



**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Financial Statements and Supplemental Schedules

June 30, 2017

(With summarized financial information for June 30, 2016)

(With Independent Auditors' Report Thereon)

**STATE OF ALASKA**

**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

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### **Independent Auditors' Report**

The Division of Retirement and Benefits and  
Members of the Alaska Retirement Management Board  
State of Alaska Public Employees' Retirement System:

We have audited the accompanying combining financial statements of the State of Alaska Public Employees' Retirement System (the System), a component unit of the State of Alaska, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

#### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the State of Alaska Public Employees' Retirement System as of June 30, 2017, and the changes in fiduciary net position for the year then ended, in accordance with U.S. generally accepted accounting principles.



### ***Emphasis of a Matter***

As discussed in Note 2 to the financial statements, in 2017, the System adopted Governmental Accounting Standards Board (GASB) Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Our opinion is not modified with respect to this matter.

### **Other Matters**

#### *Prior-Year Comparative Information*

We have previously audited the System's 2016 combining financial statements, and we expressed an unmodified opinion on those financial statements in our report dated December 22, 2016. In our opinion, the summarized comparative information presented herein as of and for the year then ended June 30, 2016 is consistent, in all material respects, with the audited financial statements from which it has been derived.

#### *Required Supplementary Information*

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3–12, and the schedules of changes in employer net pension and OPEB liabilities and related ratios, schedules of employer and nonemployer contributions, schedules of investment returns, on pages 32–43 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Supplemental Schedules*

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The supplemental schedules on pages 55-56 are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.

*KPMG LLP*

December 5, 2017

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

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Management's Discussion and Analysis (Unaudited)

June 30, 2017

This section presents management's discussion and analysis (MD&A) of the Public Employees' Retirement System's (the System) financial position and performance for the year ended June 30, 2017. This section is presented as a narrative overview and analysis. Please read the MD&A in conjunction with the financial statements, notes to financial statements, required supplementary information, and supplemental schedules to better understand the financial condition and performance of the System during the fiscal year ended June 30, 2017.

### **Financial Highlights**

The System's financial highlights as of June 30, 2017 were as follows:

- The System's fiduciary net position restricted for pension benefits, postemployment healthcare benefits, and individuals increased by \$1,608.5 million during fiscal year 2017.
- The System's plan member and employer contributions decreased by \$2.16 million during fiscal year 2017.
- The State of Alaska (the State) directly appropriated \$99.2 million during fiscal year 2017.
- The System's net investment income increased \$2,138.8 million to \$2,052.1 million during fiscal year 2017.
- The System's pension benefit expenditures totaled \$766.8 million during fiscal year 2017.
- The System's postemployment healthcare benefit expenditures totaled \$406.1 million in fiscal year 2017.

### **Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the System's financial statements. The System's financial statements are composed of three components: (1) combining statement of fiduciary net position, (2) combining statement of changes in fiduciary net position, and (3) notes to financial statements. This report also contains required supplementary information and other supplemental schedules.

*Combining Statement of Fiduciary Net Position* – This statement presents information regarding the System's assets, liabilities, and resulting net position restricted for pension benefits, postemployment healthcare benefits, and individuals. This statement reflects the System's investments at fair value, along with cash and cash equivalents, receivables, and other assets less liabilities at June 30, 2017.

*Combining Statement of Changes in Fiduciary Net Position* – This statement presents how the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals changed during the fiscal year ended June 30, 2017. This statement presents contributions and investment income during the period. Deductions for pension and postemployment healthcare benefits, refunds, and operating deductions are also presented.

The above statements represent resources available for investment and payment of benefits as of June 30, 2017, and the sources and uses of those funds during fiscal year 2017.

*Notes to Financial Statements* – The notes to financial statements are an integral part of the financial statements and provide additional detailed information and schedules that are essential to a full understanding of the System's financial statements.

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**Required Supplementary Information and Related Notes** – The required supplementary information consists of 12 schedules and related notes concerning the funded status of the System and actuarial assumptions and methods used in the actuarial valuation.

**Supplemental Schedules** – Supplemental schedules include detailed information on administrative and investment deductions incurred by the System and payments to consultants (other than investment advisors) for professional services.

**Condensed Financial Information (in thousands)**

Description	System net position			Increase (decrease)		2015
	2017	2016		Amount	Percentage	
<b>Assets:</b>						
Cash and cash equivalents	\$ 470,579	148,228	322,351	217.5%	\$ 344,298	
Due from State of Alaska General Fund	19,338	19,922	(584)	(2.9)	17,210	
Contributions receivable	24,497	27,733	(3,236)	(11.7)	29,744	
Due from retiree health fund	—	—	—	—	—	2
Due from PERS occupational death and disability	2	2	—	—	—	—
Other accounts receivable	4,423	218	4,205	1,928.9	219	
Investments, at fair value	17,230,847	15,838,187	1,392,660	8.8	16,115,456	
Other assets	982	2,108	(1,126)	(53.4)	2,110	
<b>Total assets</b>	<b>17,750,668</b>	<b>16,036,398</b>	<b>1,714,270</b>	<b>10.7</b>	<b>16,509,039</b>	
<b>Liabilities:</b>						
Accrued expenses	4,376	10,368	(5,992)	(57.8)	13,150	
Claims payable	43,006	45,313	(2,307)	(5.1)	46,147	
Forfeiture payable to employers	32,373	27,351	5,022	18.4	22,545	
Securities lending collateral payable	112,258	—	112,258	—	—	
Due to PERS DB Pension Fund	2	2	—	—	—	
Due to State of Alaska General Fund	1,376	4,568	(3,192)	(69.9)	11,854	
<b>Total liabilities</b>	<b>193,391</b>	<b>87,602</b>	<b>105,789</b>	<b>120.8</b>	<b>93,696</b>	
<b>Net position</b>	<b>\$ 17,557,277</b>	<b>15,948,796</b>	<b>1,608,481</b>	<b>10.1%</b>	<b>\$ 16,415,343</b>	

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June 30, 2017

**Condensed Financial Information Continued (in thousands)**

<b>Description</b>	<b>Changes in system net position</b>			<b>Increase (decrease)</b>	<b>Percentage</b>	<b>2015</b>
	<b>2017</b>	<b>2016</b>	<b>Amount</b>			
Net position, beginning of year	\$ 15,948,796	16,415,343	(466,547)	(2.8)%	\$ 15,341,298	
Additions:						
Contributions – employers and plan members	658,675	660,834	(2,159)	(0.3)	655,049	
Contributions – nonemployer State of Alaska	99,167	126,520	(27,353)	(21.6)	1,000,000	
Net investment income (loss)	2,052,072	(86,770)	2,138,842	2,465.0	479,616	
Other income	43,233	31,963	11,270	35.3	47,020	
Total additions	2,853,147	732,547	2,120,600	289.5	2,181,685	
Deductions:						
Pension and postemployment healthcare benefits	1,172,955	1,133,712	39,243	3.5	1,048,786	
Refund of contributions	45,776	40,744	5,032	12.4	34,116	
Administrative	25,935	24,638	1,297	5.3	24,738	
Total deductions	1,244,666	1,199,094	45,572	3.8	1,107,640	
Increase (decrease) in net position	1,608,481	(466,547)	2,075,028	444.8	1,074,045	
Net position, end of year	\$ 17,557,277	15,948,796	1,608,481	10.1%	\$ 16,415,343	

**Financial Analysis of the System**

The statements of fiduciary net position as of June 30, 2017 and 2016 show net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$17,577,277,000 and \$15,948,796,000, respectively. The entire amount is available to cover the System's obligation to pay pension and postemployment healthcare benefits to its members and their beneficiaries, as well as administrative costs.

These amounts represent an increase in the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$1,608,481,000 or 10.1% from fiscal year 2016 to 2017 and a decrease of \$466,547,000 or (2.8)% from fiscal year 2015 to 2016. Over the long term, plan member, employer, and nonemployer contributions, and State of Alaska appropriations, as well as investment income earned, are anticipated to sufficiently fund the pension benefit and postemployment healthcare costs of the System.

The investment of pension funds is a long-term undertaking. On an annual basis, the Alaska Retirement Management Board (the Board) reviews and adopts an asset allocation strategy to ensure the asset mix will remain at an optimal risk/return level given the System's constraints and objectives.

During the 30<sup>th</sup> Alaska State Legislature and as part of the State's Fiscal Year 2017 Operating Budget, House Bill 256 appropriated \$99,167,000 from the General Fund and the Alaska Higher Education Investment Fund to

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the Department of Administration for deposit in the Defined Benefit Pension and the Alaska Retiree Healthcare Trust (ARHCT) funds.

*System Asset Allocation*

During fiscal years 2017 and 2016, the Board adopted the following asset allocation for the Defined Benefit Pension Plan (DB Plan) and Defined Contribution Retirement Pension Plan's (DCR Plan) retiree major medical insurance fund, health reimbursement arrangement fund, and occupational death and disability fund:

	<b>2017</b>	
	<b>Pension and Healthcare Trust</b>	
	<b>Allocation</b>	<b>Range</b>
Broad domestic equity	26.0%	± 6%
Global equity ex-U.S.	22.0	± 4
Private equity	9.0	± 5
Real assets	17.0	± 8
Absolute return	7.0	± 4
Fixed income composite	13.0	± 5
Alternative equity strategies	5.0	± 2
Cash equivalents	1.0	+ 3/- 1
Total	<b>100.0%</b>	
Expected return ten-year geometric mean	7.10%	
Projected standard deviation	15.00	

	<b>2016</b>	
	<b>Pension and Healthcare Trust</b>	
	<b>Allocation</b>	<b>Range</b>
Broad domestic equity	26.0%	± 6%
Global equity ex-U.S.	25.0	± 4
Private equity	9.0	± 5
Real assets	17.0	± 8
Absolute return	5.0	± 4
Fixed income composite	12.0	± 5
Alternative equity strategies	3.0	± 2
Cash equivalents	3.0	± 3
Total	<b>100.0%</b>	
Expected return five-year geometric mean	7.20%	
Projected standard deviation	15.30	

For fiscal years 2017 and 2016, the DB Plan's investments generated a 13.35% and (0.36)% rate of return, respectively.

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**Contributions, Investment Income, and Other Additions**

The additions required to fund retirement benefits are accumulated through a combination of employer and plan member contributions, State appropriation, investment income, and other additions as follows:

	<b>Additions (in thousands)</b>				
			<b>Increase (decrease)</b>		<b>2015</b>
	<b>2017</b>	<b>2016</b>	<b>Amount</b>	<b>Percentage</b>	
Contributions – plan members	\$ 172,838	173,855	(1,017)	(0.6)%	\$ 171,168
Contributions – employers	485,837	486,979	(1,142)	(0.2)	483,881
Contributions – Nonemployer					
State of Alaska	99,167	126,520	(27,353)	(21.6)	1,000,000
Net investment income (loss)	2,052,072	(86,770)	2,138,842	2,465.0	479,616
Other income	43,233	31,963	11,270	35.3	47,020
Total	<u>\$ 2,853,147</u>	<u>732,547</u>	<u>2,120,600</u>	<u>289.5%</u>	<u>\$ 2,181,685</u>

The System's employer contributions decreased from \$486,979,000 in fiscal year 2016 to \$485,837,000 in fiscal year 2017, a decrease of \$1,142,000 or 0.2%. This decrease relates to a decline in overall reportable PERS salaries by approximately 0.4%. The System's employer contributions increased from \$483,881,000 in fiscal year 2015 to \$486,979,000 in fiscal year 2016, an increase of \$3,098,000 or 0.6%. The increase is attributable to increased contributions from the defined benefit unfunded liability portion of DCR Plan salaries and salary floor payments.

