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## **PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO**

### **GASB 68 DISCLOSURE**

**Fiscal Year: July 1, 2017 to June 30, 2018**

#### **Prepared by**

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## Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting PERSI in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2017 to June 30, 2018. The reporting date for determining plan assets and obligations is June 30, 2018. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 30, 2017 and June 30, 2018 furnished by PERSI. This information includes, but is not limited to, statutory provisions, member census data, and financial information. The membership as of June 30, 2018 includes 71,112 active participants, 37,588 terminated vested and other inactive participants, and 46,907 retirees and beneficiaries. Please see Milliman's forthcoming funding valuation report for more information on the plan's participant group as of June 30, 2017 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the Code of Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

## Certification

Milliman's work is prepared solely for the internal use and benefit of the Public Employee Retirement System of Idaho. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Fund; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

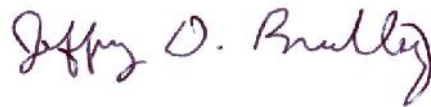
The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



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Robert L. Schmidt, FSA, MAAA  
Principal and Consulting Actuary



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Jeffrey D. Bradley, FSA, MAAA  
Principal and Consulting Actuary

## **Executive Summary**

This report is being provided as a supplement to the PERSI GASB 67 Disclosure. All figures contained herein were developed using the same data, assumptions, methods and plan provisions that were used in that report.

### **Relationship Between Valuation Date, Measurement Date, and Reporting Date**

The Valuation Date is June 30, 2018; this is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2018; this is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2018; this is the plan's fiscal year ending date.

### **Significant Changes**

There have been no significant changes between the valuation date and fiscal year end.

### **Data, Assumptions, Methods and Plan Provisions**

The assumptions and methods used for the figures herein are for financial reporting purposes unless otherwise noted. We believe that these assumptions and methods meet the parameters set by Actuarial Standards of Practice (ASOPs).

The long-term expected rate of return on investments is 7.05%, including 0.05% for expected administrative expenses. For purposes of determining the contribution rate, we use an interest rate that is net of all expenses (7.00%). According to GASB Statements 67 and 68, the discount rate used to determine the Total Pension Liability is required to be net of investment expenses but not administrative expenses. Therefore the figures herein have been determined using a discount rate of 7.05%.

Demographic assumptions used to calculate the enclosed figures are described in our 2018 Active Member Experience Study and were adopted by the Board in July 2018.

Aside from these exceptions, the attached exhibits present results that are based on the methods and assumptions described in our July 1, 2018 funding valuation report (dated October 10, 2018).

These results are based on the plan provisions in effect at July 1, 2018. We have reflected census and asset data as of July 1, 2018, which are summarized in our July 1, 2018 funding valuation report.

## Schedule of Collective Pension Amounts

### Changes in Net Pension Liability and Other Pension-Related Items During Fiscal Year

Fiscal Year Ending	Deferred Outflows of Resources				Deferred Inflows of Resources				Expense (Revenue) Changes to NPL		
	Beginning of Year Net Pension Liability/(Asset)	Changes of Assumptions	Differences Between Expected and Actual Experience	Total Deferred Outflows of Resources Excluding Employer Specific Amounts <sup>(1)</sup>	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Differences Between Expected and Actual Experience	Total Deferred Inflows of Resources Excluding Employer Specific Amounts <sup>(1)</sup>	Plan Pension Expense (Revenue)	Employer Contributions <sup>(2)</sup>	End of Year Net Pension Liability/(Asset)
6/30/2018	1,571,828,226	66,911,684	(55,832,774)	11,078,910	(69,708,038)	-	30,208,977	(39,499,061)	295,814,709	(364,205,333)	1,475,017,451

### Total Deferred Outflows and Inflows as of June 30, 2018

Deferred Outflows of Resources				Deferred Inflows of Resources			
Changes of Assumptions	Differences Between Expected and Actual Experience	Total Deferred Outflows of Resources Excluding Employer Specific Amounts <sup>(1)</sup>	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Differences Between Expected and Actual Experience	Total Deferred Inflows of Resources Excluding Employer Specific Amounts <sup>(1)</sup>	
95,979,030	161,915,044	257,894,074	(163,882,764)	-	(111,399,499)	(275,282,263)	

(1) Employer specific amounts that are excluded from this schedule are the changes in proportion as defined in paragraphs 54 and 55 of GASB Statement 68.

(2) Represent contributions that have been reported on the employers' records

## Pension Expense

Pension Expense	July 1, 2016 to June 30, 2017	July 1, 2017 to June 30, 2018
Service cost	\$406,910,895	\$437,257,407
Interest on total pension liability	\$1,129,286,928	\$1,202,947,872
Effect of plan changes	\$12,200,000	\$84,200,000
Administrative expenses	\$8,810,136	\$8,922,335
Member contributions	(\$237,032,668)	(\$243,950,654)
Other Income	(4,775,999)	(4,933,780)
Expected investment return net of investment expenses	(\$975,999,250)	(\$1,075,404,778)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(\$4,549,627)	(\$12,490,002)
Recognition of assumption changes or inputs	\$15,994,898	\$37,812,419
Recognition of investment gains or losses	(\$96,895,281)	(\$138,546,110)
Pension Expense	<u>\$253,950,032</u>	<u>\$295,814,709</u>

As of June 30, 2018, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	(\$111,399,499)	\$161,915,044
Changes of assumptions	\$0	\$95,979,030
Net difference between projected and actual earnings	(\$163,882,764)	\$0
Contributions made subsequent to measurement date	<u>\$0</u>	<u>\$0</u>
Total	(\$275,282,263)	\$257,894,074

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2019	\$119,900,149
2020	\$14,127,879
2021	(\$120,867,109)
2022	(\$30,549,108)
2023	\$0
Thereafter *	\$0

\* Note that additional future deferred inflows and outflows of resources may impact these numbers.

## Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Recognition Period*	Amount Recognized in 06/30/2018 Expense	Balance of Deferred Inflows 06/30/2018	Balance of Deferred Outflows 06/30/2018
<b>Investment</b>	(\$208,254,148)	06/30/2018	5.0	(\$41,650,830)	(\$166,603,318)	\$0
<b>(gains) or losses</b>	(716,714,605)	06/30/2017	5.0	(143,342,921)	(430,028,763)	0
	778,977,807	06/30/2016	5.0	155,795,561	0	311,591,124
	605,790,957	06/30/2015	5.0	121,158,191	0	121,158,193
	(1,152,530,559)	06/30/2014	5.0	<u>(230,506,111)</u>	<u>0</u>	<u>0</u>
		Total		(138,546,110)	(596,632,081)	432,749,317
<b>Economic/demographic</b>	(38,113,799)	06/30/2018	4.8	(7,940,375)	(30,173,424)	0
<b>(gains) or losses</b>	273,580,592	06/30/2017	4.9	55,832,774	0	161,915,044
	(104,512,779)	06/30/2016	4.9	(21,329,139)	(40,525,362)	0
	(105,531,304)	06/30/2015	5.5	(19,187,510)	(28,781,264)	0
	(111,248,209)	06/30/2014	5.6	<u>(19,865,752)</u>	<u>(11,919,449)</u>	<u>0</u>
		Total		(12,490,002)	(111,399,499)	161,915,044
<b>Assumption</b>	104,724,103	06/30/2018	4.8	21,817,521	0	82,906,582
<b>changes or inputs</b>	0	06/30/2017	0.0	0	0	0
	13,100,000	06/30/2016	4.9	2,673,469	0	5,079,593
	0	06/30/2015	0.0	0	0	0
	74,600,000	06/30/2014	5.6	<u>13,321,429</u>	<u>0</u>	<u>7,992,855</u>
		Total		37,812,419	0	95,979,030

\* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.



### Pension Liability and Expense Summary

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred Inflows	Deferred Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
<b>Balances as of June 30, 2017</b>	(\$16,868,510,591)	\$15,296,682,365	(\$1,571,828,226)	(\$945,486,271)	\$956,518,233	\$11,031,962	(\$1,560,796,264)	
Service cost	(\$437,257,407)		(\$437,257,407)					437,257,407
Interest on total pension liability	(\$1,202,947,872)		(\$1,202,947,872)					1,202,947,872
Effect of plan changes	(\$84,200,000)		(\$84,200,000)					84,200,000
Effect of liability gains or losses	\$38,113,799		\$38,113,799	(\$38,113,799)		(\$38,113,799)		
Effect of assumption changes or inputs	(\$104,724,103)		(\$104,724,103)		\$104,724,103	\$104,724,103		
Benefit payments	\$909,678,264	(\$909,678,264)	\$0					
Administrative expenses		(\$8,922,335)	(\$8,922,335)					8,922,335
Member contributions		\$243,950,654	\$243,950,654					(243,950,654)
Other Income		\$4,933,780	\$4,933,780					(4,933,780)
Expected investment income (net of inv expenses)		\$1,075,404,778	\$1,075,404,778					(1,075,404,778)
Investment gains or losses		\$208,254,148	\$208,254,148	(\$208,254,148)		(\$208,254,148)		
Employer contributions		\$364,205,333	\$364,205,333				\$364,205,333	
Recognition of liability gains or losses				\$68,322,776	(\$55,832,774)	\$12,490,002		(12,490,002)
Recognition of assumption changes or inputs					(\$37,812,419)	(\$37,812,419)		37,812,419
Recognition of investment gains or losses				\$415,499,862	(\$276,953,752)	\$138,546,110		(138,546,110)
Annual expense							(\$295,814,709)	295,814,709
<b>Balances as of June 30, 2018</b>	(\$17,749,847,910)	\$16,274,830,459	(\$1,475,017,451)	(\$708,031,580)	\$690,643,391	(\$17,388,189)	(\$1,492,405,640)	

## Glossary

<b>Actuarially Determined Contribution</b>	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
<b>Deferred Inflows/Outflows of Resources</b>	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
<b>Discount Rate</b>	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:  <ol style="list-style-type: none"><li>1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.</li><li>2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.</li></ol>
<b>Fiduciary Net Position</b>	Equal to market value of assets.
<b>Long-Term Expected Rate of Return</b>	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment
<b>Money-Weighted Rate of Return</b>	The internal rate of return on pension plan investments, net of investment expenses.
<b>Municipal Bond Rate</b>	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
<b>Net Pension Liability</b>	Total Pension Liability minus the Plan's Fiduciary Net Position.
<b>Projected Benefit Payments</b>	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
<b>Service Cost</b>	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b>Total Pension Liability</b>	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.