Commission on Government Forecasting and Accountability

PENSION IMPACT NOTE
104th General Assembly

BILL NO: **SB 1937, as amended by HA 2** May 30, 2025

SPONSOR (S): Martwick (Kifowit – Scherer, et al.)

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

FISCAL IMPACT

SB 1937, as amended by HA 2, 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 1937, as amended by HA 2. . The following key changes in HA 2 were studied by the actuary:

- **A total of $11.1 billion in "redirected bond payments" from FY 2030 - FY 2049, including $600 million from FY 2034 - 2049**
- **Counting the "redirected bond payments" toward the required State contributions**
- **January 1, 2027 as the effective date**
- **A funding goal of 90% by FY 2045, then 100% by FY 2049**

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

Increase (Decrease) in Estimated State Contributions ($ in Million)
Age 62 with *35 Years*, Age 65 with 20 Years, *90%/100% by FY 45/FY 49*, and Redirected FY 30 – FY 49 Bond Payments offsetting the Required State Contributions

Time period	TRS	SERS	SURS	Total
FY 2027 (first year of implementation)	**$145**	**$80**	**$48**	**$273**
Through FY 2049	**$31,938**	**$11,255**	**$9,484**	**$52,677**

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

CGFA's actuary for Downstate Police and Fire pension funds, Foster & Foster, analyzed the major provisions of SB 1937, HA 2, by selecting four pension funds: Aurora Firefighters' Pension Fund, Harvey Firefighters' Pension Fund, Aurora Police Pension Fund, and the 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 2.

Below is a topline summary of the impact on first-year employer contribution in Municipal Fiscal Year 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.

SUBJECT MATTER: SB 1937, as amended by HA 2, revises the Illinois Pension Code by implementing a new State funding plan targeting 90% funding by FY 2045, 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 and early retirement eligibilities, early retirement penalties, and the Cost of Living Adjustment (COLA). 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.
  - 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 2

- SB 1937, HA 2, 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:
  - Changing the funding goal to achieve 90% by 2045 and 100% funding by FY 2049;
  - Starting in FY 2036, implementing a 20-year layered-amortization approach when determining the minimum State contribution; and
  - 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:
  - 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.

- 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

<table>
<tr><th rowspan="2">Valuation Date June 30 (Fiscal Year)</th><th rowspan="2">Fiscal Year State Contribution Determined</th><th colspan="11">The Effect of the 20-Year Layered Amortization for Fiscal Year</th></tr>
<tr><th>2035</th><th>2036</th><th>2037</th><th>2038</th><th>2039</th><th>…</th><th>2055</th><th>2056</th><th>2057</th><th>2058</th><th>2059</th></tr>
<tr><td>2034</td><td>2036</td><td></td><td colspan="6">Amortization Layer Based on the FY 2034 Valuation</td><td></td><td></td><td></td><td></td></tr>
<tr><td>2035</td><td>2037</td><td></td><td></td><td colspan="6">Amortization Layer Based on the FY 2035 Valuation</td><td></td><td></td><td></td></tr>
<tr><td>2036</td><td>2038</td><td></td><td></td><td></td><td colspan="6">Amortization Layer Based on the FY 2036 Valuation</td><td></td><td></td></tr>
<tr><td>2037</td><td>2039</td><td></td><td></td><td></td><td></td><td colspan="6">Amortization Layer Based on the FY 2037 Valuation</td><td></td></tr>
<tr><td colspan="13">The layering process would continue each year in a similar fashion, extending beyond the determination of FY 2049 State contribution.</td></tr>
</table>

- 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.

- 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 2.

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 (HA 1 had prescribed the Entry Age method).

SB 1937, HA 2, expands the funding target year (the amortization period) to MFY 2055.

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).
  - 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.
  - 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.

<u>SB 1937, HA 2</u>

- Tier 2 non-public safety members who are active on or after January 1, 2027
  - 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.

  - 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 age 67 with 10 years 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
    - SERS Alternative Formula: age 60 or age 55 with 20 years, depending on applicable cases
    - SURS Fire/Police: age 60 with 20 years
    - Downstate Police and Fire: age 55 with 10 years
    - Chicago Police and Fire: age 55 with 10 years or mandatory retirement at age 63
    - IMRF Sheriff's plan: age 55 with 10 years

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% ÷ 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% ÷ 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 2

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

- Age 62 with the maximum pension benefit (e.g., to be maxed out, approximately 34 years of service is required for TRS.)
- Age 65 with 20 years of service credit; or
- Age 67 with 10 years of service

For public safety Tier 2 members, including Downstate Police/Fire, Chicago Police/Fire, and public safety members in other funds such as IMRF Sheriffs, deputy sheriffs or correctional officers under the Cook County Pension Fund, members of Cook County Police Department, or SURS police, a new normal retirement eligibility criterion is Age 52 with 20 years of service, (10 years for IMRF Sheriffs), 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 *age 67*, 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 2

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	Age 62 with 10 years (8	6% for each year (0.5% for each	Age 62 with max FAS	Age 57 with max FAS	6% for each year (0.5% for each

years for GARS/JRS)	years for GARS/JRS)	month) under age 67, up to a max 30% reduction	Age 65 with 20	Age 60 with 20 years	month) under applicable normal retirement age, up to a max 30% reduction
			Age 67 with 10 years (8 years for GARS/JRS)	Age 62 with 10 years (8 years for GARS/JRS)	

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:
  - 3%; or
  - ½ the annual unadjusted percentage increase (not less than zero) in the CPI-U.
  - 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:
  - 3%; or
  - 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 2

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

For GARS and JRS, the proposed Tier 2 COLA would be increased to a compounded 3%, 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

Pension Stabilization Fund Payments

SB 1937, as amended by HA2, would create a total of $11.1 billion "redirected bond" 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 2049: $600 million annually, totaling $9.6 billion

All these payments would count toward the required State contributions to achieve 90% funding by FY 2045 and then 100% funding by FY 2049. In other words, these payments would offset, rather than supplement, the required State contributions. HA 1 required these payments (in different amounts) to be in addition to the required State contributions and not offset them.

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.

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 2

SB 1937, as amended by HA 2, 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.

