



February 22, 2019

Mr. Frank J. Wills, Deputy Director  
Arkansas Public Employees Retirement System  
One Union National Plaza  
124 West Capitol, Suite 400  
Little Rock, Arkansas 72201

**Re: Actuarial Analysis of SB 243**

Dear Mr. Wills:

As requested, enclosed is our Actuarial Analysis of SB 243 for the Arkansas Public Employees Retirement System.

Please call if you have any questions or comments.

Respectfully submitted,

A handwritten signature in black ink that reads "David L. Hoffman". The signature is written in a cursive style.

David L. Hoffman

A handwritten signature in black ink that reads "Heidi G. Barry". The signature is written in a cursive style.

Heidi G. Barry, ASA, FCA, MAAA

DLH/HGB:bd  
Enclosure

# Arkansas Public Employees Retirement System

## Actuarial Analysis of SB 243

### as of June 30, 2018

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**Requested By:** Mr. Frank J. Wills, Deputy Director  
Arkansas Public Employees Retirement System

**Date:** February 22, 2019

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

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This report presents results of an actuarial valuation of proposed benefit changes for members of the Arkansas Public Employees Retirement System (APERS). Heidi G. Barry is a Member of the American Academy of Actuaries (MAAA) as indicated, 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% and payroll was assumed to increase 3.25% per year.

For supplemental actuarial valuation purposes, changes in the Unfunded Actuarial Accrued Liability (UAAL) were amortized over a closed 20-year period. The Board adopted funding policy requires changes in the UAAL due to changes in benefit provisions to be amortized over a closed 15-year period for active members and a closed five-year period for non-active members (i.e., retired members and deferred members). However, the funding policy was created anticipating benefit increases rather than benefit reductions. **If the proposed legislation is enacted, we recommend that the Board's funding policy be modified to incorporate this suggested change to the Amortization Method section of the funding policy.**

**Given the funded status of APERS and the level of investment risk that the System is currently exposed to, we would suggest that the Board consider keeping the employer contribution rate at the current level in the event this benefit change is enacted.**

## Arkansas Public Employees Retirement System Actuarial Analysis of SB 243 as of June 30, 2018

A brief summary of the data used for purposes of the study as of June 30, 2018 is presented below:

Active Member Group	Number	Annual Pay	Average	
			Age	Benefit Service
Non-contributory	10,086	\$ 464,901,559	53.0 yrs.	20.8 yrs.
Contributory				
Member with greater than 5 years of service	15,889	638,208,346	47.2 yrs.	10.2 yrs.
Member with less than 5 years of service	<u>20,230</u>	<u>620,445,125</u>	<u>37.7 yrs.</u>	<u>2.0 yrs.</u>
Total	36,119	1,258,653,471	41.9 yrs.	5.6 yrs.
DROP Participants	1,439	88,098,790	59.6 yrs.	30.0 yrs.

Group	Number	Annual Benefits	Average	
			Age	Service
Inactive vested members	13,856	\$ 75,104,604	51.0 yrs.	9.3 yrs.

Group	Number	Annual Benefits	Average	
			Age	Service
Benefit recipients	35,959	\$ 528,147,192	69.8 yrs.	17.8 yrs.

# Arkansas Public Employees Retirement System

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### as of June 30, 2018

**Present Provision:** For contributory plan members, the full age and service retirement benefit is **2.00%** of final average compensation multiplied by years of service after July 1, 2007.

**Proposed Provision:** For contributory plan members **hired on or after July 1, 2020**, the full age and service retirement benefit is **1.80%** of final average compensation multiplied by years of service.

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**Actuarial Information:** The proposed benefit change does not affect any current members of APERS so there is no immediate effect on the employer contribution rate, the unfunded actuarial accrued liability or amortization period. The ultimate effect on employer contributions resulting from the proposed benefit change is a decrease in the employer normal cost of 1.09% of active member payroll. This will occur once all of the active members are covered under the proposed provision.

In the near term, based on projected changes in the active member population, the decrease in the employer contribution rate resulting from the proposed change is expected to be about 0.39% of payroll five years after the effective date of the benefit change and by about 0.62% of payroll ten years after the effective date of the benefit change.

# Arkansas Public Employees Retirement System

## Actuarial Analysis of SB 243

### as of June 30, 2018

#### Additional Comments

**Comment 1** — The figures shown on the prior page 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 this 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 this 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 this 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.