



**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Schedule of Employer and Nonemployer Allocations and Schedule of
Pension Amounts by Employer and Nonemployer

June 30, 2016

(With Independent Auditors' Report Thereon)

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Table of Contents

	Page
Independent Auditors' Report	1
Schedule of Employer and Nonemployer Allocations	3
Schedule of Pension Amounts by Employer and Nonemployer	6
Notes to Schedule of Employer and Nonemployer Allocations and Schedule of Pension Amounts by Employer and Nonemployer	8
Supplemental Schedules:	
Schedule of Employer Allocations of Special Funding Amounts (Unaudited)	14
Schedule of Special Funding Amounts by Employer (Unaudited)	16
Schedule of Employer and Nonemployer Contributions (Unaudited)	18



KPMG LLP
Suite 600
701 West Eighth Avenue
Anchorage, AK 99501

Independent Auditors' Report

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

We have audited the accompanying schedule of employer and nonemployer allocations of the State of Alaska Teachers' Retirement System Defined Benefit Pension Plan as of and for the year ended June 30, 2016 and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer and nonemployer of the State of Alaska Teachers' Retirement System Defined Benefit Pension Plan as of and for the year ended June 30, 2016 and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer and nonemployer allocations and the specified column totals included in the schedule of pension amounts by employer and nonemployer 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 schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer, 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 schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer in order 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 schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer.

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



Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer and nonemployer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense for the total of all participating entities for the State of Alaska Teachers' Retirement System Defined Benefit Pension Plan as of and for the year ended June 30, 2016, in accordance with U.S. generally accepted accounting principles.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America the financial statements of the State of Alaska Teachers' Retirement System, which includes the Defined Benefit Pension Plan, as of and for the year ended June 30, 2016, and our report thereon, dated December 22, 2016, expressed an unmodified opinion on those financial statements.

Other Information

The supplemental schedule of employer allocations of special funding amounts, supplemental schedule of special funding amounts by employer, and supplemental schedule of employer and nonemployer contributions have not been subject to the auditing procedures applied in the audit of the schedule of employer and nonemployer allocations and schedule of pension amounts by employer and nonemployer and accordingly, we do not express an opinion or provide any assurance on them.

Restriction on Use

Our report is intended solely for the information and use of the State of Alaska Teachers' Retirement System management, the members of the Alaska Retirement Management Board, State of Alaska Teachers' Retirement System Defined Benefit Pension Plan employers and nonemployers, and their auditors, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

June 26, 2017

**STATE of ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Schedule of Employer and Nonemployer Allocations

As of and for the year ended June 30, 2016

Employer/ Nonemployer	Employer number	Present value of projected future contributions	Allocation percentage
Employers:			
Anchorage SD	701	\$ 283,476,000	15.78078%
Cordova City SD	704	1,929,000	0.10739%
Craig City SD	705	2,330,000	0.12971%
Fairbanks North Star Borough SD	706	82,752,000	4.60671%
Haines Borough SD	707	1,647,000	0.09169%
Hoonah City SD	708	882,000	0.04910%
Hydaburg City SD	709	480,000	0.02672%
Juneau Borough SD	710	29,838,000	1.66105%
Kake City SD	712	1,033,000	0.05751%
Ketchikan Gateway Borough SD	714	15,075,000	0.83921%
Klawock City SD	717	1,248,000	0.06947%
Kodiak Island Borough SD	718	14,147,000	0.78755%
Nenana City SD	719	2,283,000	0.12709%
Nome City SD	720	4,996,000	0.27812%
Matanuska-Susitna Borough SD	722	103,210,000	5.74558%
Pelican City SD	723	56,000	0.00312%
Petersburg City SD	724	3,253,000	0.18109%
Sitka Borough SD	727	9,366,000	0.52139%
Skagway City SD	728	886,000	0.04932%
Unalaska City SD	729	3,104,000	0.17280%
Valdez City SD	730	4,853,000	0.27016%
Wrangell Public SD	731	1,878,000	0.10455%
Yakutat SD	732	618,000	0.03440%
University of Alaska	733	38,428,000	2.13924%
Galena City SD	735	5,500,000	0.30618%
North Slope Borough SD	736	16,266,000	0.90551%
State of Alaska	737	13,411,000	0.74657%
Bristol Bay Borough SD	742	799,000	0.04448%
Southeast Regional Resource Center	743	566,000	0.03151%
Dillingham City SD	744	3,875,000	0.21572%
Kenai Peninsula Borough SD	746	55,382,000	3.08305%
Saint Mary's SD	748	1,069,000	0.05951%