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

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 2, 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 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	1.67% of FAS each year up to 15, 2% every year after 15		2.5% of FAS each year of service	
Max Annuity	75%		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 2, 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:

<table>
<tr><th>Division 1 Municipalities</th><th>Division 2.1 Municipalities</th><th>Municipalities w/o Division Designation*</th><th>Not Included</th></tr>
<tr><td>Firefighter</td><td>Firefighter</td><td>Firefighter</td><td rowspan="6">Anyone actively participating in SURS</td></tr>
<tr><td>Fire Engineer</td><td>Fire Engineer</td><td>Fire Engineer</td></tr>
<tr><td>Marine Engineer</td><td>Marine Engineer</td><td>Marine Engineer</td></tr>
<tr><td>Fire Pilot</td><td>Fire Pilot</td><td>Fire Pilot</td></tr>
<tr><td>Bomb Technician</td><td>Bomb Technician</td><td>Bomb Technician</td></tr>
<tr><td>Scuba Diver</td><td>Scuba Diver</td><td>Scuba Diver</td></tr>
<tr><td colspan="4">*Except those who served as a de facto and not as a de jure firefighter</td></tr>
</table>

SB 1937, as amended by HA 2, 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.

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 2, amends the Illinois Municipal code to reduce the age to 18. Therefore, SB 1937, as amended by HA 2, reduces the minimum age at which a person is eligible to become a firefighter.

Deferred Retirement Option Plan (DROP) – Downstate & Fire and Chicago Police & Fire

DROP Explanation

- Deferred Retirement Option Plans (DROP) are designed to encourage continued employment past the eligible retirement age for a period of time (usually 3-5 years). Below is a summary of the salient features of DROP plans:
  - Workers continue to draw a salary but are considered retired (for annuity purposes);
  - The pension annuity amount the worker is entitled to 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 2 DROP Provisions

Note – the DROP provisions in HA 2 are not reflected in the actuarial study in Appendix II of this impact note.

- No later than July 1, 2026, a DROP plan will be made available in the Downstate Police & Fire and Chicago Police & Fire 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;
  - The member must be actively employed as a police officer or firefighter 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.
    - 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;
    - The DROP participant becomes eligible for and begins collecting a disability benefit from the pension fund or retirement system; or
    - 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;
    - Employee contributions paid by the participant and credited to their notional account during the DROP period; and
    - 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;
    - 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
    - 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, HA2, 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 2, 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.

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

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

Employee	Tier	SS-Coordinated?	Contribution Rate	Multiplier	Full Retirement	Reduced Retirement
Current Law						
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 1937, as amended 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 2, 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 2, 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 2, 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.

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

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:
  - A bachelor's or advanced degree from an accredited college or university; or
  - 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 2, 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.

Reversal of Prohibition on Police Chiefs Participating in IMRF

Public Act 86-0273, effective August 23rd, 1989, allowed any person employed as the chief of police for an IMRF "participating municipality" to irrevocably elect to participate in IMRF instead of a fund created under the Downstate Police Article if the relevant municipality had established such a fund. P.A. 90-0460, effective August 17th, 1997, allowed a chief of police that has elected to participate in IMRF to rescind that election and transfer to the relevant Downstate Police pension fund until January 1, 1999.

P.A. 100-0281, effective August 24th, 2017, ended IMRF eligibility for those chiefs of police in participating municipalities on or after January 1, 2019, unless the chief became an IMRF participant before that date. This legislation would nullify the prohibition on police chiefs participating in IMRF if a Downstate Police fund has been established in the pertinent municipality, essentially reversing the prohibition established by P.A. 100-0281.

Phased Elimination of DC Plans Under Article 3

P.A. 100-2081 required each municipality under the ambit of Article 3 to establish an optional defined contribution (DC) plan. After the effective date of August 24, 2017, newly hired police officers could choose the traditional DB or DC option. Members with 10 or more years of service in an Article 3 fund who entered active service in a different municipality could elect to participate in the DC plan instead of the traditional DB plan of that municipality.

This legislation does away with the requirement that municipalities that have Downstate Police pension funds must maintain the DC plans established by P.A. 100-0281, with three exceptions:

1) the DC plans must be maintained for those who opted to participate before the effective date of the bill;

2) if an officer with 10 or more years of service in a Downstate Police pension fund before the effective date of the bill transfers to another municipality with a Downstate

Police pension fund, that officer may participate in the DC plan of the new municipality, if it has one; and

3) police officers who are receiving an annuity from a Downstate Police pension fund may enroll in the DC plan of another Downstate Police fund, if the municipality has one, and still be able to receive an annuity from the original fund, but only if they re-enter service before the effective date of SB 1937, HA 2.

Elimination of the Reduction in Disability and Survivor's Benefits under Downstate Police and Fire Funds

SB 1937, as amended by HA 2, eliminates the reduction in disability and survivor benefits payable to the surviving spouse of a deceased member of a Downstate Police or Downstate Fire Fund when the spouse is also entitled to corresponding benefits under the Workers' Compensation or Workers' Occupational Diseases Acts, as detailed below.

Under current law, if a member of a Downstate Police or Fire pension fund is entitled to a disability or survivor's benefit and benefits under the Workers' Compensation or Workers' Occupational Diseases Acts for the same issue, the relevant disability or survivor's benefit is reduced on a dollar-for-dollar basis by the amounts received through the aforementioned programs. Some exceptions do exist in statute. For example, no reductions are applied for payments for medical, surgical, or hospital services, nor are payments reduced for the loss of any bodily member. This legislation eliminates all reductions in cases where a disability or survivor benefit is payable to a surviving spouse and Worker's Compensation or Worker's Occupational Diseases Act benefits are payable for the same issue.

Exclusion of Salary Increases Due to Overload Work from the TRS Employer 6% Penalty payments

SB 1937, HA 2, amends the Teacher's Retirement System Article, exempting school districts from having to compensate TRS for their employees' final average salary if the salary increases over 6% resulted from overload work following July 1, 2025. "Overload work" is defined as summer school teaching and work in excess of the standard number of classes assigned to a teacher, that is solely for educational purposes. Overload work must be certified and approved by TRS before any exemptions to the FAS Cap can be granted.

