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STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

Financial Statements and Supplemental Schedules

June 30, 2018
(With summarized financial information for June 30, 2017)

(With Independent Auditors' Report Thereon)

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

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KPMG LLP
Suite 600
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Anchorage, AK 99501

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, 2018, 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, 2018, and the changes in fiduciary net position for the year then ended, in accordance with U.S. generally accepted accounting principles.

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Other Matters

Prior-Year Comparative Information

We have previously audited the System's 2017 combining financial statements, and we expressed an unmodified opinion on those financial statements in our report dated December 5, 2017. In our opinion, the summarized comparative information presented herein as of and for the year then ended June 30, 2017 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, and schedules of investment returns on pages 34–45 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB, 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 59-60 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

November 21, 2018

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, 2018. 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, 2018.

Financial Highlights

The System's financial highlights as of June 30, 2018 were as follows:

- The System's fiduciary net position restricted for pension benefits, postemployment healthcare benefits, and individuals increased by $905 million during fiscal year 2018.
- The System's plan member and employer contributions increased by $7.6 million during fiscal year 2018 when compared to fiscal year 2017.
- The State of Alaska (the State) directly appropriated $72.7 million to the System during fiscal year 2018.
- The System's net investment income decreased $609.3 million when compared to fiscal year 2017 to $1,442.8 million during fiscal year 2018.
- The System's pension benefit expenditures totaled $801.1 million during fiscal year 2018.
- The System's postemployment healthcare benefit expenditures totaled $422.8 million in fiscal year 2018.

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, 2018.

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, 2018. 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, 2018 and the sources and uses of those funds during fiscal year 2018.

(Continued)

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.

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)

System net position

Description	2018	2017	Increase (decrease) Amount	Increase (decrease) Percentage	2016
Assets:					
Cash and cash equivalents	$ 202,947	470,579	(267,632)	(56.9)%	$ 148,228
Due from State of Alaska General Fund	20,257	19,338	919	4.8	19,922
Contributions receivable	24,461	24,497	(36)	(0.1)	27,733
Due from PERS occupational death and disability	—	2	(2)	(100.0)	2
Other accounts receivable	249	4,423	(4,174)	(94.4)	218
Investments at fair value	18,361,435	17,230,847	1,130,588	6.6	15,838,187
Other assets	982	982	—	—	2,108
Total assets	18,610,331	17,750,668	859,663	4.8	16,036,398
Liabilities:					
Accrued expenses	4,292	4,376	(84)	(1.9)	10,368
Claims payable	45,677	43,006	2,671	6.2	45,313
Forfeiture payable to employers	35,173	32,373	2,800	8.6	27,351
Securities lending collateral payable	62,648	112,258	(49,610)	(44.2)	—
Due to PERS DB Pension Fund	—	2	(2)	(100.0)	2
Due to State of Alaska General Fund	—	1,376	(1,376)	(100.0)	4,568
Total liabilities	147,790	193,391	(45,601)	(23.6)	87,602
Net position	$ 18,462,541	17,557,277	905,264	5.2%	$ 15,948,796

(Continued)

Condensed Financial Information Continued (in thousands)

Changes in system net position

Description	2018	2017	Increase (decrease) Amount	Increase (decrease) Percentage	2016
Net position, beginning of year	$ 17,557,277	15,948,796	1,608,481	10.1%	$ 16,415,343
Additions:					
Contributions – employers and plan members	666,256	658,675	7,581	1.2	660,834
Contributions – nonemployer State of Alaska	72,719	99,167	(26,448)	(26.7)	126,520
Net investment income (loss)	1,442,821	2,052,072	(609,251)	(29.7)	(86,770)
Other income	26,785	43,233	(16,448)	(38.0)	31,963
Total additions	2,208,581	2,853,147	(644,566)	(22.6)	732,547
Deductions:					
Pension and postemployment healthcare benefits	1,224,012	1,172,955	51,057	4.4	1,133,712
Refund of contributions	54,854	45,776	9,078	19.8	40,744
Administrative	24,451	25,935	(1,484)	(5.7)	24,638
Total deductions	1,303,317	1,244,666	58,651	4.7	1,199,094
Increase (decrease) in net position	905,264	1,608,481	(703,217)	(43.7)	(466,547)
Net position, end of year	$ 18,462,541	17,557,277	905,264	5.2%	$ 15,948,796

Financial Analysis of the System

The statements of fiduciary net position as of June 30, 2018 and 2017 show net position restricted for pension benefits, postemployment healthcare benefits, and individuals of $18,462,541,000, and $17,557,277,000, 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 $905,264,000, or 5.2%, from fiscal year 2017 to 2018 and individuals of $1,608,481,000, or 10.1%, from fiscal year 2016 to 2017. 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 30th Alaska State Legislature and as part of the State's Fiscal Year 2018 Operating Budget, House Bill 57 appropriated $72.6 million from the General Fund and the Alaska Higher Education Investment Fund to the Department of Administration for deposit in the Defined Benefit Pension and the Alaska Retiree Healthcare Trust (ARHCT) funds. Additionally, as part of the Fiscal Year 2019 Operating Budget, House Bill 286 appropriated $148 thousand from the General Fund to the Department of Administration for deposit in the Defined Benefit Pension and the ARHCT funds.

System Asset Allocation

During fiscal years 2018 and 2017, 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:

	2018	
	Pension and Healthcare Trust	
	Allocation	**Range**
Broad domestic equity	24.0%	± 6%
Global equity ex-U.S.	22.0	± 4
Fixed income	10.0	± 5
Opportunistic	10.0	± 5
Real assets	17.0	± 8
Absolute return	7.0	± 4
Private equity	9.0	± 5
Cash equivalents	1.0	+ 3/- 1
Total	100.0%	
Expected return 10-year geometric mean	6.60%	
Projected standard deviation	14.70	

	2017	
	Pension and Healthcare Trust	
	Allocation	**Range**
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	100.0%	
Expected return 10-year geometric mean	7.10%	
Projected standard deviation	15.00	

(Continued)

For fiscal years 2018 and 2017, the DB Plan's investments generated a 9.61% and 13.35% rate of return, respectively.

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:

	Additions				
			Increase (decrease)		
	2018	2017	Amount	Percentage	2016
			(in thousands)		
Contributions – plan members	$ 176,369	172,838	3,531	2.0%	$ 173,855
Contributions – employers	489,887	485,837	4,050	0.8	486,979
Contributions – nonemployer State of Alaska	72,719	99,167	(26,448)	(26.7)	126,520
Net investment income (loss)	1,442,821	2,052,072	(609,251)	(29.7)	(86,770)
Other income	26,785	43,233	(16,448)	(38.0)	31,963
Total	$ 2,208,581	2,853,147	(644,566)	(22.6)%	$ 732,547

The System's employer contributions increased from $485,837,000 in fiscal year 2017 to $489,887,000 in fiscal year 2018, an increase of $4,050,000, or 0.8%. 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%. Employer contributions increase or decrease in proportion to changes in the underlying salaries, which decreased 0.4% in fiscal year 2017, and increased 0.9% in fiscal year 2018.

