



November 9, 2017

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

**Subject: GASB 67/68 Reporting and Disclosure Information for Arkansas State Highway Employees Retirement System (ASHERS) Fiscal Year Ending June 30, 2017**

Dear Members of the Board:

This report provides information required by the Arkansas State Highway Employees Retirement System (ASHERS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67, "Financial Reporting for Pension Plans." Additionally, this report provides information required by the State of Arkansas (the State) in connection with the GASB Statement No. 68, "Accounting and Financial Reporting for Pensions." It is our understanding this information will be used by the State in financial reporting for fiscal year ending June 30, 2018. The information provided herein was prepared for the purpose of assisting ASHERS and the State in the compliance with the financial reporting and disclosure requirements of GASB Nos. 67 and 68.

The calculation of the liability associated with the benefits referenced in this report was performed for the purpose of satisfying the requirements of GASB No. 67 and 68 and is not applicable for purposes of funding the plan. A calculation of the plan's liability for other purposes may produce significantly different results. This report may be provided to parties other than ASHERS only in its entirety and only with the permission of ASHERS.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of June 30, 2017. The net pension liability incorporates the benefit changes enacted by the Legislature effective with the June 30, 2017 actuarial valuation. There were no other significant events or changes in benefit provisions that required an adjustment to the liabilities as of June 30, 2017. It is our opinion that the assumptions are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and 68. As allowed for under GASB No. 68, it is intended that the State will report ASHERS' Net Pension Liability one year in arrears. In other words, the State will report the Net Pension Liability and Pension Expense for ASHERS from fiscal year 2017 in the State's fiscal year 2018 financial statements.

The System continues to use a blended discount rate. As discussed on page 3 the single discount rate is a blend of the long-term rate of return and a municipal bond rate. The benefit changes discussed above lengthened the period of time in which the long-term rate of return applies in the blended discount rate determination. In addition, while the long-term rate of return remained unchanged the municipal bond rate

Increased, which resulted in a decrease in the present value of the pension payments to which the municipal bond rate applied. These changes combined resulted in an increase to the single discount rate and a resulting decrease to the Total Pension Liability.

This report is based upon information, furnished to us by ASHERS, which includes benefit provisions, membership information, and financial data. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided to us by ASHERS.

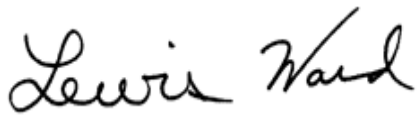
Certain tables included in the Required Supplementary Information should include a 10-year history of information. As provided for in GASB Statement Nos. 67 and 68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB Statement Nos. 67 and 68. The historical information in this report will begin with the information presented for the ASHERS fiscal year ending June 30, 2014.

Paragraph 57 of GASB Statement No. 68 indicates that contributions to the pension plan subsequent to the measurement date of the Net Pension Liability and prior to the end of the employer's reporting period can be reported by the employer as a deferred outflow of resources related to pensions. The information contained in this report does not incorporate any contributions made to ASHERS subsequent to June 30, 2017.

This report complements the actuarial valuation report as of June 30, 2017, provided for plan funding purposes, which was also provided to ASHERS and should be considered together as a complete report for the plan year ending June 30, 2017. Please see the actuarial valuation report as of June 30, 2017 for additional discussion of the actuarial valuation, including the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Mr. Newton is member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**



Lewis Ward  
Consultant



Joseph P. Newton, FSA, EA, MAAA  
Senior Consultant

## Summary of Population Statistics

The total pension liability described in this report is based on the plan membership as of June 30, 2017:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	3,379
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	669
Active Plan Members (Including DROP)	<u>3,663</u>
Total Plan Members	7,711

Note: The Inactive Plan Members Entitled to But Not Yet Receiving Benefits include 452 non-vested terminated members entitled to a refund of their member contributions.

## Measurement of the Net Pension Liability

A single discount rate of 5.16% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 8.00% and the municipal bond rate of 3.56%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions and employer contributions will be made at the projected future contribution rates assuming that ASHERS annually earns 8.00% on its market value of assets and that the number of active members remains constant in the future. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members until 2045. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2045, and the municipal bond rate was applied to all benefit payments after that date.