Under current law, if a teacher's salary for a school year is increased by more than 6% in the teacher's pensionable salary period, the school district must compensate TRS for the resulting increase in the present value of the teacher's pension as a result of such increases over 6%. The only exemption still in effect comes from P.A. 103-0525, effective Aug. 11, 2023, which exempts salary increases resulting from keeping school districts in compliance with the minimum teacher salary rate established by P.A. 101-443, effective on June 1, 2020.

Throughout the years various exemptions to the FAS Cap have been enacted and allowed to lapse. Those exemptions are detailed in the chart below.

Public Act	Date lapsed	Exemption
94-0004 (eff. June 1, 2005)	June 1, 2005*	Salary increases from a collective bargaining agreement
94-1057 (eff. July 31, 2006)	July 1, 2014	Salary increases made ten years before retirement
		Salary increases from overload work (Summer school, or overtime classroom instruction)
		Salary increases from promotions required by the State Teacher Certification Board
		Salary increases where the employer has no discretion
102-0016 (eff. June 17, 2021)	Provisions sunset after the 2019-2020 school year	Salary increases from overload work caused by an emergency declaration that did not allow for their employer to offer overload work
		Salary increases from increased instructional time during the 2019-2020 school year
102-0525 (eff. August 20, 2021)	September 15, 2022	Salary increases from teaching summer school after May 1st 2021, but before September 15th 2022
103-0525*+ (eff. August 11, 2023)	Still in effect	Salary increases from bringing all TRS participants into compliance with the new minimum salary rate

*Extended to July 1, 2014 by P.A. 94-1057 (eff. 7/31/2006)
*+Tied to P.A. 101-443 (eff. 6/1/2020) which set a minimum salary rate for teachers that is calculated yearly based on the Consumer Price Index-U.

This legislation exempts school districts from having to compensate TRS for salary increases over 6% that impact a teachers' final average salary (FAS) if the salary increase is the result of overload work on or after July 1, 2025. "Overload work" includes summer school, and any work purely for classroom instruction in excess of the standard number of classes assigned to a teacher. Such work must also be certified and approved by TRS. Salary increases must be equivalent to or less than the rate of pay for regular classroom instruction.

SB 1937, HA 2, is essentially identical to a provision in P.A. 94-1057, effective July 31, 2006, regarding overload work that was allowed to lapse on July 1, 2014. If enacted, this exemption to the 6% FAS Cap would operate in perpetuity, without a sunset date.

JB/ZH:bs
LRB104 09509 RPS 27013 a

Appendix I

Segal

Matthew Strom, FSA, MAAA, EA
Senior Vice President, Actuary
T 312.984.8534
M 646.668.1425
mstrom@segalco.com

101 North Wacker Drive
Suite 1800
Chicago, IL 60606-1722
segalco.com

May 30, 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, Updated Redirected Bond Payments Through FY 2049, and Alternate Treatment of Bond Payments)

Dear Clayton:

As requested, we have updated our House Bill 2540 (HB 2540) analyses, previously sent on April 3, 2025, April 23, 2025, and May 13, 2025, to reflect updated redirected bond payments through FY 2049, alternate treatment of redirected bond payments, and an effective date of January 1, 2027, 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 62 & 35, 65 & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments Offsetting State Contribution Requirements	$31,938	$11,255	$9,484	$52,677

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, 2027, unless otherwise noted.

1. 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 65 and age 62 to age 60, respectively, and adds an additional unreduced retirement eligibility at 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.
2. 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 65 with at least 20 years of service, or age 62 with 35 years of service; or 2) the first anniversary of retirement.
4. 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).
5. 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, an updated redirected bond payment schedule, and treatment of redirected bond payments in determining required State contribution amounts).

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 – 2049	600M

   These payments **are treated as a known, fixed schedule of future State funding** and are used in determining statutory contributions to achieve the 90% funded goal by FY 2045 and the 100% funded goal by the end of FY 2049 (i.e., similar treatment to Federal or School District Contributions).

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:

1. 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 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 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

Actuarial Analysis continued

assumed age 60 retirement rate is currently 15%, the rate increases to 35% for members who attain unreduced retirement eligibility at age 60).

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

2. 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).
3. 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.
5. 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,

Actuarial Analysis continued

- The assumed age 56-60 retirement rates are set to the same rates assumed for Tier 1 members eligible for Alternative Formula benefits.

7. 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 revised HB 2540 scenario, 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:

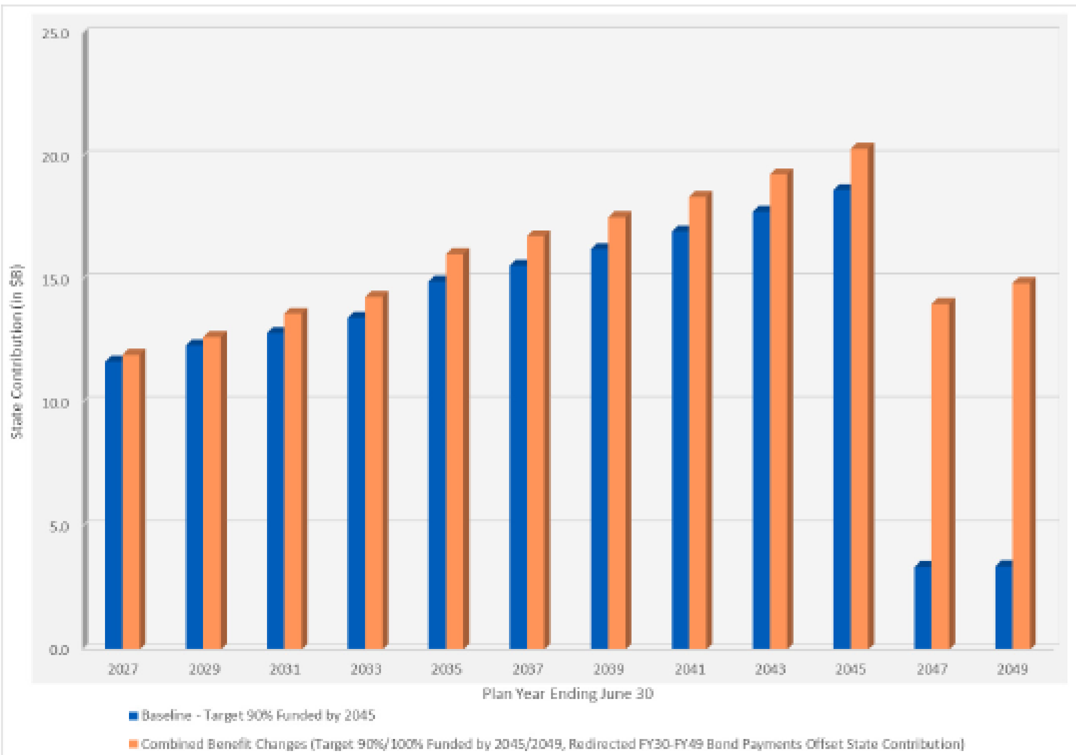
Fiscal Years Ending June 30	TRS	SERS	SURS	JRS	GARS	Total
2030	$175.0M	$62.6M	$58.8M	$3.2M	$0.4M	$300M
2031 – 2033	235.2M	82.2M	77.7M	4.3M	0.6M	400M
2034 – 2049	366.4M	118.3M	109.5M	5.2M	0.6M	600M

