705.0	133.6	100.6	40.6%	0.0	388.4	57,403.2	28,264.5	29,138.7	49.2%
2030	6,879.4	2,780.5	142.4	100.7	40.4%	58.8	397.1	58,060.8	29,266.0	28,794.8	50.4%
2031	7,076.4	2,858.1	150.9	100.2	40.4%	78.1	406.2	58,666.3	30,331.3	28,335.0	51.7%
2032	7,288.6	2,948.0	159.6	99.5	40.4%	77.7	415.5	59,225.5	31,464.9	27,760.6	53.1%
2033	7,508.9	3,047.1	168.5	98.6	40.6%	77.4	425.3	59,752.9	32,696.4	27,056.5	54.7%
2034	7,738.8	3,156.1	178.7	98.2	40.8%	115.8	435.5	60,248.5	34,082.4	26,166.1	56.6%
2035	7,974.4	3,254.6	187.5	96.8	40.8%	115.6	446.1	60,716.9	35,587.3	25,129.6	58.6%
2036	8,217.5	3,356.1	197.0	95.5	40.8%	115.3	457.0	61,163.0	37,228.2	23,934.8	60.9%
2037	8,465.5	3,459.7	206.9	94.2	40.9%	114.9	468.1	61,600.0	39,030.4	22,569.6	63.4%
2038	8,719.4	3,565.9	217.3	92.8	40.9%	114.5	479.4	62,023.3	41,002.1	21,021.2	66.1%
2039	8,980.1	3,674.9	228.0	91.5	40.9%	104.4	491.0	62,455.1	43,168.9	19,286.2	69.1%
2040	9,250.8	3,788.0	239.3	90.2	40.9%	84.9	503.2	62,898.3	45,537.3	17,361.0	72.4%
2041	9,530.4	3,904.7	251.6	89.0	41.0%	65.5	515.9	63,370.3	48,138.2	15,232.1	76.0%
2042	9,818.7	4,024.9	265.0	88.0	41.0%	64.8	529.1	63,880.6	51,015.2	12,865.5	79.9%
2043	10,115.1	4,148.4	279.5	87.2	41.0%	63.9	542.8	64,448.9	54,203.3	10,245.6	84.1%
2044	10,422.2	4,276.2	295.5	86.5	41.0%	62.3	557.2	65,085.2	57,730.4	7,354.7	88.7%
2045	10,738.5	4,407.8	313.7	86.3	41.0%	59.4	572.0	65,802.5	61,626.9	4,175.6	93.7%
2046	11,065.3	2,743.0	1,790.6	462.4	24.8%	59.4	587.4	66,609.2	64,067.0	2,542.2	96.2%
2047	11,399.5	2,827.8	1,863.9	451.9	24.8%	59.4	602.9	67,513.1	66,762.8	750.3	98.9%
2048	11,740.5	2,914.5	1,939.1	441.4	24.8%	59.4	618.5	68,510.1	69,724.1	(1,214.0)	101.8%
2049	12,084.2	3,002.2	2,015.3	430.8	24.8%	59.4	634.0	69,601.5	72,965.3	(3,363.8)	104.8%
Total Throug	jh 2049	\$80,602.9	\$11,439.4	\$3,560.5		\$1,610.9	\$11,931.4				

Includes payroll from Retirement Savings Plan (RSP)
 Includes RSP contributions

Exhibit 1D – Combined TRS, SERS, and SURS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Combined Funding Projections for the TRS, SERS, and SURS

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 60 & 35 YOS, 64 & 20 YOS)

Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 - FY 2049 Bond Payments

Actuarially Assumed Rate of Return: 7.00% for TRS, 6.75% for SERS, and 6.50% for SURS

(\$ in millions)

		_	Compared to E	xhibits A+B+C Present Value of		Portion					
Fiscal Year Ending 6/30	Annual State Payroll*	Total State Contribution**	(Reduction)/ Increase in State Contribution	(Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	of Redirected Bond Payments for TRS, SERS, and SURS	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024								\$263,132.6	\$120,529.0	\$142,603.6	45.8%
2025	\$24,120.6	\$11,284.6	\$0.0	\$0.0	46.8%	\$0.0	\$1,816.7	269,216.2	127,712.3	141,503.9	47.4%
2026	24,943.6	11,458.0	0.0	0.0	45.9%	0.0	1,876.2	275,157.9	131,683.5	143,474.4	47.9%
2027	25,541.5	12,292.0	613.7	519.9	48.1%	0.0	1,916.4	281,096.0	138,460.9	142,635.1	49.3%
2028	26,229.9	12,748.9	658.9	522.5	48.6%	0.0	1,963.2	288,403.0	145,619.5	142,783.5	50.5%
2029	26,971.2	13,054.2	728.5	540.8	48.4%	0.0	2,013.7	294,713.4	152,647.3	142,066.1	51.8%
2030	27,658.4	13,328.9	764.3	531.0	48.2%	296.3	2,059.6	300,912.8	160,180.9	140,731.9	53.2%
2031	28,339.0	13,629.3	801.6	521.4	48.1%	395.1	2,106.4	306,990.5	168,075.1	138,915.4	54.7%
2032	29,039.1	13,967.7	841.2	512.2	48.1%	395.1	2,153.3	312,936.7	176,291.6	136,645.1	56.3%
2033	29,745.3	14,336.6	883.2	503.3	48.2%	395.3	2,200.2	318,748.3	184,891.7	133,856.6	58.0%
2034	30,461.4	15,520.6	929.2	495.7	51.0%	592.9	2,247.2	324,411.7	194,944.3	129,467.4	60.1%
2035	31,191.4	15,887.8	974.4	486.8	50.9%	593.0	2,295.0	329,926.0	205,508.3	124,417.7	62.3%
2036	31,932.1	16,259.6	1,022.3	478.0	50.9%	593.1	2,342.9	335,285.2	216,630.2	118,655.0	64.6%
2037	32,682.8	16,636.2	1,072.9	469.6	50.9%	593.2	2,391.4	340,501.1	228,376.1	112,125.0	67.1%
2038	33,455.9	17,024.0	1,126.5	461.4	50.9%	593.3	2,441.3	345,567.5	240,806.4	104,761.1	69.7%
2039	34,248.6	17,421.5	1,183.1	453.7	50.9%	543.9	2,492.3	350,511.4	253,964.8	96,546.6	72.5%
2040	35,069.2	17,832.9	1,242.6	446.0	50.9%	445.1	2,545.3	355,341.1	267,881.6	87,459.5	75.4%
2041	35,927.0	18,263.2	1,305.9	438.7	50.8%	346.3	2,601.0	360,100.4	282,673.8	77,426.6	78.5%
2042	36,828.8	18,716.6	1,374.4	432.1	50.8%	346.4	2,660.3	364,838.9	298,567.7	66,271.2	81.8%
2043	37,785.1	19,199.1	1,450.4	426.8	50.8%	346.6	2,723.9	369,623.8	315,724.4	53,899.4	85.4%
2044	38,799.2	19,712.4	1,532.9	422.1	50.8%	346.8	2,792.3	374,533.7	334,319.9	40,213.8	89.3%
2045	39,885.1	20,264.4	1,626.7	419.2	50.8%	347.3	2,866.5	379,665.4	354,559.3	25,106.1	93.4%
2046	41,054.2	13,818.0	10,474.9	2,513.9	33.7%	347.3	2,947.6	385,117.8	369,379.1	15,738.7	95.9%
2047	42,281.1	14,236.0	10,885.0	2,444.4	33.7%	347.3	3,033.4	390,956.2	385,530.1	5,426.1	98.6%
2048	43,536.5	14,664.1	11,305.6	2,375.9	33.7%	347.3	3,120.9	397,177.4	403,092.4	(5,915.0)	101.5%
2049	44,797.9	15,094.5	11,717.7	2,304.5	33.7%	347.3	3,208.4	403,761.5	422,120.4	(18,358.9)	104.5%
Total Throug	gh 2049	\$386,651.1	\$64,515.9	\$18,719.9		\$8,559.1	\$60,815.4				

^{*} Includes payroll from Retirement Savings Plan (RSP) for SURS

^{**} Includes RSP contributions for SURS

Exhibit 2A - TRS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 - FY 2049 Bond Payments)

Funding Projections for the Teachers' Retirement System

Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS) Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 - FY 2049 Bond Payments Actuarially Assumed Rate of Return: 7.00% (\$ in millions)