The State provided $72,719,000 and $99,167,000 for fiscal years 2018 and 2017 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).

The System's net investment income in fiscal year 2018 decreased by $609,251,000, or 29.7%, from amounts recorded in fiscal year 2017. 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. Fiscal year 2018 saw rates of returns above the assumed rate of return. The investment returns received in fiscal year 2018 were lower than the returns seen in fiscal year 2017, causing a decrease in returns in comparison between 2018 and 2017. Over the long term, investment earnings play a significant role in funding plan benefits. The Board continues to look at investment classes and strategies best suited to meet the expected earnings returns to meet future benefit payments.

(Continued)

The System's investment rates of return at June 30 are as follows:

	Year ended		
	2018	**2017**	**2016**
System returns	9.61 %	13.35%	(0.36)%
Domestic equities	15.21	18.55	0.58
International equities	7.97	20.41	(9.15)
Private equity	26.65	17.04	4.71
Real assets	7.56	5.98	4.76
Absolute return	4.78	8.47	(3.09)
Fixed income	(0.71)	2.91	5.15
Opportunistic	5.64	—	—
Alternative equity	—	11.38	3.41
Cash equivalents	1.51	0.79	0.55
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:

	Deductions (in thousands)				
			Increase (decrease)		
	2018	**2017**	**Amount**	**Percentage**	**2016**
Pension benefits	$ 801,155	766,766	34,389	4.5%	$ 732,479
Postemployment benefits	422,857	406,189	16,668	4.1	401,233
Refunds of contributions	54,854	45,776	9,078	19.8	40,744
Administrative	24,451	25,935	(1,484)	(5.7)	24,638
Total	$ 1,303,317	1,244,666	58,651	4.7%	$ 1,199,094

The System's pension benefit payments in 2018 increased $34,389,000, or 4.5%, from fiscal year 2017 and increased $34,287,000, or 4.7%, from fiscal year 2016 to 2017. The increase in pension benefits in fiscal year 2018 is the result of a continued increase in the number of retirees.

The System's postemployment healthcare benefit payments in fiscal year 2018 increased $16,668,000, or 4.1%, from fiscal year 2017 and increased $4,956,000, or 1.2%, from fiscal year 2016 to 2017. 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 $9,078,000, or 19.8%, from fiscal year 2017 to 2018 and increased $5,032,000, or 12.4%, from fiscal year 2016 to 2017. The increase in refunds is primarily in the DCR Plan, where refunds increased $7,777,000 between fiscal year 2017 to 2018, and increased $4,645,000 from fiscal year 2016 to 2017. Increases in refunds are attributed to the refund of DCR member accounts. The reasons behind why members withdraw their account at termination are indeterminable. 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 2018 decreased $1,484,000, or 5.7%, from fiscal year 2017 and increased $1,297,000, or 5.3%, from fiscal year 2016 to 2017. The decrease in administrative costs in fiscal year 2018 is related to decreases in wages and benefits, partially offset by increases in management, consulting, and other professional services.

Net Pension Liability

Governmental Accounting Standards Board (GASB) Statement No. 67 requires the Defined Benefit (DB) Plan to report the Total Pension Liability, Fiduciary Net Position, and the Net Pension Liability. The Total Pension Liability represents the total obligation for the 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 Plan's Fiduciary Net Position represents the assets available to pay the 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 Plan. The difference between the Total Pension Liability and Fiduciary Net Position is the Net Pension Liability, or the unfunded portion of the Total Pension Liability.

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

		2018	2017
Total pension liability	$	14,275,702	14,112,569
Plan fiduciary net position		(9,306,675)	(8,943,127)
Employers' net pension liability	$	4,969,027	5,169,442
Plan fiduciary net position as a percentage of the total pension liability		65.19 %	63.37 %

Net OPEB (Asset) Liability

GASB Statement No. 74, implemented in 2017, requires the DB Other Postemployment Benefit (OPEB) Plans to report the Total OPEB Liability, Fiduciary Net Position, and Net OPEB Liability for each plan. The Total OPEB Liability represents the total obligation for the 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 Plan's Fiduciary Net Position represents the assets available to pay the 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 Plans. The difference between the Total OPEB Liability and Fiduciary Net Position is the Net OPEB Liability, or the unfunded or overfunded portion of the Total OPEB Liability.

The components of the net OPEB liability (asset) of the participating employers for the Plans as of June 30, 2018 were as follows (in thousands):

		Alaska Retiree Healthcare Trust Plan (ARHCT)	Occupational Death and Disability (ODD)	Retiree Medical Plan (RMP)
Total OPEB liability	$	8,638,289	11,383	112,740
Plan fiduciary net position		(7,612,001)	(30,805)	(100,015)
Employers' net OPEB liability (asset)	$	1,026,288	(19,422)	12,725
Plan fiduciary net position as a percentage of the total OPEB liability		88.12%	270.62%	88.71%

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

		Alaska Retiree Healthcare Trust Plan (ARHCT)	Occupational Death and Disability (ODD)	Retiree Medical Plan (RMP)
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%

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 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 2018, the 30th 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 as partial payment of the participating employers' contribution for fiscal year ending June 30, 2018. Additionally, as part of the Fiscal Year 2019 Operating Budget, House Bill (CCS HB) 286, Section 25 (a) appropriated $148 thousand from the General Fund to the Department of Administration for deposit in the Defined Benefit Pension fund. These appropriations to the fund are the difference between the statutory employer required contribution of 22.00% 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.

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

Fiscal year 2018 was a year of positive investment returns. Net investment income decreased from $2,052,072,000 in fiscal year 2017 to income of $1,442,821,000 in fiscal year 2018, a decrease of $609,251,000, or 29.70%. 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 9.61% at June 30, 2018. 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 26.14% in fiscal year 2017 to 25.01% in fiscal year 2018. The Board adopted the fiscal year 2018 actuarially determined contribution rate of 25.01%, which represented a decrease of 1.13%. The statutory employer effective contribution rate remained at 22.00% for fiscal years 2018 and 2017.

The June 30, 2017 and 2016 actuarial valuation reports for the DB Plan reported funding ratios based on valuation assets of 76.7% and 77.1%, respectively, as well as unfunded liabilities of $5.1 billion and $4.9 billion, respectively.