The single discount rate increased from 4.52% at the beginning of the year to 5.16% at the end of the fiscal year. This change in the single discount rate decreased the net pension liability by \$137 million and is included in the Schedule of Changes in the Employer's Net Pension Liability as an assumption change.

## Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

The following table provides the sensitivity of the net pension liability to changes in the discount rate as of June 30, 2017. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

### Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

1% Decrease	Current Single Rate Assumption	1% Increase
<b>4.16%</b>	<b>5.16%</b>	<b>6.16%</b>
<u>\$1,189,102,792</u>	<u>\$897,349,898</u>	<u>\$656,978,887</u>

## **Disclosure Regarding the Deferred Retirement Option Program**

GASB No. 67 states that for plans with a DROP feature, the plan must disclose: (1) a description of the DROP terms and (2) the balance of the amount held by the pension plan pursuant to the DROP. Please refer to Paragraph 30 of GASB No. 67 for additional information. We have assumed that ASHERS will prepare this information.

Note that GASB only considers employees as members of DROP. Therefore, it is most likely not necessary to include on the schedule the account balances of those retired members with DROP balances. However, it would certainly be reasonable to include the information, we would just suggest that if you do include the retired members' DROP balances that you identify the balances separately.

As stated above, we assume you will be preparing this information. However, if you require any assistance in preparing the disclosure information please do not hesitate to contact us.

**Statement of Changes in Fiduciary Net Position  
as of June 30, 2017**

	<b>2017</b>
<b>Additions</b>	
Contributions	
Employer	\$ 19,175,401
Member	9,143,408
Other	-
<b>Total Contributions</b>	<b>\$ 28,318,809</b>
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 116,623,355
Interest and Dividends	24,625,498
Less Investment Expense	(8,081,509)
<b>Net Investment Income</b>	<b>\$ 133,167,344</b>
Other	\$ -
<b>Total Additions</b>	<b>\$ 161,486,153</b>
<b>Deductions</b>	
Benefit Payments and Refunds	\$ 111,904,597
Pension Plan Administrative Expense	130,076
Other	-
<b>Total Deductions</b>	<b>\$ 112,034,673</b>
<b>Net Increase in Net Position</b>	<b>\$ 49,451,480</b>
<b>Net Position Restricted for Pensions</b>	
Beginning of Year	\$ 1,304,869,720
End of Year	\$ 1,354,321,200

*This reconciliation only includes the items needed to reconcile the changes in Net Pension Liability during the fiscal year. The Reconciliation of Fiduciary Net Position required by GASB may require additional detail regarding the changes throughout the year.*

**Schedules of Required Supplementary Information**  
**Schedule of Changes in the Employers' Net Pension Liability and Related Ratios**