		-		to Exhibit A Present Value of							
Fiscal Year Ending 6/30	Armual State Payroll	State Contribution	(Reduction)/ Increase in State Contribution	(Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	TRS Portion of Redirected Bond Payments	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024								\$154,325.2	\$70,687.6	\$83,637.6	45.8%
2025	\$12,542.5	\$6,203.6	\$0.0	\$0.0	49.5%	\$0.0	\$1,151.9	158,427.3	75,370.1	83,057.2	47.6%
2026	12,983.0	6,495.5	0.0	0.0	50.0%	0.0	1,192.3	162,496.1	78,408.4	84,087.6	48.3%
2027	13,334.0	6,968.4	317.3	267.9	52.3%	0.0	1,224.5	166,707.5	82,929.6	83,777.9	49.7%
2028	13,697.4	7,217.3	334.1	263.6	52.7%	0.0	1,257.9	171,016.6	87,683.2	83,333.5	51.3%
2029	14,068.0	7,398.9	357.2	263.5	52.6%	0.0	1,292.0	175,524.9	92,468.5	83,056.4	52.7%
2030	14,421.7	7,558.1	372.2	256.5	52.4%	175.0	1,324.4	180,014.8	97,592.9	82,421.9	54.2%
2031	14,773.9	7,725.5	388.3	250.1	52.3%	234.2	1,356.8	184,473.8	102,960.2	81,513.6	55.8%
2032	15,123.5	7,909.2	405.7	244.3	52.3%	235.2	1,388.9	188,886.2	108,533.7	80,352.5	57.5%
2033	15,468.4	8,107.4	424.6	238.9	52.4%	236.2	1,420.6	193,231.8	114,330.5	78,901.3	59.2%
2034	15,806.5	8,895.8	445.7	234.4	56.3%	355.0	1,451.6	197,492.7	121,088.7	76,404.0	61.3%
2035	16,146.7	9,087.2	467.6	229.8	56.3%	355.8	1,482.9	201,657.3	128,134.4	73,523.0	63.5%
2036	16,486.5	9,278.4	491.2	225.6	56.3%	356.6	1,514.1	205,714.0	135,485.4	70,228.6	65.9%
2037	16,829.6	9,471.6	517.0	221.9	56.3%	357.5	1,545.6	209,655.0	143,168.4	66,486.6	68.3%
2038	17,181.4	9,669.5	545.2	218.7	56.3%	358.5	1,577.9	213,468.5	151,213.2	62,255.3	70.8%
2039	17,539.0	9,870.8	576.1	216.0	56.3%	329.7	1,610.7	217,153.3	159,628.9	57,524.4	73.5%
2040	17,910.0	10,079.6	610.0	213.7	56.3%	270.8	1,644.8	220,711.3	168,431.7	52,279.6	76.3%
2041	18,302.8	10,300.7	647.2	211.9	56.3%	211.5	1,680.9	224,161.2	177,686.3	46,474.9	79.3%
2042	18,724.7	10,538.1	688.4	210.7	56.3%	212.7	1,719.6	227,531.7	187,532.5	39,999.2	82.4%
2043	19,187.5	10,798.6	736.3	210.6	56.3%	214.2	1,762.1	230,866.1	198,075.9	32,790.1	85.8%
2044	19,695.2	11,084.3	791.2	211.5	56.3%	216.5	1,808.7	234,232.6	209,446.4	24,786.2	89.4%
2045	20,259.5	11,401.9	854.9	213.6	56.3%	220.7	1,860.6	237,715.9	221,797.5	15,918.4	93.3%
2046	20,893.4	7,925.9	6,487.4	1,514.7	37.9%	220.7	1,918.8	241,408.4	231,330.0	10,078.4	95.8%
2047	21,579.8	8,186.3	6,762.4	1,475.6	37.9%	220.7	1,981.8	245,376.6	241,749.7	3,626.8	98.5%
2048	22,302.5	8,460.5	7,042.1	1,436.1	37.9%	220.7	2,048.2	249,653.3	253,139.2	(3,485.9)	101.4%
2049	23,035.0	8,738.3	7,318.0	1,394.7	37.9%	220.7	2,115.5	254,239.5	265,547.5	(11,307.9)	104.4%
Total Throug	gh 2049	\$219,371.4	\$37,580.1	\$10,224.3		\$5,222.5	\$39,333.1				

Exhibit 2B – SERS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Funding Projections for the State Employees' Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS)
Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 – FY 2049 Bond Payments
Actuarially Assumed Rate of Return: 6.75%

(\$ in millions)

			Compared	to Exhibit B Present Value of	,						
Fiscal Year Ending 6/30	Annual Payroll	Total State Contribution	(Reduction)/ Increase in State Contribution	(Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	SERS Portion of Redirected Bond Payments	Total Employee Contribution	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Liability	Funded Ratio
2024								\$55,499.8	\$25,528.8	\$29,971.00	46.0%
2025	\$5,765.6	\$2,813.0	\$0.0	\$0.0	48.8%	\$0.0	\$316.9	56,677.1	27,094.1	29,583.00	47.8%
2026	5,861.6	2,595.3	0.0	0.0	44.3%	0.0	319.8	57,776.9	27,700.9	30,075.90	47.9%
2027	5,959.0	2,752.3	129.4	109.9	46.2%	0.0	322.9	58,799.4	29,039.1	29,760.30	49.4%
2028	6,085.3	2,847.8	145.4	115.7	46.8%	0.0	327.5	60,632.3	30,436.3	30,196.00	50.2%
2029	6,232.6	2,882.2	169.6	126.4	46.2%	0.0	333.3	61,673.1	31,692.8	29,980.30	51.4%
2030	6,357.3	2,920.6	180.0	125.7	45.9%	62.6	338.1	62,661.6	33,012.2	29,649.30	52.7%
2031	6,488.7	2,974.4	191.1	125.0	45.8%	82.8	343.4	63,600.6	34,377.4	29,223.30	54.1%
2032	6,626.9	3,037.6	203.0	124.4	45.8%	82.3	348.9	64,489.6	35,782.2	28,707.40	55.5%
2033	6,768.3	3,107.8	215.7	123.8	45.9%	81.6	354.3	65,330.4	37,240.9	28,089.50	57.0%
2034	6,917.0	3,393.0	229.0	123.1	49.1%	122.1	360.1	66,126.6	39,027.9	27,098.70	59.0%
2035	7,072.5	3,469.3	242.7	122.2	49.1%	121.6	366.1	66,883.7	40,912.1	25,971.70	61.2%
2036	7,231.8	3,547.4	256.5	121.0	49.1%	121.2	372.1	67,601.4	42,904.5	24,696.90	63.5%
2037	7,393.0	3,626.6	270.7	119.6	49.1%	120.8	378.1	68,285.4	45,020.0	23,265.40	65.9%
2038	7,563.0	3,709.9	285.3	118.1	49.1%	120.3	384.6	68,945.3	47,281.1	21,664.10	68.6%
2039	7,740.5	3,797.0	300.2	116.4	49.1%	109.8	391.3	69,586.5	49,697.6	19,888.90	71.4%
2040	7,922.9	3,886.5	314.6	114.3	49.1%	89.5	398.3	70,212.0	52,277.5	17,934.50	74.5%
2041	8,112.6	3,979.5	328.8	111.9	49.1%	69.3	405.7	70,829.3	55,043.4	15,785.80	77.7%
2042	8,309.6	4,076.2	343.6	109.5	49.1%	69.0	413.4	71,449.9	58,039.7	13,410.20	81.2%
2043	8,513.0	4,175.9	358.3	107.0	49.1%	68.6	421.3	72,078.6	61,288.6	10,790.00	85.0%
2044	8,720.6	4,277.8	372.1	104.1	49.1%	68.1	429.3	72,716.3	64,810.8	7,905.50	89.1%
2045	8,934.7	4,382.8	386.2	101.2	49.1%	67.3	437.5	73,363.8	68,630.0	4,733.80	93.5%
2046	9,154.9	2,894.6	1,942.5	476.9	31.6%	67.3	446.1	74,024.7	71,122.1	2,902.60	96.1%
2047	9,377.6	2,965.0	2,001.9	460.4	31.6%	67.3	454.7	74,707.9	73,807.0	900.90	98.8%
2048	9,603.2	3,036.3	2,071.5	446.3	31.6%	67.3	463.3	75,409.7	76,701.4	(1,291.70)	101.7%
2049	9,835.0	3,109.6	2,140.1	431.9	31.6%	67.3	472.1	76,134.4	79,821.5	(3,687.10)	104.8%
Total Throug	h 2049	\$84,258.4	\$13,078.2	\$4,034.8		\$1,725.8	\$9,599.1				

Exhibit 2C - SURS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 - FY 2049 Bond Payments)

Funding Projections for the State Universities Retirement System

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS) Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 - FY 2049 Bond Payments Actuarially Assumed Rate of Return: 6.50%

(\$ in millions)

		-		to Exhibit C Present Value of							
Fiscal		T-1-1	(Reduction)/	(Reduction)/	State	OUDO Destina	T-1-1	Astrodal	Antonidal		
Year Ending	Annual	Total State	Increase in State	Increase in State	Contribution as Percent	SURS Portion of Redirected	Total Employee	Actuarial Accrued	Actuarial Value of	Unfunded	Funded
6/30	Payroll*	Contribution**	Contribution	Contribution	of Payroll	Bond Payments	Contribution	Liability	Assets	Liability	Ratio
2024								\$53,307.6	\$24,312.6	\$28,995.0	45.69
2025	\$5,812.5	\$2,268.0	\$0.0	\$0.0	39.0%	\$0.0	\$347.9	54,111.8	25,248.1	28,863.7	46.79
2026	6,099.0	2,367.2	0.0	0.0	38.8%	0.0	364.1	54,884.9	25,574.2	29,310.6	46.69
2027	6,248.5	2,499.1	94.8	81.0	40.0%	0.0	369.0	55,589.1	26,417.6	29,171.5	47.59
2028	6,447.2	2,609.6	105.1	84.3	40.5%	0.0	377.8	56,669.2	27,343.0	29,326.2	48.39
2029	6,670.6	2,696.8	125.4	94.4	40.4%	0.0	388.4	57,369.0	28,238.3	29,130.7	49.29
2030	6,879.4	2,772.0	133.9	94.7	40.3%	58.8	397.1	58,018.1	29,229.5	28,788.6	50.49
2031	7,076.5	2,849.3	142.2	94.4	40.3%	78.1	406.2	58,613.9	30,283.5	28,330.4	51.79
2032	7,289.0	2,939.1	150.8	94.0	40.3%	77.7	415.6	59,162.9	31,405.6	27,757.3	53.19
2033	7,509.6	3,038.1	159.5	93.4	40.5%	77.4	425.3	59,678.7	32,624.4	27,054.3	54.79
2034	7,739.8	3,147.0	169.6	93.3	40.7%	115.8	435.6	60,162.9	33,998.3	26,164.7	56.59
2035	7,976.4	3,245.6	178.6	92.2	40.7%	115.6	446.2	60,620.1	35,491.7	25,128.4	58.59
2036	8,219.9	3,347.0	187.9	91.1	40.7%	115.3	457.2	61,053.8	37,120.1	23,933.7	60.89
2037	8,468.6	3,450.7	197.8	90.0	40.7%	114.9	468.3	61,479.5	38,911.1	22,568.3	63.39
2038	8,723.7	3,557.0	208.3	89.0	40.8%	114.5	479.7	61,891.9	40,872.5	21,019.4	66.09
2039	8,985.8	3,666.2	219.2	0.88	40.8%	104.4	491.5	62,312.7	43,029.2	19,283.5	69.19
2040	9,258.2	3,779.6	230.9	87.0	40.8%	84.9	503.8	62,747.0	45,390.0	17,357.0	72.39
2041	9,539.2	3,896.5	243.4	86.1	40.8%	65.5	516.6	63,214.7	47,988.1	15,226.5	75.99
2042	9,829.8	4,017.3	257.4	85.5	40.9%	64.8	530.0	63,720.2	50,862.2	12,858.0	79.89
2043	10,128.9	4,141.4	272.5	85.0	40.9%	63.9	543.9	64,287.2	54,051.3	10,235.9	84.19
2044	10,438.4	4,269.8	289.0	84.6	40.9%	62.3	558.4	64,926.5	57,584.1	7,342.3	88.79
2045	10,756.5	4,401.7	307.5	84.6	40.9%	59.4	573.5	65,650.0	61,489.6	4,160.4	93.79
2046	11,085.9	2,731.1	1,778.7	459.3	24.6%	59.4	589.0	66,466.5	63,936.4	2,530.2	96.29
2047	11,422.0	2,815.8	1,852.0	449.0	24.7%	59.4	604.7	67,386.0	66,643.8	742.1	98.99
2048	11,765.4	2,902.5	1,927.1	438.7	24.7%	59.4	620.5	68,405.9	69,623.2	(1,217.3)	101.89
2049	12,117.5	2,991.6	2,004.7	428.5	24.7%	59.4	636.6	69,525.5	72,889.3	(3,363.8)	104.89
Total Through	h 2049	\$80,400.0	\$11,236.3	\$3,468.1		\$1,610.9	\$11,946.9				