The State provided \$99,200,000 and \$126,500,000 for fiscal years 2017 and 2016 in nonemployer contributions per Alaska Statute (AS) 39.35.280. The employer on-behalf amount (or additional State contributions as defined in AS 39.35.280) is calculated by the System's actuary. It is based on projected payroll and the difference between the actuarially determined contribution rate and the statutory effective rate. The employer effective contribution rate of 22.00% is established in AS 39.35.255(a). In fiscal year 2015, in an effort to bolster the funding levels of both pension plans, the Alaska legislature appropriated an amount in excess of the actuarially determined contribution rate, in anticipation that this additional funding would decrease future nonemployer contributions.

The System's net investment income in fiscal year 2017 increased by \$2,138,842,000 or 2,465% from amounts recorded in fiscal year 2016. The System's net investment income in fiscal year 2016 decreased by \$566,386,000 or a negative 118.1% from amounts recorded in fiscal year 2015. Over the long term, investment earnings play a significant role in funding plan benefits. Prior to the most recent fiscal year, fiscal years 2016 and 2015 investment environment had been challenging to plans across the country. The Board continues to look at investment classes and strategies best suited to meet the expected earnings returns to meet future benefit payments.

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The System's investment rates of return at June 30, 2017, 2016, and 2015 are as follows:

	<b>Year ended</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
System returns	13.35%	(0.36)%	3.29%
Domestic equities	18.55	0.58	7.84
International equities	20.41	(9.15)	(3.32)
Fixed income	2.91	5.15	(0.74)
Private equity	17.04	4.71	13.77
Absolute return	8.47	(3.09)	9.24
Real assets	5.98	4.76	3.70
Cash equivalents	0.79	0.55	0.28
Alternative equity	11.38	3.41	(0.89)
Actuarially assumed rate of return	8.00	8.00	8.00

### **Benefits and Other Deductions**

The primary deduction of the DB Plan is the payment of pension and other postemployment benefits, primarily healthcare. The primary deduction of the DCR Plan is the refund of contributions. These benefit payments, healthcare claims paid, refunds of contributions, and the cost of administering the System comprise the cost of operations as follows:

	<b>Deductions (in thousands)</b>				
			<b>Increase (decrease)</b>		<b>2015</b>
	<b>2017</b>	<b>2016</b>	<b>Amount</b>	<b>Percentage</b>	
Pension benefits	\$ 766,766	732,479	34,287	4.7%	\$ 686,493
Postemployment benefits	406,189	401,233	4,956	1.2	362,293
Refunds of contributions	45,776	40,744	5,032	12.4	34,116
Administrative	25,935	24,638	1,297	5.3	24,738
Total	<u>\$ 1,244,666</u>	<u>1,199,094</u>	<u>45,572</u>	<u>3.8%</u>	<u>\$ 1,107,640</u>

The System's pension benefit payments in 2017 increased \$34,287,000 or 4.7% from fiscal year 2016 and increased \$45,986,000 or 6.7% from fiscal year 2015 to 2016. The increase in pension benefits in fiscal year 2017 is the result of an increase in the number of retirees.

The System's postemployment healthcare benefit payments in fiscal year 2017 increased \$4,956,000 or 1.2% from fiscal year 2015 and increased \$38,940,000 or 10.7% from fiscal year 2015 to 2016. The System has seen an increase in plan utilization for healthcare as the number of retirees in the DB Plan continues to increase. The System continues to look at ways for cost containment while providing benefits applicable to the plan.

The System's refund of contributions increased \$5,032,000 or 12.4% from fiscal year 2016 to 2017 and increased \$6,628,000 or 19.4% from fiscal year 2015 to 2016. The increase in refunds is primarily in the DCR

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Plan, where refunds increased \$4,645,000 between fiscal year 2016 to 2017, and increased \$6,643,000 from fiscal year 2015 to 2016. The System continues to look at ways to retain member contributions by emphasizing the low investment costs to members to maintain funds within the DCR Plan, with a number of investment options available.

The System's administrative deductions in 2017 increased \$1,297,000 or 5.3% from fiscal year 2016 and decreased \$100,000 or 0.4% from fiscal year 2015 to 2016. The increase in administrative costs in fiscal year 2017 is related to increases in management, consulting, and other professional services, offset by a decrease in Patient Protection and Affordable Care Act transitional reinsurance program fees.

### **Net Pension Liability**

Governmental Accounting Standards Board (GASB) Statement No. 67 requires the DB Plan to report the Total Pension Liability (TPL), Fiduciary Net Position (FNP), and the Net Pension Liability (NPL). The TPL determines the total obligation for the DB Plan's pension benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The DB Plan's FNP determines the assets available to pay the DB Plan's future payment stream. The assets are derived from contributions received from participating employers, plan members, and nonemployer contributions, as well as investment earnings, less benefit payments during the year and the related costs to administer the DB Plan. The difference between the TPL and FNP is the NPL, or the unfunded portion of the TPL.

The components of the net pension liability of the participating employers were as follows (in thousands):

	<b>2017</b>	<b>2016</b>
Total pension liability	\$ 14,112,569	13,817,285
Plan fiduciary net position	<u>(8,943,127)</u>	<u>(8,227,687)</u>
Employers' net pension liability	<u>\$ 5,169,442</u>	<u>5,589,598</u>
Plan fiduciary net position as a percentage of the total pension liability	63.37%	59.55%

### **Net OPEB (Asset) Liability**

GASB Statement No. 74, implemented in 2017, requires the Defined Benefit (DB) Other Postemployment Benefit (OPEB) Plans to report the Total OPEB Liability (TOL), FNP, and Net OPEB Liability (NOL) for each plan. The TOL determines the total obligation for the DB Plan's postemployment healthcare benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The DB Plan's FNP determines the assets available to pay the DB OPEB Plan's future payment stream. The assets are derived from contributions received from participating employers, plan members, and nonemployer contributions, as well as investment earnings, less benefit payments during the year and the related costs to administer the DB Plans. The difference between the TOL and FNP is the NOL, or the unfunded portion of the TOL.

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The components of the net OPEB liability of the participating employers for the plans were as follows (in thousands):

	<b>Alaska Retiree Healthcare Trust Plan (ARHCT)</b>	<b>Occupational Death and Disability (ODD)</b>	<b>Retiree Medical Plan (RMP)</b>
Total OPEB liability	\$ 8,183,709	12,560	86,697
Plan fiduciary net position	<u>(7,338,952)</u>	<u>(26,749)</u>	<u>(81,482)</u>
Employers' net OPEB liability (asset)	<u>\$ 844,757</u>	<u>(14,189)</u>	<u>5,215</u>
Plan fiduciary net position as a percentage of the total OPEB liability	89.68%	212.97%	93.98%

## Funding

Retirement benefits are financed by accumulations from employers, plan members, State nonemployer contributions, and income earned on System investments.

- The employer contribution rate is adopted and set by the Board annually based on actuarial determinations made by the System's consulting actuary as reviewed by the Board's contracted actuary. AS 39.35.255(a) sets the employer effective contribution rate at 22.00%. The difference between the actuarially determined contribution rate adopted by the Board and the statutory employer effective rate is paid by the State as a direct appropriation per AS 39.35.280.
- AS 39.35.280 provides that additional State contributions are made each July 1 or as soon after July 1 for the ensuing fiscal year that when combined with the total employer contributions are sufficient to pay the System's past service liability at the contribution rate adopted by the Board for that fiscal year.
- Plan member contributions are set by AS 39.35.160 for the DB Plan and AS 39.35.730 for the DCR Plan.
- The Board works with an external consultant to determine the proper asset allocation strategy.

## Legislation

During fiscal year 2017, the 30<sup>th</sup> Alaska State Legislature enacted one law that affects the System. Conference Committee Substitute House Bill (CCS HB) 57, Section 41(a) appropriates \$72.6 million from the General Fund and the Alaska Higher Education Investment Fund to the Department of Administration for deposit in the System's defined benefit pension fund and the retiree healthcare trust as partial payment of the participating employers' contribution for fiscal year ending June 30, 2018. This appropriation is to fund the difference between the statutory required contribution of 22% paid by participating employers for both defined benefit and defined contribution members, and the actuarially determined contribution rate adopted by the Board for that fiscal year, and is specified in AS 39.35.280 – Additional State Contributions.

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**Economic Conditions, Future Contribution Rates, and Status of Unfunded Liability**

Fiscal year 2017 was a year of positive investment returns. Net investment income increased from a loss of \$86,770 in fiscal year 2016 to income of \$2,052,072,000 in fiscal year 2017, an increase of \$2,138,842,000 or a positive 2,465%. The return on the System's investments was significantly above the 8.00% actuarially assumed rate of return with the System's actual rate of return of 13.35% at June 30, 2017. In fiscal year 2016, the System's investments returned negative 0.36%, significantly less than the actuarially assumed rate of 8.00%. The Board continues to work with its investment counsel and the Alaska Department of Revenue, Treasury Division, to diversify the portfolio of the System to maintain an optimal risk/return ratio.

The consulting actuary recommended a decrease from the System's actuarially determined contribution rate of 27.19% in fiscal year 2016 to 26.14% in fiscal year 2017. The Board adopted the fiscal year 2017 actuarially determined contribution rate of 26.14%, which represented a decrease of 1.05%. The statutory employer effective contribution rate remained at 22.00% for fiscal years 2017 and 2016.

The June 30, 2016 and 2015 actuarial valuation reports for the DB Plan reported funding ratios based on valuation assets of 77.1% and 78.3%, respectively, as well as unfunded liabilities of \$4.9 billion and \$4.5 billion, respectively.

The System expected this decrease in the DB Plan's recommended actuarially determined contribution rate and the corresponding increase in the pension and healthcare funding ratios as of the June 30, 2015 actuarial valuation report with the infusion of the \$1 billion appropriated from the Constitutional Budget Reserve Fund during fiscal year 2015. Additionally, due to statutory changes implemented by the Alaska Legislature in conjunction with the \$1 billion infusion to the DB Plan, the statute (1) established the level percentage of pay approach as a replacement to the level dollar approach and (2) reset the 25-year amortization period beginning July 1, 2014.

For fiscal years 2017 and 2016, the DCR Plan's employer contribution rate was established by AS 39.35.255(a) at 22.00%. The DCR Plan's actuarially determined occupational death and disability rate was adopted by the Board for fiscal years 2017 and 2016 to be 0.49% and 1.05%, respectively, for peace officers/firefighters; and 0.17% and 0.22%, respectively, for all others. The DCR Plan retiree medical plan actuarially determined contribution rate was adopted by the Board for fiscal years 2017 and 2016 to be 1.18% and 1.68%, respectively.