For fiscal years 2018 and 2017, 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 2018 and 2017 to be 0.43% and 0.49%, respectively, for peace officers/firefighters; and 0.16% and 0.17%, respectively, for all others. The DCR Plan retiree medical plan actuarially determined contribution rate was adopted by the Board for fiscal years 2018 and 2017 to be 1.03% and 1.18%, 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

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, 2018

(With summarized financial information for June 30, 2017)

(In thousands)

			Other Postemployment Benefit Plans					
	Defined Benefit Pension	**Defined Contribution Pension**	**Alaska Retiree Healthcare Trust**	**Occupational Death and Disability**	**Retiree Medical**	**Healthcare Reimbursement Arrangement**	**System total June 30, 2018**	**System total June 30, 2017**
Assets:								
Cash and cash equivalents (note 3):								
Short-term Fixed Income Pool	$ 57,479	38,989	39,037	198	664	2,364	138,731	351,011
Empower money market fund – non-participant directed	—	1,568	—	—	—	—	1,568	7,310
Securities lending collateral	33,386	—	27,535	109	352	1,266	62,648	112,258
Total cash and cash equivalents	90,865	40,557	66,572	307	1,016	3,630	202,947	470,579
Receivables:								
Contributions	23,295	565	385	7	45	164	24,461	24,497
Due from State of Alaska General Fund	4,752	7,283	4,677	155	807	2,583	20,257	19,338
Due from PERS Occupational Death and Disability Fund	—	—	—	—	—	—	—	2
Other accounts receivable	212	—	37	—	—	—	249	4,423
Total receivables	28,259	7,848	5,099	162	852	2,747	44,967	48,260
Investments (note 3), at fair value:								
Fixed income securities:								
U.S. Treasury Fixed Income Pool	841,582	—	694,743	2,778	8,987	32,266	1,580,356	1,272,518
International Fixed Income Pool	—	—	—	—	—	—	—	121,829
Emerging Markets Debt Pool	—	—	—	—	—	—	—	110,143
Total fixed income securities	841,582	—	694,743	2,778	8,987	32,266	1,580,356	1,504,490
Broad domestic equity:								
Large Cap Pool	1,825,223	—	1,507,805	6,029	19,505	70,027	3,428,589	3,541,085
Small Cap Pool	346,554	—	285,513	1,142	3,693	13,260	650,162	725,651
Total broad domestic equity	2,171,777	—	1,793,318	7,171	23,198	83,287	4,078,751	4,266,736
Global equity ex-US:								
International Equity Pool	1,578,835	—	1,303,121	5,211	16,857	60,521	2,964,545	3,189,667
International Equity Small Cap Pool	143,802	—	118,787	475	1,536	5,517	270,117	239,154
Emerging Markets Equity Pool	268,481	—	222,127	888	2,873	10,316	504,685	519,732
Total global equity ex-US	1,991,118	—	1,644,035	6,574	21,266	76,354	3,739,347	3,948,553
Opportunistic:								
Alternative Equity Pool	469,255	—	387,837	1,551	5,017	18,012	881,672	513,843
Opportunistic Fixed Income Pool	312,132	—	257,486	1,030	3,331	11,959	585,938	139,384
Other Opportunities Pool	119,819	—	98,842	395	1,279	4,591	224,926	148,243
Tactical Allocation Strategies Pool	110	—	90	—	1	4	205	427,540
Convertible Bond Pool	—	—	—	—	—	—	—	126,584
Total opportunistic	901,316	—	744,255	2,976	9,628	34,566	1,692,741	1,355,594
Private Equity Pool	856,856	—	707,495	2,829	9,152	32,858	1,609,190	1,406,810
Absolute Return Pool	687,999	—	568,072	2,272	7,348	26,383	1,292,074	1,057,959
Real assets:								
Real Estate Pools	585,788	—	483,721	1,934	6,257	22,466	1,100,166	953,798
Real Estate Investment Trust Pool	71,661	—	59,169	237	765	2,748	134,580	233,803
Infrastructure Private Pool	181,331	—	149,722	599	1,937	6,953	340,542	262,085
Infrastructure Public Pool	90,976	—	75,118	300	972	3,489	170,855	163,237
Master Limited Partnership Pool	357,928	—	295,536	1,182	3,823	13,726	672,195	332,711
Energy Pool	35,312	—	29,157	116	377	1,354	66,316	61,199
Farmland Pool	297,409	—	245,567	982	3,177	11,405	558,540	553,802
Timber Pool	131,381	—	108,480	434	1,403	5,038	246,736	232,457
Treasury Inflation Protected Securities Pool	20,066	—	16,568	66	215	769	37,684	36,739
Total real assets	1,771,852	—	1,463,038	5,850	18,926	67,948	3,327,614	2,829,831
Other investment funds:								
Pooled investment funds	—	638,110	—	—	—	—	638,110	494,657
Collective investment funds	—	403,252	—	—	—	—	403,252	366,217
Total other investment funds	—	1,041,362	—	—	—	—	1,041,362	860,874
Total investments	9,222,500	1,041,362	7,614,956	30,450	98,505	353,662	18,361,435	17,230,847
Other assets	15	—	967	—	—	—	982	982
Total assets	9,341,639	1,089,767	7,687,594	30,919	100,373	360,039	18,610,331	17,750,668
Liabilities:								
Accrued expenses	1,578	300	2,381	5	6	22	4,292	4,376
Claims payable (note 6)	—	—	45,677	—	—	—	45,677	43,006
Forfeitures payable to employers	—	35,173	—	—	—	—	35,173	32,373
Securities lending collateral payable	33,386	—	27,535	109	352	1,266	62,648	112,258
Due to State of Alaska General Fund	—	—	—	—	—	—	—	1,376
Due to PERS Defined Benefit Pension Fund	—	—	—	—	—	—	—	2
Total liabilities	34,964	35,473	75,593	114	358	1,288	147,790	193,391
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals	$ 9,306,675	1,054,294	7,612,001	30,805	100,015	358,751	18,462,541	17,557,277

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, 2018
(With summarized financial information for June 30, 2017)

(In thousands)

	Defined Benefit Pension	Defined Contribution Pension	Other Postemployment Benefit Plans: Alaska Retiree Healthcare Trust	Other Postemployment Benefit Plans: Occupational Death and Disability	Other Postemployment Benefit Plans: Retiree Medical	Other Postemployment Benefit Plans: Healthcare Reimbursement Arrangement	System total June 30, 2018	System total June 30, 2017
Additions:								
Contributions:								
Employers	$ 299,665	51,424	85,731	2,215	11,657	39,195	489,887	485,837
Plan members	84,956	91,413	—	—	—	—	176,369	172,838
Nonemployer State of Alaska	72,719	—	—	—	—	—	72,719	99,167
Total contributions	457,340	142,837	85,731	2,215	11,657	39,195	738,975	757,842
Investment income:								
Net appreciation in fair value (note 2)	574,033	85,296	472,891	1,756	5,418	19,555	1,158,949	1,784,394
Interest	32,194	125	26,535	100	313	1,127	60,394	58,957
Dividends	122,721	—	101,925	388	1,219	4,392	230,645	216,952
Total investment income	728,948	85,421	601,351	2,244	6,950	25,074	1,449,988	2,060,303
Less investment expense	4,724	362	3,902	14	42	155	9,199	8,936
Net investment income before securities lending activities	724,224	85,059	597,449	2,230	6,908	24,919	1,440,789	2,051,367
Securities lending income	1,329	—	1,095	4	13	47	2,488	882
Less securities lending expense	243	—	201	1	2	9	456	177
Net income from securities lending activities	1,086	—	894	3	11	38	2,032	705
Net investment income	725,310	85,059	598,343	2,233	6,919	24,957	1,442,821	2,052,072
Other income	25	420	26,338	—	2	—	26,785	43,233
Total additions	1,182,675	228,316	710,412	4,448	18,578	64,152	2,208,581	2,853,147
Deductions:								
Pension and postemployment benefits	801,155	—	422,378	392	41	46	1,224,012	1,172,955
Refunds of contributions	11,722	43,132	—	—	—	—	54,854	45,776
Administrative	6,250	3,211	14,985	—	4	1	24,451	25,935
Total deductions	819,127	46,343	437,363	392	45	47	1,303,317	1,244,666
Net increase	363,548	181,973	273,049	4,056	18,533	64,105	905,264	1,608,481
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals:								
Balance, beginning of year	8,943,127	872,321	7,338,952	26,749	81,482	294,646	17,557,277	15,948,796
Balance, end of year	$ 9,306,675	1,054,294	7,612,001	30,805	100,015	358,751	18,462,541	17,557,277

See accompanying notes to financial statements.