**Last 10 Fiscal Years (which may be built prospectively)**

Fiscal year ending June 30,	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Total pension liability</b>										
Service Cost	\$ 42,816,372	\$ 18,935,319	\$ 18,412,588	\$ 16,862,918						
Interest on the Total Pension Liability	110,543,661	126,829,266	115,441,556	112,962,064						
Benefit Changes	(101,042,380)	-	-	-						
Difference between expected and actual experience of the Total Pension Liability	(31,506,816)	20,925,790	20,790,869	-						
Assumption Changes	(137,435,476)	790,989,712	91,940,822	-						
Benefit Payments and Refunds	(111,904,597)	(106,755,840)	(102,245,806)	(95,454,598)						
<b>Net Change in Total Pension Liability</b>	<b>(228,529,236)</b>	<b>850,924,247</b>	<b>144,340,029</b>	<b>34,370,384</b>						
<b>Total Pension Liability - Beginning</b>	<b>2,480,200,334</b>	<b>1,629,276,087</b>	<b>1,484,936,058</b>	<b>1,450,565,674</b>						
<b>Total Pension Liability - Ending</b>	<b>\$ 2,251,671,098</b>	<b>\$ 2,480,200,334</b>	<b>\$ 1,629,276,087</b>	<b>\$ 1,484,936,058</b>						
<b>Plan Fiduciary Net Position</b>										
Contributions - Employer	\$ 19,175,401	\$ 19,231,804	\$ 19,059,012	\$ 18,614,507						
Contributions - Member	9,143,408	9,379,784	9,138,451	8,884,829						
Pension Plan Net Investment Income	133,167,344	(60,344,122)	25,383,756	234,208,606						
Benefit Payments and Refunds	(111,904,597)	(106,755,840)	(102,245,806)	(95,454,598)						
Pension Plan Administrative Expense	(130,076)	(118,199)	(91,542)	(43,282)						
Other	-	-	-	-						
<b>Net Change in Plan Fiduciary Net Position</b>	<b>49,451,480</b>	<b>(138,606,573)</b>	<b>(48,756,129)</b>	<b>166,210,062</b>						
<b>Plan Fiduciary Net Position - Beginning</b>	<b>1,304,869,720</b>	<b>1,443,476,293</b>	<b>1,492,232,422</b>	<b>1,326,022,360</b>						
<b>Plan Fiduciary Net Position - Ending</b>	<b>\$ 1,354,321,200</b>	<b>\$ 1,304,869,720</b>	<b>\$ 1,443,476,293</b>	<b>\$ 1,492,232,422</b>						
<b>Net Pension Liability - Ending</b>	<b>897,349,898</b>	<b>1,175,330,614</b>	<b>185,799,794</b>	<b>(7,296,364)</b>						
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>60.15 %</b>	<b>52.61 %</b>	<b>88.60 %</b>	<b>100.49 %</b>						
<b>Covered Employee Payroll</b>	<b>\$ 141,154,763</b>	<b>\$ 141,906,487</b>	<b>\$ 140,544,393</b>	<b>\$ 137,261,720</b>						
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>635.72 %</b>	<b>828.24 %</b>	<b>132.20 %</b>	<b>(5.32)%</b>						

**Notes to Schedule:**

The covered payroll is the reported salary for the fiscal year for activemembers (who are not in DROP) as of the measurement date. If the reported salary was for a period of less than 12 months then it has been annualized.

**Schedules of Required Supplementary Information  
Schedule of the Net Pension Liability (Historical)**

**Last 10 Fiscal Years (which may be built prospectively)**

<u>FY Ending June 30,</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll</u>	<u>Net Pension Liability as a % of Covered Payroll</u>
2014	\$ 1,484,936,058	\$ 1,492,232,422	\$ (7,296,364)	100.49%	\$137,261,720	(5.32)%
2015	1,629,276,087	1,443,476,293	185,799,794	88.60%	140,544,393	132.20 %
2016	2,480,200,334	1,304,869,720	1,175,330,614	52.61%	141,906,487	828.24 %
2017	2,251,671,098	1,354,321,200	897,349,898	60.15%	141,154,763	635.72 %

**Schedules of Required Supplementary Information  
Schedule of Employer Contributions**

**Last 10 Fiscal Years**

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	N/A	\$ 18,614,507	N/A	\$137,261,720	13.56%
2015	N/A	19,059,012	N/A	140,544,393	13.56%
2016	N/A	19,231,804	N/A	141,906,487	13.55%
2017	N/A	19,175,401	N/A	141,154,763	13.58%

**Notes to Schedule:**

The covered payroll is the reported salary for the just completed fiscal year for active members (who are not in DROP) as of the measurement date. If the reported salary was for a period of less than 12 months then it has been annualized. The employer contribution rate is established under State statute and is not based on a funding policy. Therefore, no Actuarially Determined Contribution is shown.

**Notes to Schedule of Contributions**

**Valuation Date:**

June 30, 2016

**Notes**

The covered payroll is the reported salary for the fiscal year for active members (who are not in DROP) as of the measurement date. If the reported salary was for a period of less than 12 months then it has been annualized.

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Open
Remaining Amortization Period	Never
Asset Valuation Method	4-year smoothed market
Inflation	2.50%
Salary Increases	3.50% to 10.50%
Investment Rate of Return	8.00%
Retirement Age	Experience-based table of rates that are specific to the class of employee. Last updated for the 2015 valuation pursuant to an experience study of the 6-year period from July 1, 2008 through June 30, 2014.

**Mortality**

Male: RP-2000 Combined Healthy for males with Blue Collar adjustments, scaled at 105% with no setback. Generational mortality improvements in accordance with Scale AA from the table's base year of 2000 (both before and after the measurement date)  
Female: RP-2000 Combined Healthy for males with Blue Collar adjustments, scaled at 100% with no setback. Generational mortality improvements in accordance with Scale AA from the table's base year of 2000 (both before and after the measurement date)

**Other Information:**

**Notes**

None.