**Requests for Information**

This financial report is designed to provide a general overview of the finances for all those with interest in the finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

State of Alaska Public Employees' Retirement System  
Division of Retirement and Benefits, Finance Section  
P.O. Box 110203  
Juneau, Alaska 99811-0203

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Management's Discussion and Analysis (Unaudited)

June 30, 2017

Questions concerning any of the investment information provided in this report or requests for additional investment information should be addressed to:

State of Alaska  
Department of Revenue, Treasury Division  
P.O. Box 110405  
Juneau, Alaska 99811-0405

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the State of Alaska)

Combining Statement of Fiduciary Net Position

June 30, 2017

(With summarized financial information for June 30, 2016)

(In thousands)

	Defined Benefit Pension	Defined Contribution Pension	Alaska Retiree Healthcare Trust	Occupational Death and Disability	Retiree Medical	Healthcare Reimbursement Arrangement	System total June 30, 2017	System total June 30, 2016
<b>Assets:</b>								
Cash and cash equivalents (note 3):								
Short-term Fixed Income Pool	\$ 174,473	27,640	140,929	527	1,615	5,827	351,011	136,297
Securities lending collateral	60,155	—	49,456	177	533	1,937	112,258	—
Empower money market fund – non-participant directed	—	7,310	—	—	—	—	7,310	11,931
Total cash and cash equivalents	234,628	34,950	190,385	704	2,148	7,764	470,579	148,228
Receivables:								
Contributions	24,123	163	135	2	15	59	24,497	27,733
Due from State of Alaska General Fund	—	8,946	7,145	148	826	2,273	19,338	19,922
Due from PERS Occupational Death and Disability Fund	2	—	—	—	—	—	2	2
Other accounts receivable	212	6	4,204	—	1	—	4,423	218
Total receivables	24,337	9,115	11,484	150	842	2,332	48,260	47,875
Investments (note 3), at fair value:								
Fixed income securities:								
U.S. Treasury Fixed Income Pool	680,014	—	562,063	2,027	6,143	22,271	1,272,518	703,781
Taxable Municipal Bond Pool	74,485	—	61,565	222	673	2,439	139,384	173,054
High-yield Fixed Income Pool	228,471	—	188,841	681	2,064	7,483	427,540	537,991
International Fixed Income Pool	65,104	—	53,811	194	588	2,132	121,829	243,305
Tactical Fixed Income Pool	79,218	—	65,478	236	716	2,595	148,243	112,042
Emerging Markets Debt Pool	58,858	—	48,649	176	532	1,928	110,143	104,248
Total fixed income securities	1,186,150	—	980,407	3,536	10,716	38,848	2,219,657	1,874,421
Broad domestic equity:								
Large Cap Pool	1,892,224	—	1,564,140	5,641	17,098	61,982	3,541,085	3,286,867
Small Cap Pool	387,777	—	320,515	1,156	3,503	12,700	725,651	699,192
Total broad domestic equity	2,280,001	—	1,884,655	6,797	20,601	74,682	4,266,736	3,986,059
Broad international equity:								
International Equity Pool	1,704,509	—	1,408,855	5,081	15,398	55,824	3,189,667	3,042,284
International Equity Small Cap Pool	127,800	—	105,632	381	1,155	4,186	239,154	206,615
Emerging Markets Equity Pool	277,737	—	229,562	828	2,509	9,096	519,732	437,207
Total broad international equity	2,110,046	—	1,744,049	6,290	19,062	69,106	3,948,553	3,686,106
Alternative equity:								
Alternative equity	274,590	—	226,961	818	2,481	8,993	513,843	519,903
Convertible Bond Pool	67,644	—	55,911	202	611	2,216	126,584	130,707
Total alternative equity	342,234	—	282,872	1,020	3,092	11,209	640,427	650,610
Private Equity Pool	751,778	—	621,378	2,241	6,792	24,621	1,406,810	1,219,402
Absolute Return Pool	565,357	—	467,294	1,685	5,107	18,516	1,057,959	1,006,283
Real assets:								
Real Estate Pool	509,899	—	421,093	1,519	4,602	16,685	953,798	971,127
Real Estate Investment Trust Pool	124,941	—	103,269	372	1,129	4,092	233,803	233,368
Infrastructure Private Pool	140,054	—	115,761	418	1,265	4,587	262,085	212,214
Infrastructure Public Pool	87,231	—	72,101	260	788	2,857	163,237	137,391
Master Limited Partnership Pool	177,796	—	146,956	530	1,606	5,823	332,711	323,193
Energy Pool	32,704	—	27,031	97	296	1,071	61,199	47,500
Farmland Pool	295,943	—	244,611	882	2,674	9,692	553,802	536,087
Timber Pool	124,221	—	102,675	370	1,122	4,069	232,457	250,027
Treasury Inflation Protected Securities Pool	19,633	—	16,227	59	177	643	36,739	36,876
Total real assets	1,512,422	—	1,249,724	4,507	13,659	49,519	2,829,831	2,747,783
Other investment funds:								
Pooled investment funds	—	494,657	—	—	—	—	494,657	366,668
Collective investment funds	—	366,217	—	—	—	—	366,217	300,855
Total other investment funds	—	860,874	—	—	—	—	860,874	667,523
Total investments	8,747,988	860,874	7,230,379	26,076	79,029	286,501	17,230,847	15,838,187
Other assets	15	—	967	—	—	—	982	2,108
Total assets	9,006,968	904,939	7,433,215	26,930	82,019	296,597	17,750,668	16,036,398
Liabilities:								
Accrued expenses	2,310	245	1,801	2	4	14	4,376	10,368
Claims payable (note 6)	—	—	43,006	—	—	—	43,006	45,313
Forfeitures payable	—	32,373	—	—	—	—	32,373	27,351
Securities lending collateral payable	60,155	—	49,456	177	533	1,937	112,258	—
Due to State of Alaska General Fund	1,376	—	—	—	—	—	1,376	4,568
Due to PERS Defined Benefit Pension Fund	—	—	—	2	—	—	2	2
Total liabilities	63,841	32,618	94,263	181	537	1,951	193,391	87,602
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals	\$ 8,943,127	872,321	7,338,952	26,749	81,482	294,646	17,557,277	15,948,796

See accompanying notes to financial statements.

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
(A Component Unit of the State of Alaska)**

Combining Statement of Changes in Fiduciary Net Position

Year ended June 30, 2017

(With summarized financial information for June 30, 2016)

(In thousands)

							<b>Other Postemployment Benefit Plans</b>		
	<b>Defined Benefit Pension</b>	<b>Defined Contribution Pension</b>	<b>Alaska Retiree Healthcare Trust</b>	<b>Occupational Death and Disability</b>	<b>Retiree Medical</b>	<b>Healthcare Reimbursement Arrangement</b>	<b>System total June 30, 2017</b>		<b>System total June 30, 2016</b>
<b>Additions:</b>									
Contributions:									
Employers	\$ 263,597	46,982	124,541	2,196	12,280	36,241	485,837	486,979	
Plan members	89,345	83,493	—	—	—	—	172,838	173,855	
Nonemployer State of Alaska	99,167	—	—	—	—	—	99,167	126,520	
Total contributions	452,109	130,475	124,541	2,196	12,280	36,241	757,842	787,354	
Investment income (loss):									
Net appreciation (depreciation) in fair value (note 2)	904,352	101,542	741,697	2,529	7,318	26,956	1,784,394	(334,043)	
Interest	31,649	61	25,964	88	255	940	58,957	58,885	
Dividends	116,292	—	95,888	328	950	3,494	216,952	223,163	
Total investment income (loss)	1,052,293	101,603	863,549	2,945	8,523	31,390	2,060,303	(51,995)	
Less investment expense	4,665	286	3,880	8	20	77	8,936	34,775	
Net investment income (loss) before securities lending activities	1,047,628	101,317	859,669	2,937	8,503	31,313	2,051,367	(86,770)	
Securities lending income	473	—	389	1	4	15	882	—	
Less securities lending expense	95	—	78	—	1	3	177	—	
Net income from securities lending activities	378	—	311	1	3	12	705	—	
Net investment income (loss)	1,048,006	101,317	859,980	2,938	8,506	31,325	2,052,072	(86,770)	
Other income	38	185	43,009	—	1	—	43,233	31,963	
Total additions	1,500,153	231,977	1,027,530	5,134	20,787	67,566	2,853,147	732,547	
<b>Deductions:</b>									
Pension and postemployment benefits	766,766	—	405,872	313	—	4	1,172,955	1,133,712	
Refunds of contributions	10,421	35,355	—	—	—	—	45,776	40,744	
Administrative	7,526	2,419	15,960	18	12	—	25,935	24,638	
Total deductions	784,713	37,774	421,832	331	12	4	1,244,666	1,199,094	
Net increase (decrease)	715,440	194,203	605,698	4,803	20,775	67,562	1,608,481	(466,547)	
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals:									
Balance, beginning of year	8,227,687	678,118	6,733,254	21,946	60,707	227,084	15,948,796	16,415,343	
Balance, end of year	\$ 8,943,127	872,321	7,338,952	26,749	81,482	294,646	17,557,277	15,948,796	

See accompanying notes to financial statements.

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Notes to Financial Statements

June 30, 2017

**(1) Description**

The State of Alaska Public Employees' Retirement System (PERS or the System) is a component unit of the State of Alaska (the State). The System is governed by the Alaska Retirement Management Board (the Board), which consists of nine trustees, as follows: two members, consisting of the commissioner of administration and the commissioner of revenue; two trustees who are members of the general public; one trustee who is employed as a finance officer for a political subdivision participating in either the PERS or Teachers' Retirement System (TRS); two trustees who are members of PERS; and two trustees who are members of TRS.

PERS acts as the common investment and administrative agency for the following multiple-employer plans:

<b>Plan name</b>	<b>Type of plan</b>
Defined Benefit Pension Plan	Cost-sharing, Defined Benefit Pension
Defined Contribution Pension Plan	Defined Contribution Pension
Defined Benefit Other Postemployment Benefits (OPEB)	
Alaska Retiree Healthcare Trust Plan (ARHCT)	Cost-sharing, Defined Benefit OPEB
Occupational Death and Disability Plan (ODD)	Cost-sharing, Defined Benefit OPEB
Retiree Medical Plan (RMP)	Cost-sharing, Defined Benefit OPEB
Defined Contribution Other Postemployment Benefits	
Healthcare Reimbursement Arrangement Plan	Defined Contribution OPEB

At June 30, 2017 and 2016, the number of participating local government employers and public organizations, including the State, was as follows:

	<b>2017</b>		
	<b>Defined Benefit Pension</b>	<b>Defined Contribution Pension</b>	<b>OPEB plans</b>
State of Alaska	1	1	1
Municipalities	74	76	76
School districts	53	53	53
Other	27	27	27
Total employers	<u>155</u>	<u>157</u>	<u>157</u>

Inclusion in the plans is a condition of employment for eligible State employees, except as otherwise provided for judges, elected officers, and certain employees of the Alaska Marine Highway System. Any local government in the State may elect to have its permanent general and peace officer and firefighter employees covered by the System.

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Notes to Financial Statements

June 30, 2017

***Defined Benefit Pension Plan***

**General**

The Defined Benefit Pension (DB) Plan provides pension benefits for eligible State and local government employees. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. With the passage of Senate Bill (SB) 141, the DB Plan is closed to all new members effective July 1, 2006.

The DB Plan's membership consisted of the following at June 30, 2017:

Inactive plan members or beneficiaries currently receiving benefits	34,310
Inactive plan members entitled to but not yet receiving benefits	5,799
Active plan members	<u>14,956</u>
Total DB plan membership	<u>55,065</u>

**Pension Benefits**

Members hired prior to July 1, 1986, with five or more paid-up years of credited service are entitled to monthly pension benefits beginning at normal retirement age, 55, or early retirement age, 50. For members first hired after June 30, 1986, the normal and early retirement ages are 60 and 55, respectively. Members with 30 or more years of credited service (20 years for peace officers and firefighters) may retire at any age and receive a normal benefit.

The normal monthly pension benefit is based on years of service and average monthly compensation. For members hired prior to July 1, 1996, and all peace officers and firefighters, the average monthly compensation is based upon the members' three highest, consecutive years' salaries. For all other members hired after June 30, 1996, average monthly compensation is based upon the members' five highest, consecutive years' salaries.

The benefit related to all years of service prior to July 1, 1986, and for years of service through a total of 10 years for general members is equal to 2% of the member's average monthly compensation for each year of service. The benefit for each year over 10 years of service subsequent to June 30, 1986, is equal to 2.25% of the member's average monthly compensation for the second 10 years and 2.5% for all remaining years of service. For peace officers and firefighters, the benefit for years of service through a total of 10 years is equal to 2% of the member's average monthly compensation and 2.5% for all remaining years of service.

Minimum benefits for members eligible for retirement are \$25 per month for each year of credited service.

Married members must receive their benefits in the form of a joint and survivor annuity unless their spouse consents to another form of benefit or another person is eligible for benefits under a qualified domestic relations order.

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PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

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The DB Plan has two types of postretirement pension adjustments (PRPA). The automatic PRPA is issued annually to all eligible benefit recipients, when the cost of living increases in the previous calendar year. The automatic PRPA increase is paid beginning July 1 of each year. The discretionary PRPA may be granted to eligible recipients by the DB Plan's administrator if the funding ratio of the DB Plan meets or exceeds 105%. If both an automatic and discretionary PRPA are granted, and a retiree is eligible for both adjustments, the one that provides the retiree the greater increase will be paid.