Includes payroll from Retirement Savings Plan (RSP)
 Includes RSP contributions

Exhibit 2D – Combined TRS, SERS, and SURS Projection (Combined HB 2540 Benefit Changes [Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS], 90%/100% Funded by FY 2045/FY 2049, and Redirected FY 2030 – FY 2049 Bond Payments)

Combined Funding Projections for the TRS, SERS, and SURS

CoGFA Projections Based on Laws in Effect on June 30, 2024, Combined HB 2540 Benefit Changes (Unreduced Retirement at 62 & 35 YOS, 65 & 20 YOS)

Plus 90%/100% Funded by FY 2045/FY 2049 and Redirected FY 2030 - FY 2049 Bond Payments

Actuarially Assumed Rate of Return: 7.00% for TRS, 6.75% for SERS, and 6.50% for SURS

(\$ in millions)

		-	Compared to E	xhibits A+B+C Present Value of		Portion					
Fiscal Year	Annual	Total	(Reduction)/ Increase in	(Reduction)/	State Contribution	of Redirected Bond Payments	Total	Actuarial	Actuarial		
Ending 6/30	State Payroll*	State Contribution**	State Contribution	State Contribution	as Percent of Payroll	for TRS, SERS, and SURS	Employee Contribution	Accrued Liability	Value of Assets	Unfunded Liability	Funded Ratio
2024								\$263,132.6	\$120,529.0	\$142,603.6	45.8%
2025	\$24,120.6	\$11,284.6	\$0.0	\$0.0	46.8%	\$0.0	\$1,816.7	269,216.2	127,712.3	141,503.9	47.4%
2026	24,943.6	11,458.0	0.0	0.0	45.9%	0.0	1,876.2	275,157.9	131,683.5	143,474.4	47.9%
2027	25,541.5	12,219.8	541.5	458.8	47.8%	0.0	1,916.4	281,096.0	138,386.3	142,709.7	49.2%
2028	26,229.9	12,674.7	584.6	463.6	48.3%	0.0	1,963.2	288,318.1	145,462.5	142,855.6	50.5%
2029	26,971.2	12,977.9	652.2	484.3	48.1%	0.0	2,013.7	294,567.0	152,399.6	142,167.4	51.7%
2030	27,658.4	13,250.7	686.1	476.9	47.9%	296.3	2,059.6	300,694.5	159,834.6	140,859.9	53.2%
2031	28,339.1	13,549.2	721.6	469.5	47.8%	395.1	2,106.4	306,688.3	167,621.1	139,067.2	54.7%
2032	29,039.4	13,885.9	759.5	462.7	47.8%	395.1	2,153.4	312,538.7	175,721.5	136,817.2	56.2%
2033	29,746.3	14,253.3	799.8	456.1	47.9%	395.3	2,200.2	318,240.9	184,195.8	134,045.1	57.9%
2034	30,463.3	15,435.8	844.3	450.8	50.7%	592.9	2,247.3	323,782.2	194,114.9	129,667.3	60.0%
2035	31,195.6	15,802.1	888.9	444.2	50.7%	593.0	2,295.2	329,161.1	204,538.2	124,622.9	62.1%
2036	31,938.2	16,172.8	935.6	437.7	50.6%	593.1	2,343.4	334,369.2	215,510.0	118,859.2	64.5%
2037	32,691.2	16,548.9	985.5	431.5	50.6%	593.2	2,392.0	339,419.9	227,099.5	112,320.4	66.9%
2038	33,468.1	16,936.4	1,038.8	425.8	50.6%	593.3	2,442.2	344,305.7	239,366.8	104,938.9	69.5%
2039	34,265.3	17,334.0	1,095.5	420.4	50.6%	543.9	2,493.5	349,052.5	252,355.7	96,696.8	72.3%
2040	35,091.1	17,745.7	1,155.5	415.0	50.6%	445.1	2,546.9	353,670.3	266,099.2	87,571.1	75.2%
2041	35,954.6	18,176.7	1,219.4	409.9	50.6%	346.3	2,603.2	358,205.2	280,717.8	77,487.4	78.4%
2042	36,864.1	18,631.6	1,289.4	405.7	50.5%	346.4	2,663.0	362,701.8	296,434.4	66,267.4	81.7%
2043	37,829.4	19,115.9	1,367.1	402.6	50.5%	346.6	2,727.3	367,231.9	313,415.8	53,816.1	85.3%
2044	38,854.2	19,631.9	1,452.3	400.2	50.5%	346.8	2,796.4	371,875.4	331,841.3	40,034.1	89.2%
2045	39,950.7	20,186.4	1,548.6	399.4	50.5%	347.3	2,871.6	376,729.7	351,917.1	24,812.6	93.4%
2046	41,134.2	13,551.6	10,208.6	2,450.9	32.9%	347.3	2,953.9	381,899.6	366,388.5	15,511.1	95.9%
2047	42,379.4	13,967.1	10,616.3	2,385.0	33.0%	347.3	3,041.2	387,470.5	382,200.5	5,270.0	98.6%
2048	43,671.1	14,399.3	11,040.7	2,321.1	33.0%	347.3	3,132.0	393,468.9	399,463.8	(5,994.9)	101.5%
2049	44,987.5	14,839.5	11,462.8	2,255.1	33.0%	347.3	3,224.2	399,899.4	418,258.3	(18,358.9)	104.6%
Total Throug	gh 2049	\$384,029.8	\$61,894.6	\$17,727.2		\$8,559.1	\$60,879.1				

^{*} Includes payroll from Retirement Savings Plan (RSP) for SURS

^{**} Includes RSP contributions for SURS

Appendix II



May 22, 2025

Mr. Clayton Klenke, Executive Director
Illinois Commission on Government Forecasting and Accountability
T. 217.785.3122

Re: Impact of Funding Policies and Enhanced Tier 2 Benefits

Dear Mr. Klenke,

This letter provides you with the projected impact of Enhanced Tier 2 Benefits coupled with changes to funding policy for a sampling of Illinois Article 3 (Police) and Article 4 (Firefighters') pension funds.

PROJECTED IMPACT OF FUNDING POLICIES AND ENHANCED TIER 2 BENEFITS

We have performed this analysis on the following funds, based on the latest valuation performed for the Firefighters' Pension Investment Fund (FPIF) or Illinois Police Officers' Pension Investment Fund (IPOPIF):

- Aurora Firefighters' Pension Fund
- Harvey Firefighters' Pension Fund
- Aurora Police Pension Fund
- East St. Louis Police Pension Fund

When Tier 2 Benefit Enhancements are modeled, this includes the following changes:

- 3.00% annual simple cost-of-living adjustments;
- The salary limitation is indexed to the Social Security Wage Base; and,
- Unreduced retirement allowed at 20 years of service:
 - a. At age 50 and over, or
 - At age 52 and over.

The attached exhibits provide a summary of the projected impact of the benefit enhancements along with the various funding policies on the annual contribution and funded status of each fund. The following scenarios were modeled:

- <u>Current State:</u> This assumes the continued use of the Projected Unit Credit Cost method, current Tier
 2 benefits, and funding to a 90% funding target by the year 2040.
- Fund to 90% by 2040, but Enhanced Tier 2 Benefits (Unreduced at 50/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and retain the 90% funding target by the year 2040, but
 we value the Enhanced Tier 2 benefits scenario with unreduced at age 50 and 20 years of service.
- Fund to 90% by 2050, but Enhanced Tier 2 Benefits (Unreduced at 50/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and the 90% funding target, but fund to the year 2050
 and value the Enhanced Tier 2 benefits scenario with unreduced at age 50 and 20 years of service.

- Fund to 90% by 2055, but Enhanced Tier 2 Benefits (Unreduced at 50/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and the 90% funding target, but fund to the year 2055
 and value the Enhanced Tier 2 benefits scenario with unreduced at age 50 and 20 years of service.
- Fund to 90% by 2040, but Enhanced Tier 2 Benefits (Unreduced at 52/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and retain the 90% funding target by the year 2040, but
 we value the Enhanced Tier 2 benefits scenario with unreduced at age 52 and 20 years of service.
- Fund to 90% by 2050, but Enhanced Tier 2 Benefits (Unreduced at 52/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and the 90% funding target, but fund to the year 2050
 and value the Enhanced Tier 2 benefits scenario with unreduced at age 52 and 20 years of service.
- Fund to 90% by 2055, but Enhanced Tier 2 Benefits (Unreduced at 52/20): In this scenario, we continue
 to use the Projected Unit Credit Cost method and the 90% funding target, but fund to the year 2055
 and value the Enhanced Tier 2 benefits scenario with unreduced at age 52 and 20 years of service.