   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. However, **for purposes of this revised analysis, the pro rata shares of the additional payments are treated as a known, fixed schedule of future State funding**. This treatment, in addition to the modified statutory contribution requirements under HB 2540, will result in projected funded percentages of exactly 90% by 2045 and exactly 100% by 2049.

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



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

	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 62 & 35, 65 & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments Offsetting State Contribution Requirements	255,412	76,544	69,897	401,853
Increase in Projected AAL as of June 30, 2049				
Baseline	-	-	-	-
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 Offsetting State Contribution Requirements	36,431	10,209	10,664	57,304
Estimated State Contributions for FY 2027				
Baseline	$6,651	$2,623	$2,404	$11,678
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 Offsetting State Contribution Requirements	6,796	2,703	2,452	11,951
Increase in Estimated State Contribution for FY 2027				
Baseline	-	-	-	-
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 Offsetting State Contribution Requirements	145	80	48	273

($ in millions)

Summary of Results for All Systems continued

	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 62 & 35, 65 & 20), 90%/100% Funded by FY 2045/2049, and Redirected FY 2030 – FY 2049 Bond Payments Offsetting State Contribution Requirements	213,730	82,435	78,648	374,813
Increase in Total State Contributions through FY 2049				
Baseline	-	-	-	-
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 Offsetting State Contribution Requirements	31,938	11,255	9,484	52,677
Present Value of Total State Contributions through FY 2049				
Baseline	$89,295	$35,612	$34,775	$159,682
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 Offsetting State Contribution Requirements	97,240	38,889	37,493	173,622
Increase in Present Value of Total State Contributions through FY 2049				
Baseline	-	-	-	-
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 Offsetting State Contribution Requirements	7,945	3,277	2,718	13,940

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, contributions will otherwise be less than assumed, or actual amounts of redirected bond payments made to the Systems are materially different 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 Through 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 Through 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 Through 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%
Total Through 2049		$322,135.5		$59,357.3				

* 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 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 Offset State Contribution Requirements
Actuarially Assumed Rate of Return: 7.00%
($ in millions)

			Compared to Exhibit A								
Fiscal Year Ending 6/30	Annual State Payroll	State Contribution	(Reduction)/ Increase in State Contribution	Present Value of (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	13,346.5	6,795.7	144.6	122.1	50.9%	0.0	1,225.7	166,835.6	82,760.2	84,075.4	49.6%
2028	13,713.7	7,041.9	158.7	125.2	51.3%	0.0	1,259.4	171,299.8	87,331.9	83,967.9	51.0%
2029	14,068.0	7,209.4	167.7	123.7	51.2%	0.0	1,292.0	175,827.9	91,896.6	83,931.3	52.3%
2030	14,421.7	7,363.9	177.9	122.6	51.1%	175.0	1,324.4	180,338.9	96,779.8	83,559.1	53.7%
2031	14,773.9	7,526.5	189.3	121.9	50.9%	234.2	1,356.8	184,820.7	101,884.2	82,936.4	55.1%
2032	15,123.5	7,705.5	202.0	121.6	51.0%	235.2	1,388.9	189,257.3	107,171.6	82,085.8	56.6%
2033	15,468.4	7,899.0	216.3	121.7	51.1%	236.2	1,420.6	193,629.0	112,657.4	80,971.6	58.2%
2034	15,806.5	8,682.8	232.8	122.4	54.9%	355.0	1,451.6	197,917.6	119,078.1	78,839.5	60.2%
2035	16,146.7	8,869.7	250.1	122.9	54.9%	355.8	1,482.9	202,112.0	125,758.0	76,354.1	62.2%
2036	16,486.5	9,056.4	269.1	123.6	54.9%	356.6	1,514.1	206,200.5	132,712.8	73,487.7	64.4%
2037	16,829.6	9,244.9	290.3	124.6	54.9%	357.5	1,545.6	210,175.6	139,967.1	70,208.5	66.6%
2038	17,181.4	9,438.1	313.8	125.9	54.9%	358.5	1,577.9	214,025.5	147,548.3	66,477.2	68.9%
2039	17,539.0	9,634.6	339.8	127.4	54.9%	359.7	1,610.7	217,749.3	155,493.9	62,255.4	71.4%
2040	17,910.0	9,838.3	368.7	129.2	54.9%	361.0	1,644.8	221,349.0	163,851.1	57,498.0	74.0%
2041	18,302.8	10,054.1	400.7	131.2	54.9%	362.6	1,680.9	224,843.6	172,686.2	52,157.4	76.8%
2042	18,724.7	10,285.9	436.2	133.5	54.9%	364.6	1,719.6	228,261.8	182,078.5	46,183.3	79.8%
2043	19,187.5	10,540.1	477.9	136.7	54.9%	367.2	1,762.1	231,647.3	192,131.1	39,516.3	82.9%
2044	19,695.2	10,819.0	525.9	140.6	54.9%	371.1	1,808.7	235,068.5	202,970.9	32,097.7	86.3%
2045	20,259.5	11,129.0	582.0	145.4	54.9%	378.3	1,860.6	238,610.4	214,749.3	23,861.0	90.0%
2046	20,893.4	7,589.2	6,150.7	1,436.1	36.3%	378.3	1,918.8	242,365.5	223,603.2	18,762.3	92.3%
2047	21,579.8	7,838.6	6,414.6	1,399.7	36.3%	378.3	1,981.8	246,400.6	233,285.3	13,115.4	94.7%
2048	22,302.5	8,101.1	6,682.8	1,362.8	36.3%	378.3	2,048.2	250,749.0	243,873.4	6,875.7	97.3%
2049	23,035.0	8,367.1	6,946.8	1,324.0	36.3%	378.3	2,115.5	255,412.0	255,412.0	0.0	100.0%
Total Through 2049		$213,729.9	$31,938.7	$7,944.8		$6,741.4	$39,335.8				