**Contributions**

Contribution requirements of the active plan members and the participating employers are actuarially determined and approved by the Board as an amount that, when combined, is expected to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. The DB Plan's members' contribution rates are 7.5% for peace officers and firefighters, 9.6% for some school district employees, and 6.75% for general DB Plan members, as required by statute. Employer effective contribution rates are 22.00% of annual payroll. Alaska Statute (AS) 39.35.280 provides that the State, as a nonemployer contributing entity, contributes each July 1, or as soon after July 1 for the ensuing fiscal year, an amount that when combined with the total employer contributions is sufficient to pay the System's past service liability at the actuarially determined contribution rate adopted by the Board for that fiscal year. Additionally, there is a Defined Benefit Unfunded Liability (DBUL) amount levied against the Defined Contribution Retirement Pension (DCR) Plan payroll. The DBUL amount is computed as the difference between:

- (A) The amount calculated for the statutory employer contribution rate of 22.00% on eligible salary less
- (B) The total of the employer contributions for:
  - (1) The defined contribution employer matching amount
  - (2) Major medical
  - (3) Occupational death and disability
  - (4) Health reimbursement arrangement.

The difference is deposited based on an actuarial allocation into the DB Plan's pension and healthcare funds.

**Refunds**

DB Plan member contributions may be voluntarily or, under certain circumstances, involuntarily refunded to the member or a garnishing agency 60 days after termination of employment. Voluntary refund rights are forfeited on July 1 following the member's 75th birthday or within 50 years of the member's last termination date. Members who have had contributions refunded forfeit all retirement benefits, including postemployment healthcare benefits. Members are allowed to reinstate refunded service due to involuntary refunds by repaying the total involuntary refunded balance and accrued interest. Members are allowed to reinstate voluntarily refunded service by repaying the voluntarily refunded balance and accrued interest, as

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long as they reestablish an employee relationship with a participating DB Plan employer before July 1, 2010. Members who have not reestablished an employee relationship with a participating DB Plan employer by June 30, 2010, will not be eligible to reinstate voluntarily refunded service and will forfeit any claim to DB Plan membership rights. Balances previously refunded to members accrue interest at the rate of 7.0% per annum, compounded semiannually.

***Defined Contribution Retirement Pension Plan***

**General**

The DCR Plan provides retirement benefits for eligible employees hired after July 1, 2006. Additionally, certain active members of the DB Plan were eligible to transfer to the DCR Plan if that member had not vested in the DB Plan. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature.

At June 30, 2017, membership in the DCR Plan consisted of 1,735 peace officer and firefighter members and 19,532 other members.

**Retirement Benefits**

A participating member is immediately and fully vested in that member's contributions and related earnings (losses). A member shall be fully vested in the employer contributions made on that member's behalf, and related earnings (losses), after five years of service. A member is partially vested in the employer contributions made on that member's behalf, and the related earnings, in the ratio of (a) 25% with two years of service; (b) 50% with three years of service; (c) 75% with four years of service; and (d) 100% with five years of service.

**Contributions**

State statutes require an 8.0% contribution rate for DCR Plan members. Employers are required to contribute 5.0% of the member's compensation.

**Participant Distributions and Refunds of Contributions**

A member is eligible to request a refund of contributions from their account 60 days after termination of employment.

**Participant Accounts**

Participant accounts under the DCR Plan are self-directed with respect to investment options.

Each participant designates how contributions are to be allocated among the investment options. Each participant's account is credited with the participant's contributions and the appreciation or depreciation in unit value for the investment funds.

Record-keeping/administrative fees consisting of a fixed amount, applied in a lump sum each calendar year, and a variable amount, applied monthly, are deducted from each participant's account, and applied pro rata to all the funds in which the employee participates. This fee is for all costs incurred by the record keeper and by the State. The investment management fees are netted out of the funds' performance.

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June 30, 2017

***Defined Benefit Other Postemployment Benefit Plans***

**Alaska Retiree Healthcare Trust Plan**

The Alaska Retiree Healthcare Trust Plan (ARHCT), a healthcare trust fund of the State, provides major medical coverage to retirees of the DB Plan. The ARHCT is self-funded and self-insured. The ARHCT is closed to all new members effective July 1, 2006. Membership in the plan consisted of the following at June 30, 2017:

Inactive plan members or beneficiaries currently receiving benefits	34,310
Inactive plan members entitled to but not yet receiving benefits	5,799
Active plan members	<u>14,956</u>
Total plan membership	<u><u>55,065</u></u>

***OPEB Benefits***

Major medical benefits are provided to retirees and their surviving spouses at no premium cost for all members hired before July 1, 1986 (Tier 1), and disabled retirees. Members hired after June 30, 1986 (Tier 2), and their surviving spouses with five years of credited service (or ten years of credited service for those first hired after June 30, 1996 [Tier 3]) must pay the full monthly premium if they are under age 60 and will receive benefits at no premium cost if they are over age 60. Tier 3 members with between five and ten years of credited service must pay the full monthly premium regardless of their age. Tier 2 and Tier 3 members with less than five years of credited service are not eligible for postemployment healthcare benefits. Tier 2 members who are receiving a conditional benefit and are age eligible are eligible for postemployment healthcare benefits. In addition, peace officers and their surviving spouses with 25 years of peace officer membership service and all other members and their surviving spouses with 30 years of membership service receive benefits at no premium cost, regardless of their age or date of hire. Peace officers/firefighters who are disabled between 20 and 25 years must pay the full monthly premium.

***Contributions***

Employer contribution rates are actuarially determined and adopted by the Board. The 2017 employer effective contribution rate is 22.00% of member's compensation.

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Notes to Financial Statements

June 30, 2017

**Occupational Death and Disability Plan**

The Occupational Death and Disability Plan provides death benefits for beneficiaries of plan participants and long-term disability benefits to all active members within the System. Members in the Death and Disability Plan consisted of the following at June 30, 2017:

Active plan members	19,442
Participating employers	157
Open claims	11

*Death Benefits*

If (1) the death of an employee occurs before the employee's retirement and before the employee's normal retirement date, (2) the proximate cause of death is a bodily injury sustained or a hazard undergone while in the performance and within the scope of the employee's duties, and (3) the injury or hazard is not the proximate result of willful negligence of the employee, then a monthly survivor's pension shall be paid to the surviving spouse. If there is no surviving spouse or if the spouse later dies, the monthly survivor's pension shall be paid in equal parts to the dependent children of the employee.

If an active general DB Plan member dies from occupational causes, the spouse may receive a monthly pension equal to 40% of the DB Plan's member's salary. If an active peace officer or firefighter DB Plan member dies from occupational causes, the spouse may receive a monthly pension equal to 50% of the DB Plan's member's salary or 75% of the member's retirement benefit calculated as if the member had survived until normal retirement age, whichever is greater. When death is due to occupational causes and there is no surviving spouse, the DB Plan's member's dependent child(ren) may receive the monthly pension until they are no longer dependents. If the member does not have a spouse or dependent children at the time of death, a lump-sum death benefit is payable to the named beneficiary(ies). The amount of the occupational death pension changes on the date the DB Plan member's normal retirement would have occurred if the DB Plan member had lived. The new benefit is based on the DB Plan member's average monthly compensation at the time of death and the credited service, including service that would have accrued if the DB Plan member had lived and continued to work until normal retirement. If the death was from nonoccupational causes and the DB Plan member was vested, the spouse may receive a monthly 50% joint and survivor option benefit based on the member's credited service and average monthly compensation at the time of death. If the DB Plan member is not married or vested, a lump-sum death benefit is payable to the named beneficiary(ies).

The monthly survivor's pension section for survivors of DCR Plan employees who were not peace officers or firefighters is 40% of the employee's monthly compensation in the month in which the employee dies. The monthly survivor's pension for survivors of employees who were peace officers or firefighters is 50% of the monthly compensation in the month in which the employee dies. While the monthly survivor's pension is being paid, the employer shall make contributions on behalf of the employee's beneficiaries based on the deceased employee's gross monthly compensation at the time of occupational death.

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Notes to Financial Statements

June 30, 2017

*Disability Benefits*

Active DB Plan members who become permanently disabled due to occupational or nonoccupational causes receive disability benefits until normal retirement age, or when the service requirement for normal retirement is met. Although there are no minimum service requirements for DB Plan members to be eligible for occupational disability, DB Plan members must be vested to receive nonoccupational disability benefits. The monthly occupational disability benefit is equal to 40% of the DB Plan's salary at the time of the disability. The nonoccupational disability benefit is based on the DB Plan member's service and salary at the time of disability. At normal retirement age, a disabled general DB Plan member receives normal retirement benefits. A peace officer or firefighter DB Plan member may elect to receive normal retirement benefits calculated under the occupational disability benefit rules.

A DCR Plan member is eligible for an occupational disability benefit if employment is terminated because of a total and apparently permanent occupational disability before the member's normal retirement date. The occupational disability benefits accrue beginning the first day of the month following termination of employment as a result of the disability and are payable the last day of the month. If a final determination granting the benefit is not made in time to pay the benefit when due, a retroactive payment shall be made to cover the period of deferment.

*Contributions*

An employer shall contribute to each member's account based on the member's compensation. For fiscal year 2017, the rates are 0.49% for occupational death and disability for peace officers and firefighters, and 0.17% for occupational death and disability all other members.

**Retiree Medical Plan**

The Retiree Medical Plan (RMP) provides major medical coverage to retirees of the DCR Plan. The RMP is self-insured. Members are not eligible to use this plan until they have at least 10 years of service, and are Medicare age eligible. Membership in the plan consists of the following at June 30, 2017:

Inactive plan members or beneficiaries currently receiving benefits	5
Inactive plan members entitled to but not yet receiving benefits	831
Inactive plan members not entitled to benefits	10,466
Active plan members	<u>19,442</u>
Total DCR Plan membership	<u>30,744</u>

*OPEB Benefits*

The medical benefits available to eligible persons means that an eligible person may not be denied medical coverage except for failure to pay the required premium. Major medical coverage takes effect on the first day of the month following the date of the Plan administrator's approval of the election and stops when the person who elects coverage dies or fails to make the required premium payment. The coverage for persons 65 years of age or older is the same as that available for persons under 65 years of age. The benefits payable to those persons 65 years of age or older supplement any benefits provided under the federal old

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age, survivors and disability insurance program. The medical and optional insurance premiums owed by the person who elects coverage may be deducted from the health reimbursement arrangement becomes insufficient to pay the premiums, the person who elects coverage shall pay the premiums directly.

The cost of premiums for retiree major medical coverage for an eligible member or surviving spouse who is

- (1) not eligible for Medicare is an amount equal to the full monthly group premium for retiree major medical insurance coverage;
- (2) eligible for Medicare is the following percentage of the premium amounts established for retirees who are eligible for Medicare:
  - (a) 30 percent if the member had 10 or more, but less than 15, years of service;
  - (b) 25 percent if the member had 15 or more, but less than 20, years of service;
  - (c) 20 percent if the member had 20 or more, but less than 25, years of service;
  - (d) 15 percent if the member had 25 or more, but less than 30, years of service; and
  - (e) 10 percent if the member had 30 or more years of service.

*Contributions*

Employer contribution rates are actuarially determined and adopted by the Board. The 2017 employer effective contribution rate is 1.18% of member's compensation.

***Defined Contribution Other Postemployment Benefit Plan***

The Health Reimbursement Arrangement Plan allows for medical care expenses to be reimbursed from individual savings accounts established for eligible persons. The HRA Plan became effective July 1, 2006, at which time contributions by employers began. Membership in the plan was as follows as of June 30, 2017:

Inactive plan members or beneficiaries currently receiving benefits	7
Inactive plan members entitled to but not yet receiving benefits	829
Inactive plan members not entitled to benefits	10,466
Active plan members	<u>19,442</u>
Total DCR Plan membership	<u><u>30,744</u></u>

*OPEB Benefits*

Persons who meet the eligibility requirements of AS 39.35.870 are eligible for reimbursements from the individual account established for a member under the Plan, but do not have to retire directly from the System.

