



March 15, 2019

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

**Re: Actuarial Analysis of House Bill 1352**

Dear Mr. Wills:

As requested, enclosed is our Actuarial Analysis of HB 1352 for the Arkansas Judicial 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 with a large initial "D".

David L. Hoffman

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

Heidi G. Barry, ASA, FCA, MAAA

DLH/HGB:bd  
Enclosure

# Arkansas Judicial Retirement System

## Actuarial Analysis of HB 1352

### As of June 30, 2018

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

**Date:** March 15, 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 Judicial Retirement System.

No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them. The date of the valuation was **June 30, 2018**. Heidi 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.

This supplemental valuation does not predict the result of the June 30, 2019 valuation or of any other future actuarial valuation. (Future activities can affect future valuation results in an unpredictable manner.) Rather, the supplemental valuation gives an indication of the probable effect on future valuations without comment on the complete end result of the future valuations.

The actuarial methods and assumptions were the same as those used in the regular valuation as of **June 30, 2018**, unless otherwise noted. Actuarial assumptions for annual valuation purposes are adopted by the Retirement Board of Trustees. In particular, the economic assumptions used in the supplemental actuarial valuation were net investment return of 5.75% per year and wage inflation of 3.25% per year.

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

Group	Number	Valuation Payroll	Averages	
			Current Age	Payroll
Tier 1 Active Members	20	\$ 3,377,143	67.6 yrs.	\$168,857
Tier 2 Active Members	119	\$20,057,496	58.8 yrs.	\$168,550

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**Benefit Provisions of Interest**

**Present Benefits:**

**Compulsory Retirement**

**Tier 1**

**Tier 2**

Any judge or justice who attains 70 years of age during a term of office to which he has been elected may complete the term without forfeiting rights to retirement benefits. Any judge or justice who is not eligible to retire at age 70 may continue to serve as judge until completion of the term in which there has accrued sufficient credited service to retire. Otherwise, judges or justices must retire by their 70th birthday or lose their retirement benefits.

Any judge or justice who attains 70 years of age during a term of office to which he has been elected may complete the term without forfeiting rights to retirement benefits. Any judge or justice who is not eligible to retire at age 70 may continue to serve as judge until completion of the term in which there has accrued sufficient credited service to retire. Otherwise, judges or justices must retire by their 70th birthday or lose their retirement benefits.

**Proposed Benefits:**

**Compulsory Retirement**

**Tier 1**

**Tier 2**

None.

None.

**Actuarial Information:** The following shows the computed change in the employer contribution rate that would be necessary to fund for the proposed benefit on a level cost basis:

Increase in Employer Contribution Rate	% of Payroll
Normal Cost	(0.96)%
UAAL* (15-year amortization)	(1.71)%
<b>Total</b>	<b>(2.67)%</b>

\* *Unfunded Actuarial Accrued Liability.*

**Note:** We have no data or experience on which to project how this change would affect behavior of members. The results above are very dependent on the assumptions we have made regarding future member behavior. Please see Appendix for revised assumptions.

# Arkansas Judicial Retirement System

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**Comment 1:** The decrease in unfunded actuarial accrued liabilities resulting from this proposed benefit change is approximately \$5 million. Based on the current funding policy, the decrease in unfunded actuarial accrued liabilities for active members was amortized over 15 years. This results in a decrease in the employer contribution rate of 2.67% of total payroll. The first year decrease in the computed employer contribution is \$625,705.

**Comment 2:** 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.

**Comment 3:** The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed assumptions 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 4:** 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 5:** 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 6:** 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 7:** 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.

**Arkansas Judicial Retirement System**  
**Actuarial Analysis of HB 1352**  
**As of June 30, 2018**

**Appendix**

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**Present Assumptions**

***Normal Retirement***

- 1) For ages under 70, a 4% probability of retirement is used.
- 2) For ages 70 and over
  - a. If the future year of consideration is an odd year, then a 4% probability of retirement is used.
  - b. If the future year of consideration is an even year,
    - i. For members under the age of **76**, a **33%** probability of retirement is used.
    - ii. For members with ages **76** or older, a 100% probability of retirement is used.

For Tier One, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 10 years of service. A member was assumed eligible to retire early at age 62 with 14 years of service.

For Tier Two, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 8 years of service. A member was assumed eligible to retire early at age 62 with 8 years of service.

**Proposed Assumptions**

***Normal Retirement***

- 1) A 4% probability of retirement is used.
- 2) For ages 70 and over
  - a. If the future year of consideration is an odd year, then a 4% probability of retirement is used.
  - b. If the future year of consideration is an even year,
    - i. For members under the age of 76, a **26%** probability of retirement is used.
    - ii. **For members with ages 76 through 79, a 67% probability of retirement is used.**
    - iii. For members with ages **80** or older, a 100% probability of retirement is used.

For Tier One, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 10 years of service. A member was assumed eligible to retire early at age 62 with 14 years of service.

For Tier Two, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 8 years of service. A member was assumed eligible to retire early at age 62 with 8 years of service.