Exhibit 1B – 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 Offset State Contribution Requirements
Actuarially Assumed Rate of Return: 6.75%
($ in millions)

			Compared to Exhibit B								
Fiscal Year Ending 6/30	Annual Payroll	Total State Contribution	(Reduction)/ Increase in State Contribution	Present Value of (Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	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	5,983.0	2,702.9	80.0	67.9	45.2%	0.0	324.2	58,848.3	28,981.4	29,866.90	49.2%
2028	6,115.6	2,800.2	97.8	77.8	45.8%	0.0	329.1	60,736.2	30,316.2	30,420.00	49.9%
2029	6,232.6	2,818.4	105.8	78.8	45.2%	0.0	333.3	61,784.0	31,498.6	30,285.40	51.0%
2030	6,357.3	2,855.5	114.9	80.2	44.9%	62.6	338.1	62,779.9	32,737.6	30,042.30	52.1%
2031	6,488.7	2,907.9	124.6	81.5	44.8%	82.8	343.4	63,727.0	34,015.5	29,711.40	53.4%
2032	6,626.9	2,969.7	135.1	82.8	44.8%	82.3	348.9	64,624.5	35,325.8	29,298.70	54.7%
2033	6,768.3	3,038.4	146.3	84.0	44.9%	81.6	354.3	65,474.3	36,682.0	28,792.30	56.0%
2034	6,917.0	3,322.2	158.2	85.0	48.0%	122.1	360.1	66,280.3	38,358.1	27,922.20	57.9%
2035	7,072.5	3,396.8	170.2	85.7	48.0%	121.6	366.1	67,047.8	40,122.2	26,925.60	59.8%
2036	7,231.8	3,473.3	182.4	86.1	48.0%	121.2	372.1	67,776.6	41,984.7	25,791.80	61.9%
2037	7,393.0	3,550.8	194.9	86.1	48.0%	120.8	378.1	68,472.3	43,959.9	24,512.40	64.2%
2038	7,563.0	3,632.4	207.8	86.1	48.0%	120.3	384.6	69,144.8	46,069.4	23,075.40	66.6%
2039	7,740.5	3,717.7	220.9	85.7	48.0%	119.8	391.3	69,799.6	48,332.5	21,467.10	69.2%
2040	7,922.9	3,805.3	233.4	84.8	48.0%	119.3	398.3	70,439.4	50,767.1	19,672.30	72.1%
2041	8,112.6	3,896.4	245.7	83.6	48.0%	118.8	405.7	71,072.0	53,396.4	17,675.70	75.1%
2042	8,309.6	3,991.0	258.4	82.4	48.0%	118.2	413.4	71,709.1	56,244.4	15,464.70	78.4%
2043	8,513.0	4,088.7	271.1	81.0	48.0%	117.5	421.3	72,355.2	59,332.6	13,022.60	82.0%
2044	8,720.6	4,188.4	282.7	79.1	48.0%	116.7	429.3	73,011.6	62,680.7	10,330.90	85.9%
2045	8,934.7	4,291.2	294.6	77.2	48.0%	115.3	437.5	73,679.0	66,311.1	7,367.90	90.0%
2046	9,154.9	2,791.8	1,839.7	451.7	30.5%	115.3	446.1	74,361.2	68,590.1	5,771.10	92.2%
2047	9,377.6	2,859.8	1,896.7	436.2	30.5%	115.3	454.7	75,067.1	71,045.1	4,022.10	94.6%
2048	9,603.2	2,928.6	1,963.8	423.1	30.5%	115.3	463.3	75,793.2	73,691.3	2,101.90	97.2%
2049	9,835.0	2,999.3	2,029.8	409.7	30.5%	115.3	472.1	76,543.8	76,543.8	0.00	100.0%
Total Through 2049		$82,435.0	$11,254.8	$3,276.5		$2,202.1	$9,602.0				

Exhibit 1C – 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)

<u>Funding Projections for the State Universities Retirement System</u>

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 Offset State Contribution Requirements

Actuarially Assumed Rate of Return: 6.50%

($ in millions)