**STATE of ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Schedule of Employer and Nonemployer Allocations

As of and for the year ended June 30, 2016

Employer/ Nonemployer	Employer number	Present value of projected future contributions	Allocation percentage
Northwest Arctic Borough SD	751	\$ 14,820,000	0.82501%
Bering Strait SD	752	15,072,000	0.83904%
Lower Yukon SD	753	14,421,000	0.80280%
Lower Kuskokwim SD	754	27,828,000	1.54915%
Kuspuk SD	755	3,394,000	0.18894%
Southwest Region SD	756	4,783,000	0.26626%
Lake And Peninsula Borough SD	757	3,892,000	0.21666%
Aleutian Region SD	758	313,000	0.01742%
Pribilof SD	759	481,000	0.02678%
Iditarod Area SD	761	2,341,000	0.13032%
Yukon / Koyukuk SD	762	5,347,000	0.29766%
Yukon Flats SD	763	2,317,000	0.12898%
Denali Borough SD	764	2,063,000	0.11484%
Delta/Greely SD	765	4,207,000	0.23420%
Alaska Gateway SD	766	2,963,000	0.16495%
Copper River SD	767	2,295,000	0.12776%
Chatham SD	768	1,288,000	0.07170%
Southeast Island SD	769	1,961,000	0.10917%
Annette Island SD	770	2,800,000	0.15587%
Chugach SD	771	1,545,000	0.08601%
Tanana SD	775	377,000	0.02099%
Kashunamiut SD	777	2,080,000	0.11579%
Yupit SD	778	3,560,000	0.19818%
Special Education Service Agency	779	953,000	0.05306%
Aleutians East Borough SD	780	2,332,000	0.12982%
Total present value of projected future employer contributions		828,069,000	46.09764%
Total Nonemployer: State of Alaska	999	968,268,000	53.90236%
Total for all entities		\$ 1,796,337,000	100.00000%

See accompanying notes to schedule of employer and nonemployer allocations and schedule of pension amounts by employer and nonemployer.

Page intentionally blank

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Schedule of Employer and Nonemployer Allocations