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The Plan Administrator may deduct the cost of monthly premiums from the HRA individual account for the Retiree Medical Plan insurance on behalf of an eligible person who elected the retiree major medical insurance under AS 39.35.880. Upon application of an eligible person, the Plan Administrator shall reimburse the costs for medical care expenses defined in 26 USC 213(d). Reimbursement is limited to the medical expenses of (1) an eligible member, the spouse of an eligible member, and the dependent children of an eligible member; or (2) a surviving spouse and the dependent children of an eligible member dependent on the surviving spouse. When the member's individual account balance is exhausted, any deductions from the HRA individual account end. If all eligible persons die before exhausting the member's individual account, the account balance reverts to the Plan.

*Contributions*

An employer shall contribute to the HRA Plan trust fund an amount equal to three percent of the average annual compensation of all employees of all employers in the TRS and PERS. The administrator maintains a record of each member to account for employer contributions on behalf of that member. The 2017 contribution amount was an annual contribution not to exceed \$2,049.36, and required for every pay period in which the employee is enrolled in the DCR Plan, regardless of the compensation paid during the year. An amount less than \$2,049.36 would be deposited to a member's account if that member worked less than a full year.

**(2) Summary of Significant Accounting Policies**

*Basis of Accounting*

The accompanying financial statements have been prepared using the economic resources measurement focus and on the accrual basis of accounting in conformity with U.S. generally accepted accounting principles (GAAP), as prescribed by the Governmental Accounting Standards Board (GASB). Contributions are due to the System when employee services have been performed and paid. Contributions are recognized as revenues when due pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received or payment is made.

*Use of Estimates*

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

*Defined Benefit Pension and OPEB Investments*

The System owns shares in various investment pools that are administered by the State of Alaska, Department of Revenue, Division of Treasury (Treasury). The System's investment in the pools, except for the Short-term Fixed Income Pool, is reported at fair value based on the net asset value reported by the Treasury. The Short-term Fixed Income Pool maintains a share price of \$1. Each participant owns shares in the pool, the number of which fluctuates daily with contributions and withdrawals.

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***Defined Contribution Participant-directed Investments***

The Board contracts with an external investment manager, through the Treasury, who is given the authority to invest in a wholly owned pooled environment to accommodate 13 participant-directed funds. Additionally, the Board contracts with external managers who manage a mix of collective investment funds. Income for the Pooled Investment and Collective Investment Funds is credited to the fund's net asset value on a daily basis and allocated to pool participants daily on a pro rata basis.

Pooled Participant-directed Investment Funds, held in trust, are stated at fair value based on the unit value as reported by the Trustees multiplied by the number of units held by the Plan. The unit value is determined by the Trustees based on fair value of the underlying assets. Purchases and sales of securities are recorded on a trade-date basis. Underlying assets comprise domestic and international stocks, investment-grade bonds, federally guaranteed mortgages, money market instruments, and other cash equivalent instruments with maturities of less than one year, which include but are not limited to commercial paper, asset-backed securities, banker acceptances, certificates of deposit with ratings of A1/P1 or better as well as obligations of the U.S. government and its agencies, and repurchase agreements collateralized by U.S. Treasury instruments.

Collective Investment Funds, held in trust, are stated at fair value based on the unit value as reported by the Trustees multiplied by the number of units held by the Plan. The unit value is determined by the Trustees based on fair value of the underlying assets. Purchases and sales of securities are recorded on a trade-date basis. Underlying assets are comprised commingled investment funds, alongside other investors, through ownership of equity shares.

***Contributions Receivable***

Contributions from the System's members and employers for service through June 30 are accrued. These contributions are considered fully collectible, and accordingly, no allowance for uncollectible receivables is reflected in the financial statements.

***Administrative Costs***

Administrative costs are paid from investment earnings.

***Due from (to) State of Alaska General Fund***

Amounts due from (to) the State of Alaska General Fund represent the amounts paid by the System on behalf of others and amounts paid by others on behalf of the System.

***Federal Income Tax Status***

The DB Plan and DCR Plan are qualified plans under Sections 401(a) and 414(d) of the Internal Revenue Code and are exempt from federal income taxes under Section 501(a).

***New Accounting Pronouncements***

The System implemented the provisions of GASB No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* during the year ended June 30, 2017. GASB 74 replaces the

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requirements of Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended. GASB 74, requires the disclosures of the total OPEB liability, fiduciary net position, and net OPEB liability for single-employer and cost-sharing multiple-employer defined benefit postemployment healthcare plans. GASB Statement No. 74 also requires certain additional note disclosures for defined benefit postemployment healthcare plans, including the annual money-weighted rate of return on plan investments. GASB Statement No. 74 revised the reporting requirements for required supplementary information to include schedules, which provide trend information related to (1) changes in the net OPEB liability and related ratios, (2) the actuarially and contractually determined contributions of employer contributing entities, and (3) the annual money-weighted rate of return on plan investments.

**(3) Investments**

The Board is the investment oversight authority of the System's investments. As the fiduciary, the Board has the statutory authority to invest assets under the Prudent Investor Rule. Fiduciary responsibility for the Board's invested assets is pursuant to AS 37.10.210-390.

AS 37.10.071 provides that investments shall be made with the judgment and care under circumstances then prevailing that an institutional investor of ordinary professional prudence, discretion, and intelligence exercises in managing large investment portfolios.

Treasury provides staff for the Board. Treasury has created a pooled environment by which it manages investments of the Board. Additionally, Treasury manages a mix of Pooled Investment Funds and Collective Investment Funds for the DCR Participant Directed Pension Plans under the Board's fiduciary responsibility.

Actual investing is performed by investment officers in Treasury or by contracted external investment managers. The Board has developed investment guidelines, policies, and procedures for Treasury staff and external investment managers to adhere to when managing investments. Treasury manages the U.S. Treasury Fixed Income Pool, Dow Jones Dividend 100 Index Fund in the Alternative Equity Strategies Pool, Real Estate Investment Trust Pool, Treasury Inflation Protected Securities Pool, and cash holdings of certain external managers in addition to acting as oversight manager for all externally managed investments. All other investments are managed by external management companies.

The Short-term Fixed Income Pool is a State pool managed by Treasury that holds investments on behalf of the Board as well as other state funds.

***Rate of Return***

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The annual money-weighted rate of return, net of investment expense, for the year ended June 30, 2017 for the DB Plan is 12.99%, for the ARHCT is 12.69%, for the Occupational Death and Disability Plan is 11.97%, and for the Retiree Medical Plan is 11.93%.

For additional information on securities lending, interest rate risk, credit risk, foreign exchange, derivatives, fair value, and counterparty credit risk, see the separately issued report on the Invested Assets of the State

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of Alaska Retirement and Benefits Plans at <http://treasury.dor.alaska.gov/armb/Reports-and-Policies/Annual-Audited-Financial-Schedules.aspx>.

**(4) Net Pension Liability – Defined Benefit Pension Plan**

The components of the net pension liability of the participating employers at June 30, 2017, were as follows (in thousands):

Total pension liability	\$ 14,112,569
Plan fiduciary net position	<u>(8,943,127)</u>
Employers' net pension liability	\$ <u>5,169,442</u>
Plan fiduciary net position as a percentage of the total pension liability	63.37%

***Actuarial Assumptions***

The total pension liability was determined by an actuarial valuation as of June 30, 2016, using the following actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017:

Inflation	3.12%
Salary increases	Graded by service, from 9.66% to 4.92% for peace officer/firefighter
	Graded by age and service, from 8.55% to 4.34% for all others
Investment rate of return	8.00%, net of pension plan investment expenses. This is based on an average inflation rate of 3.12% and a real rate of return of 4.88%.

Pre-termination mortality rates were based upon the 2010–2013 actual mortality experience, 60% of male and 65% of female post-termination rates. Deaths are assumed to be occupational 70% of the time for peace officer/firefighters, 50% of the time for others. Post-termination mortality rates were based on 96% of all rates of the RP-2000 table, 2000 Base Year projected to 2018 with Projection Scale BB.

The actuarial assumptions used in the June 30, 2016 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2009 to June 30, 2013.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates

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of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2014 (see the discussion of the pension plan's investment policy) are summarized in the following table (note that the rates shown below exclude the inflation component):

Asset class	Long-term Expected real rate of return
Domestic equity	8.83%
Global ex-U.S. equity	7.79%
Intermediate Treasuries	1.29%
Opportunistic	4.76%
Real assets	4.94%
Absolute return	4.76%
Private equity	12.02%
Cash equivalents	0.63%

***Discount Rate***

The discount rate used to measure the total pension liability was 8%. The projection of cash flows used to determine the discount rate assumed that employer and State contributions will continue to follow the current funding policy, which meets State statutes. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability in accordance with the method prescribed by GASB Statement No. 67.

***Sensitivity of the Net Pension Liability to Changes in the Discount Rate***

The following presents the net pension liability of the System calculated using the discount rate of 8%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (7%) or one percentage point higher (9%) than the current rate (in thousands):

	<b>1% decrease (7%)</b>	<b>Current discount rate (8%)</b>	<b>1% increase (9%)</b>
<b>Net pension liability</b>	\$ 6,790,539	5,169,442	3,800,488

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**(5) Net OPEB Liability**

The components of the net OPEB (asset) liability of the participating employers for each plan at June 30, 2017, were as follows (in thousands):

	<b>ARHCT</b>	<b>ODD</b>	<b>RMP</b>
Total OPEB liability	\$ 8,183,709	12,560	86,697
Plan fiduciary net position	(7,338,952)	(26,749)	(81,482)
Employers' net OPEB liability (asset)	\$ 844,757	(14,189)	5,215
Plan fiduciary net position as a percentage of the total OPEB liability	89.68%	212.97%	93.98%

***Actuarial Assumptions***

The total OPEB liability for each plan was determined by actuarial valuations as of June 30, 2016, using the following actuarial assumptions, applied to all periods in the measurement, and rolled forward to the measurement date of June 30, 2017:

Inflation	3.12%
Salary increases	Graded by service, from 9.66% to 4.92% for peace officer/firefighter Graded by service, from 8.55% to 4.34% for all others
Investment rate of return	8.00%, net of postemployment healthcare plan investment expenses. This is based on an average inflation rate of 3.12% and a real rate of return of 4.88%.
Healthcare cost trend rates (ARHCT and RMP)	Pre-65 medical; 8.8% grading down to 4.4% Post-65 medical; 5.8% grading down to 4.0% Prescription drug; 5.4% grading down to 4.0%

Pre-termination mortality rates for each plan were based upon the 2010–2013 actual mortality experience, 60% of male and 65% of female post-termination rates. Deaths are assumed to be occupational 70% of the time for peace officer/firefighters, 50% of the time for all others. Post-termination mortality rate for each plan were based on 96% of all rates of the RP-2000 Combined Mortality Table, 2000 Base Year projected to 2018 with Projection Scale BB.

The actuarial assumptions used in the June 30, 2016 actuarial valuations were based on the results of an actuarial experience study for the period from July 1, 2009 to June 30, 2013.

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The long-term expected rate of return on plan investments for each plan was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of postretirement healthcare plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the plans' target asset allocation as of June 30, 2017 (see the discussion of the plans' investment policy) are summarized in the following table (note that the rates shown below exclude the inflation component):

<b>Asset class</b>	<b>Long-term Expected real rate of return</b>
Broad domestic equity	8.83%
Global ex-U.S. equity	7.79%
Intermediate Treasuries	1.29%
Opportunistic	4.76%
Real assets	4.94%
Absolute return	4.76%
Private equity	12.02%
Cash equivalents	0.63%

***Discount Rate***

The discount rate used to measure the total OPEB liability for each plan was 8%. The projection of cash flows used to determine the discount rate assumed that employer and State contributions will continue to follow the current funding policy, which meets State statutes. Based on those assumptions, the fiduciary net position for each plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability for each plan in accordance with the method prescribed by GASB Statement No. 74.