ASSUMPTIONS/METHODS

The assumptions and methods employed for the purpose of this measurement were consistent with the assumptions that the Firefighters' Pension Investment Fund (FPIF) and Illinois Police Officers Pension Investment Fund (IPOPIF) used for the 2023 and 2024 actuarial valuation reports, without regard to phasing in the assumptions for the IPOPIF funds. When the plan changes are considered, we did revise the retirement rates for Tier 2 to match those for Tier 1 if a participant retires with 20 years of service unreduced. We assumed that these assumptions would be consistent throughout the projection period.

It is worth noting that the retirement assumption differences, which are intended to model the behavior changes as a result of the unreduced ages, also cause some differences in value in the out years, making the 52/20 appear to be more valuable than the 50/20 option. This presents in the funds where the updated pay limitation has little to no impact because salaries at that municipality are expected to be unimpacted by any salary limitation.

For the projections, we assumed that new entrants came into the fund with the following profiles:

	Salary 1	Age at Hire	% Male
Aurora Fire	95,000	27	98%
Harvey Fire	46,000	28	97%
Aurora Police	98,000	27	86%
East St. Louis Police	62,000	32	87%

¹ The starting salary is adjusted annually by inflation for new hires in future years.

New entrants entered the fund throughout the projection period as Tier 2 participants and at a rate equal to the number of hires required to keep the initial active headcount stable throughout the projection period.

DATA

In conducting this analysis, we have relied on personnel data supplied to us by the Illinois Department of Insurance with permission from the FPIF and IPOPIF to employ the data for purposes other than in the issuance of reports on behalf of their respective organizations. The effective date of the data varies by sample fund and is noted below:

- Aurora Fire 1/1/2024
- Harvey Fire 5/1/2024
- Aurora Police 1/1/2024
- East St. Louis Police 1/1/2024

While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. Below is a summary of the data as of the valuation date listed above for each fund.

	Count	Pay	Age	Service
Aurora Fire				
Tier 1	96	155,941	48.0	20.3
Tier 2	134	117,780	31.2	4.6
Harvey Fire				
Tier 1	17	82,744	52.0	23.5
Tier 2	19	62,404	31.2	2.8
Aurora Police				
Tier 1	149	142,347	45.6	20.3
Tier 2	178	112,726	30.9	4.2
East St. Louis Police				
Tier 1	14	76,560	54.5	21.1
Tier 2	16	64,003	36.9	4.5

DISCUSSION OF RISK AND THIRD-PARTY SOFTWARE

These calculations were determined for the purpose of estimating the cost impact of potential Tier 2 pension legislation and possible funding policy changes. Use of the results for other purposes may not be applicable and produce significantly different results. Future actuarial measurements may differ significantly from the current measurements presented in this letter for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position. Measurement of the impact of potential deviation from the actuarial assumptions is outside the scope of this assessment, however, it is important to note that the estimate provided is produced at a single point in time and subject to the demographics as they exist on the valuation date and the actuarial assumptions used to determine the cost impact.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

STATEMENT OF ACTUARIAL OPINION

The undersigned are familiar with the immediate and long-term aspects of pension calculations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. To the best of our knowledge, the results are complete and accurate, and in our opinion, the techniques and assumptions used are reasonable.

To our knowledge, no associate of Foster & Foster, Inc. working on this project has any direct financial interest or indirect material interest in the Article 3 and 4 funds included in this analysis, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of these funds. Thus, there is no relationship existing that might affect our capacity to prepare and certify this analysis.

Respectfully submitted, Foster & Foster, Inc.

Jason L. Franken, FSA, EA, MAAA

Heidi E. Andorfer, FSA, EA, MÅAA

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Present Value 213,			2055 9,	2054 9,	2053 9,	2052 9,	2051 9,	2050 8,	2049 8,	2048 8,	2047 8,	2046 8,	2045 7,	2044 7,	2043 7,	2042 7,	2041 6,	2040 31,	2039 27,	2038 25,	2037 24,	2036 23,	2035 21,		2033 20,	2032 19,	2031 19,	2030 18,	2029 18,	2028 17,	2027 17,	2026 16,	2025 15,	2024 15,	Year Con	Funding Method PUC / 90%	
213,349,576	492,211,915		9,835,142 8	9,683,255 8	9,524,364 8	9,387,235 8	9,163,915 8	8,961,848 8	8,730,519 8	8,549,112 8	8,349,142 8	8,166,532 8	7,963,101 8	7,795,384 8	7,652,868 8	7,521,829 8	6,391,488 9	31,787,765 8	27,973,737 8	25,816,701 8	24,261,191 7	23,024,679 7	21,992,025 7		20,325,117 7	19,638,709 6	19,033,806 6		18,044,866 6	17,636,217 6	17,651,532 6	16,635,829 6	15,864,172 6	15,269,811 6	Funded Contribution Status	30%	
233	531	89%	89% 8	89% 8	89% 8	89% 8	89% 8	89% 9	89% 9	89% 9	89% 9	89% 9	89% 9	9 %68	9 %68	89% 9	90% 8	86% 33	83% 30	80% 28	77% 27	75% 25	73% 24	72% 23	70% 22	68% 21	67% 21	65% 20	64% 19	62% 19	60% 19	60% 18	60% 17	60% 15		PUC/90%	
233,000,814	531,281,118	8,723,856	8,578,908	8,452,240	8,339,404	8,466,796	8,920,588	9,199,612	9,330,747	9,325,236	9,282,616	9,177,353	9,064,004	9,058,221	9,120,067	9,220,413	8,343,320	33,021,358	30,274,274	28,480,134	27,031,332	25,791,980	24,690,353	23,702,556	22,791,827	21,964,127	21,213,344	20,538,678	19,934,022	19,383,350	19,261,348	18,113,310	17,215,933	15,269,811	Contribution	30%	
		90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	86%	83%	81%	78%	76%	74%	72%	70%	69%	67%	65%	64%	62%	60%	60%	60%	60%	Status		
233,000,418	640,526,147	8,723,856	8,578,908	8,452,240	8,339,404	8,382,314	8,120,009	32,991,131	31,828,434	30,681,163	29,580,340	28,505,597	27,515,416	26,592,225	25,728,691	24,881,384	24,038,779	23,215,297	22,423,133	21,657,638	20,901,599	20,177,979	19,482,225	18,823,481	18,187,254	17,593,905	17,045,619	16,549,600	16,103,818	15,696,078	15,585,016	14,763,837	14,109,966	15,269,811	Contribution	PUC/90%	
		90%	90%	90%	90%	90%	90%	87%	85%	82%	80%	78%	77%	75%	73%	72%	71%	69%	68%	67%	86%	86%	65%	£28	63%	63%	62%	61%	61%	60%	58%	59%	60%	60%	Status		
232,761,851	708,232,244	8,723,856	29,314,396	30,844,200	31,066,750	30,778,383	30,212,433	29,481,041	28,672,822	27,823,119	26,959,140	26,082,752	25,260,869	24,481,550	23,748,965	23,023,326	22,294,207	21,577,131	20,884,560	20,210,245	19,536,764	18,887,671	18,259,184	17,660,939	17,079,330	16,535,528	16,032,169	15,577,250	15,169,079	14,795,914	14,690,530	13,946,539	13,351,791	15,269,811	Contribution	PUC/90%	
		90%	88%	86%	83%	81%	79%	77%	76%	74%	73%	71%	70%	69%	68%	67%	66%	65%	65%	64%	63%	63%	62%	62%	62%	61%	61%	60%	60%	59%	58%	59%	60%	60%	Status		
232,062,236	532,830,557	8,491,317	8,387,369	8,306,121	8,812,077	9,314,358	9,665,905	9,764,814	9,706,652	9,610,719	9,586,217	9,522,913	9,411,274	9,371,422	9,394,756	9,470,571	8,527,200	33,321,814	30,219,710	28,280,448	26,764,885	25,491,795	24,379,422	23,392,858	22,493,583	21,682,083	20,950,199	20,294,319	19,707,779	19,174,775	19,069,695	17,937,870	17,055,826	15,269,811	Contribution	PUC/90%	
		90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	86%	83%	81%	78%	76%	74%	72%	70%	69%	67%	65%	64% %	62%	60%	60%	60%	60%	Status		
232,062,237	643,148,497	8,491,317	8,387,369	8,306,175	8,810,677	9,351,050	8,704,441	34,958,235	32,975,210	31,428,706	30,099,704	28,878,256	27,767,104	26,731,655	25,765,647	24,838,210	23,936,846	23,055,512	22,193,448	21,378,427	20,597,847	19,861,336	19,165,986	18,514,732	17,893,812	17,319,267	16,791,774	16,315,921	15,889,248	15,499,875	15,406,205	14,601,536	13,963,158	15,269,811	Contribution	PUC/90%	
		90%	90%	90%	90%	90%	90%	87%	84%	82%	80%	78%	76%	74%	73%	71%	70%	69%	68%	67%	66%	65%	65%	24	63%	63%	62%	61%	61%	60%	58%	59%	60%	60%	Status		
232,108,156	714,942,654	8,491,317	32,415,868	33,014,309	32,714,970	32,046,158	31,173,211	30,186,805	29,158,234	28,129,737	27,163,495	26,228,412	25,350,083	24,505,401	23,704,554	22,924,628	22,156,776	21,396,174	20,642,754	19,924,516	19,229,946	18,570,084	17,943,329	17,353,410	16,787,670	16,263,082	15,780,830	15,346,319	14,957,440	14,602,774	14,514,875	13,787,452	13,208,230	15,269,811	Contribution	PUC/90%	
		90%	88%	85%	83%	81%	78%	77%	75%	73%	72%	71%	69%	68%	67%	67%	66%	65%	64%	64%	63%	63%	62%	62%	61%	61%	61%	60%	60%	59%	58%	59%	60%	60%	Status		