As of and for the year ended June 30, 2016

Employer/ Nonemployer	Employer/ nonemployer number	Net pension liability	Changes of assumptions	Deferred outflows of resources		
				Difference Between Projected and Actual Investment Earnings	Changes in proportion and difference between employer contributions and proportionate share of contributions	
					Total deferred outflows of resources	
Employer:						
Anchorage SD	701	\$ 360,329,506	1,178,704	55,059,777	20,154,571	76,393,052
Cordova City SD	704	2,451,973	8,021	374,671	145,117	527,809
Craig City SD	705	2,961,689	9,688	452,558	178,079	640,325
Fairbanks North Star Borough SD	706	105,186,990	344,086	16,072,989	6,176,276	22,593,351
Haines Borough SD	707	2,093,520	6,848	319,898	111,039	437,785
Hoonah City SD	708	1,121,120	3,667	171,312	7,302	182,281
Hydaburg City SD	709	610,133	1,996	93,231	85,531	180,758
Juneau Borough SD	710	37,927,415	124,068	5,795,459	2,102,193	8,021,720
Kake City SD	712	1,313,058	4,295	200,640	144,353	349,288
Ketchikan Gateway Borough SD	714	19,162,001	62,682	2,928,030	1,271,097	4,261,809
Klawock City SD	717	1,586,347	5,189	242,400	136,446	384,035
Kodiak Island Borough SD	718	17,982,410	58,824	2,747,783	1,120,013	3,926,620
Nenana City SD	719	2,901,947	9,493	443,429	324,540	777,462
Nome City SD	720	6,350,471	20,774	970,377	551,597	1,542,748
Matanuska-Susitna Borough SD	722	131,191,382	429,151	20,046,563	8,999,504	29,375,218
Pelican City SD	723	71,182	233	10,877	334	11,444
Petersburg City SD	724	4,134,925	13,526	631,833	150,191	795,550
Sitka Borough SD	727	11,905,227	38,944	1,819,166	643,103	2,501,213
Skagway City SD	728	1,126,204	3,684	172,089	128,731	304,504
Unalaska City SD	729	3,945,529	12,907	602,892	184,055	799,854
Valdez City SD	730	6,168,702	20,179	942,602	484,829	1,447,610
Wrangell Public SD	731	2,387,147	7,809	364,765	264,520	637,094
Yakutat SD	732	785,547	2,570	120,035	6,314	128,919
University of Alaska	733	48,846,259	159,785	7,463,902	839,570	8,463,257
Galena City SD	735	6,991,111	22,869	1,068,270	394,437	1,485,576
North Slope Borough SD	736	20,675,894	67,635	3,159,359	1,697,270	4,924,264
State of Alaska	737	17,046,874	55,763	2,604,832	-	2,660,595
Bristol Bay Borough SD	742	1,015,618	3,322	155,190	67,901	226,413
Southeast Regional Resource Center	743	719,449	2,353	109,935	11,276	123,564
Dillingham City SD	744	4,925,556	16,112	752,644	217,736	986,492
Kenai Peninsula Borough SD	746	70,396,678	230,280	10,756,892	4,820,082	15,807,254
Saint Mary's SD	748	1,358,818	4,445	207,633	73,320	285,398
Northwest Arctic Borough SD	751	18,837,867	61,622	2,878,501	2,059,791	4,999,884
Bering Strait SD	752	19,158,187	62,670	2,927,447	1,260,768	4,250,915
Lower Yukon SD	753	18,330,694	59,963	2,801,003	1,333,635	4,194,601
Lower Kuskokwim SD	754	35,372,481	115,710	5,405,055	1,365,302	6,886,067
Kuspuk SD	755	4,314,151	14,112	659,219	616,672	1,290,003
Southwest Region SD	756	6,079,725	19,888	929,006	412,314	1,361,208
Lake And Peninsula Borough SD	757	4,947,165	16,183	755,946	421,806	1,193,935
Aleutian Region SD	758	397,858	1,301	60,794	3,576	65,671
Pribilof SD	759	611,404	2,000	93,425	9,192	104,617
Iditarod Area SD	761	2,975,671	9,734	454,694	255,077	719,505
Yukon / Koyukuk SD	762	6,796,631	22,233	1,038,552	830,962	1,891,747
Yukon Flats SD	763	2,945,165	9,634	450,033	33,779	493,446
Denali Borough SD	764	2,622,302	8,578	400,698	58,491	467,767
Delta/Greely SD	765	5,347,565	17,493	817,129	323,082	1,157,704
Alaska Gateway SD	766	3,766,302	12,320	575,506	225,687	813,513
Copper River SD	767	2,917,200	9,543	445,760	199,119	654,422
Chatham SD	768	1,637,191	5,356	250,169	226,018	481,543
Southeast Island SD	769	2,492,649	8,154	380,887	169,124	558,165
Annette Island SD	770	3,559,111	11,643	543,846	383,004	938,493
Chugach SD	771	1,963,867	6,424	300,087	168,884	475,395
Tanana SD	775	479,209	1,568	73,225	8,597	83,390
Kashunamiut SD	777	2,643,911	8,649	404,000	225,220	637,869
Yupitit SD	778	4,525,156	14,803	691,462	313,877	1,020,142
Special Education Service Agency	779	1,211,369	3,963	185,102	57,450	246,515
Aleutians East Borough SD	780	2,964,231	9,697	452,946	400,289	862,932
Total attributable to employer contributions		1,052,567,744	3,443,143	160,836,525	62,753,043	227,032,711
Nonemployer:						
State of Alaska	999	1,230,776,256	4,026,095	188,067,491	-	192,093,586
Total for all entities		2,283,344,000	7,469,238	348,904,016	62,753,043	419,126,297

See accompanying notes to schedule of employer and nonemployer allocations and schedule of pension amounts by employer and nonemployer.