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***Sensitivity of the Net OPEB Liability to Changes in the Discount Rate***

The following presents the net OPEB liability (asset) for each plan as of June 30, 2017, calculated using the discount rate of 8%, as well as what the respective plan's net OPEB liability (asset) would be if it were calculated using a discount rate that is one-percentage-point lower (7%) or one-percentage-point higher (9%) than the current rate (in thousands):

	<b>1% decrease (7%)</b>	<b>Current discount rate (8%)</b>	<b>1% increase (9%)</b>
ARHCT	\$ 1,807,869	844,757	34,648
ODD	(12,809)	(14,189)	(15,317)
RMP	24,431	5,215	(9,790)

***Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates***

The following presents the net OPEB liability for each plan as of June 30, 2017, calculated using the healthcare cost trend rates as summarized in the 2016 actuarial valuation report, as well as what the respective for each plan's net OPEB liability would be if it were calculated using trend rates that are one-percentage-point lower or one-percentage-point higher than the current healthcare cost trend rates:

	<b>1% decrease</b>	<b>Current trend rate</b>	<b>1% increase</b>
ARHCT	\$ (93,707)	844,757	1,973,016
ODD	N/A	N/A	N/A
RMP	(12,909)	5,215	29,498

**(6) Claims Payable**

The liability for claims incurred but not reported represents the estimated amounts necessary to settle all outstanding claims, incurred but not reported, as of the balance sheet date. The ARHCT and Retiree Medical Plan's reserve estimates are based primarily on historical development patterns adjusted for current trends that would modify past experience. Claims are reevaluated periodically to consider the effects of inflation, claims settlement trends, and other economic factors. The process of establishing loss reserves is subject to uncertainties that are normal, recurring, and inherent in the healthcare business.

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Changes in the balances of claims liabilities are as follows (in thousands):

	<b>2017</b>	<b>2016</b>
Beginning of year:		
Outstanding warrants	\$ —	9,753
Incurred but not reported	45,313	46,147
	<hr/>	<hr/>
Total, beginning of year	45,313	55,900
Benefit deductions	406,189	401,233
Benefits paid	(408,496)	(411,820)
	<hr/>	<hr/>
Total, end of year	\$ 43,006	45,313
End of year:		
Incurred but not reported	43,006	45,313
	<hr/>	<hr/>
Total, end of year	\$ 43,006	45,313

**(7) Commitments and Contingencies**

***Contingencies***

The Division of Retirement and Benefits is a defendant in various lawsuits. Although the outcome of these lawsuits is not presently determinable, in the opinion of the Division of Retirement and Benefits' counsel, the resolution of these matters will not have a material adverse effect on the financial condition of the Division of Retirement and Benefits.

**(8) Medicare Part D Retiree Drug Subsidy**

One of the provisions of Medicare Part D provides sponsors of pension healthcare plans the opportunity to receive a RDS payment if the sponsor's plan provides a prescription drug benefit that is actuarially equivalent to the Medicare Part D benefit. The RDS is equal to 28% of the amount of eligible prescription drug benefit costs of retirees who are eligible for, but not enrolled in, Medicare Part D, by virtue of continuing to be covered by the sponsor's plan. The ARHCT was approved for participation in the Medicare Part D program beginning calendar year 2006.

**REQUIRED SUPPLEMENTARY INFORMATION**  
**(Unaudited)**

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Required Supplementary Information (Unaudited)

Schedule of Changes in Employer Net Pension Liability and Related Ratios – Defined Benefit Pension Plan

(In thousands)

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>Total pension liability:</b>						
Service cost	\$ 184,411	172,304	184,712	160,828	167,203	172,968
Interest	1,072,312	1,049,226	1,020,947	940,786	927,692	887,361
Differences between expected and actual experience	(184,252)	(118,947)	10,791	—	56,229	42,847
Changes of assumptions	—	—	541,390	—	—	—
Benefit payments, including refunds of member contributions	(777,187)	(742,174)	(696,542)	(651,917)	(634,187)	(593,279)
Net change in total pension liability	295,284	360,409	1,061,298	449,697	516,937	509,897
Total pension liability – beginning	<u>13,817,285</u>	<u>13,456,876</u>	<u>12,395,578</u>	<u>11,945,881</u>	<u>11,428,944</u>	<u>10,919,047</u>
Total pension liability – ending (a)	<u>14,112,569</u>	<u>13,817,285</u>	<u>13,456,876</u>	<u>12,395,578</u>	<u>11,945,881</u>	<u>11,428,944</u>
<b>Plan fiduciary net position:</b>						
Contributions – employer	263,597	235,360	226,136	206,204	179,976	182,695
Contributions – member	89,345	96,024	100,036	106,565	110,808	112,703
Contributions – nonemployer entity (State)	99,167	88,586	1,000,000	176,794	164,087	130,912
Total net investment (loss) income	1,048,006	(49,967)	253,311	1,207,484	738,656	1,650
Other income	38	240	36	49	28	35
Benefit payments, including refunds of member contributions	(777,187)	(742,175)	(696,542)	(651,917)	(610,247)	(570,883)
Administrative expenses	(7,526)	(7,243)	(7,553)	(8,223)	(7,120)	(6,743)
Net change in plan fiduciary net position	715,440	(379,175)	875,424	1,036,956	576,188	(149,631)
Plan fiduciary net position – beginning	<u>8,227,687</u>	<u>8,606,862</u>	<u>7,731,438</u>	<u>6,694,482</u>	<u>6,118,294</u>	<u>6,267,925</u>
Plan fiduciary net position – ending (b)	<u>8,943,127</u>	<u>8,227,687</u>	<u>8,606,862</u>	<u>7,731,438</u>	<u>6,694,482</u>	<u>6,118,294</u>
Plan's net pension liability (a) – (b)	<u>\$ 5,169,442</u>	<u>5,589,598</u>	<u>4,850,014</u>	<u>4,664,140</u>	<u>5,251,399</u>	<u>5,310,650</u>
Plan fiduciary net position as a percentage of the total pension liability	63.37%	59.55%	63.96%	62.37%	56.04%	53.53%
Covered-employee payroll	\$ 1,247,884	1,322,925	1,412,237	1,405,198	1,534,665	1,522,399
Net pension liability as a percentage of covered-employee payroll	414.26%	422.52%	346.43%	331.92%	342.19%	348.83%

This schedule is intended to present information for 10 years. Additional years will displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Required Supplementary Information (Unaudited)

Schedule of Employer and Nonemployer Contributions – Defined Benefit Pension Plan

Last 10 Fiscal Years

(In thousands)

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially determined contribution	\$ 368,766	566,615	529,264	358,718	382,889	351,674	220,419	217,080	166,016	140,729
Contributions in relation to the actuarially determined contribution	362,764	323,946	1,226,136	382,998	344,063	313,607	204,262	186,617	192,740	151,198
Contribution deficiency (excess)	\$ 6,002	242,669	(696,872)	(24,280)	38,826	38,067	16,157	30,463	(26,724)	(10,469)
Covered-employee payroll	\$ 1,247,884	1,322,925	1,412,237	1,405,198	1,534,665	1,522,399	1,559,938	1,586,697	1,585,490	1,577,846
Contributions as a percentage of covered-employee payroll	29.07%	24.49%	86.82%	27.26%	22.42%	20.60%	13.09%	11.76%	12.16%	9.58%

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Schedule of Investment Returns – Defined Benefit Pension Plan

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Annual money-weighted rate of return, net of investment expense	12.99%	(0.68)%	3.12%	18.43%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Schedule of Changes in Employer Net OPEB Liability and Related Ratios – Alaska Retiree Healthcare Trust Plan

Year ended June 30, 2017

(In thousands)

Total OPEB liability:	
Service cost	\$ 114,109
Interest	623,599
Differences between expected and actual experience	(28,042)
Benefit payments, including refunds of member contributions	<u>(405,872)</u>
Net change in total OPEB liability	303,794
Total OPEB liability – beginning	<u>7,879,915</u>
Total OPEB liability – ending (a)	<u>8,183,709</u>
Plan fiduciary net position:	
Contributions – employer	124,541
Total net investment (loss) income	859,980
Other income	43,009
Benefit payments, including refunds of member contributions	(405,872)
Administrative expenses	<u>(15,960)</u>
Net change in plan fiduciary net position	605,698
Plan fiduciary net position – beginning	<u>6,733,254</u>
Plan fiduciary net position – ending (b)	<u>7,338,952</u>
Plan's net OPEB liability (a) – (b)	<u>\$ 844,757</u>
Plan fiduciary net position as a percentage of the total OPEB liability	89.68%
Covered-employee payroll	\$ 1,247,884
Net OPEB liability as a percentage of covered-employee payroll	67.70%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the State of Alaska)

Required Supplementary Information (Unaudited)

Schedule of Employer and Nonemployer Contributions – Alaska Retiree Healthcare Trust Plan

Last 10 Fiscal Years

(In thousands)

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially determined contribution	\$ 133,845	790,824	782,258	783,827	612,792	498,433	525,075	790,793	391,321	370,456
Contributions in relation to the actuarially determined contribution	124,541	193,564	171,028	340,458	373,205	334,941	362,188	313,683	428,400	397,880
Contribution deficiency	\$ 9,304	597,260	611,230	443,369	239,587	163,492	162,887	477,110	(37,079)	(27,424)
Covered-employee payroll	\$ 1,247,884	1,322,925	1,412,237	1,405,198	1,534,665	1,522,399	1,559,938	1,586,697	1,585,490	1,577,846
Contributions as a percentage of covered-employee payroll	9.98%	14.63%	12.11%	24.23%	24.32%	22.00%	23.22%	19.77%	27.02%	25.22%

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Required Supplementary Information (Unaudited)

Schedule of Investment Returns – Alaska Retiree Healthcare Trust Plan

Year ended June 30, 2017

Annual money-weighted rate of return, net of investment expense	12.69%
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This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the State of Alaska)

Required Supplementary Information (Unaudited)

Schedule of Changes in Employer Net OPEB Liability and Related Ratios –  
Occupational Death and Disability Plan

Year ended June 30, 2017

(In thousands)

Total OPEB liability:		
Service cost	\$	3,419
Interest		977
Differences between expected and actual experience		(470)
Benefit payments, including refunds of member contributions		(313)
Net change in total OPEB liability		3,613
Total OPEB liability – beginning		8,947
Total OPEB liability – ending (a)		12,560
Plan fiduciary net position:		
Contributions – employer		2,196
Total net investment income		2,938
Benefit payments, including refunds of member contributions		(313)
Administrative expenses		(18)
Net change in plan fiduciary net position		4,803
Plan fiduciary net position – beginning		21,946
Plan fiduciary net position – ending (b)		26,749
Plan's net OPEB asset (a) – (b)	\$	(14,189)
Plan fiduciary net position as a percentage of the total OPEB asset		212.97%
Covered-employee payroll	\$	1,059,791
Net OPEB asset as a percentage of covered-employee payroll		(1.34)%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Required Supplementary Information (Unaudited)

Schedule of Employer and Nonemployer Contributions – Occupational Death and Disability Plan

Last 10 Fiscal Years

(In thousands)

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially determined contribution	\$ 2,226	2,601	2,337	2,080	1,328	1,085	1,852	1,495	1,787	1,063
Contributions in relation to the actuarially determined contribution	2,196	3,104	2,790	2,372	1,541	1,582	1,852	1,495	1,787	1,063
Contribution deficiency	\$ 30	(503)	(453)	(292)	(213)	(497)	—	—	—	—
Covered-employee payroll	\$ 1,059,791	867,000	778,980	678,840	590,380	558,760	459,521	421,187	314,118	203,955
Contributions as a percentage of covered-employee payroll	0.21%	0.36%	0.36%	0.35%	0.26%	0.28%	0.40%	0.35%	0.57%	0.52%