(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 administered by the Division of Retirement and Benefits within the Department of Administration. The Alaska Retirement Management Board (the Board), is responsible for overseeing the management and investment of the system. The Board 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:

Plan name	Type of plan
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, 2018, the number of participating local government employers and public organizations, including the State, was as follows:

	Defined Benefit Pension	Defined Contribution Pension	OPEB plans
State of Alaska	1	1	1
Municipalities	74	76	76
School districts	53	53	53
Other	27	27	27
Total employers	155	157	157

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.

Defined Benefit Pension Plan

(a) 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 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, 2018:

Inactive plan members or beneficiaries currently receiving benefits	35,139
Inactive plan members entitled to but not yet receiving benefits	5,606
Inactive plan members not entitled to benefits	11,128
Active plan members	13,611
Total DB Plan membership	65,484

(b) 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 2.00% 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 2.50% 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 2.00% of the member's average monthly compensation and 2.50% 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.

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.

(c) 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 7.50% for peace officers and firefighters, 9.60% for some school district employees, and 6.75% for general DB Plan members, as required by statute. The statutory employer effective rate is 22.00% of annual payroll, which is allocated 17.12% to the DB Pension Plan and 4.88% to the DB ARHCT Plan as determined by the actuary of the Plan. 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 effective 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.

(d) 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 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 7.00% per annum, compounded semiannually.

Defined Contribution Retirement Pension Plan

(a) 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, 2018, membership in the DCR Plan consisted of 1,905 peace officer and firefighter members and 18,906 other members.

(b) 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.

(c) Contributions

State statutes require an 8.00% contribution rate for DCR Plan members. Employers are required to contribute 5.00% of the member's compensation.

(d) 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.

(e) 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.

Defined Benefit Other Postemployment Benefit Plans

(a) 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, 2018:

Inactive plan members or beneficiaries currently receiving benefits	35,139
Inactive plan members entitled to but not yet receiving benefits	5,606
Inactive plan members not entitled to benefits	11,128
Active plan members	13,611
Total ARHCT Plan membership	65,484

(i) OPEB Benefits

Major medical benefits, to cover medical expenses, 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 5 years of credited service (or 10 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 5 and 10 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.

(Continued)

(ii) Contributions

Employer contribution rates are actuarially determined and adopted by the Board. The 2018 statutory employer effective contribution rate is 22.00% of member's compensation, with 4.88% specifically allocated to ARHCT.

(b) Occupational Death and Disability Plan

The Occupational Death and Disability Plan (ODD) 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, 2018:

Active plan members	20,811
Participating employers	157
Open claims	29

(i) 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).

(Continued)

The monthly survivor's pension benefit 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.

(ii) *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.

(iii) *Contributions*

An employer shall contribute to each member's account based on the member's compensation. For fiscal year 2018, the rates are 0.43% for occupational death and disability for peace officers and firefighters and 0.16% for occupational death and disability all other members.

(c) 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, 2018:

Inactive plan members or beneficiaries currently receiving benefits	11
Inactive plan members entitled to but not yet receiving benefits	1,183
Inactive plan members not entitled to benefits	11,896
Active plan members	20,811
Total RMP Plan membership	33,901

(i) 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, to cover medical expenses, 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 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 account until the account balance becomes insufficient to pay the premiums, at this time 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:

(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.

(Continued)

(ii) Contributions

Employer contribution rates are actuarially determined and adopted by the Board. The 2018 employer effective contribution rate is 1.03% of member's compensation.

Defined Contribution Other Postemployment Benefit Plan

(a) General

The Health Reimbursement Arrangement (HRA) 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, 2018:

Inactive plan members or beneficiaries currently receiving benefits	19
Inactive plan members entitled to but not yet receiving benefits	1,175
Inactive plan members not entitled to benefits	11,896
Active plan members	20,811
Total HRA Plan membership	33,901

(b) 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.

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.

(c) Contributions

An employer shall contribute to the HRA Plan trust fund an amount equal to 3.00% 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 2018 contribution amount was an annual contribution not to exceed $2,084, 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 $2,084 would be deposited to a member's account if that member worked less than a full year.

(2) Summary of Significant Accounting Policies

(a) 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 revenue 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.

(b) 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.

(c) 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.

(d) 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.

(Continued)

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 comprised commingled investment funds, alongside other investors, through ownership of equity shares.

(e) Contributions Receivable

Contributions from the System's members and employers applicable to payrolls received through July for wages paid 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.

(f) Administrative Costs

Administrative costs are paid from investment earnings.

(g) 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.

(h) 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).

(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, Real Estate Investment Trust Pool, Treasury Inflation Protected Securities Pool, 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, 2018 for the DB Plan is 8.26%, for the ARHCT is 8.35%, for the Occupational Death and Disability Plan is 8.06%, and for the Retiree Medical Plan is 7.89%.

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 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, 2018 were as follows (in thousands):

Total pension liability	$	14,275,702
Plan fiduciary net position		(9,306,675)
Employers' net pension liability	$	4,969,027
Plan fiduciary net position as a percentage of the total pension liability		65.19%

(a) Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2017, using the following actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018:

Inflation	3.12%
Salary increases	For peace officer/firefighter, increases range from 9.66% to 4.92% based on service. For all others, increase range from 8.55% to 4.34% based on age and service.
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 return of 4.88%.
Mortality	Posttermination mortality rates were based on 2010-2013 actual mortality experience, 60% of male and 65% of female posttermination rates. Deaths are assumed to be occupational causes 70% of the time for peace officer/firefighter, 50% of the time for all others. Posttermination 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, 2017 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2009 to June 30, 2013. The assumptions used in the June 30, 2017 actuarial valuation are the same as those used in the June 30, 2016 actuarial valuation.

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 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 pension plan's target asset allocation as of June 30, 2018 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	Allocation	Range
Domestic equity	8.90%	24.0% %	+/- 6%
Global ex-U.S. equity	7.85	22.0	+/- 4
Fixed Income	1.25	10.0	+/- 5
Opportunistic	4.76	10.0	+/- 5
Real assets	6.20	17.0	+/- 8
Absolute return	4.76	7.0	+/- 4
Private equity	12.08	9.0	+/- 5
Cash equivalents	0.66	1.0	+3/-1

(b) Discount Rate

The discount rate used to measure the total pension liability was 8.00%. 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 the event benefit payments are not covered by the plan's fiduciary net position, a municipal bond rate would be used to discount the benefit payments not covered by the plan's fiduciary net position. The S&P Municipal Bond 20-Year High Grade Index rate was 2.98% as of June 30, 2018.