Deferred inflows of resources				Pension expense		
Difference between expected and actual experience	Changes of assumptions	Changes in proportion and difference between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	
					proportionate share of contributions	Total employer pension expense
4,645,526	-	-	4,645,526	42,903,090	39,943,128	82,846,218
31,612	-	329	31,941	291,947	80,586	372,533
38,183	-	-	38,183	352,637	302,947	655,584
1,356,117	-	-	1,356,117	12,524,222	10,953,670	23,477,892
26,991	-	-	26,991	249,268	185,525	434,793
14,454	-	28,778	43,232	133,488	43,772	177,260
7,866	-	1,394	9,260	72,646	56,872	129,518
488,977	-	-	488,977	4,515,876	4,072,627	8,588,503
16,929	-	-	16,929	156,341	238,895	395,236
247,045	-	-	247,045	2,281,548	2,273,955	4,555,503
20,452	-	538	20,990	188,880	100,128	289,008
231,837	-	-	231,837	2,141,098	1,331,194	3,472,292
37,413	-	-	37,413	345,524	330,279	675,803
81,873	-	-	81,873	756,127	869,402	1,625,529
1,691,377	-	-	1,691,377	15,620,468	15,903,989	31,524,457
918	-	5,409	6,327	8,475	(2,625)	5,850
53,309	-	-	53,309	492,330	297,765	790,095
153,487	-	-	153,487	1,417,511	1,003,935	2,421,446
14,520	-	-	14,520	134,093	166,269	300,362
50,867	-	-	50,867	469,779	483,217	952,996
79,530	-	-	79,530	734,484	442,513	1,176,997
30,776	-	7,423	38,199	284,229	166,618	450,847
10,128	-	107,921	118,049	93,532	(36,214)	57,318
629,747	-	-	629,747	5,815,942	1,597,828	7,413,770
90,132	-	-	90,132	832,406	615,334	1,447,740
266,563	-	-	266,563	2,461,802	2,667,243	5,129,045
219,779	-	366,996	586,775	2,029,708	(790,965)	1,238,743
13,094	-	-	13,094	120,926	145,535	266,461
9,275	-	25,885	35,160	85,662	77,973	163,635
63,502	-	-	63,502	586,468	520,677	1,107,145
907,585	-	-	907,585	8,381,870	8,208,762	16,590,632
17,518	-	-	17,518	161,789	147,343	309,132
242,866	-	-	242,866	2,242,955	2,640,670	4,883,625
246,996	-	-	246,996	2,281,094	2,451,771	4,732,865
236,327	-	-	236,327	2,182,567	3,179,313	5,361,880
456,038	-	-	456,038	4,211,669	3,841,183	8,052,852
55,620	-	-	55,620	513,670	746,771	1,260,441
78,382	-	-	78,382	723,890	811,438	1,535,328
63,781	-	-	63,781	589,040	798,100	1,387,140
5,129	-	13,988	19,117	47,371	28,244	75,615
7,882	-	17,896	25,778	72,798	80,520	153,318
38,364	-	-	38,364	354,302	561,905	916,207
87,625	-	-	87,625	809,250	1,111,820	1,921,070
37,970	-	20,502	58,472	350,670	307,120	657,790
33,808	-	-	33,808	312,228	316,890	629,118
68,943	-	-	68,943	636,715	718,166	1,354,881
48,557	-	-	48,557	448,440	468,231	916,671
37,610	-	-	37,610	347,340	211,245	558,585
21,107	-	1,701	22,808	194,934	177,772	372,706
32,136	-	-	32,136	296,790	353,189	649,979
45,886	-	-	45,886	423,770	659,654	1,083,424
25,319	-	-	25,319	233,830	203,235	437,065
6,178	-	13,928	20,106	57,058	76,022	133,080
34,086	-	-	34,086	314,801	599,497	914,298
58,340	-	-	58,340	538,793	834,982	1,373,775
15,617	-	-	15,617	144,233	132,360	276,593
38,216	-	-	38,216	352,940	389,378	742,318
13,570,165	-	612,688	14,182,853	125,325,314	114,097,653	239,422,967
15,867,707	-	62,140,355	78,008,062	146,543,936	(114,097,653)	32,446,283
29,437,872	-	62,753,043	92,190,915	271,869,250	-	271,869,250

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

(1) Plan Description

The State of Alaska Teachers' Retirement System Defined Benefit Pension Plan (Plan) is a cost-sharing multiple-employer defined benefit pension plan that provides pension benefits for teachers and other eligible members.

Benefit and contribution provisions are established by Chapter 14 of Alaska Statute Title 14, and may be amended only by the state legislature. The 24th Alaska State Legislature enacted into law Senate Bill 141, which closed the Plan to new members effective July 1, 2006.

There are two tiers within the Plan: 1) Employees hired between July 1, 1955 and June 30, 1990, and 2) Employees hired between July 1, 1990 and June 30, 2006.

Vested members hired prior to July 1, 1990 are entitled to pension benefits beginning at normal retirement age, 55, or early retirement age, 50. For members hired after June 30, 1990, the normal and early retirement ages are 60 and 55, respectively. Members may also retire at any age and receive a normal benefit when they accumulate the required credited service.

The normal annual pension benefit is based on years of service and average base salary. The average base salary is based upon the members' three highest contract years' salaries.

The benefit related to all years of credited service prior to July 1, 1990 and for years of service through a total of 20 years is equal to 2% of the employee's average base salary. The benefit for each year over 20 years of service subsequent to June 30, 1990 is equal to 2.5% of the employee's base salary.