Present Value % Increase	% Increase	Total	2056	2065	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	Impact (vs. Baseline)	Year	Funding Method	Funding Year	Benefits
																																					Contribution	PUC/90%	2040	Current Benefits
																																					Funded Status			-
19,651,238 9.2%	7.9%	39,069,203	(1,243,554)	(1,256,234)	(1,231,015)	(1,184,960)	(920,439)	(243,327)	237,764	600,228	776,124	933,474	1,010,821	1,100,903	1,262,837	1,467,199	1,698,584	1,951,832	1,233,593	2,300,537	2,663,433	2,770,141	2,767,301	2,698,328	2,595,792	2,466,710	2,325,418	2,179,538	2,032,828	1,889,156	1,747,133	1,609,816	1,477,481	1,351,761			Contribution	PUC / 90%	2040	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	1%	1%	98	98	9%	98	9%	98	98	9%	1%	1%	1%	1%	1%	18	1%	1%	98	9%	98	9%	9%	98	-1%	-1%	92		Funded Status			۵.
19,650,842 9.2%	30.1%	148,314,232	(1,243,554)	(1,256,234)	(1,231,015)	(1,184,960)	(1,004,921)	(1,043,906)	24,029,283	23,097,915	22,132,051	21,231,198	20,339,065	19,552,315	18,796,841	18,075,823	17,359,555	17,647,291	(8,572,468)	(5,550,604)	(4,159,063)	(3,359,592)	(2,846,700)	(2,509,800)	(2,283,283)	(2,137,863)	(2,044,804)	(1,988,187)	(1,956,250)	(1,941,048)	(1,940,139)	(2,066,516)	(1,871,992)	(1,754,206)			Contribution	PUC / 90%	2050	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	-2%	<u>.5%</u>	-7%	-9%	-11%	-13%	-15%	-16%	-18%	-19%	-16%	-14%	-13%	-11%	-10%	386	68	7	6%	5%	48	<u>ښ</u>	±3%	-2%	-1%	-1%	98		Funded Status			۵.
19,412,275 9.1%	43.9%	216,020,329	(1,243,554)	19,479,254	21,160,945	21,542,386	21,391,148	21,048,518	20,519,193	19,942,303	19,274,007	18,609,998	17,916,220	17,297,768	16,686,166	16,096,097	15,501,497	15,902,719	(10,210,634)	(7,089,177)	(5,606,456)	(4,724,427)	(4,137,008)	(3,732,841)	(3,445,825)	(3,245,787)	(3,103,181)	(3,001,637)	(2,928,600)	(2,875,787)	(2,840,303)	(2,961,002)	(2,689,290)	(2,512,381)			Contribution	PUC / 90%	2055	50/20 Unreduced
			1%	1%	4%	6%	69	-10%	-12%	-14%	-15%	-17%	-18%	-19%	-20%	-21%	-22%	-23%	-20%	-18%	-16%	-14%	-12%	-11%	-10%	ģ	-7%	-6%	is 20	4%	<u>ښ</u>	-2%	-1%	-1%	98		Funded Status			۵.
18,712,660 8.8%	8.3%	40,618,642	(1,476,093)	(1,447,773)	(1,377,134)	(712,287)	(72,877)	501,990	802,966	976,133	1,061,607	1,237,075	1,356,381	1,448,173	1,576,038	1,741,888	1,948,742	2,135,712	1,534,049	2,245,973	2,463,747	2,503,694	2,467,116	2,387,397	2,286,094	2,168,466	2,043,374	1,916,393	1,788,469	1,662,913	1,538,558	1,418,163	1,302,041	1,191,654			Contribution	PUC / 90%	2040	52/20 Unreduced
			1%	18	1%	18	1%	1%	98	98	98	98	0%	98	9%	98	9	98	1%	1%	1%	1%	1%	1%	1%	9%	ş	98	9	9%	98	9%	98	-1%	9%		Funded Status			۵.
18,712,661 8.8%	30.7%	150,936,582	(1,476,093)	(1,447,773)	(1,377,080)	(713,687)	(36,185)	(459,474)	25,996,387	24,244,691	22,879,594	21,750,562	20,711,724	19,804,003	18,936,271	18,112,779	17,316,381	17,545,358	(8,732,253)	(5,780,289)	(4,438,274)	(3,663,344)	(3,163,343)	(2,826,039)	(2,592,032)	(2,431,305)	(2,319,442)	(2,242,032)	(2,189,929)	(2,155,618)	(2,136,342)	(2,245,327)	(2,034,293)	(1,901,014)			Contribution	PUC / 90%	2050	52/20 Unreduced
			1%	1%	1%	1%	1%	1%	-2%	5%	-7%	-9%	-11%	-13%	-15%	-17%	-18%	-19%	-17%	-15%	-13%	-11%	-10%	-9%	-69.20	-7%	6%	-5%	4%	-3%	÷2%	-2%	-1%	-1%	9%		Funded Status			ä.
18,758,580 8.8%	45.3%	222,730,739	(1,476,093)	22,580,726	23,331,054	23,190,606	22,658,923	22,009,296	21,224,957	20,427,715	19,580,625	18,814,353	18,061,880	17,386,982	16,710,017	16,051,686	15,402,799	15,765,288	(10,391,591)	(7,330,983)	(5,892,185)	(5,031,245)	(4,454,595)	(4,048,696)	(3,753,354)	(3,537,447)	(3,375,627)	(3,252,976)	(3,159,531)	(3,087,426)	(3,033,443)	(3,136,657)	(2,848,377)	(2,655,942)			Contribution	PUC / 90%	2055	52/20 Unreduced
			1%	-2%	4%	-7%	-9%	-11%	-13%	-14%	-16%	-17%	-19%	-20%	-21%	-22%	-23%	-24%	-21%	-18%	-16%	-14%	-13%	-11%	-10%	200 200 200	-7%	6%	-5%	4%	<u>ښ</u>	-2%	-1%	-1%	0%		Funded			ä.

Present Value	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	Year	Funding Method PL	Funding Year 20	Benefits Cu
59,334,463	138,082,387	2,802,136	2,752,564	2,707,597	2,659,517	2,616,973	2,575,018	2,529,499	2,482,197	2,430,869	2,384,693	2,334,591	2,279,631	2,232,628	2,185,404	2,135,603	2,104,337	1,719,748	10,553,495	9,019,688	8,133,843	7,482,388	6,953,453	6,504,762	6,109,351	5,758,144	5,442,215	5,153,567	4,891,278	4,653,380	4,437,500	4,223,001	4,000,858	3,832,459	Contribution	PUC/90%	2040	Current Benefits
		88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	75%	65%	57%	50%	45%	40%	36%	33%	30%	28%	26%	25%	24%	23%	23%	22%	Status			
60,037,612	138,682,694	2,614,391	2,541,717	2,476,029	2,417,104	2,381,199	2,372,578	2,382,091	2,391,844	2,402,618	2,415,201	2,410,471	2,385,375	2,356,814	2,314,929	2,267,427	2,236,987	1,852,720	10,655,370	9,133,854	8,248,987	7,594,776	7,061,054	6,607,454	6,206,657	5,849,646	5,527,742	5,233,053	4,964,579	4,720,638	4,498,715	4,278,140	4,050,075	3,832,459	Contribution	PUC/90%	2040	Su/ ZU Unreduced
		88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	76%	66%	58%	51%	46%	41%	37%	34%	31%	29%	27%	25%	24%	23%	23%	22%	Status			
60,037,612	174,298,149	2,614,391	2,541,717	2,476,028	2,417,125	2,380,639	2,387,255	1,997,492	12,469,557	10,949,993	10,025,697	9,307,119	8,698,360	8,164,974	7,684,968	7,245,563	6,841,712	6,470,977	6,129,135	5,806,991	5,504,025	5,223,649	4,959,279	4,713,402	4,479,551	4,260,683	4,055,599	3,861,327	3,680,410	3,513,546	3,358,603	3,203,560	3,042,363	3,832,459	Contribution	PUC/90%	2050	SQ/20 Unreduced
		88%	88%	88%	88%	88%	88%	89%	75%	65%	56%	48%	41%	36%	31%	27%	24%	21%	19%	17%	16%	16%	15%	15%	16%	16%	17%	17%	18%	19%	20%	21%	23%	22%	Status Status			
60,037,668	198,630,713	2,630,390	2,122,489	13,461,146	11,895,914	10,982,652	10,292,902	9,712,283	9,198,003	8,727,656	8,289,912	7,875,540	7,480,587	7,107,196	6,752,539	6,414,009	6,093,331	5,792,642	5,510,466	5,239,784	4,981,669	4,740,701	4,511,159	4,296,335	4,090,311	3,896,497	3,714,066	3,540,343	3,378,143	3,228,357	3,088,722	2,948,939	2,803,571	3,832,459	Contribution	PUC/90%	2055	Su/ Zu Unreduced
		88%	89%	76%	65%	55%	47%	40%	33%	28%	23%	19%	15%	13%	10%	9%	80	7%	78	78	7%	90	80	9%	11%	12%	13%	15%	16%	18%	19%	21%	23%	22%	Status			0
60,068,328	139,476,368	2,696,017	2,640,842	2,589,620	2,539,819	2,508,692	2,500,769	2,504,372	2,497,467	2,481,863	2,465,312	2,437,279	2,394,294	2,350,828	2,300,800	2,250,974	2,218,286	1,831,183	10,638,734	9,115,555	8,230,866	7,577,339	7,044,553	6,591,945	6,192,189	5,836,245	5,515,392	5,221,746	4,954,330	4,711,405	4,490,478	4,270,903	4,043,812	3,832,459	Contribution	PUC/90%	2040	52/20 Unreduced
		88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	76%	66%	58%	51%	45%	41%	37%	34%	31%	29%	27%	25%	24%	23%	23%	22%	Status			•
60,068,326	175,121,760	2,696,017	2,640,842	2,589,619	2,539,842	2,508,127	2,515,569	2,116,546	12,659,736	11,041,719	10,069,720	9,322,699	8,696,565	8,152,840	7,665,442	7,223,054	6,819,608	6,447,741	6,105,718	5,785,180	5,483,799	5,204,907	4,941,983	4,697,443	4,464,878	4,247,250	4,043,345	3,850,208	3,670,417	3,504,617	3,350,707	3,196,686	3,036,477	3,832,459	Contribution	PUC/90%	2050	52/20 Unreduced
		88%	88%	88%	88%	88%	88%	88%	75%	64%	55%	48%	41%	35%	30%	26%	23%	21%	19%	17%	16%	16%	15%	15%	16%	16%	17%	17%	18%	19%	20%	21%	23%	22%	Status			ă
60,068,385	199,557,383	2,712,315	2,213,785	13,779,898	12,119,513	11,151,771	10,422,199	9,809,401	9,267,479	8,772,136	8,311,774	7,879,789	7,472,784	7,091,756	6,730,954	6,390,184	6,070,431	5,768,869	5,486,651	5,217,683	4,961,238	4,721,820	4,493,777	4,280,333	4,075,627	3,883,080	3,701,849	3,529,277	3,368,216	3,219,503	3,080,907	2,942,151	2,797,774	3,832,459	Contribution	PUC/90%	2055	52/20 Unreduced
		88%	89%	75%	64%	55%	47%	39%	33%	27%	22%	18%	15%	12%	10%	898	7%	6%	6%	6%	7%	7%	88	9%	11%	12%	13%	15%	16%	18%	19%	21%	23%	22%	Status			8