			Compared 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	6,270.6	2,452.2	47.9	41.0	39.1%	0.0	370.8	55,634.3	26,372.2	29,262.1	47.4%
2028	6,476.1	2,564.3	59.9	48.0	39.6%	0.0	380.1	56,768.2	27,251.7	29,516.5	48.0%
2029	6,670.6	2,637.9	66.4	50.0	39.5%	0.0	388.4	57,474.4	28,080.3	29,394.2	48.9%
2030	6,879.4	2,711.3	73.1	51.7	39.4%	58.8	397.1	58,130.4	28,998.5	29,131.9	49.9%
2031	7,076.5	2,786.8	79.7	52.9	39.4%	78.1	406.2	58,733.5	29,972.9	28,760.6	51.0%
2032	7,289.0	2,874.7	86.4	53.9	39.4%	77.7	415.6	59,290.3	31,008.4	28,281.9	52.3%
2033	7,509.6	2,971.8	93.1	54.5	39.6%	77.4	425.3	59,814.3	32,132.9	27,681.4	53.7%
2034	7,739.8	3,078.7	101.3	55.7	39.8%	115.8	435.6	60,307.4	33,404.4	26,903.0	55.4%
2035	7,976.4	3,175.2	108.2	55.9	39.8%	115.6	446.2	60,773.9	34,786.5	25,987.4	57.2%
2036	8,219.9	3,274.5	115.4	55.9	39.8%	115.3	457.2	61,217.6	36,294.3	24,923.3	59.3%
2037	8,468.6	3,375.9	123.1	56.0	39.9%	114.9	468.3	61,653.9	37,954.5	23,699.4	61.6%
2038	8,723.7	3,480.0	131.3	56.1	39.9%	114.5	479.7	62,077.7	39,774.3	22,303.4	64.1%
2039	8,985.8	3,586.9	140.0	56.2	39.9%	113.9	491.5	62,510.6	41,787.6	20,723.0	66.8%
2040	9,258.2	3,697.9	149.2	56.2	39.9%	113.2	503.8	62,957.8	44,012.6	18,945.2	69.9%
2041	9,539.2	3,812.3	159.3	56.3	40.0%	112.3	516.6	63,439.1	46,482.7	16,956.5	73.3%
2042	9,829.8	3,930.5	170.6	56.7	40.0%	111.1	530.0	63,959.3	49,217.1	14,742.1	77.0%
2043	10,128.9	4,052.1	183.1	57.1	40.0%	109.5	543.9	64,541.8	52,254.2	12,287.6	81.0%
2044	10,438.4	4,177.7	196.9	57.7	40.0%	106.9	558.4	65,197.6	55,621.1	9,576.5	85.3%
2045	10,756.5	4,306.8	212.6	58.5	40.0%	101.9	573.5	65,938.7	59,344.8	6,593.9	90.0%
2046	11,085.9	2,641.3	1,688.9	436.1	23.8%	101.9	589.0	66,774.1	61,603.3	5,170.7	92.3%
2047	11,422.0	2,723.3	1,759.5	426.6	23.8%	101.9	604.7	67,713.5	64,107.5	3,606.0	94.7%
2048	11,765.4	2,807.2	1,831.8	417.0	23.9%	101.9	620.5	68,754.7	66,867.5	1,887.2	97.3%
2049	12,117.5	2,893.4	1,906.5	407.5	23.9%	101.9	636.6	69,897.0	69,897.0	0.0	100.0%
Total Through 2049		$78,647.9	$9,484.2	$2,717.5		$2,044.5	$11,951.0				

* 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 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 Offset State Contribution Requirements
Actuarially Assumed Rate of Return: 7.00% for TRS, 6.75% for SERS, and 6.50% for SURS
($ in millions)

			Compared to Exhibit D								
Fiscal Year Ending 6/30	Annual State Payroll*	Total State Contribution**	(Reduction)/ Increase in State Contribution	Present Value of (Reduction)/ Increase in State Contribution	State Contribution as Percent of Payroll	Portion 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	25,600.1	11,950.8	272.5	231.0	46.7%	0.0	1,920.7	281,318.2	138,113.8	143,204.4	49.1%
2028	26,305.4	12,406.4	316.4	251.0	47.2%	0.0	1,968.6	288,804.2	144,899.8	143,904.4	50.2%
2029	26,971.2	12,665.7	339.9	252.5	47.0%	0.0	2,013.7	295,086.3	151,475.5	143,610.8	51.3%
2030	27,658.4	12,930.7	365.9	254.5	46.8%	296.3	2,059.6	301,249.2	158,515.9	142,733.3	52.6%
2031	28,339.1	13,221.2	393.6	256.3	46.7%	395.1	2,106.4	307,281.2	165,872.6	141,408.6	54.0%
2032	29,039.4	13,549.9	423.5	258.3	46.7%	395.1	2,153.4	313,172.1	173,505.8	139,666.3	55.4%
2033	29,746.3	13,909.2	455.7	260.2	46.8%	395.3	2,200.2	318,917.6	181,472.3	137,445.3	56.9%
2034	30,463.3	15,083.7	492.3	263.1	49.5%	592.9	2,247.3	324,505.3	190,840.6	133,664.7	58.8%
2035	31,195.6	15,441.7	528.5	264.5	49.5%	593.0	2,295.2	329,933.7	200,666.7	129,267.0	60.8%
2036	31,938.2	15,804.2	566.9	265.6	49.5%	593.1	2,343.4	335,194.7	210,991.8	124,202.9	62.9%
2037	32,691.2	16,171.6	608.3	266.7	49.5%	593.2	2,392.0	340,301.8	221,881.5	118,420.3	65.2%
2038	33,468.1	16,550.5	652.9	268.1	49.5%	593.3	2,442.2	345,248.0	233,392.0	111,856.0	67.6%
2039	34,265.3	16,939.2	700.7	269.3	49.4%	593.4	2,493.5	350,059.5	245,614.0	104,445.5	70.2%
2040	35,091.1	17,341.5	751.3	270.2	49.4%	593.5	2,546.9	354,746.2	258,630.8	96,115.4	72.9%
2041	35,954.6	17,762.8	805.7	271.1	49.4%	593.7	2,603.2	359,354.7	272,565.3	86,789.4	75.8%
2042	36,864.1	18,207.4	865.2	272.6	49.4%	593.9	2,663.0	363,930.2	287,540.0	76,390.2	79.0%
2043	37,829.4	18,680.9	932.1	274.8	49.4%	594.2	2,727.3	368,544.3	303,717.9	64,826.4	82.4%
2044	38,854.2	19,185.1	1,005.5	277.4	49.4%	594.7	2,796.4	373,277.7	321,272.7	52,005.0	86.1%
2045	39,950.7	19,727.0	1,089.2	281.1	49.4%	595.5	2,871.6	378,228.1	340,405.2	37,822.9	90.0%
2046	41,134.2	13,022.3	9,679.3	2,323.9	31.7%	595.5	2,953.9	383,500.8	353,796.6	29,704.2	92.3%
2047	42,379.4	13,421.7	10,070.8	2,262.5	31.7%	595.5	3,041.2	389,181.2	368,437.9	20,743.3	94.7%
2048	43,671.1	13,836.9	10,478.4	2,202.9	31.7%	595.5	3,132.0	395,296.9	384,432.2	10,864.7	97.3%
2049	44,987.5	14,259.8	10,883.1	2,141.2	31.7%	595.5	3,224.2	401,852.8	401,852.8	0.0	100.0%
Total Through 2049		$374,812.8	$52,677.7	$13,938.8		$10,988.0	$60,888.8				

* Includes payroll from Retirement Savings Plan (RSP) for SURS
** Includes RSP contributions for SURS