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 benefits are payable under the 1% supplemental contributions provision.

The 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 Plan's administrator if the cost of living in the previous calendar year rises and the financial condition of the Plan's permits. 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.

(2) Basis of Presentation

The schedule of employer and nonemployer allocations and the schedule of pension amounts by employer and nonemployer (collectively, the Schedules) present amounts that are considered elements of the financial statements of the Plan, its participating employers, or the State of Alaska (State) as a nonemployer entity. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of the Plan, its participating employers, or the State. The amounts presented in the Schedules are prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the Plan to make a number of estimates and assumptions

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

relating to the reported amounts. Due to the inherent nature of these estimates, actual results could differ from those estimates.

(3) Allocation Methodology

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, requires participating employers in the Plan to recognize their proportionate share of the collective net pension liability, collective deferred outflows of resources, collective deferred inflows of resources and collective employer pension expense. The employer and nonemployer allocation percentages presented in the schedule of employer and nonemployer allocations and applied to amounts presented in the schedule of pension amounts by employer and nonemployer are based on the ratio of the present value of projected future contributions for each employer to the total present value of projected future contributions for the fiscal years 2018 to 2039 to the Plan. Employer and nonemployer allocation percentages have been rounded for presentation purposes; therefore, amounts presented in the schedule of pension amounts by employer and nonemployer may result in immaterial differences.

(4) Contributions

Employer contributions are actuarially determined and adopted by the Alaska Retirement Management Board (Board). As set by Alaska Statute 14.25.070(a), employer contributions were 12.56% of annual payroll for the fiscal year 2016. Each employer is also required to make an additional contribution to the Plan for employees that participate in the TRS Defined Contribution Retirement (DCR) Plan for the difference between the statutory employer contribution rate of 12.56% on eligible salaries of participants in the DCR less the total of employer matching contributions to the DCR.

Alaska Statute 14.25.085 requires the State, as a nonemployer contributing entity, contribute 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 Plan's past service liability at the actuarially determined contribution rate adopted by the Board for that fiscal year.

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

(5) Collective Net Pension Liability

Components of Net Pension Liability

The components of the net pension liability of the Plan as of June 30, 2016, is as follows:

Total pension liability	\$	7,225,545,000
Plan fiduciary net position		<u>4,942,201,000</u>
Net pension liability	\$	<u><u>2,283,344,000</u></u>

The total pension liability for the June 30, 2016 measurement date was determined by an actuarial valuation as of June 30, 2015, which was rolled forward to June 30, 2016. This actuarial valuation used the following actuarial assumptions:

Inflation rate	3.12%
Salary increases:	Graded by service, from 8.11% to 3.87%
Investment rate of return	8.00%, net of pension plan investment expenses. This is based on average inflation rate of 3.12% and a real rate of return of 4.88%.

Pre-termination mortality rates were based upon the 2010-2013 actual mortality experience, 68% of male and 65% of female post-termination rates. Deaths are assumed to be non-occupational 85% of the time. Post-termination mortality rates were based on 94% of the male and 97% of the female rates of the RP-2000 Mortality Table, 2000 Base Year projected to 2018 with Projection Scale BB, with a 3-year setback for males and a 4-year setback for females.

The actuarial assumptions used in the June 30, 2015 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2009 to June 30, 2013, resulting in changes in actuarial assumptions adopted by the Board to better reflect expected future experience.

Long-term Expected Rate of Return

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 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 weighing the expected future real rates of return by an asset allocation percentage, which is based on the nature and mix of current and expected plan investments, and by adding expected inflation. Best estimates of arithmetic real rates of return for each

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

major asset class included in the System's current and expected asset allocation is summarized in the following table (note that the rates shown below exclude the inflation component):

Asset class	Long-term expected real rate of return
Domestic equity	5.35%
Global equity (non-US)	5.55
Private equity	6.25
Fixed income composite	0.80
Real estate	3.65
Alternative equity	4.70

Discount Rate

The discount rate used to measure the total pension liability was 8.0%. The projection of cash flows used to determine the discount rate assumed that employer and nonemployer contributions will continue to follow the current funding policy, which meets State statutes. Based on those assumptions, the Plans 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.

