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September 30, 2020

Board of Trustees
Arkansas State Highway Employees'
Retirement System (ASHERS)
P. O. Box 2261
Little Rock, AR 72203

RE: Actuarial Valuation as of June 30, 2020
Preliminary Valuation Results
Recommended Legislation for 2021 Session

Ladies and Gentlemen:

This letter and attachments will summarize the results of the ASHERS board meetings on August 17 and September 8, 2020 which concluded with the recommendation of a package of legislation for the 2021 session to continue to strengthen the System. The discussion and decisions were made based on the preliminary valuation results for June 30, 2020 and updated cost estimates for a range of various plan changes that the board reviewed and considered.

The June 30, 2020 valuation report will show that the plan improved its financial standing during the most recent year. The return for the plan year as measured in the valuation is 8.9% before investment expense and 8.25% after investment expense; therefore, greater than the assumed rate. There were some gains due to liabilities not growing quite as fast as projected. This resulted in a reduction of the Unfunded Actuarial Accrued Liability (UAAL) from $326 million to $307.5 million. The funded percentage increased from about 81.21% to 82.35%.

The other key metric we review is how the contribution rates (7% employee and 14.9% employer) compare to the amount needed to repay the UAAL over 30 years. [Note we also compared to the long-term goal of an 18-year amortization.] The 30-year amortization rate was reduced from 24.67% to 23.59% of covered payroll, still greater than the 21.9% total. We also calculated the number of years that the current contribution levels are needed to amortize the UAAL. This period was reduced from 53.22 years to 39.53 years. Both metrics show a marked improvement over the previous year.

Recommended and Considered Legislative Changes

The attached pages provide the cost impacts of the considered list of possible changes to the plan. The first page shows the changes recommended by the ASHERS board for the 2021 session. The second page is a summary of the other changes that the board considered, but did not recommend. These charts reflect the change in UAAL, the change in contributions (which could be increased contributions or reduction in contribution required), and the years to pay off the UAAL.

The total combined results of the recommended changes are shown in the table below:

	Current Valuation ($Million)	After Changes Recommended ($Million)	Difference
Total Contributions	35.6	39.2	3.6
Necessary Contributions for 30-year amortization of UAAL	38.3	36.7	-1.6
Unfunded Actuarial Accrued Liability (UAAL)	307.5	290.6	16.9
Calculated number of years for Contributions to payoff UAAL	39.5 years	21.6 years	17.9 years

These changes are measured from the valuation date of July 1, 2020. Since the changes would not go into effect until at least July 1, 2021 there will be some differences. The current total contributions are based on 7% of salary for active employees, 14.9% from the employer on active employees, a total of 12.9% (6% employee/6.9% employer) on Tier 2 DROP employees and 0% employee and employer on Tier 1 DROP employees.

Combined Effect of Recommended Changes

We discussed in both of our meetings that the total combined effect of the changes would not necessarily be equal to the sum of the individual changes. This is particularly true for the calculated number of years for the contribution to payoff the UAAL metric, due to overlapping financial effects. This is best described by this example. Consider the following four mortgages which are amortized using a similar method to how ASHERS amortizes UAAL.

	Mortgage A	Mortgage B	Mortgage C	Mortgage D
Mortgage Amount	1,000,000	1,000,000	950,000	950,000
Annual Payment	55,300	61,900	55,300	61,900
Payoff Period	40	30	34.5	27
Reduction in Payoff Period		10	5.5	13

The increased payment between Mortgage A and Mortgage B reduce the payoff period by 10 years. Reducing the mortgage amount and paying the same payment reduces the payoff period by 5.5 years (Mortgage A to Mortgage C). But, as shown above if you make both changes as in Mortgage D the amortization period is only reduced by 13 years, not 15.5 (10 plus 5.5). The attached chart similarly shows the sum of the years to payoff UAAL column is greater than the total combined effect of the changes.

If you have any questions or comments, please let me know.

Sincerely,

Jody Carreiro

Jody Carreiro, FCA, ASA, EA, MAAA
Actuary

Arkansas State Highway Employees' Retirement System
Review of Recommended Changes for 2021 Session
Estimates based on 6/30/2020 Valuation

Item	Brief Description	Type	Category 1	2	3	4	5	Unfunded ($Millions) UAAL	($Million) Contribution	Years to Payoff UAAL
	Current Actual Amounts as of 7/1/2020							307.5	35.6	39.5
	Total Required for 30-year payoff of Unfunded Accrued Liability								38.3	
	Effect of Recommended Legislative Changes									
1	Change the employer contribution requirement on DROP employees. (0 to 14.9% on Tier 1; 6.9% to 14.9% on Tier 2) [24-5-202(a)(4)]	S	✓	✓	✓	✓	✓	-7.5	3.9	-15.0
2	Allow ASHERS Board, with Commission approval, to set the employer contribution rate based on actuarial calculations. (APERS and LOPFI currently have this authority.)	S	✓	✓	✓	✓	✓	0.0	2.7 *	-9.5
3	Change the employee for DROP employees for new hires only. (0% to 7% on Tier 1; 6% to 7% on Tier 2) [24-5-202(a)(4)]	S	?	✓	✓	✓	✓	0.0	<0.1	0.0
4	Change from high 3 to high 5 salary with transition. [24-5-101(3)]	S	×	✓	✓	✓	✓	-7.3	0.8	-4.5
5	Discontinue Health Care Offset on DROP Accounts. (future DROP only)	S	?	✓	✓	✓	✓	-2.1	0.2	-1.3
6	Change marriage requirement from 2 to 1 year for Option B eligibility. (same as Social Security requirement) [24-5-118(2)(d)]	S	-	✓	✓	✓	✓	No significant cost		
7	Change reciprocal service benefit to use ARDOT high salary for ASHERS benefits, rather than the current use of "State" high salary.	S	×	×	?	✓	✓	Joint project of all state systems Will create small cost savings		
	Total Effect of all of the above recommended changes									
	Total Contributions Proposed							290.6	39.2	21.6

Notes: Type: S = Statutory change, A = Administrative change
* Item 2: Assuming Proposal 1 is successful, Proposal 2 will create a future safety net and not increase ARDOT costs.
Category identifies group of participants and whether the change is possible for this group. *This is not legal advice.*
Category 1: Currently Retired or DROP; 2: Eligible to Retire or DROP; 3: Vested; 4: Not Vested; 5: Future Actives
[- Not Applicable; × Likely Protected; ✓ Changable; ? Could be Challenged]