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

**STATE OF ALASKA  
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Required Supplementary Information (Unaudited)

Schedule of Investment Returns – Occupational Death and Disability Plan

Year ended June 30, 2017

Annual money-weighted rate of return, net of investment expense	11.97%
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This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
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Required Supplementary Information (Unaudited)

Schedule of Changes in Employer Net OPEB Liability and Related Ratios – Retiree Medical Plan

(In thousands)

Total OPEB liability:	
Service cost	\$ 10,394
Interest	6,425
Differences between expected and actual experience	<u>(46)</u>
Net change in total OPEB liability	16,773
Total OPEB liability – beginning	<u>69,924</u>
Total OPEB liability – ending (a)	<u>86,697</u>
Plan fiduciary net position:	
Contributions – employer	12,280
Total net investment income	8,506
Other income	1
Administrative expenses	<u>(12)</u>
Net change in plan fiduciary net position	20,775
Plan fiduciary net position – beginning	<u>60,707</u>
Plan fiduciary net position – ending (b)	<u>81,482</u>
Plan's net OPEB liability (a) – (b)	<u>\$ 5,215</u>
Plan fiduciary net position as a percentage of the total OPEB liability	93.98%
Covered-employee payroll	\$ 1,059,791
Net OPEB liability as a percentage of covered-employee payroll	0.49%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
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Required Supplementary Information (Unaudited)

Schedule of Employer and Nonemployer Contributions – Retiree Medical Plan

Last 10 Fiscal Years

(In thousands)

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially determined contribution	\$ 12,506	16,907	15,190	3,937	3,365	3,464	3,229	3,469	3,152	1,845
Contributions in relation to the actuarially determined contribution	12,280	16,184	14,552	3,708	3,195	2,850	2,527	3,031	2,667	1,561
Contribution deficiency	\$ 226	723	638	229	170	614	702	438	485	284
Covered-employee payroll	\$ 1,059,791	867,000	778,980	678,840	590,380	558,760	459,521	421,187	314,118	203,955
Contributions as a percentage of covered-employee payroll	1.16%	1.87%	1.87%	0.55%	0.54%	0.51%	0.55%	0.72%	0.85%	0.77%

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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Required Supplementary Information (Unaudited)

Schedule of Investment Returns – Retiree Medical Plan

Year ended June 30, 2017

Annual money-weighted rate of return, net of investment expense	11.93%
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This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

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June 30, 2017

**(1) Description of Schedule of Funding Progress**

Each time a new benefit is added, which applies to service already rendered, an “unfunded actuarial accrued liability” is created. Laws governing the Public Employees’ Retirement System (the System) require that these additional liabilities be financed systematically over a period of future years. Also, if actual financial experiences are less favorable than assumed financial experiences, the difference is added to the unfunded actuarial accrued liability.

In an inflationary economy, the value of the dollar is decreasing. This environment results in employee pay increasing in dollar amounts resulting in unfunded actuarial accrued liabilities increasing in dollar amounts, all at a time when the actual value of these items, in real terms, may be decreasing.

**(2) Actuarial Assumptions and Methods**

The actuarial valuation was prepared by Conduent. The significant actuarial methods and assumptions used in the defined benefit pension and postemployment healthcare benefit plan valuation as of June 30, 2016 are as follows:

- (a) Actuarial cost method – Entry Age Normal Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over a closed 25-year period (established June 30, 2014) as a level percentage of payroll amounts. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined.
- (b) Valuation of assets – The actuarial asset value was reinitialized to equal fair value of assets as of June 30, 2014. Beginning in 2015, the asset value method recognizes 20% of the gain or loss each year, for a period of five years. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements.
- (c) Valuation of medical benefits – Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods, such as medical claims, prescription drug claims, administrative costs, etc. Separate analysis is limited by the availability and historic credibility of cost and enrollment data for each component of cost. This valuation reflects nonprescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes. Analysis to date on Medicare Part A coverage is limited since Part A claim data is not available by individual, nor is this status incorporated into historical claim data.
- (d) Investment return – 8.00% per year (geometric), compounded annually, net of expenses.
- (e) Salary scale – Inflation 3.12% per year and productivity 0.50% per year.
- (f) Payroll growth – 3.62% per year (inflation + productivity).

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June 30, 2017

- (g) Total inflation – Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
- (h) Mortality (pre-termination) – Based upon 2010–2013 actual mortality experience, 60% of male rates and 65% of female rates of post-termination mortality rates. Deaths are assumed to be occupational 70% of the peace officer/firefighters, 50% of the time for others. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2014 with an actual deaths to expected deaths ratio of 109%.
- (i) Mortality (post-termination) – 96% of all rates of the RP-2000 table, 2000 Base Year projected to 2018 with Projection Scale BB. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2014 with an actual deaths to expected deaths ratio of 109%.
- (j) Total turnover – Based upon the 2010–2013 actual withdrawal experience.
- (k) Disability – Incidence rates based upon the 2010–2013 actual experience. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table, 2000 Base Year, projected to 2018 with Projection Scale BB. Disabilities are assumed to be occupational 70% of the time for peace officer/firefighters, 50% of the time for others.
- (l) Retirement – Retirement rates based on the 2010–2013 actual experience. Deferred vested members are assumed to retire at their earliest unreduced retirement date for others. For peace officer/firefighters, Tier 1 deferred vested members are assumed to retire at age 55 and Tiers 2 and 3 deferred vested members are assumed to retire at age 60. The modified cash refund annuity is valued as a three-year certain and life annuity.
- (m) Marriage and age difference – Wives are assumed to be three years younger than husbands. For others, 75% of male members and 70% of female members are assumed to be married. For peace officer/firefighters, 85% of male members and 60% of female members are assumed to be married.
- (n) Dependent children – Benefits to dependent children have been valued only for members currently covering their dependent children. These benefits are only valued through the dependent children's age 23 (unless the child is disabled).
- (o) Contribution refunds – For others, 10% of terminating members with vested benefits are assumed to have their contributions refunded. For peace officer/firefighters, 15% of terminating members with vested benefits are assumed to have their contributions refunded; 100% of those with nonvested benefits are assumed to have their contributions refunded.
- (p) Imputed data – Data changes from the prior year, which are deemed to have an immaterial impact on liabilities and contribution rates, are assumed to be correct in the current year's client data. Nonvested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated, with status based on their vesting percentage.

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June 30, 2017

- (q) Active rehire assumption – Starting with the June 30, 2016 valuation, the normal cost used for determining contribution rates and in the projections includes a rehire assumption to account for anticipated rehires. The normal cost shown in the report includes the following percentage assumptions (which were developed based on the prior five years of rehire loss experience): Pension – 14.23% and Healthcare – 17.24%.
- (r) Public employee active data adjustment – To reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated in the June 30 client data but active in the October 1 client records are updated to active status as of June 30, 2016.
- (s) Cost of Living Allowance (COLA) – Of those benefit recipients who are eligible for the COLA, 70% of others and 65% of peace officer/firefighters are assumed to remain in Alaska and receive the COLA.
- (t) Postretirement pension adjustment (PRPA) – 50% and 75% of assumed inflation, or 1.56% and 2.34%, respectively, is valued for the annual automatic PRPA as specified in the statute.
- (u) Expenses – The investment return assumption is net of all expenses.
- (v) Part-time status – Part-time employees are assumed to earn 1.00 years of credited service per year for peace officer/firefighters and 0.65 years of credited service per year for other members.
- (w) Final average earnings – Final average earnings is provided on the data for active members. This amount is used as a minimum in the calculation of the average earnings in the future.
- (x) Per capita claims cost – Sample claims cost rates adjusted to age 65 for FY17 medical and prescription drug benefits are shown below:

	<b>Medical</b>	<b>Prescription drugs</b>
Pre-Medicare	\$ 14,380	3,320
Medicare Parts A and B	1,707	3,320
Medicare Part B Only	8,562	3,320
Medicare Part D	N/A	614

- (y) Third-party administrator fees – \$206.88 per person per year; assumed trend rate of 5% per year.
- (z) Medicare Part B Only – For active employees and retirees not yet Medicare-eligible, participation is set based on whether the member/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or rehire.

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June 30, 2017

- (aa) Healthcare cost trend – The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 8.8% is applied to the FY17 pre-Medicare medical claims costs to get the FY17 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs
2017	8.8%	5.8%	5.4%
2018	8.2	5.7	5.1
2019	7.6	5.6	4.8
2020	7.0	5.6	4.6
2021	6.5	5.6	4.4
2022	6.0	5.6	4.2
2023	5.6	5.6	4.0
2026	5.6	5.6	4.0
2051	4.4	4.0	4.0
2101	4.4	4.0	4.0

For the June 30, 2014 valuations and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2014 and projects out to 2090. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State of Alaska.

- (bb) Aging factors:

Age	Medical	Prescription drugs
0–44	2.0%	4.5%
45–54	2.5	3.5
55–64	3.5	3.0
65–74	4.0	1.5
75–84	1.5	0.5
85–95	0.5	—
96+	—	—

Note that pre-65, the factor represents the amount to increase from the ages noted to the next age. However post-65, the factor represents the adjustment to get to the ages noted up to age in the range. That is, 2.5% is used to age from 54 to 55, but 1.5% is used to age from 83 to 84.

- (cc) Retired member contributions for medical benefits – Currently, contributions are required for System members who are under age 60 and have less than 30 years of service (25 for peace officers/firefighters). Eligible Tier 1 members are exempt from contribution requirements. Annual

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FY17 contributions based on monthly rates shown below for calendar 2016 and 2017 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in Tier 2 or Tier 3 who are assumed to retire prior to age 60 with less than 30 years of service and who are not disabled. For dependent children, 1/3 of the annual retiree contribution is used to estimate the per-child rate based upon the assumed number of children in rates where children are covered.

Coverage category	Calendar 2017 annual contribution	Calendar 2017 monthly contribution	Calendar 2016 monthly contribution
Retiree only	\$ 9,324	777	777
Retiree and spouse	18,648	1,554	1,554
Retiree and child(ren)	13,164	1,097	1,097
Retiree and family	22,500	1,875	1,875
Composite	13,848	1,154	1,154

- (dd) Trend rate for retired member contributions – The table below shows the rate used to project the retired member medical contributions from the shown fiscal year to the next fiscal year. For example, 6.2% is applied to the FY17 retired member medical contributions to get the FY18 retired member medical contributions.

Fiscal year	Trend Assumption
2017	6.2%
2018	5.8
2019	5.4
2020	5.0
2021	4.7
2022	4.4
2026	4.1
2051	4.0
2101	4.0

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2014 valuation. Note that actual FY17 retired member medical contributions are reflected in the valuation.

- (ee) Healthcare participation – 100% of System-paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible; 10% of non-System-paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

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June 30, 2017

The significant actuarial methods and assumptions used in the defined contribution occupational death and disability and retiree medical benefit plan valuation as of June 30, 2016 are as follows:

- (a) Actuarial cost method – Liabilities and contributions are computed using the Entry Age Normal Actuarial Cost Method. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with Governmental Accounting Standards Board (GASB) requirements in effect when the plan was adopted, the net amortization period will not exceed 30 years. These requirements are being amended. Under the new accounting standards that will become applicable to postemployment benefit plans other than pension plans (GASB Statement Nos. 74 and 75), the GASB requirements will not directly control amortization periods used for funding of the plan.
- (b) Valuation of assets – Recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method was phased in over five years. Fair value of assets were \$0 as of June 30, 2006. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements. Valuation assets are constrained to a range of 80% to 120% of fair value of assets.
- (c) Valuation of retiree medical and prescription drug benefits – Due to the lack of experience for the Defined Contribution Retirement (DCR) retiree medical plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2016 for PERS Defined Benefit (DB) retiree healthcare plan with some adjustments. The claim costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include network steering, different coverage levels, different Medicare coordination for medical benefits, and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles, and out-of-pocket limits, upcoming FY17 claims costs were reduced 3.1% for medical and 11.2% for prescription drugs. In addition, to account for the difference in Medicare coordination, upcoming FY17 medical claims costs for Medicare eligible retirees were further reduced 33.75%. The healthcare trend rate for the DB health benefits was reduced 0.2% each year for the DCR health benefits to reflect the fact that the retiree healthcare benefits to be offered to DCR members will have an annual indexing of member cost sharing features, such as deductibles and out-of-pocket amounts.