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

The following presents the net pension liability of the Plan as of June 30, 2016, calculated using the discount rate of 8.0%, as well as what the Plans net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

1% Decrease (7%)	Current discount rate (8%)	1% Increase (9%)
\$ 3,111,338,000	2,283,344,000	1,589,141,000

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

(6) Collective Deferred Outflows of Resources and Deferred Inflows of Resources

The following presents a summary of changes in the collective deferred outflows of resources and deferred inflows of resources (excluding employer specific amounts) for the year ended June 30, 2016:

	Year of Deferral	Amortization Period	Beginning of year balance	Additions	Deductions	End of year balance
Deferred Outflows of Resources:						
Changes in assumptions	2015	2.1 years	\$ 82,161,619	—	74,692,381	7,469,238
Difference between projected and actual earnings on pension plan investments	2014	5 years	(200,806,775)	—	(66,935,591)	(133,871,184)
	2015	5 years	173,472,000	—	43,368,000	130,104,000
	2016	5 years	—	440,839,000	88,167,800	352,671,200
Total difference between projected and actual earnings on pension plan investments			<u>(27,334,775)</u>	<u>440,839,000</u>	<u>64,600,209</u>	<u>348,904,016</u>
Total Deferred Outflows of Resources			<u>\$ 54,826,844</u>	<u>440,839,000</u>	<u>139,292,590</u>	<u>356,373,254</u>
Deferred Inflows of Resources:						
Difference between expected and actual experience	2015	2.1 years	\$ 2,982,212	—	2,711,102	271,110
	2016	2.1 years	—	55,682,000	26,515,238	29,166,762
Total Deferred Inflows of Resources			<u>\$ 2,982,212</u>	<u>55,682,000</u>	<u>29,226,340</u>	<u>29,437,872</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources (excluding employer specific amounts) related to pensions will be recognized in pension expense, excluding that attributable to employer-paid member contributions, as follows:

Year ending June 30:	
2017	\$ 45,283,097
2018	61,948,685
2019	131,535,800
2020	88,167,800
2021	—
Total	<u>\$ 326,935,382</u>

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Notes to Schedule of Employer and Nonemployer Allocations and
Schedule of Pension Amounts by Employer and Nonemployer

June 30, 2016

(7) Pension Expense

The components of the pension expense (excluding employer specific amounts) for the year ending June 30, 2016 are as follows:

Service cost	\$ 61,011,000
Interest on total pension liability	550,392,000
Member contributions	(42,654,000)
Administrative expense	2,648,000
Expected investment return net of investment expenses	(409,499,000)
Other	(95,000)
Recognition (amortization) of deferred outflows/inflows of resources:	
Difference between projected and actual investment earnings on pension plan investments	64,600,209
Difference between expected and actual experience	(29,226,340)
Change in assumptions	<u>74,692,381</u>
Pension expense	<u><u>\$ 271,869,250</u></u>

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Employer Allocations of Special Funding Amounts (Unaudited)

As of and for the year ended June 30, 2016

Employer	Employer Number	Present value of projected future state contributions	Employer Proportionate Share
Anchorage SD	701	\$ 336,937,000	34.79793%
Cordova City SD	704	2,288,000	0.23630%
Craig City SD	705	2,771,000	0.28618%
Fairbanks North Star Borough SD	706	98,357,000	10.15803%
Haines Borough SD	707	1,958,000	0.20222%
Hoonah City SD	708	1,045,000	0.10792%
Hydaburg City SD	709	568,000	0.05866%
Juneau Borough SD	710	35,463,000	3.66252%
Kake City SD	712	1,231,000	0.12713%
Ketchikan Gateway Borough SD	714	17,919,000	1.85062%
Klawock City SD	717	1,486,000	0.15347%
Kodiak Island Borough SD	718	16,813,000	1.73640%
Nenana City SD	719	2,714,000	0.28029%
Nome City SD	720	5,941,000	0.61357%
Matanuska-Susitna Borough SD	722	122,670,000	12.66901%
Pelican City SD	723	66,000	0.00682%
Petersburg City SD	724	3,865,000	0.39917%
Sitka Borough SD	727	11,136,000	1.15009%
Skagway City SD	728	1,052,000	0.10865%
Unalaska City SD	729	3,694,000	0.38151%
Valdez City SD	730	5,766,000	0.59550%
Wrangell Public SD	731	2,229,000	0.23020%
Yakutat SD	732	738,000	0.07622%
University of Alaska	733	45,673,000	4.71698%
Galena City SD	735	6,537,000	0.67512%
North Slope Borough SD	736	19,333,000	1.99666%
State of Alaska	737	-	0.00000%
Bristol Bay Borough SD	742	948,000	0.09791%
Southeast Regional Resource Center	743	674,000	0.06961%
Dillingham City SD	744	4,604,000	0.47549%
Kenai Peninsula Borough SD	746	65,824,000	6.79812%
Saint Mary's SD	748	1,269,000	0.13106%
Northwest Arctic Borough SD	751	17,615,000	1.81923%
Bering Strait SD	752	17,913,000	1.85000%
Lower Yukon SD	753	17,141,000	1.77027%
Lower Kuskokwim SD	754	33,074,000	3.41579%
Kuspuk SD	755	4,031,000	0.41631%
Southwest Region SD	756	5,686,000	0.58723%
Lake And Peninsula Borough SD	757	4,624,000	0.47755%
Aleutian Region SD	758	373,000	0.03852%
Pribilof SD	759	575,000	0.05938%
Iditarod Area SD	761	2,783,000	0.28742%