Appendix II

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

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
  b. 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.
- <u>Fund to 90% by 2040, but Enhanced Tier 2 Benefits (Unreduced at 50/20):</u> 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.
- <u>Fund to 90% by 2050, but Enhanced Tier 2 Benefits (Unreduced at 50/20):</u> 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

Jason L. Franken, FSA, EA, MAAA

Heidi Andorfer

Heidi E. Andorfer, FSA, EA, MAAA

Aurora Fire

Benefits	Current Benefits		50/20 Unreduced		50/20 Unreduced		50/20 Unreduced		52/20 Unreduced		52/20 Unreduced		52/20 Unreduced	
Funding Year	2040		2040		2050		2055		2040		2050		2055	
Funding Method	PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%	
Year	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status
2024	15,269,811	60%	15,269,811	60%	15,269,811	60%	15,269,811	60%	15,269,811	60%	15,269,811	60%	15,269,811	60%
2025	15,864,172	60%	17,215,933	60%	14,109,966	60%	13,351,791	60%	17,055,826	60%	13,963,158	60%	13,208,230	60%
2026	16,635,829	60%	18,113,310	60%	14,763,837	59%	13,946,539	59%	17,937,870	60%	14,601,536	59%	13,787,452	59%
2027	17,651,532	60%	19,261,348	60%	15,585,016	58%	14,690,530	58%	19,069,695	60%	15,406,205	58%	14,514,875	58%
2028	17,636,217	62%	19,383,350	62%	15,696,078	60%	14,795,914	59%	19,174,775	62%	15,499,875	60%	14,602,774	59%
2029	18,044,866	64%	19,934,022	64%	16,103,818	61%	15,169,079	60%	19,707,779	64%	15,889,248	61%	14,957,440	60%
2030	18,505,850	65%	20,538,678	65%	16,549,600	61%	15,577,250	60%	20,294,319	65%	16,315,921	61%	15,346,319	60%
2031	19,033,806	67%	21,213,344	67%	17,045,619	62%	16,032,169	61%	20,950,199	67%	16,791,774	62%	15,780,830	61%
2032	19,638,709	68%	21,964,127	69%	17,593,905	63%	16,535,528	61%	21,682,083	69%	17,319,267	63%	16,263,082	61%
2033	20,325,117	70%	22,791,827	70%	18,187,254	63%	17,079,330	62%	22,493,583	70%	17,893,812	63%	16,787,670	61%
2034	21,106,764	72%	23,702,556	72%	18,823,481	64%	17,660,939	62%	23,392,858	72%	18,514,732	64%	17,353,410	62%
2035	21,992,025	73%	24,690,353	74%	19,482,225	65%	18,259,184	62%	24,379,422	74%	19,165,986	65%	17,943,329	62%
2036	23,024,679	75%	25,791,980	76%	20,177,979	66%	18,887,671	63%	25,491,795	76%	19,861,336	65%	18,570,084	63%
2037	24,261,191	77%	27,031,332	78%	20,901,599	66%	19,536,764	63%	26,764,885	78%	20,597,847	66%	19,229,946	63%
2038	25,816,701	80%	28,480,134	81%	21,657,638	67%	20,210,245	64%	28,280,448	81%	21,378,427	67%	19,924,516	64%
2039	27,973,737	83%	30,274,274	83%	22,423,133	68%	20,884,560	65%	30,219,710	83%	22,193,448	68%	20,642,754	64%
2040	31,787,765	86%	33,021,358	86%	23,215,297	69%	21,577,131	65%	33,321,814	86%	23,055,512	69%	21,396,174	65%
2041	6,391,488	90%	8,343,320	90%	24,038,779	71%	22,294,207	66%	8,527,200	90%	23,936,846	70%	22,156,776	66%
2042	7,521,829	89%	9,220,413	90%	24,881,384	72%	23,023,326	67%	9,470,571	90%	24,838,210	71%	22,924,628	67%
2043	7,652,868	89%	9,120,067	90%	25,728,691	73%	23,748,965	68%	9,394,756	90%	25,765,647	73%	23,704,554	67%
2044	7,795,384	89%	9,058,221	90%	26,592,225	75%	24,481,550	69%	9,371,422	90%	26,731,655	74%	24,505,401	68%
2045	7,963,101	89%	9,064,004	90%	27,515,416	77%	25,260,869	70%	9,411,274	90%	27,767,104	76%	25,350,083	69%
2046	8,166,532	89%	9,177,353	90%	28,505,597	78%	26,082,752	71%	9,522,913	90%	28,878,256	78%	26,228,412	71%
2047	8,349,142	89%	9,282,616	90%	29,580,340	80%	26,959,140	73%	9,586,217	90%	30,099,704	80%	27,163,495	72%
2048	8,549,112	89%	9,325,236	90%	30,681,163	82%	27,823,119	74%	9,610,719	90%	31,428,706	82%	28,129,737	73%
2049	8,730,519	89%	9,330,747	90%	31,828,434	85%	28,672,822	76%	9,706,652	90%	32,975,210	84%	29,158,234	75%
2050	8,961,848	89%	9,199,612	90%	32,991,131	87%	29,481,041	77%	9,764,814	90%	34,958,235	87%	30,186,805	77%
2051	9,163,915	89%	8,920,588	90%	8,120,009	90%	30,212,433	79%	9,665,905	90%	8,704,441	90%	31,173,211	78%
2052	9,387,235	89%	8,466,796	90%	8,382,314	90%	30,778,383	81%	9,314,358	90%	9,351,050	90%	32,046,158	81%
2053	9,524,364	89%	8,339,404	90%	8,339,404	90%	31,066,750	83%	8,812,077	90%	8,810,677	90%	32,714,970	83%
2054	9,683,255	89%	8,452,240	90%	8,452,240	90%	30,844,200	86%	8,306,121	90%	8,306,175	90%	33,014,309	85%
2055	9,835,142	89%	8,578,908	90%	8,578,908	90%	29,314,396	88%	8,387,369	90%	8,387,369	90%	32,415,868	88%
2056	9,967,410	89%	8,723,856	90%	8,723,856	90%	8,723,856	90%	8,491,317	90%	8,491,317	90%	8,491,317	90%
Total	492,211,915		531,281,118		640,526,147		708,232,244		532,830,557		643,148,497		714,942,654	
Present Value	213,349,576		233,000,814		233,000,418		232,761,851		232,062,236		232,062,237		232,108,156	