(Continued)

(c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System, as of June 30, 2018, calculated using the discount rate of 8.00%, 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 or one percentage point higher than the current rate (in thousands):

	1.00% decrease (7.00%)	Current discount rate (8.00%)	1.00% increase (9.00%)
Net pension liability	$ 6,580,245	4,969,027	3,606,131

(5) Net OPEB Liability (Asset)

The components of the net OPEB liability (asset) of the participating employers for each plan at June 30, 2018 were as follows (in thousands):

	ARHCT	ODD	RMP
Total OPEB liability	$ 8,638,289	11,383	112,740
Plan fiduciary net position	(7,612,001)	(30,805)	(100,015)
Employers' net OPEB (asset) liability	$ 1,026,288	(19,422)	12,725
Plan fiduciary net position as a percentage of the total OPEB liability	88.12%	270.62%	88.71%

(a) Actuarial Assumptions

The total OPEB liability for each plan was determined by actuarial valuations as of June 30, 2017, using the following actuarial assumptions, applied to all periods in the measurement, and rolled forward to the measurement date of June 30, 2018:

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 Other
Investment rate of return	8.00%, net of postretirement healthcare plan investment expenses. This is based on an average inflation rate of 3.12% and a real return of 4.88%.
Healthcare cost trend rates (ARHCT and RMP)	Pre-65 medical: 8.0% grading down to 4.0% Post-65 medical: 5.5% grading down to 4.0% Prescription drug: 9.0% grading down to 4.0% RDS/EGWP: 6.5% grading down to 4.0%
Mortality	Pre-termination mortality rates were based on 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 rates were based on 96% of all rates of the RP-2000 table, 2000 Base Year projected to 2018 with Projection Scale BB.
Participation (ARHCT)	100% system paid of members and their spouses are assumed to elect the healthcare benefits as soon as they are eligible 10% of non-system paid members and their spouses are assuemd to elect the healthcare benefits as soon as they are eligible.

(Continued)

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. The following participation rates were used to measure the net OPEB liability of the Retiree Medical Plan:

Decrement due to disability		Decrement due to retirement		
Age	**Percent participation**	**Age**	**Percent participation**	
<56	73.00 %	55		40.00 %
56	77.50	56		50.00
57	79.75	57		55.00
58	82.00	58		60.00
59	84.25	59		65.00
60	86.50	60		70.00
61	88.75	61		75.00
62	91.00	62		80.00
63	93.25	63		85.00
64	95.50	64		90.00
65+	94.40	65+	**Years of service**	
			<15	70.50 %
			15-19	75.20
			20-24	79.90
			25-29	89.30
			30+	94.00

The actuarial assumptions used in the June 30, 2017 actuarial valuations were based on the results of an actuarial experience study for the period from July 1, 2009 to June 30, 2013. The assumptions used in the June 30, 2017 actuarial valuation are the same as those used in the June 30, 2016 valuation with the following exceptions:

1. The medical trend rate assumption was updated to reflect anticipated increases in costs based on recent survey data.

2. An obligation for the Cadillac Tax was added to the June 30, 2017 valuation because it was no longer deemed immaterial due to the updated trend rates and the change to use chained Consumer Price Index (which was part of the Tax Cut and Jobs Act passed in December 2017) to project the tax thresholds in future years.

3. Per capita claims costs were updated reflecting recent experience.

The long-term expected rate of return on postretirement healthcare 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, 2018 (see the discussion of the plans' 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	Allocation	Range
Domestic equity	8.90%	24.0% %	+/- 6%
Global ex-U.S. equity	7.85	22.0	+/- 4
Fixed Income	1.25	10.0	+/- 5
Opportunistic	4.76	10.0	+/- 5
Real assets	6.20	17.0	+/- 8
Absolute return	4.76	7.0	+/- 4
Private equity	12.08	9.0	+/- 5
Cash equivalents	0.66	1.0	+3/-1

(b) Discount Rate

The discount rate used to measure the total OPEB liability for each plan was 8.00%. 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 the event benefit payments are not covered by the plan's fiduciary net position, a municipal bond rate would be used to discount the benefit payments not covered by the plan's fiduciary net position. The S&P Municipal Bond 20-Year High Grade Index rate was 2.98% as of June 30, 2018. The corresponding rate was 3.13% as of June 30, 2017.

(c) *Sensitivity of the Net OPEB Liability (Asset) to Changes in the Discount Rate*

The following presents the net OPEB (asset) liability for each plan as of June 30, 2018, calculated using the discount rate of 8.00%, as well as what the respective plan's net OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate (in thousands):

	1.00% decrease (7.00%)	Current discount rate (8.00%)	1.00% increase (9.00%)
ARHCT	$ 2,077,719	1,026,288	144,974
ODD	(18,238)	(19,422)	(20,396)
RMP	38,000	12,725	(6,989)

(d) *Sensitivity of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trend Rates*

The following presents the net OPEB liability (asset) for each plan as of June 30, 2018, calculated using the healthcare cost trend rates as summarized in the 2017 actuarial valuation report, as well as what the respective for each plan's net OPEB liability (asset) 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:

	1.00% decrease	Current healthcare cost trend rate	1.00% increase
ARHCT	$ 19,922	1,026,288	2,238,554
ODD	N/A	N/A	N/A
RMP	(10,819)	12,725	44,234

(6) Claims Payable

The liability for claims incurred but not reported represents the estimated amount 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.

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

		2018
Total, beginning of year	$	43,006
Benefit deductions		422,419
Benefits paid		(419,748)
Total, end of year	$	45,677
End of year:		
Incurred but not reported		45,677
Total, end of year	$	45,677

(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 (RDS)

One of the provisions of Medicare Part D provides sponsors of pension healthcare plans the opportunity to receive a Retiree Drug Subsidy (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)

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 Pension Liability and Related Ratios – Defined Benefit Pension Plan

(In thousands)