**GOVERNMENTAL EMPLOYER FINANCIAL STATEMENTS**  
Pension Expense for Fiscal Year Ending June 30, 2017  
To be used for Governmental Employer Reporting for Fiscal Years Ending  
Between June 30, 2017 and June 30, 2018

Arkansas State Highway Employees Retirement System

**A. Expense**

1. Service Cost	\$	42,816,372
2. Interest on the Total Pension Liability		110,543,661
3. Current-Period Benefit Changes		(101,042,380)
4. Member Contributions		(9,143,408)
5. Projected Earnings on Plan Investments		(101,171,019)
6. Pension Plan Administrative Expense		130,076
7. Other Changes in Plan Fiduciary Net Position		0
8. Recognition of beginning deferred outflows (inflows) due to liabilities		159,917,783
9. Recognition of beginning deferred outflows (inflows) due to assets		20,218,323
<b>10. Total Pension Expense</b>	<b>\$</b>	<b>122,269,408</b>

Recognition of Deferred Outflows and Inflows of Resources

According to paragraph 33 of GASB No. 68, *differences between expected and actual experience and changes in assumptions* are recognized in pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pensions through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the 2017 fiscal year, the expected remaining service lives of all employees was 36,633 years for ASHERS. Additionally, the ASHERS plan membership (active employees and inactive employees) was 7,680. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the 2017 fiscal year is 4.77 years.

Additionally, *differences between projected and actual earnings on pension plan investments* should be recognized in pension expense using a systematic and rational method over a closed five-year period.

For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.

**GOVERNMENTAL EMPLOYER FINANCIAL STATEMENTS**

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods

For Plan Year Ending June 30, 2017

To be used for Governmental Employer Reporting for Fiscal Years Ending

Between June 30, 2017 and June 30, 2018

**A. Outflows and Inflows of Resources due to Liabilities and Assets to be recognized in Current Pension Expense**

	Outflows of Resources	Inflows of Resources	Net Outflows(Inflows) of Resources
1. Due to liabilities	\$ 195,335,455	\$ 35,417,672	\$ 159,917,783
2. Due to assets	52,786,940	32,568,617	20,218,323
<b>3. Total</b>	<b>\$ 248,122,395</b>	<b>\$ 67,986,289</b>	<b>\$ 180,136,107</b>

**B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense**

	Outflows of Resources	Inflows of Resources	Net Outflows(Inflows) of Resources
1. Differences between expected and actual experience	\$ 8,791,888	\$ 6,605,203	\$ 2,186,685
2. Assumption Changes	186,543,568	28,812,469	157,731,099
3. Net Difference between projected and actual earnings on pension plan investments	52,786,940	32,568,617	20,218,323
<b>4. Total</b>	<b>\$ 248,122,395</b>	<b>\$ 67,986,289</b>	<b>\$ 180,136,107</b>

**C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses**

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Outflows(Inflows) of Resources
1. Differences between expected and actual experience	\$ 19,765,052	\$ 24,901,613	\$ (5,136,561)
2. Assumption Changes	490,528,098	108,623,007	\$ 381,905,091
3. Net Difference between projected and actual earnings on pension plan investments	140,135,863	51,766,412	\$ 88,369,451
<b>4. Total</b>	<b>\$ 650,429,013</b>	<b>\$ 185,291,032</b>	<b>\$ 465,137,981</b>

**D. Deferred Outflows and Deferred Inflows of Resources by Year to be recognized in Future Pension Expenses**

Fiscal Year Ending	Outflows of Resources	Inflows of Resources	Net Outflows(Inflows) of Resources
2018	\$ 248,122,395	\$ 67,986,289	\$ 180,136,107
2019	242,438,442	\$ 41,816,937	200,621,505
2020	159,868,176	\$ 41,816,937	118,051,239
2021	-	\$ 33,670,869	(33,670,869)
2022	-	-	-
Thereafter	-	-	-
<b>Total</b>	<b>\$ 650,429,013</b>	<b>\$ 185,291,032</b>	<b>\$ 465,137,981</b>