Present Value % Increase	% Increase	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	impart (vs. Baseline)	Year	Funding Method	Funding Year	Benefits
																																				_	Contribution	PUC / 90%	2040	Current Benefits
																																					Funded Status			
703,148 1.2%	0.4%	600,307	(187,745)	(210,847)	(231,568)	(242,413)	(235,774)	(202,440)	(147,408)	(90,353)	(28,251)	30,508	75,880	105,744	124,186	129,525	131,824	132,650	132,972	101,875	114,166	115,144	112,388	107,601	102,692	97,306	91,502	85,527	79,486	73,301	67,258	61,215	55,139	49,217			Contribution	PUC/90%	2040	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	1%	9,	9	9	9	9,	9	98	9,	0%	98	1%	1%	1%	1%	1%	18	1%	1%	98	98	98	98	9	9,	92	98		Funded Status			<u>.</u>
703,148 1.2%	26.2%	36,215,762	(187,745)	(210,847)	(231,569)	(242,392)	(236,334)	(187,763)	(532,007)	9,987,360	8,519,124	7,641,004	6,972,528	6,418,729	5,932,346	5,499,564	5,109,960	4,737,375	4,751,229	(4,424,360)	(3,212,697)	(2,629,818)	(2,258,739)	(1,994,174)	(1,791,360)	(1,629,800)	(1,497,461)	(1,386,616)	(1,292,240)	(1,210,868)	(1,139,834)	(1,078,897)	(1,019,441)	(958,495)			Contribution	PUC / 90%	2050	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	1%	-12%	-23%	-32%	40%	-46%	-52%	-57%	-61%	64%	-67%	-56%	-48%	-41%	-35%	-29%	-25%	-21%	-17%	-14%	-11%	68	6%	48	-2%	92	98		Funded Status			ā.
703,205 1.2%	43.8%	60,548,326	(171,746)	(630,075)	10,753,549	9,236,397	8,365,679	7,717,884	7,182,784	6,715,806	6,296,787	5,905,219	5,540,949	5,200,956	4,874,568	4,567,135	4,278,406	3,988,994	4,072,894	(5,043,029)	(3,779,904)	(3,152,174)	(2,741,687)	(2,442,294)	(2,208,427)	(2,019,040)	(1,861,647)	(1,728,149)	(1,613,224)	(1,513,135)	(1,425,023)	(1,348,778)	(1,274,062)	(1,197,287)			Contribution	PUC/90%	2055	50/20 Unreduced
			1%	1%	-12%	-23%	-32%	40%	-48%	-54%	-60%	-65%	-69%	-72%	-75%	-77%	-79%	-80%	-81%	-69%	-59%	-50%	-43%	-36%	-31%	-26%	-21%	-17%	-13%	-10%	-7%	ů,	-2%	9%	98		Funded Status			ă.
733,864 1.2%	1.0%	1,393,981	(106,119)	(111,722)	(117,977)	(119,698)	(108,281)	(74,249)	(25,127)	15,270	50,994	80,619	102,688	114,663	118,200	115,396	115,371	113,949	111,435	85,239	95,867	97,023	94,951	91,100	87,183	82,838	78,101	73,177	68,179	63,052	58,025	52,978	47,902	42,954			Contribution	PUC/90%	2040	52/20 Unreduced
			1%	98	1%	9,	9	9,	9%	9%	9%	98	9%	98	98	98	98	9%	98	98	18	1%	1%	1%	1%	1%	98	98	98	9%	98	98	9%	9%	0%		Funded Status			۵.
733,862 1.2%	26.8%	37,039,373	(106,119)	(111,722)	(117,978)	(119,675)	(108,846)	(59,449)	(412,953)	10,177,539	8,610,850	7,685,027	6,988,108	6,416,934	5,920,212	5,480,038	5,087,451	4,715,271	4,727,993	(4,447,777)	(3,234,508)	(2,650,044)	(2,277,481)	(2,011,470)	(1,807,319)	(1,644,473)	(1,510,894)	(1,398,870)	(1,303,359)	(1,220,861)	(1,148,763)	(1,086,793)	(1,026,315)	(964,381)			Contribution	PUC / 90%	2050	52/20 Unreduced
			1%	98	1%	9,	9,	9,	1%	-12%	-23%	-32%	-40%	-47%	-52%	-57%	-61%	64%	-68%	-56%	-48%	-41%	-35%	-29%	-25%	-21%	-17%	-14%	-11%	8%	6%	4%	-2%	98	0%		Funded Status			ă.
733,921 1.2%	44.5%	61,474,996	(89,821)	(538,779)	11,072,301	9,459,996	8,534,798	7,847,181	7,279,902	6,785,282	6,341,267	5,927,081	5,545,198	5,193,153	4,859,128	4,545,550	4,254,581	3,966,094	4,049,121	(5,066,844)	(3,802,005)	(3,172,605)	(2,760,568)	(2,459,676)	(2,224,429)	(2,033,724)	(1,875,064)	(1,740,366)	(1,624,290)	(1,523,062)	(1,433,877)	(1,356,593)	(1,280,850)	(1,203,084)			Contribution	PUC/90%	2055	52/20 Unreduced
			9%	1%	-12%	-23%	-33%	41%	48%	-55%	-61%	-65%	-70%	-73%	-76%	-78%	-80%	-81%	-82%	-69%	-59%	-50%	-43%	-36%	-31%	-26%	-21%	-17%	-14%	-10%	-7%	5%	-2%	9%	0%		Funded			ă.

Aurora Police

Present Value	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	Year	Control of the Control	Emding Mashod	Benefits Funding Year
303,298,563	686,203,979	15,210,624	14,888,956	14,582,084	14,261,210	13,981,042	13,576,256	13,200,217	12,810,370	12,506,182	12,161,417	11,803,911	11,472,652	11,198,717	10,865,875	10,640,661	9,143,313	42,301,665	37,604,020	34,908,489	32,954,248	31,387,401	30,083,604	28,971,773	28,018,166	27,181,154	26,392,209	25,665,268	25,004,721	24,360,281	24,081,682	22,722,802	21,609,163	20,653,846	Contribution	100/	and / and	Current Benefits 2040
		89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	%e8	89%	30%	86%	83%	81%	78%	76%	74%	72%	70%	69%	67%	65%	64%	62%	60%	60%	60%	59%	Status			
333,016,212	760,061,301	15,606,328	15,254,456	14,926,171	14,618,142	14,322,688	14,435,842	14,646,535	14,718,307	14,693,424	14,563,992	14,369,219	14,382,427	14,421,650	14,336,308	14,243,589	12,902,570	45,000,426	41,146,614	38,631,779	36,651,759	34,965,806	33,493,888	32,186,704	31,023,940	29,975,745	28,975,614	28,041,437	27,184,264	26,350,933	25,889,438	24,358,172	23,089,288	20,653,846	Contribution	100/1000	BITC / SON	50/20 Unreduced 2040
		91%	90%	90%	90%	90%	90%	90%	300%	300%	90%	90%	90%	30%	%0%	300%	90%	87%	84%	81%	79%	77%	75%	73%	71%	69%	67%	88	22	62%	60%	60%	59%	59%	Status			
333,123,442	901,152,252	15,606,328	15,254,456	14,926,171	14,618,142	14,322,688	14,024,685	45,619,841	44,570,455	43,218,648	41,757,196	40,242,131	38,801,303	37,390,673	36,012,149	34,602,411	33,213,357	31,897,776	30,646,717	29,456,778	28,359,815	27,328,974	26,371,620	25,486,539	24,679,037	23,935,359	23,202,224	22,506,371	21,863,279	21,225,734	20,839,769	19,732,520	18,785,260	20,653,846	Contribution	100/1000	BITC / DOW	50/20 Unreduced 2050
		91%	90%	90%	90%	90%	90%	888	85%	83%	81%	79%	77%	76%	74%	73%	71%	70%	69%	68%	67%	86%	65%	65%	64%	63%	62%	61%	61%	60%	59%	59%	59%	59%	Status			۵.
332,492,721	986,075,503	15,606,328	41,882,998	43,779,613	43,982,944	43,536,934	42,721,918	41,718,342	40,618,116	39,440,387	38,187,675	36,879,343	35,636,504	34,424,100	33,238,008	32,006,098	30,782,401	29,620,132	28,508,850	27,443,966	26,459,129	25,528,968	24,662,090	23,858,831	23,125,463	22,449,039	21,777,403	21,138,174	20,547,186	19,958,084	19,593,869	18,588,378	17,720,386	20,653,846	Contribution	1000	and look	50/20 Unreduced 2055
		30%	88%	86%	84%	82%	80%	78%	77%	75%	74%	72%	71%	70%	89%	68%	67%	66%	66%	65%	248	64%	63%	63%	62%	62%	61%	80%	60%	59%	58%	59%	59%	59%	Status			۵.
331,182,175	761,810,997	15,170,941	14,882,597	14,923,873	15,296,472	15,758,721	16,016,193	15,917,066	15,637,628	15,423,432	15,277,848	15,046,241	14,869,680	14,681,577	14,437,026	14,205,935	12,683,226	44,913,423	40,760,418	38,154,600	36,137,376	34,444,327	32,985,407	31,699,886	30,562,021	29,543,880	28,577,238	27,675,581	26,849,055	26,044,988	25,611,678	24,106,914	22,861,903	20,653,846	Contribution	1000	BILL TOOK	52/20 Unreduced 2040
		30%	90%	90%	90%	90%	90%	90%	30%	90%	90%	90%	90%	90%	%06	30%	90%	86%	84%	81%	79%	77%	75%	73%	71%	69%	67%	86%	64%	62%	60%	60%	59%	59%	Status			۵.
331,182,176	903,606,049	15,170,941	14,882,597	14,923,930	15,294,869	15,802,888	14,799,859	49,413,812	46,632,336	44,434,168	42,478,123	40,651,227	38,949,194	37,292,579	35,719,514	34,207,682	32,739,006	31,344,328	30,058,495	28,878,893	27,793,380	26,781,969	25,853,632	24,999,981	24,223,330	23,513,704	22,816,945	22,155,681	21,544,702	20,937,429	20,580,308	19,499,950	18,576,751	20,653,846	Contribution	1000	BILL / SON	52/20 Unreduced 2050
		30%	90%	90%	90%	90%	90%	87%	85%	83%	80%	79%	77%	75%	74%	72%	71%	70%	69%	68%	67%	66%	65%	65%	64%	63%	62%	61%	61%	60%	59%	59%	59%	59%	Status			2
331,300,848	996,876,932	15,170,941	47,799,707	47,837,058	47,011,165	45,829,384	44,433,242	42,932,877	41,395,316	39,856,395	38,382,279	36,945,301	35,563,724	34,182,343	32,851,548	31,552,382	30,271,788	29,043,774	27,906,261	26,857,719	25,888,346	24,980,334	24,144,394	23,373,880	22,672,240	22,030,500	21,395,725	20,791,452	20,232,846	19,674,209	19,338,966	18,360,443	17,516,547	20,653,846	Contribution	1000	and look	52/20 Unreduced 2055
		90%	88%	85%	83%	81%	79%	78%	76%	74%	73%	72%	71%	69%	68%	68%	67%	66%	65%	65%	24%	64%	63%	63%	62%	62%	61%	60%	60%	59%	58%	59%	59%	59%	Status			8.