	2018	2017	2016	2015	2014	2013	2012
Total pension liability:							
Service cost	$ 170,816	184,411	172,304	184,712	160,828	167,203	172,968
Interest	1,108,068	1,072,312	1,049,226	1,020,947	940,786	927,692	887,361
Differences between expected and actual experience	(302,874)	(184,252)	(118,947)	10,791	—	56,229	42,847
Changes of assumptions	—	—	—	541,390	—	—	—
Benefit payments, including refunds of member contributions	(812,877)	(777,187)	(742,174)	(696,542)	(651,917)	(634,187)	(593,279)
Net change in total pension liability	163,133	295,284	360,409	1,061,298	449,697	516,937	509,897
Total pension liability – beginning	14,112,569	13,817,285	13,456,876	12,395,578	11,945,881	11,428,944	10,919,047
Total pension liability – ending (a)	14,275,702	14,112,569	13,817,285	13,456,876	12,395,578	11,945,881	11,428,944
Plan fiduciary net position:							
Contributions – employer	299,665	263,597	235,360	226,136	206,204	179,976	182,695
Contributions – member	84,956	89,345	96,024	100,036	106,565	110,808	112,703
Contributions – nonemployer entity (State)	72,719	99,167	88,586	1,000,000	176,794	164,087	130,912
Total net investment (loss) income	725,310	1,048,006	(49,967)	253,311	1,207,484	738,656	1,650
Benefit payments, including refunds of member contributions	(812,877)	(777,187)	(742,175)	(696,542)	(651,917)	(610,247)	(570,883)
Administrative expenses	(6,250)	(7,526)	(7,243)	(7,553)	(8,223)	(7,120)	(6,743)
Other income	25	38	240	36	49	28	35
Net change in plan fiduciary net position	363,548	715,440	(379,175)	875,424	1,036,956	576,188	(149,631)
Plan fiduciary net position – beginning	8,943,127	8,227,687	8,606,862	7,731,438	6,694,482	6,118,294	6,267,925
Plan fiduciary net position – ending (b)	9,306,675	8,943,127	8,227,687	8,606,862	7,731,438	6,694,482	6,118,294
Plan's net pension liability (a) – (b)	$ 4,969,027	5,169,442	5,589,598	4,850,014	4,664,140	5,251,399	5,310,650
Plan fiduciary net position as a percentage of the of the total pension liability	65.19 %	63.37 %	59.55 %	63.96 %	62.37 %	56.04 %	53.53 %
Covered-employee payroll	$ 1,159,599	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	428.51 %	414.26 %	422.52 %	343.43 %	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.

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 – Defined Benefit Pension Plan

Last 10 Fiscal Years

(In thousands)

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	$	395,663	368,766	566,615	529,264	358,718	382,889	351,674	220,419	217,080	166,016
Contributions in relation to the actuarially determined contribution		372,383	362,764	323,946	1,226,136	382,998	344,063	313,607	204,262	186,617	192,740
Contribution deficiency (excess)	$	23,280	6,002	242,669	(696,872)	(24,280)	38,826	38,067	16,157	30,463	(26,724)
Covered-employee payroll	$	1,159,599	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
Contributions as a percentage of covered-employee payroll		32.11 %	29.07 %	24.49 %	86.82 %	27.26 %	22.42 %	20.60 %	13.09 %	11.76 %	12.16 %

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 Investment Returns – Defined Benefit Pension Plan

	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	8.26 %	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.

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 – Alaska Retiree Healthcare Trust Plan

(In thousands)

		2018	2017
Total OPEB liability:			
Service cost	$	110,333	114,109
Interest		647,310	623,599
Differences between expected and actual experience		(149,287)	(28,042)
Changes of assumptions		259,497	—
Benefit payments, including refunds of member contributions		(413,273)	(405,872)
Net change in total OPEB liability		454,580	303,794
Total OPEB liability – beginning		8,183,709	7,879,915
Total OPEB liability – ending (a)		8,638,289	8,183,709
Plan fiduciary net position:			
Contributions – employer		85,731	124,541
Contributions – Retiree Drug Subsidy		5,965	—
Total net investment income		598,342	859,980
Benefit payments, including refunds of member contributions		(413,273)	(405,872)
Administrative expenses		(3,822)	(15,960)
Other income		106	43,009
Net change in plan fiduciary net position		273,049	605,698
Plan fiduciary net position – beginning		7,338,952	6,733,254
Plan fiduciary net position – ending (b)		7,612,001	7,338,952
Plan's net OPEB liability (a) – (b)	$	1,026,288	844,757
Plan fiduciary net position as a percentage of the total OPEB liability		88.12%	89.68%
Covered-employee payroll	$	1,159,599	1,247,884
Net OPEB liability as a percentage of covered-employee payroll		88.50%	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)

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	$	71,251	133,845	790,824	782,258	783,827	612,792	498,433	525,075	790,793	391,321
Contributions in relation to the actuarially determined contribution		85,731	124,541	193,564	171,028	340,458	373,205	334,941	362,188	313,683	428,400
Contribution deficiency	$	(14,480)	9,304	597,260	611,230	443,369	239,587	163,492	162,887	477,110	(37,079)
Covered-employee payroll	$	1,159,599	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
Contributions as a percentage of covered-employee payroll		7.39 %	9.98 %	14.63 %	12.11 %	24.23 %	24.32 %	22.00 %	23.22 %	19.77 %	27.02 %

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 Investment Returns – Alaska Retiree Healthcare Trust Plan

	2018	**2017**
Annual money-weighted rate of return, net of investment expense	8.35 %	12.69 %

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

(In thousands)

		2018	2017
Total OPEB liability:			
Service cost	$	3,565	3,419
Interest		1,275	977
Differences between expected and actual experience		(5,625)	(470)
Benefit payments, including refunds of member contributions		(392)	(313)
Net change in total OPEB liability		(1,177)	3,613
Total OPEB liability – beginning		12,560	8,947
Total OPEB liability – ending (a)		11,383	12,560
Plan fiduciary net position:			
Contributions – employer		2,215	2,196
Total net investment income		2,233	2,938
Benefit payments, including refunds of member contributions		(392)	(313)
Administrative expenses		—	(18)
Net change in plan fiduciary net position		4,056	4,803
Plan fiduciary net position – beginning		26,749	21,946
Plan fiduciary net position – ending (b)		30,805	26,749
Plan's net OPEB asset (a) – (b)	$	(19,422)	(14,189)
Plan fiduciary net position as a percentage of the total OPEB liability		270.62 %	212.97 %
Covered-employee payroll	$	1,131,411	1,059,791
Net OPEB asset as a percentage of covered-employee payroll		(1.72)%	(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.

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 – Occupational Death and Disability Plan

Last 10 Fiscal Years

(In thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	$ 2,190	2,226	2,601	2,337	2,080	1,328	1,085	1,852	1,495	1,787
Contributions in relation to the actuarially determined contribution	2,215	2,196	3,104	2,790	2,372	1,541	1,582	1,852	1,495	1,787
Contribution deficiency	$ (25)	30	(503)	(453)	(292)	(213)	(497)	—	—	—
Covered-employee payroll	$ 1,131,441	1,059,791	867,000	778,980	678,840	590,380	558,760	459,521	421,187	314,118
Contributions as a percentage of covered-employee payroll	0.20 %	0.21 %	0.36 %	0.36 %	0.35 %	0.26 %	0.28 %	0.40 %	0.35 %	0.57 %

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 Investment Returns – Occupational Death and Disability Plan

	2018	2017
Annual money-weighted rate of return, net of investment expense	8.06 %	11.97 %

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 – Retiree Medical Plan

(In thousands)