Aurora Fire

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

Harvey Fire

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

Harvey Fire

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

Aurora Police

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

Aurora Police

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

East St. Louis Police

Benefits	Current Benefits		50/20 Unreduced		50/20 Unreduced		50/20 Unreduced		52/20 Unreduced		52/20 Unreduced		52/20 Unreduced	
Funding Year	2040		2040		2050		2055		2040		2050		2055	
Funding Method	PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%		PUC / 90%	
Year	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status	Contribution	Funded Status
2024	2,674,272	40%	2,674,272	40%	2,674,272	40%	2,674,272	40%	2,674,272	40%	2,674,272	40%	2,674,272	40%
2025	2,736,844	40%	2,790,374	40%	2,125,976	40%	1,961,595	40%	2,785,973	40%	2,121,861	40%	1,957,551	40%
2026	2,838,795	41%	2,900,019	40%	2,201,519	39%	2,028,634	39%	2,895,406	40%	2,197,186	39%	2,024,371	39%
2027	2,987,899	40%	3,056,666	40%	2,310,299	38%	2,125,797	37%	3,051,832	40%	2,305,736	38%	2,121,301	37%
2028	3,052,462	42%	3,127,864	42%	2,360,447	38%	2,170,510	37%	3,122,802	42%	2,355,642	38%	2,165,769	37%
2029	3,169,040	43%	3,251,251	43%	2,448,868	37%	2,250,461	36%	3,245,953	43%	2,443,808	37%	2,245,462	36%
2030	3,299,240	44%	3,388,261	44%	2,547,943	36%	2,340,526	35%	3,382,717	44%	2,542,613	36%	2,335,252	35%
2031	3,442,934	45%	3,538,628	46%	2,657,031	36%	2,440,039	34%	3,532,831	46%	2,651,417	36%	2,434,476	34%
2032	3,599,434	47%	3,701,405	48%	2,774,667	36%	2,547,506	33%	3,695,351	48%	2,768,753	36%	2,541,635	33%
2033	3,768,446	49%	3,874,203	50%	2,897,557	35%	2,659,562	32%	3,867,891	50%	2,891,329	35%	2,653,369	32%
2034	3,951,444	52%	4,060,652	53%	3,028,222	35%	2,778,678	31%	4,054,284	53%	3,021,863	35%	2,772,342	31%
2035	4,145,545	55%	4,258,029	56%	3,163,016	36%	2,901,241	31%	4,254,017	56%	3,158,891	36%	2,897,124	31%
2036	4,357,057	59%	4,468,674	60%	3,301,432	36%	3,026,615	30%	4,464,862	60%	3,296,984	36%	3,022,112	30%
2037	4,594,058	63%	4,703,463	64%	3,449,842	37%	3,161,060	30%	4,700,763	64%	3,445,354	37%	3,156,398	30%
2038	4,864,296	68%	4,966,773	69%	3,605,070	38%	3,301,371	30%	4,965,321	69%	3,600,423	38%	3,296,433	30%
2039	5,184,364	74%	5,275,846	75%	3,764,576	39%	3,444,897	31%	5,276,045	75%	3,759,664	39%	3,439,577	31%
2040	5,667,964	81%	5,723,357	82%	3,933,547	41%	3,596,374	31%	5,726,610	82%	3,928,357	41%	3,590,662	31%
2041	836,949	90%	972,277	90%	4,112,409	43%	3,755,874	32%	967,023	90%	4,106,911	43%	3,749,745	32%
2042	1,041,778	89%	1,181,147	89%	4,298,043	46%	3,920,271	34%	1,175,060	89%	4,292,392	46%	3,913,879	34%
2043	1,064,154	89%	1,206,139	89%	4,489,497	49%	4,088,381	36%	1,201,387	89%	4,485,821	49%	4,083,847	35%
2044	1,089,919	89%	1,229,751	89%	4,683,366	53%	4,256,588	38%	1,229,059	89%	4,682,400	52%	4,254,498	38%
2045	1,118,569	89%	1,245,352	89%	4,876,375	57%	4,421,124	40%	1,251,133	89%	4,878,816	56%	4,421,740	40%
2046	1,154,384	89%	1,251,314	89%	5,069,497	61%	4,582,498	43%	1,259,971	89%	5,073,773	61%	4,583,608	43%
2047	1,183,003	89%	1,229,440	90%	5,258,712	66%	4,738,738	46%	1,236,752	90%	5,265,222	66%	4,740,160	46%
2048	1,199,659	89%	1,187,665	90%	5,432,789	71%	4,881,834	50%	1,195,548	90%	5,446,972	71%	4,888,718	50%
2049	1,211,585	89%	1,150,986	90%	5,591,386	77%	5,012,996	54%	1,172,905	90%	5,622,989	77%	5,032,077	54%
2050	1,230,498	89%	1,131,626	90%	5,744,190	83%	5,141,304	58%	1,178,914	90%	5,816,179	83%	5,173,830	58%
2051	1,248,731	89%	1,116,107	90%	958,902	90%	5,271,254	63%	1,182,266	90%	1,013,878	90%	5,315,808	63%
2052	1,264,627	89%	1,103,358	90%	1,098,081	90%	5,402,108	68%	1,169,352	90%	1,175,467	90%	5,458,618	67%
2053	1,274,026	89%	1,108,616	90%	1,108,808	90%	5,536,393	73%	1,160,937	90%	1,160,714	90%	5,605,973	73%
2054	1,288,189	89%	1,147,526	90%	1,147,520	90%	5,686,991	78%	1,183,221	90%	1,183,229	90%	5,771,014	78%
2055	1,309,416	89%	1,216,495	90%	1,216,495	90%	5,898,251	84%	1,237,990	90%	1,237,989	90%	6,001,125	84%
2056	1,335,228	89%	1,286,645	90%	1,286,645	90%	1,116,642	90%	1,296,618	90%	1,296,618	90%	1,123,660	90%
Total	83,184,809		84,524,181		105,616,999		119,120,385		84,795,066		105,903,523		119,446,406	
Present Value	38,452,709		39,301,784		39,301,784		39,301,146		39,312,066		39,312,066		39,311,416	

East St. Louis Police

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