Present Value % Increase	% Increase	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	Impact (vs. Rasoli	Year	Funding Method	Funding Year	Benefits
																																					Contribution	PUC/90%	2040	Current Benefits
																																					Funded Status			
29,717,649 9.8%	10.8%	73,857,322	395,704	365,500	344,087	356,932	341,646	859,586	1,446,318	1,907,937	2,187,242	2,402,575	2,565,308	2,909,775	3,222,933	3,470,433	3,602,928	3,759,257	2,698,761	3,542,594	3,723,290	3,697,511	3,578,405	3,410,284	3,214,931	3,005,774	2,794,591	2,583,405	2,376,169	2,179,543	1,990,652	1,807,756	1,635,370	1,480,125			Contribution	PUC/90%	2040	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	98	9%	98	98	98	98	98	98	98	98	98	1%	1%	1%	1%	18	1%	9%	98	98	98	98	98	98	9	-1%	9%		Funded Status			۵.
29,824,879 9.8%	31.3%	214,948,273	395,704	365,500	344,087	356,932	341,646	448,429	32,419,624	31,760,085	30,712,466	29,595,779	28,438,220	27,328,651	26,191,956	25,146,274	23,961,750	24,070,044	(10,403,889)	(6,957,303)	(5,451,711)	(4,594,433)	(4,058,427)	(3,711,984)	(3,485,234)	(3,339,129)	(3,245,795)	(3,189,985)	(3,158,897)	(3,141,442)	(3,134,547)	(3,241,913)	(2,990,282)	(2,823,903)			Contribution	PUC / 90%	2050	50/20 Unreduced
			1%	1%	1%	1%	1%	1%	-2%	48	6%	-8%	-10%	-12%	-14%	-15%	-17%	-18%	-16%	-14%	-12%	-11%	-10%	9%	-8%	-7%	6%	is %	48	<u>ئ</u>	<u>ښ</u>	-2%	-1%	-1%	9%		Funded Status			ă.
29,194,158 9.6%	43.7%	299,871,524	395,704	26,994,042	29,197,529	29,721,734	29,555,892	29,145,662	28,518,125	27,807,746	26,934,205	26,026,258	25,075,432	24,163,852	23,225,383	22,372,133	21,365,437	21,639,088	(12,681,533)	(9,095,170)	(7,464,523)	(6,495,119)	(5,858,433)	(5,421,514)	(5,112,942)	(4,892,703)	(4,732,115)	(4,614,806)	(4,527,094)	(4,457,535)	(4,402,197)	(4,487,813)	(4,134,424)	(3,888,777)			Contribution	PUC/90%	2055	50/20 Unreduced
			1%	-1%	÷3%	5%	-7%	-9%	-11%	-13%	-14%	-16%	-17%	-18%	-20%	-21%	-22%	-23%	-20%	-17%	-16%	-14%	-12%	-11%	-9%	-8%	-7%	-6%	ůs K	4%	÷3%	-2%	-1%	-18	98		Funded Status			ă.
27,883,612 9.2%	11.0%	75,607,018	(39,683)	(6,359)	341,789	1,035,262	1,777,679	2,439,937	2,716,849	2,827,258	2,917,250	3,116,431	3,242,330	3,397,028	3,482,860	3,571,151	3,565,274	3,539,913	2,611,758	3,156,398	3,246,111	3,183,128	3,056,926	2,901,803	2,728,113	2,543,855	2,362,726	2,185,029	2,010,313	1,844,334	1,684,707	1,529,996	1,384,112	1,252,740			Contribution	PUC/90%	2040	52/20 Unreduced
			1%	1%	1%	1%	0%	9%	0%	0%	9%	0%	0%	9%	0%	9%	9%	9%	9%	1%	1%	1%	1%	1%	0%	9%	9%	9%	9%	9%	9%	9%	9%	9%	98		Funded Status			ä.
27,883,612 9.2%	31.7%	217,402,070	(39,683)	(6,359)	341,846	1,033,659	1,821,846	1,223,603	36,213,595	33,821,966	31,927,986	30,316,706	28,847,316	27,476,542	26,093,862	24,853,639	23,567,021	23,595,693	(10,957,337)	(7,545,525)	(6,029,596)	(5,160,868)	(4,605,432)	(4,229,972)	(3,971,792)	(3,794,836)	(3,667,450)	(3,575,264)	(3,509,587)	(3,460,019)	(3,422,852)	(3,501,374)	(3,222,852)	(3,032,412)			Contribution	PUC/90%	2050	52/20 Unreduced
			1%	1%	1%	1%	0%	0%	-2%	5%	-7%	-9%	-11%	-13%	-14%	-16%	-17%	-19%	-16%	-14%	-13%	-11%	-10%	-9%	-8%	-7%	-6%	-5%	-4%	-3%	-2%	-2%	-1%	0%	98		Funded Status			ă.
28,002,285 9.2%	45.3%	310,672,953	(39,683)	32,910,751	33,254,974	32,749,955	31,848,342	30,856,986	29,732,660	28,584,946	27,350,213	26,220,862	25,141,390	24,091,072	22,983,626	21,985,673	20,911,721	21,128,475	(13,257,891)	(9,697,759)	(8,050,770)	(7,065,902)	(6,407,067)	(5,939,210)	(5,597,893)	(5,345,926)	(5,150,654)	(4,996,484)	(4,873,816)	(4,771,875)	(4,686,072)	(4,742,716)	(4,362,359)	(4,092,616)			Contribution	PUC/90%	2055	52/20 Unreduced
			1%	-2%	-4%	-6%	60	-10%	-12%	-14%	-15%	-16%	-18%	-19%	-20%	-21%	-22%	-23%	-20%	-18%	-16%	-14%	-12%	-11%	-10%	-8%	-7%	6%	-5%	4%	3%	-2%	-1%	9%	0%		Funded			ă.