		2018	2017
Total OPEB liability:			
Service cost	$	12,269	10,394
Interest		7,916	6,425
Differences between expected and actual experience		(724)	(46)
Change of assumptions		6,623	—
Benefit payments		(41)	—
Net change in total OPEB liability		26,043	16,773
Total OPEB liability – beginning		86,697	69,924
Total OPEB liability – ending (a)		112,740	86,697
Plan fiduciary net position:			
Contributions – employer		11,657	12,280
Total net investment income		6,919	8,506
Other income (expense)		2	1
Benefit payments		(41)	—
Administrative expenses		(4)	(12)
Net change in plan fiduciary net position		18,533	20,775
Plan fiduciary net position – beginning		81,482	60,707
Plan fiduciary net position – ending (b)		100,015	81,482
Plan's net OPEB liability (a) – (b)	$	12,725	5,215
Plan fiduciary net position as a percentage of the total OPEB liability		88.71 %	93.98 %
Covered-employee payroll	$	1,131,441	1,059,791
Net OPEB liability as a percentage of covered-employee payroll		1.12 %	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
(A Component Unit of the State of Alaska)

Required Supplementary Information (Unaudited)

Schedule of Employer and Nonemployer Contributions – Retiree Medical Plan

Last 10 Fiscal Years

(In thousands)

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	$	11,654	12,506	16,907	15,190	3,937	3,365	3,464	3,229	3,469	3,152
Contributions in relation to the actuarially determined contribution		11,657	12,280	16,184	14,552	3,708	3,195	2,850	2,527	3,031	2,667
Contribution deficiency	$	(3)	226	723	638	229	170	614	702	438	485
Covered-employee payroll	$	1,131,441	1,059,791	867,000	778,980	678,840	590,380	558,760	459,521	421,187	314,118
Contributions as a percentage of covered-employee payroll		1.03 %	1.16 %	1.87 %	1.87 %	0.55 %	0.54 %	0.51 %	0.55 %	0.72 %	0.85 %

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 Investment Returns – Retiree Medical Plan

	2018	**2017**
Annual money-weighted rate of return, net of investment expense	7.89 %	11.93 %

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.

(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 Human Resource Services. The significant actuarial methods and assumptions used in the defined benefit pension and postemployment healthcare benefit plan valuation as of June 30, 2017 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 FY15, 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 (i.e., 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).

(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.

(Continued)

(h) Mortality (pretermination) – Based upon 2010–2013 actual mortality experience, 60% of male rates and 65% of female rates of posttermination 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 (posttermination) – 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 ration of 109%.

(j) Total turnover – Based upon the 2010–2013 actual withdrawal experience.

(k) Disability – Incidence rates based upon the 2010–2013 actual experience. Postdisability 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. 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 officers/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.

(q) Active rehire assumption – The normal cost used for determining contribution rates and in the projections includes a rehire assumption to account for anticipated rehires. The normal cost includes the following percentage assumptions (which were developed based on the five years of rehire loss experience through June 30, 2015): 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 census client data but active in the October 1 census data files are updated to active status as of June 30.

(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/firefighter 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 FY18 medical and prescription drug benefits are shown below:

		Medical	Prescription drugs
Pre-Medicare	$	13,682	3,493
Medicare Parts A and B		1,485	3,706
Medicare Part B Only		4,722	3,706
Medicare Part D		N/A	659

(y) Third-party administrator fees – $236 per person per year; assumed to increase at 4% per year.

(z) Medicare Part B Only – For active members and retirees not yet Medicare-eligible, participation is set based on whether the member/retiree will have 40 quarters of employment covered by Social Security after March 31, 1986, depending upon date of hire and/or rehire.

(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, 8.0% is applied to the FY18 pre-Medicare medical claims costs to get the FY19 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs	RDS/ EGWP
2018	8.0%	5.5%	9.0%	6.5%
2019	7.5	5.5	8.5	6.2
2020	7.0	5.4	8.0	6.0
2021	6.5	5.4	7.5	5.7
2022	6.3	5.4	7.1	5.5
2023	6.1	5.4	6.8	5.4
2024	5.9	5.4	6.4	5.2
2025	5.8	5.4	6.1	5.0
2026	5.6	5.4	5.7	4.8
2027–2040	5.4	5.4	5.4	4.7
2041	5.2	5.2	5.2	4.6
2042	5.1	5.1	5.1	4.5
2043	5.0	5.0	5.0	4.5
2044	4.8	4.8	4.8	4.4
2045	4.7	4.7	4.7	4.3
2046	4.5	4.5	4.5	4.2
2047	4.4	4.4	4.4	4.2
2048	4.3	4.3	4.3	4.1
2049	4.1	4.1	4.1	4.0
2050	4.0	4.0	4.0	4.0
2100	4.0	4.0	4.0	4.0

(bb) 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 estimates trend amounts that are projected out for 80 years. The model has been populated with assumptions that are specific

(Continued)

to the State of Alaska. The model was updated this year to use the newest version and incorporate recent trend survey information, which generated the updated trend rates shown above.

	Pre-65	Post-65		Pre-65	Post-65
FY18–FY29	— %	— %	FY60	0.04 %	0.39 %
FY30	—	0.14	FY61	0.04	0.38
FY31	—	0.23	FY62	0.04	0.38
FY32	—	0.24	FY63	0.04	0.37
FY33	—	0.21	FY64	0.14	0.37
FY34	—	0.20	FY65	0.18	0.36
FY35	—	0.20	FY66	0.18	0.36
FY36	—	0.20	FY67	0.17	0.35
FY37	—	0.16	FY68	0.17	0.35
FY38	0.05	0.17	FY69	0.17	0.34
FY39	0.08	0.15	FY70	0.17	0.34
FY40	0.07	0.13	FY71	0.16	0.33
FY41	0.06	0.10	FY72	0.16	0.33
FY42	0.05	0.08	FY73	0.16	0.32
FY43	0.03	0.05	FY74	0.16	0.32
FY44	0.02	0.03	FY75	0.16	0.31
FY45	0.02	0.03	FY76	0.15	0.31
FY46	0.02	0.02	FY77	0.15	0.31
FY47	0.02	0.03	FY78	0.15	0.30
FY48	0.02	0.03	FY79	0.15	0.30
FY49	0.03	0.05	FY80	0.15	0.29
FY50	0.02	0.04	FY81	0.14	0.29
FY51	0.03	0.06	FY82	0.14	0.28
FY52	0.03	0.06	FY83	0.14	0.28
FY53	0.04	0.14	FY84	0.14	0.28
FY54	0.04	0.41	FY85	0.14	0.27
FY55	0.04	0.41	FY86	0.14	0.27
FY56	0.04	0.41	FY87	0.13	0.26
FY57	0.04	0.41	FY88	0.13	0.26
FY58	0.04	0.41	FY89	0.13	0.26
FY59	0.04	0.40	FY90	0.13	0.25

(cc) 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+	—	—

(dd) Retired member contributions for medical benefits – Currently, contributions are required for PERS 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 FY18 contributions based on monthly rates shown below for calendar 2017 and 2018 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 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.

	Calendar 2018		Calendar 2017
Coverage category	Annual contribution	Monthly contribution	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

(ee) 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, 8.0% is applied to the FY18 retired member medical contributions to get the FY19 retired member medical contributions.