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Employer Allocations of Special Funding Amounts (Unaudited)

As of and for the year ended June 30, 2016

<u>Employer</u>	<u>Employer Number</u>	<u>Present value of projected future state contributions</u>	<u>Employer Proportionate Share</u>
Yukon / Koyukuk SD	762	\$ 6,356,000	0.65643%
Yukon Flats SD	763	2,752,000	0.28422%
Denali Borough SD	764	2,451,000	0.25313%
Delta/Greely SD	765	4,998,000	0.51618%
Alaska Gateway SD	766	3,523,000	0.36385%
Copper River SD	767	2,723,000	0.28122%
Chatham SD	768	1,526,000	0.15760%
Southeast Island SD	769	2,331,000	0.24074%
Annette Island SD	770	3,325,000	0.34340%
Chugach SD	771	1,839,000	0.18993%
Tanana SD	775	447,000	0.04616%
Kashunamiut SD	777	2,473,000	0.25540%
Yupiiit SD	778	4,234,000	0.43728%
Special Education Service Agency	779	1,133,000	0.11701%
Aleutians East Borough SD	780	2,773,000	0.28639%
Total Present Value of Projected Future State Contributions		<u>\$ 968,268,000</u>	<u>100.00000%</u>

See accompanying independent auditors' report

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Special Funding Amounts by Employer (Unaudited)

As of and for the year ended June 30, 2016

<u>Employer</u>	<u>Employer Number</u>	<u>State Proportionate Share of Net Pension Liability Attributable to Employer</u>	<u>Employer Pension Expense and Related Revenue Attributable to Special Funding Situation</u>
Anchorage SD	701	\$ 428,284,379	50,994,223
Cordova City SD	704	2,908,302	346,281
Craig City SD	705	3,522,249	419,381
Fairbanks North Star Borough SD	706	125,022,680	14,885,984
Haines Borough SD	707	2,488,836	296,336
Hoonah City SD	708	1,328,311	158,157
Hydaburg City SD	709	721,991	85,965
Juneau Borough SD	710	45,077,415	5,367,200
Kake City SD	712	1,564,738	186,307
Ketchikan Gateway Borough SD	714	22,777,041	2,711,977
Klawock City SD	717	1,888,871	224,901
Kodiak Island Borough SD	718	21,371,192	2,544,588
Nenana City SD	719	3,449,796	410,754
Nome City SD	720	7,551,671	899,149
Matanuska-Susitna Borough SD	722	155,927,205	18,565,670
Pelican City SD	723	83,893	9,989
Petersburg City SD	724	4,912,845	584,954
Sitka Borough SD	727	14,155,094	1,685,394
Skagway City SD	728	1,337,209	159,216
Unalaska City SD	729	4,695,485	559,074
Valdez City SD	730	7,329,227	872,664
Wrangell Public SD	731	2,833,307	337,351
Yakutat SD	732	938,080	111,694
University of Alaska	733	58,055,460	6,912,447
Galena City SD	735	8,309,254	989,352
North Slope Borough SD	736	24,574,392	2,925,981
State of Alaska	737	-	-
Bristol Bay Borough SD	742	1,205,013	143,476
Southeast Regional Resource Center	743	856,729	102,007
Dillingham City SD	744	5,852,196	696,799
Kenai Peninsula Borough SD	746	83,669,621	9,962,230
Saint Mary's SD	748	1,613,040	192,059
Northwest Arctic Borough SD	751	22,390,623	2,665,968
Bering Strait SD	752	22,769,414	2,711,069
Lower Yukon SD	753	21,788,116	2,594,230
Lower Kuskokwim SD	754	42,040,730	5,005,633
Kuspuk SD	755	5,123,849	610,078
Southwest Region SD	756	7,227,538	860,556
Lake And Peninsula Borough SD	757	5,877,618	699,826