East St. Louis Police

Present Value	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	2024	Year C		Funding Method PU	Funding Year 2040	
38,452,709	83,184,809	1,335,228	1,309,416	1,288,189	1,274,026	1,264,627	1,248,731	1,230,498	1,211,585	1,199,659	1,183,003	1,154,384	1,118,569	1,089,919	1,064,154	1,041,778	836,949	5,667,964	5,184,364	4,864,296	4,594,058	4,357,057	4,145,545	3,951,444	3,768,446	3,599,434	3,442,934	3,299,240	3,169,040	3,052,462	2,987,899	2,838,795	2,736,844	2,674,272	Contribution	T1	PUC/90%	8	-
		89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	90%	81%	74%	68%	63%	59%	55%	52%	49%	47%	45%	44%	43%	42%	40%	41%	40%	40%	Status	Funded	L		
39,301,784	84,524,181	1,286,645	1,216,495	1,147,526	1,108,616	1,103,358	1,116,107	1,131,626	1,150,986	1,187,665	1,229,440	1,251,314	1,245,352	1,229,751	1,206,139	1,181,147	972,277	5,723,357	5,275,846	4,966,773	4,703,463	4,468,674	4,258,029	4,060,652	3,874,203	3,701,405	3,538,628	3,388,261	3,251,251	3,127,864	3,056,666	2,900,019	2,790,374	2,674,272	Contribution		PUC/90%	2040	no to our cooks
		90%	90%	30%	90%	90%	30%	90%	90%	90%	90%	89%	89%	89%	89%	89%	30%	82%	75%	69%	24%	60%	56%	53%	50%	48%	46%	44%	43%	42%	40%	40%	40%	40%	Status	Funded			
39,301,784	105,616,999	1,286,645	1,216,495	1,147,520	1,108,808	1,098,081	958,902	5,744,190	5,591,386	5,432,789	5,258,712	5,069,497	4,876,375	4,683,366	4,489,497	4,298,043	4,112,409	3,933,547	3,764,576	3,605,070	3,449,842	3,301,432	3,163,016	3,028,222	2,897,557	2,774,667	2,657,031	2,547,943	2,448,868	2,360,447	2,310,299	2,201,519	2,125,976	2,674,272	Contribution		PUC / 90%	2050	and any owner or
		90%	90%	90%	90%	90%	90%	83%	77%	71%	66%	61%	57%	53%	49%	46%	43%	41%	39%	38%	37%	36%	36%	35%	35%	36%	36%	36%	37%	38%	38%	39%	40%	40%	Status	Funded			
39,301,146	119,120,385	1,116,642	5,898,251	5,686,991	5,536,393	5,402,108	5,271,254	5,141,304	5,012,996	4,881,834	4,738,738	4,582,498	4,421,124	4,256,588	4,088,381	3,920,271	3,755,874	3,596,374	3,444,897	3,301,371	3,161,060	3,026,615	2,901,241	2,778,678	2,659,562	2,547,506	2,440,039	2,340,526	2,250,461	2,170,510	2,125,797	2,028,634	1,961,595	2,674,272	Contribution		PUC/90%	2055	
		90%	84%	78%	73%	68%	63%	58%	54%	50%	46%	43%	40%	38%	36%	34%	32%	31%	31%	30%	30%	30%	31%	31%	32%	33%	34%	35%	36%	37%	37%	39%	40%	40%	Status	Funded			
39,312,066	84,795,066	1,296,618	1,237,990	1,183,221	1,160,937	1,169,352	1,182,266	1,178,914	1,172,905	1,195,548	1,236,752	1,259,971	1,251,133	1,229,059	1,201,387	1,175,060	967,023	5,726,610	5,276,045	4,965,321	4,700,763	4,464,862	4,254,017	4,054,284	3,867,891	3,695,351	3,532,831	3,382,717	3,245,953	3,122,802	3,051,832	2,895,406	2,785,973	2,674,272	Contribution		PUC/90%	2040	
		90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	89%	89%	89%	89%	89%	90%	82%	75%	69%	24%	60%	56%	53%	50%	48%	46%	44%	43%	42%	40%	40%	40%	40%	Status	Funded			
39,312,066	105,903,523	1,296,618	1,237,989	1,183,229	1,160,714	1,175,467	1,013,878	5,816,179	5,622,989	5,446,972	5,265,222	5,073,773	4,878,816	4,682,400	4,485,821	4,292,392	4,106,911	3,928,357	3,759,664	3,600,423	3,445,354	3,296,984	3,158,891	3,021,863	2,891,329	2,768,753	2,651,417	2,542,613	2,443,808	2,355,642	2,305,736	2,197,186	2,121,861	2,674,272	Contribution		PUC/90%	2050	and the second second
		90%	90%	90%	90%	90%	90%	83%	77%	71%	66%	61%	56%	52%	49%	46%	43%	41%	39%	38%	37%	36%	36%	35%	35%	36%	36%	36%	37%	38%	38%	39%	40%	40%	Status	Funded			
39,311,416	119,446,406	1,123,660	6,001,125	5,771,014	5,605,973	5,458,618	5,315,808	5,173,830	5,032,077	4,888,718	4,740,160	4,583,608	4,421,740	4,254,498	4,083,847	3,913,879	3,749,745	3,590,662	3,439,577	3,296,433	3,156,398	3,022,112	2,897,124	2,772,342	2,653,369	2,541,635	2,434,476	2,335,252	2,245,462	2,165,769	2,121,301	2,024,371	1,957,551	2,674,272	Contribution		PUC/90%	2055	
		90%	84%	78%	73%	67%	63%	58%	54%	50%	46%	43%	40%	38%	35%	34%	32%	31%	31%	30%	30%	30%	31%	31%	32%	33%	34%	35%	36%	37%	37%	39%	40%	40%	Status	Funded			

Present Value % Increase	% Increase	Total	2056	2055	2054	2053	2052	2051	2050	2049	2048	2047	2046	2045	2044	2043	2042	2041	2040	2039	2038	2037	2036	2035	2034	2033	2032	2031	2030	2029	2028	2027	2026	2025	Impact (vs. Baseline) 2024	Year		Funding Method	Benefits Funding Year
																																			16)	Contribution		PUC / 90%	Current Benefits 2040
																																				Status	Funded		
849,075 2.2%	1.6%	1,339,372	(48,583)	(92,921)	(140,663)	(165,410)	(161,269)	(132,624)	(98,872)	(60,599)	(11,994)	46,437	96,930	126,783	139,832	141,985	139,369	135,328	55,393	91,482	102,477	109,405	111,617	112,484	109,208	105,757	101,971	95,694	89,021	82,211	75,402	68,767	61,224	53,530		Contribution		PUC / 90%	50/20 Unreduced 2040
			98	9,	98	98	9,	98	98	98	98	98	9,	98	98	98	98	9%	1%	1%	1%	1%	1%	1%	1%	1%	98	98	98	98	98	9,	9	98	98	Status	Funded		•
849,075 2.2%	27.0%	22,432,190	(48,583)	(92,921)	(140,669)	(165,218)	(166,546)	(289,829)	4,513,692	4,379,801	4,233,130	4,075,709	3,915,113	3,757,806	3,593,447	3,425,343	3,256,265	3,275,460	(1,734,417)	(1,419,788)	(1,259,226)	(1,144,216)	(1,055,625)	(982,529)	(923,222)	(870,889)	(824,767)	(785,903)	(751,297)	(720,172)	(692,015)	(677,600)	(637,276)	(610,868)		Contribution		PUC / 90%	50/20 Unreduced 2050
			9%	9	9	9	9	1%	\$	-12%	-18%	-23%	-28%	-33%	-37%	40%	-43%	-46%	40%	-35%	-30%	-26%	-23%	-19%	-17%	-14%	-11%	ģ	Ż,	ģ	故	300	-1%	9	9,	Status	Funded		ă.
848,437 2.2%	43.2%	35,935,576	(218,586)	4,588,835	4,398,802	4,262,367	4,137,481	4,022,523	3,910,806	3,801,411	3,682,175	3,555,735	3,428,114	3,302,555	3,166,669	3,024,227	2,878,493	2,918,925	(2,071,590)	(1,739,467)	(1,562,925)	(1,432,998)	(1,330,442)	(1,244,304)	(1,172,766)	(1,108,884)	(1,051,928)	(1,002,895)	(958,714)	(918,579)	(881,952)	(862,102)	(810,161)	(775,249)		Contribution		PUC / 90%	50/20 Unreduced 2055
			1%	5%	-11%	-17%	-22%	-27%	-31%	-35%	-39%	-43%	-46%	-49%	-52%	-54%	-55%	-57%	-50%	-44%	-38%	-33%	-29%	-24%	-21%	-17%	-14%	-12%	-9% %	-7%	5%	3%	-2%	98	98	Status	Funded		۵
859,357 2.2%	1.9%	1,610,257	(38,610)	(71,426)	(104,968)	(113,089)	(95,275)	(66,465)	(51,584)	(38,680)	(4,111)	53,749	105,587	132,564	139,140	137,233	133,282	130,074	58,646	91,681	101,025	106,705	107,805	108,472	102,840	99,445	95,917	89,897	83,477	76,913	70,340	63,933	56,611	49,129		Contribution		PUC / 90%	52/20 Unreduced 2040
			9%	98	9,	9,	9,	9,	9,	9%	0%	9%	9%	9%	0%	9%	9%	9%	0%	1%	1%	18	1%	1%	1%	1%	98	9%	9%	9%	9%	9%	98	9%	9%	Status	Funded		•
859,357 2.2%	27.3%	22,718,714	(38,610)	(71,427)	(104,960)	(113,312)	(89,160)	(234,853)	4,585,681	4,411,404	4,247,313	4,082,219	3,919,389	3,760,247	3,592,481	3,421,667	3,250,614	3,269,962	(1,739,607)	(1,424,700)	(1,263,873)	(1,148,704)	(1,060,073)	(986,654)	(929,581)	(877,117)	(830,681)	(791,517)	(756,627)	(725,232)	(696,820)	(682,163)	(641,609)	(614,983)		Contribution		PUC / 90%	52/20 Unreduced 2050
			9%	98	9	9	9	1%	6%	-12%	-18%	-24%	-28%	-33%	-37%	-40%	-43%	-46%	-40%	-35%	-31%	-26%	-23%	-20%	-17%	-14%	-12%	3%	-7%	6%	4%	<u>ښ</u>	-1%	9%	98	Status	Funded		8.
858,708 2.2%	43.6%	36,261,597	(211,568)	4,691,709	4,482,825	4,331,947	4,193,991	4,067,077	3,943,332	3,820,492	3,689,059	3,557,157	3,429,224	3,303,171	3,164,579	3,019,693	2,872,101	2,912,796	(2,077,302)	(1,744,787)	(1,567,863)	(1,437,660)	(1,334,945)	(1,248,421)	(1,179,102)	(1,115,077)	(1,057,799)	(1,008,458)	(963,988)	(923,578)	(886,693)	(866,598)	(814,424)	(779,293)		Contribution		PUC / 90%	52/20 Unreduced 2055
			1%	6%	-11%	-17%	-22%	-27%	-31%	-36%	-40%	-43%	-46%	-49%	-52%	-54%	-56%	-57%	-50%	-44%	-38%	-33%	-29%	-25%	-21%	-18%	-14%	-12%	386	-7%	5%	<u>ښ</u>	-2%	9%	98		Funded		ř.