The State intends to transition to an Employer Group Waiver Program (EGWP) for this group in 2018. That impact is reflected in the valuation, but not in the base cost rates for 2016 or 2017. Conduent estimated the impact of the EGWP plan by offsetting an amount equal to 160% of the RDS amount (a one-time adjustment, trended at regular prescription drug thereafter) based upon the actuary's review of client and industry comparisons of subsidies under RDS and EGWP. A review of the 2016 Medicare Trustees report indicates varying rates of increase for CMS subsidies under both RDS and EGWP. The projections for the next ten years indicate that EGWP reimbursements for direct and reinsurance subsidies are expected to be consistently significantly higher than projected RDS reimbursements.

The estimate of the impact of the EGWP arrangement is a somewhat conservative estimate based on the actuary's experience with other similar implementations. EGWP subsidies are provided by three mechanisms: a capitation amount, a discount on brand name drugs, and catastrophic payment.

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The greatest variation in the actuary's estimate comes from the capitation amount, which is dependent upon the risk score of the population. The risk score is a measure of how sick (or well) the population is, depending on such matters as age and diagnosis. The higher the risk score, the larger the capitation. On the other hand, the healthier the population, the lower the capitation. Relatively small variations in risk score result in large swings in the capitation. Relatively small variations in risk score result in large swings in the capitation. Employer retiree groups tend to be healthier than the Medicare population as a whole. The actuary's 60% estimate is meant to be conservative and is based on typical employer groups.

- (d) Investment return – 8.00% per year (geometric), compounded annually, net of expenses.
- (e) Salary scale – Inflation 3.12% per year. Productivity 0.5% per year.
- (f) Payroll growth – 3.62% per year (inflation + productivity).
- (g) Total inflation – Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
- (h) Mortality (pre-termination) – Based upon 2010–2013 actual mortality experience, 60% of male rates and 65% of female rates of the post-termination mortality rates. Deaths are assumed to be occupational 70% of the time for peace officer/firefighters, 50% of the time for others. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2014 with an actual deaths to expected deaths ratio of 109%.
- (i) Mortality (post-termination) – Based upon 2010–2013 actual mortality experience, 96% of all rates of the RP-2000 table, 2000 Base Year, projected to 2018 with projection scale BB. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2014 with an actual deaths to expected deaths ratio of 109%.
- (j) Total turnover – Rates based upon the 2010–2013 actual experience.
- (k) Disability – Incidence rates based upon the 2010–2013 actual experience. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table, 2000 Base Year, projected to 2018 with Projection Scale BB. Disabilities are assumed to be occupational 70% of the time for peace officer/firefighters, 50% of the time for others. For peace officer/firefighters, members are assumed to take the monthly annuity 100% of the time.
- (l) Retirement – Retirement rates based upon the 2010–2013 actual experience.
- (m) Marriage and age difference – Wives are assumed to be three years younger than husbands. For others, 75% of male members and 70% of female members are assumed to be married. For peace officer/firefighters, 85% of male members and 75% of female members are assumed to be married at termination from active service.
- (n) Part-time status – Part-time employees are assumed to earn 1.00 years of credited service per year for peace officer/firefighters and 0.65 years of credited service per year for other members.

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- (o) Peace officer/firefighter occupational disability retirement benefit commencement – The occupational disability retirement benefit is assumed to be first payable from the member's DC account and the retirement benefit payable from the occupational death and disability trust will commence five years later.
- (p) Per capita claims cost – Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY17 medical and prescription drug benefits are shown below:

	<b>Medical</b>	<b>Prescription drugs</b>
Pre-Medicare	\$ 14,380	3,320
Medicare Parts A and B	1,707	3,320
Medicare Part B Only	8,562	3,320
Medicare Part D	N/A	614

Members are assumed to attain Medicare eligibility at age 65.

- (q) Third-party administrator fees – \$206.88 per person per year; assumed trend rate of 5% per year.
- (r) Base claims cost adjustments – Due to higher initial copays, deductibles, out-of-pocket limits, and member cost sharing compared to the DB medical plan, the following cost adjustments are applied to the per capita claims cost rates: 0.969 for the medical plan and 0.6625 for the medical Medicare coordination method, and 0.888 for the prescription drug plan.
- (s) Imputed data – Data changes from the prior year, which are deemed to have immaterial impact on liabilities and contribution rates, are assumed to be correct in the current year's client data. Nonvested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated with status based on their vesting percentage.
- (t) Active data adjustment – To reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated on the June 30 client data but active in the October 1 client records are updated to active status.

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- (u) Healthcare cost trend – The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 8.8% is applied to the FY17 pre-Medicare medical claims cost to get the FY18 medical claims costs:

<b>Fiscal year</b>	<b>Medical Pre-65</b>	<b>Medical Post-65</b>	<b>Prescription drugs</b>
2017	8.8%	5.8%	5.4%
2018	8.2	5.7	5.1
2019	7.6	5.6	4.8
2020	7.0	5.6	4.6
2021	6.5	5.6	4.4
2022	6.0	5.6	4.2
2023	5.6	5.6	4.0
2026	5.6	5.6	4.0
2051	4.4	4.0	4.0
2101	4.4	4.0	4.0

As of the June 30, 2014 valuation and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2014 and projects out to 2090. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State of Alaska.

Each of the above trend rates was reduced by 0.2% to reflect the fact that the medical benefit offered to members will have annual indexing of member cost sharing.

- (v) Aging factors:

<b>Age</b>	<b>Medical</b>	<b>Prescription drugs</b>
0–44	2.0%	4.5%
45–54	2.5	3.5
55–64	3.5	3.0
65–74	4.0	1.5
75–84	1.5	0.5
85–95	0.5	—
96+	—	—

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Notes to Required Supplementary Information (Unaudited)

June 30, 2017

(w) Retiree medical participation:

<b>Decrement due to disability</b>		<b>Decrement due to retirement</b>	
<b>Age</b>	<b>Percent participation</b>	<b>Age</b>	<b>Percent participation</b>
<56	73.00%	55	40.0%
56	77.50	56	50.0
57	79.75	57	55.0
58	82.00	58	60.0
59	84.25	59	65.0
60	86.50	60	70.0
61	88.75	61	75.0
62	91.00	62	80.0
63	93.25	63	85.0
64	95.50	64	90.0
65+	94.00	65+ <u>Years of service</u>	
		<15	70.5%
		15–19	75.2
		20–24	79.9
		25–29	89.3
		30+	94.0

Participation rates reflect the expected plan election rate that varies by reason for decrement, duration that a member may pay full cost prior to Medicare eligibility, and availability of alternative and/or lower-cost options, particularly in the Medicare market. This assumption is based on observed trends in participation from a range of other plans.

***Changes in Actuarial Assumptions, Methods, and Benefits Since the Prior Valuation***

**Defined benefit pension and postemployment healthcare benefit plan**

Starting with the June 30, 2016 valuation, the normal cost used for determining contribution rates and in the projections includes a rehire assumption to account for anticipated rehires. This assumption was developed based on five years of rehire loss experience through June 30, 2015. Healthcare claim costs are updated annually.

There have been no material changes in the asset or valuation methods since the prior valuation. Enhanced health plan enrollment data resulted in some offsetting cost increases and enrollment decreases. To reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated in the June 30 client data but active in the October 1 client records were updated to active status as of June 30, 2016.

There have been no changes in benefit provisions since the prior valuation.

**STATE OF ALASKA  
PUBLIC EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the State of Alaska)

Notes to Required Supplementary Information (Unaudited)

June 30, 2017

Defined contribution occupational death and disability and retiree medical benefits plan

There have been no changes in assumptions since the prior valuation. Healthcare claim costs are updated annually.

There have been no material changes in the asset or valuation methods since the prior valuation. To reflect participants who terminated employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated in the June 30 client data but active in the October 1 client records are updated to active status as of June 30, 2016

There have been changes in DCR medical benefit provisions since the prior valuation to reflect the adopted design as of July 2016.

## **SUPPLEMENTAL SCHEDULES**

**Schedule 1**

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the State of Alaska)

## Schedule of Administrative and Investment Deductions

Years ended June 30, 2017 and 2016

(In thousands)

	<u>Administrative</u>	<u>Investment</u>	<b>Totals</b>	
			<b>2017</b>	<b>2016</b>
Personal services:				
Wages	\$ 4,543	1,921	6,464	4,850
Benefits	2,197	847	3,044	2,865
Total personal services	<u>6,740</u>	<u>2,768</u>	<u>9,508</u>	<u>7,715</u>
Travel:				
Transportation	24	71	95	105
Per diem	4	12	16	19
Total travel	<u>28</u>	<u>83</u>	<u>111</u>	<u>124</u>
Contractual services:				
Management and consulting	15,432	5,026	20,458	46,699
Accounting and auditing	146	54	200	153
Data processing	1,428	733	2,161	2,048
Communications	72	38	110	154
Advertising and printing	56	2	58	57
Rentals/leases	357	60	417	457
Legal	523	49	572	411
Medical specialists	55	—	55	281
Repairs and maintenance	1	1	2	—
Transportation	85	3	88	87
Securities lending expense	—	177	177	—
Other professional services	<u>221</u>	<u>25</u>	<u>246</u>	<u>255</u>
Total contractual services	<u>18,376</u>	<u>6,168</u>	<u>24,544</u>	<u>50,602</u>
Patient Protection and Affordable Care Act				
Transitional Reinsurance Program	<u>724</u>	<u>—</u>	<u>724</u>	<u>873</u>
Total Patient Protection and Affordable Care Act	<u>724</u>	<u>—</u>	<u>724</u>	<u>873</u>
Other:				
Equipment	27	32	59	25
Supplies	40	62	102	74
Total other	<u>67</u>	<u>94</u>	<u>161</u>	<u>99</u>
Total administrative and investment deductions	\$ <u>25,935</u>	<u>9,113</u>	<u>35,048</u>	<u>59,413</u>

See accompanying independent auditors' report.

**Schedule 2**

**STATE OF ALASKA**  
**PUBLIC EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the State of Alaska)

Schedule of Payments to Consultants Other than Investment Advisors

Years ended June 30, 2017 and 2016

(In thousands)

<b>Firm</b>	<b>Services</b>	<b>2017</b>	<b>2016</b>
Conduent Human Resource Services	Actuarial services	\$ 460	\$ 577
KPMG LLP	Auditing services	132	122
State Street Bank and Trust	Custodial banking services	932	837
Alaska IT Group	Data processing services	382	321
Applied Microsystems Incorporated	Data processing services	355	453
Computer Task Group	Data processing services	—	52
Interactive Intelligence Group	Data processing services	27	25
International Business Machines	Data processing services	14	—
SHI International Corporation	Data processing services	423	385
Sungard Availability Services	Data processing services	26	—
State of Alaska, Department of Law	Legal services	558	365
The Segal Company Incorporated	Management consulting services	306	—
Maximus Incorporated	Management consulting services	19	—
First Medical Advisory Group	Medical specialist and consulting	24	—
Health Care Cost Management	Medical specialist and consulting	54	—
State of Alaska, Department of Health and Social Services	Medical specialist and consulting	—	281
		\$ 3,712	\$ 3,418

This schedule presents payments to consultants receiving greater than \$10,000.

See accompanying independent auditors' report.