GRS Retirement Consulting

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March 29, 2019

Mr. Frank J. Wills, Deputy Director
Arkansas State Police Retirement System
One Union National Plaza
124 West Capitol, 4th Floor
Little Rock, Arkansas 72201

Re: Actuarial Analysis of HB 1333, as amended March 26, 2019

Dear Mr. Wills:

As requested, enclosed is our Actuarial Analysis of HB 1333 for the Arkansas State Police Retirement System.

Please call if you have any questions or comments.

Sincerely,

David L. Hoffman

Heidi G. Barry, ASA, FCA, MAAA

DLH/HGB:dj
Enclosure

Arkansas State Police Retirement System
Actuarial Analysis of HB 1333
as of June 30, 2018

Requested By: Mr. Frank J. Wills, Deputy Director
Arkansas State Police Retirement System

Date: March 29, 2019

Submitted By: Heidi G. Barry, ASA, FCA, MAAA and David L. Hoffman
Gabriel, Roeder, Smith & Company

This report presents results of an actuarial valuation of proposed benefit changes for members of Tier 2 of the Arkansas State Police Retirement System. Heidi G. Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The date of the valuation was June 30, 2018. This means that the results of the supplemental valuation indicate what the June 30, 2018 valuation would have shown if the proposed benefit changes had been in effect on that date. Supplemental valuations do **not** predict the result of future actuarial valuations. Rather, supplemental valuations give an indication of the probable long-term cost of the **benefit changes only** without comment on the complete end result of the future valuations.

Actuarial assumptions and methods were consistent with those used in the regular actuarial valuation of the Retirement System on the valuation date, unless otherwise noted. Actuarial assumptions are adopted by the Retirement Board of Trustees. In particular:

- The assumed rate of investment return was 7.15%.
- Payroll was assumed to increase 3.25% per year.
- Changes in Accrued Liability were amortized over 21 years.

It is our understanding that benefits for current inactive or retired members would not be affected by the proposed benefit change. They were excluded from this study.

A brief summary of the active data, as of June 30, 2018, used in these valuations is presented below:

Group	Number	Covered Payroll	Average in Years	
			Age	Service
Tier One	43	$ 2,975,460	50.0	22.3
Tier One - DROP	61	4,569,528	56.0	28.0
Tier Two	424	22,048,157	38.4	9.6
Total	528	$ 29,593,145	41.4	12.7

Present Tier 2 Provisions: Members may retire after 30 years of **actual service**, regardless of age, or at age 65 with 5 years of **actual service**. The age requirement is reduced by 1 month for every 2 months of **actual service**, but not below age 55.

Proposed Tier 2 Provisions: Members may retire after 30 years of **credited service**, regardless of age, or at age 65 with 5 years of **credited service**. The age requirement is reduced by 1 month for every 2 months of **credited service**, but not below age 55.

Actuarial Statement

The financial effect of the proposal is shown below (percentages shown below represent percent of total payroll):

Increase in Normal Cost	Increase in Actuarial Accrued Liabilities (AAL)	21-Year Amortization of Increase in AAL	Increase in Total Employer Cost
0.22%	$868,846	0.20%	0.42%

Note: The State Police active member data as of June 30, 2018 indicates, on average, about 0.6 years of service that would be considered credited service (reciprocal service) rather than actual service and therefore considered for voluntary retirement eligibility if this legislation is enacted. We believe that the data collected may understate the service that exists as some of the information related to service outside the System is not collected until a member is close to and actually considering retirement. For purpose for this analysis we have modeled the legislation as if credited service for voluntary retirement eligibility would be increased by one year for each member.

Additional Comments

Comment 1 — The figures shown on the prior pages are based on the June 30, 2018 actuarial valuation. Please remember that this change, if adopted, would likely impact the June 30, 2019 valuation. That valuation will likely be completed in the fall of 2019, and is based on member data and financial results as of June 30, 2019, neither of which is available to us at this time.

Comment 2 — The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed plan provisions that are outlined in the report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in the report.

Comment 3 — If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Comment 4 — This report is intended to describe the financial effect of the proposed plan change. No statement in this report is intended to be interpreted as a recommendation in favor of the change, or in opposition to it.

Comment 5 — In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

Comment 6 — This report is intended to describe the financial effect of the proposed plan change on the retirement system. Except as otherwise noted, potential effects on other benefit plans were not considered.

Comment 7 — The reader of this report should keep in mind that actuarial calculations are mathematical estimates based on current data and assumptions about future events (which may or may not materialize). Please note that actuarial calculations can and do vary from one valuation year to the next, sometimes significantly if the group valued is very small (less than 30 lives). As a result, the cost impact of a benefit change may fluctuate over time, as the demographics of the group changes.