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Special Funding Amounts by Employer (Unaudited)

As of and for the year ended June 30, 2016

Employer	Employer Number	State Proportionate Share of Net Pension Liability Attributable to Employer	Employer Pension Expense and Related Revenue Attributable to Special Funding Situation
Aleutian Region SD	758	\$ 474,124	56,452
Pribilof SD	759	730,889	87,024
Iditarod Area SD	761	3,537,502	421,197
Yukon / Koyukuk SD	762	8,079,182	961,958
Yukon Flats SD	763	3,498,098	416,505
Denali Borough SD	764	3,115,493	370,950
Delta/Greely SD	765	6,353,013	756,430
Alaska Gateway SD	766	4,478,125	533,194
Copper River SD	767	3,461,236	412,116
Chatham SD	768	1,939,716	230,955
Southeast Island SD	769	2,962,960	352,789
Annette Island SD	770	4,226,445	503,227
Chugach SD	771	2,337,573	278,326
Tanana SD	775	568,187	67,652
Kashunamiut SD	777	3,143,458	374,280
Yup'it SD	778	5,381,885	640,801
Special Education Service Agency	779	1,440,169	171,476
Aleutians East Borough SD	780	3,524,791	419,684
Total for all employers		\$ 1,230,776,256	146,543,936

See accompanying independent auditors' report

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Employer and Nonemployer Contributions (Unaudited)

As of and for the year ended June 30, 2016

<u>Employer/Nonemployer</u>	<u>Employer number</u>	<u>Actual Contributions</u>
Employers:		
Anchorage SD	701	\$ 11,850,582
Cordova City SD	704	96,780
Craig City SD	705	104,268
Fairbanks North Star Borough SD	706	3,539,896
Haines Borough SD	707	46,281
Hoonah City SD	708	44,648
Hydaburg City SD	709	16,966
Juneau Borough SD	710	1,339,265
Kake City SD	712	33,983
Ketchikan Gateway Borough SD	714	646,878
Klawock City SD	717	55,504
Kodiak Island Borough SD	718	543,048
Nenana City SD	719	105,733
Nome City SD	720	180,778
Matanuska-Susitna Borough SD	722	4,448,917
Pelican City SD	723	77
Petersburg City SD	724	173,758
Sitka Borough SD	727	409,792
Skagway City SD	728	35,596
Unalaska City SD	729	122,561
Valdez City SD	730	257,196
Wrangell Public SD	731	78,637
Yakutat SD	732	49,447
University of Alaska	733	1,973,801
Galena City SD	735	251,851
North Slope Borough SD	736	537,956
State of Alaska	737	924,800
Bristol Bay Borough SD	742	18,408
Southeast Regional Resource Center	743	17,532
Dillingham City SD	744	114,435
Kenai Peninsula Borough SD	746	2,256,777
Saint Mary's SD	748	46,770
Northwest Arctic Borough SD	751	451,723
Bering Strait SD	752	387,570
Lower Yukon SD	753	400,164
Lower Kuskokwim SD	754	1,002,615
Kuspuk SD	755	98,039
Southwest Region SD	756	141,066
Lake And Peninsula Borough SD	757	77,483

**STATE OF ALASKA TEACHERS' RETIREMENT SYSTEM
DEFINED BENEFIT PENSION PLAN**

Supplemental Schedule of Employer and Nonemployer Contributions (Unaudited)

As of and for the year ended June 30, 2016

Employer/Nonemployer	Employer number	Actual Contributions
Aleutian Region SD	758	\$ 7,850
Pribilof SD	759	14,521
Iditarod Area SD	761	21,794
Yukon / Koyukuk SD	762	159,466
Yukon Flats SD	763	65,703
Denali Borough SD	764	84,272
Delta/Greely SD	765	156,302
Alaska Gateway SD	766	124,560
Copper River SD	767	105,461
Chatham SD	768	47,879
Southeast Island SD	769	67,932
Annette Island SD	770	70,301
Chugach SD	771	74,675
Tanana SD	775	12,662
Kashunamiut SD	777	40,883
Yupiit SD	778	68,270
Special Education Service Agency	779	30,639
Aleutians East Borough SD	780	75,752
Total Employer Contributions		<u>34,110,503</u>
Nonemployer:		
State of Alaska		<u>89,957,454</u>
Total for all entities		<u>\$ <u>124,067,957</u></u>

See accompanying independent auditor's report