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November 1, 2019

Board of Trustees and Executive Secretary
State Employees' Retirement System of Illinois
P. O. Box 19255
2101 S. Veterans Parkway
Springfield, Illinois 62794-9255

Re: Actuarial Certification

At your request, we have performed the annual actuarial valuation of the assets and liabilities of the State Employees' Retirement System of Illinois ("SERS") as of June 30, 2019. This actuarial valuation has been performed to measure the funding status of the System and determine the State's statutory contribution rate for the year beginning July 1, 2020, and ending June 30, 2021. Public Act ("P.A.") 100-0023, effective July 6, 2017, modified the State's funding policy to include smoothing State contribution rate increases or decreases due to changes in actuarial assumptions, including investment return assumptions, over a five year period in equal annual amounts beginning in fiscal year 2018. In addition, changes in actuarial or investment assumptions that increased or decreased the State contribution rate in fiscal years 2014 through 2017 are to be smoothed over a five-year period in equal annual amounts, applying only to the portion of the five year phase-in that is applicable to fiscal years on and after 2018.

Gabriel, Roeder, Smith & Company ("GRS") has prepared this report exclusively for the Trustees of the State Employees' Retirement System of Illinois; GRS is not responsible for reliance upon this report by any other party. This report may be provided to parties other than SERS only in its entirety and only with the permission of the Trustees.

The required statutory contribution rate has been determined under the Projected Unit Credit Cost Method, providing for 90 percent funding of total actuarial liabilities by fiscal year 2045 as required by 40 ILCS Section 5/14-131(e). Contribution rates are determined according to P.A. 93-0002 and P.A. 100-0023 reflecting the infusion of the proceeds from the sale of general obligation bonds and five-year smoothing of State contribution rate increases due to changes in actuarial assumptions resulting from the 2013 and 2016 experience reviews, the 2018 economic assumption review and the 2019 experience review. The total rate includes a portion of the debt service due to the sale of the general obligation bonds per P.A. 93-0002. The applicable portion of the debt service includes the amount necessary to pay all principal and interest for State fiscal year 2021 on the general obligation bonds except portions reserved under Section 7.2(c) of the General Obligation Bond Act. Additionally, this amount is decreased by the amount set aside in the capitalized interest fund on the understanding this was the legislative intent. The contribution rates reflect the impact of P.A. 96-0889, which created a second tier for members of SERS hired after December 31, 2010. The fiscal year 2021 contribution rate reflects the impact of P.A. 100-0587 and P.A. 101-0010, which created and extended two voluntary buyout programs (Accelerated Pension Benefit Payment Program) for eligible members.

For the actuarial valuation as of June 30, 2019, the assumed rate of return used to discount liabilities and project assets was 6.75 percent.

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The required statutory contribution rates and amounts for fiscal year beginning July 1, 2020, as determined in the June 30, 2019, actuarial valuation are shown below.

	Employer's Normal Cost [a]	Amortization Payment [b]	Preliminary	Debt Service	Total
Required Rate	13.724%	38.880%	52.604%	2.227%	54.831%
Required Contribution	612,690,000	1,735,809,000	2,348,499,000	99,425,000	2,447,924,000

[a] *Includes Administrative Expenses.*
[b] *Under the Statutory funding policy an amortization payment is not directly calculated. The amortization payment is the difference between the preliminary statutory contribution and the employer normal cost contribution.*

Based on the provisions of P.A. 97-0694, the required statutory contribution for the fiscal year beginning July 1, 2020, is submitted to the state actuary, governor, and General Assembly. Under the act, the state actuary is required to review the assumptions and methods used to perform the actuarial valuation and develop the required statutory contributions. The final certification of the required statutory contribution is due by January 15, 2020.

Pursuant to P.A. 96-0043, for purposes of determining the statutory contribution rate, an actuarial value of the System's assets was used. The actuarial value of assets is assumed to earn a rate of return equal to the System's actuarially assumed rate of return. The liabilities have been valued based on financial and employee data, which is supplied by the administrative staff of the System and verified by the System's auditor. We did not audit this data, but have reviewed the statistical support and concluded that the data is reasonable and consistent with the prior year's data.

In our opinion, the calculations also comply with the requirements of Illinois state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The System's current contribution rate determined under the statutory funding policy may not conform to the Actuarial Standards of Practice. Therefore, the Board adopted a contribution policy to be used to calculate the Actuarially Determined Contribution ("ADC") under GASB Statement Nos. 67 and 68 for financial reporting purposes. All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Although the statutory contribution requirements were met, the statutory funding method generates a contribution requirement that is less than a reasonable actuarially determined contribution. Meeting the statutory requirement does not mean that the undersigned agree that adequate actuarial funding has been achieved. We recommend the adherence to a funding policy, such as the Board policy used to calculate the ADC under GASB Statement Nos. 67 and 68, that finances the normal cost of the plan as well as an amortization payment that seeks to pay off any unfunded accrued liability over a closed-period of 25 years, as a level percent of capped payroll.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

We certify that the information presented herein is accurate and fairly portrays the actuarial position of SERS as of June 30, 2019. We prepared the accompanying Summary of Actuarial Cost Method and Major Actuarial Assumptions, but the SERS staff prepared the other supporting schedules in this section and the trend tables in the financial section, based on information supplied in our report.

This actuarial certification is provided to the intended user, the Board of Trustees, in conjunction with the SERS actuarial valuation report as of June 30, 2019. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report as of June 30, 2019, which is available on the SERS website, and is an integral part of this certification.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the SERS as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Alex Rivera, Heidi G. Barry, and Jeffrey T. Tebeau are Members of the American Academy of Actuaries (MAAA) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

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