Fiscal year	**Trend assumption**
2018	8.0%
2019	7.6
2020	7.2
2021	6.8
2022	6.5
2023	6.3
2024	6.0
2025	5.9
2050	4.0
2100	4.0

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2014 valuation and updated to the rates shown above for the June 30, 2017 valuation. Actual FY18 retired member medical contributions are reflected in the valuation.

(ff) Healthcare participation – 100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible; 10% of nonsystem paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

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, 2017 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. Under the new accounting standards (GASB 74 and 75), the GASB requirements will not directly control amortization periods used for funding 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, 2017 for PERS Defined Benefit (DB) retiree medical plan were used 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 steerage, 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 FY18 claims costs were reduced 2.1% for medical and 10.4% for prescription drugs. In addition, to account for the difference in Medicare coordination, upcoming FY18 medical claims costs for Medicare eligible retirees were further reduced 29.3%. The medical and prescription drug percentages were reduced 0.2% each year for the DCR medical benefits to reflect the fact that the medical benefit 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 2019. That impact is reflected in the valuation, but not in the base cost rates for 2017 or 2018. We estimated the impact of the EGWP plan by offsetting an amount equal to 160% of the RDS amount (a onetime adjustment, trended at regular prescription drug thereafter) based upon the actuary's review last year of client and industry comparisons of subsidies under RDS and EGWP.

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.

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. Employer retiree groups tend to be healthier than the Medicare population as a whole. Our 60% estimate is meant to be conservative and is based on typical employer groups. Once a vendor is selected for the 2019 implementation of the EGWP arrangement, we will review an updated estimate of EGWP subsides from that vendor and update the next valuation accordingly.

(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 (pretermination) – Based upon 2010–2013 actual mortality experience, 60% of male rates and 65% of female rates of the posttermination 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 (posttermination) – 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. Postdisability 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 60% 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.

(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 FY18 medical and prescription drug benefits are shown below:

	Medical	Prescription drugs
Pre-Medicare	$ 13,682	3,493
Medicare Parts A and B	1,485	3,706
Medicare Part B Only	4,722	3,706
Medicare Part D	N/A	659

Members are assumed to attain Medicare eligibility at age 65.

(q) Third-party administrator fees – $236 per person per year; assumed trend rate of 4% 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: 0.979 for the medical plan and 0.686 for the medical Medicare coordination method and 0.896 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.

(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, 8.0% is applied to the FY18 pre-Medicare medical claims cost to get the FY19 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs	RDS/ EGWP
2018	8.0%	5.5%	9.0%	6.5%
2019	7.5	5.5	8.5	6.2
2020	7.0	5.4	8.0	6.0
2021	6.5	5.4	7.5	5.7
2022	6.3	5.4	7.1	5.5
2023	6.1	5.4	6.8	5.4
2024	5.9	5.4	6.4	5.2
2025	5.8	5.4	6.1	5.0
2026	5.6	5.4	5.7	4.8
2027–2040	5.4	5.4	5.4	4.7
2041	5.2	5.2	5.2	4.6
2042	5.1	5.1	5.1	4.5
2043	5.0	5.0	5.0	4.5
2044	4.8	4.8	4.8	4.4
2045	4.7	4.7	4.7	4.3
2046	4.5	4.5	4.5	4.2
2047	4.4	4.4	4.4	4.2
2048	4.3	4.3	4.3	4.1
2049	4.1	4.1	4.1	4.0
2050	4.0	4.0	4.0	4.0
2100	4.0	4.0	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 estimates trend amounts that are projected out for 80 years. This model has been populated with assumptions that are specific to the State of Alaska. The model was updated this year to use the newest version and incorporate recent trend survey information, which generated the updated trend rates.

(v) 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+	—	—

(w) Retiree medical participation:

Decrement due to disability		Decrement due to retirement	
Age	Percent participation	Age	Percent participation
<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+	94.40	65+	

Years of service	
<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

There have been no changes in the asset or valuation methods since the prior valuation.

The medical trend rate assumption was updated to reflect anticipated increases in costs based on recent survey data. An obligation for the Cadillac Tax was also added this year because it was no longer deemed immaterial due to the updated trend rates and the change to use chained CPI (which was part of the Tax Cut and Jobs Act passed in December 2017) to project the tax thresholds in future years.

Defined contribution occupational death and disability and retiree medical benefits plan

There have been no changes in the asset or valuation methods since the prior valuation.

The healthcare cost trend assumption was updated to reflect anticipated increases in costs based on recent survey data. Healthcare claim costs are updated annually. Minor updates were made to the factors used to adjust the DB plan costs to reflect DCR plan design differences.

There have been no changes in PERS OCR benefit provisions since the prior valuation other than the State's decision to defer the EGWP implementation date from January 1, 2018 to January 1, 2019.

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, 2018 and 2017

(In thousands)

	Administrative	Investment	Totals 2018	Totals 2017
Personal services:				
Wages	$ 4,553	346	4,899	6,464
Benefits	2,415	155	2,570	3,044
Total personal services	6,968	501	7,469	9,508
Travel:				
Transportation	27	93	120	95
Per diem	5	14	19	16
Total travel	32	107	139	111
Contractual services:				
Management and consulting	14,815	7,501	22,316	20,458
Accounting and auditing	114	18	132	200
Data processing	1,303	730	2,033	2,161
Communications	113	41	154	110
Advertising and printing	62	1	63	58
Rentals/leases	361	79	440	417
Legal	263	67	330	572
Medical specialists	66	—	66	55
Repairs and maintenance	13	8	21	2
Transportation	168	3	171	88
Securities lending expense	—	456	456	177
Other professional services	91	30	121	246
Total contractual services	17,369	8,934	26,303	24,544
Patient Protection and Affordable Care Act Transitional Reinsurance Program	—	—	—	724
Total Patient Protection and Affordable Care Act	—	—	—	724
Other:				
Equipment	56	34	90	59
Supplies	26	79	105	102
Total other	82	113	195	161
Total administrative and investment deductions	$ 24,451	9,655	34,106	35,048

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, 2018 and 2017

(In thousands)

Firm	Services	2018	2017
Conduent Human Resource Services	Actuarial services	$ 701	460
Health Management Systems	Auditing services	251	—
KPMG LLP	Auditing services	99	132
State Street Bank and Trust	Custodial banking services	851	932
Alaska IT Group	Data processing services	333	382
Applied Microsystems Incorporated	Data processing services	330	355
Genesys Telecommunications Lab	Data processing services	18	—
Interactive Intelligence Group	Data processing services	—	27
International Business Machines	Data processing services	18	14
SHI International Corporation	Data processing services	429	423
Sungard Availability Services	Data processing services	33	26
State of Alaska, Department of Law	Legal services	310	558
Arizona State University	Management consulting services	19	—
Maximus Incorporated	Management consulting services	1	19
The Segal Company Incorporated	Management consulting services	245	306
First Medical Advisory Group	Medical specialist and consulting	—	24
Health Care Cost Management	Medical specialist and consulting	—	54
Managed Medical Review Origination	Medical specialist and consulting	59	—
		$ 3,697	3,712

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

See accompanying independent auditors' report.