



**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, 2019

(With Independent Auditors' Report Thereon)

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

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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 (the Plan) as of and for the year ended June 30, 2019, 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 pension expense (benefit) (specified column totals) included in the accompanying schedule of pension amounts by employer and nonemployer of the Plan as of and for the year ended June 30, 2019, 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 pension expense (benefit) for the total of all entities for the Plan as of and for the year ended June 30, 2019, 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, 2019, and our report thereon, dated October 23, 2019, 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

Anchorage, Alaska
February 27, 2020

**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, 2019

<u>Employer/nonemployer</u>	<u>Employer/ nonemployer number</u>	<u>Present value of projected future contributions</u>	<u>Allocation percentage</u>
Employers:			
Anchorage School District	701	\$ 236,382,000	13.79279 %
Cordova City School District	704	2,143,000	0.12504
Craig City School District	705	1,878,000	0.10958
Fairbanks North Star Borough School District	706	68,618,000	4.00383
Haines Borough School District	707	1,302,000	0.07597
Hoonah City School District	708	555,000	0.03238
Hydaburg City School District	709	449,000	0.02620
Juneau Borough School District	710	25,991,000	1.51656
Kake City School District	712	855,000	0.04989
Ketchikan Gateway Borough School District	714	12,831,000	0.74868
Klawock City School District	717	1,140,000	0.06652
Kodiak Island Borough School District	718	12,238,000	0.71408
Nenana City School District	719	2,105,000	0.12283
Nome City School District	720	3,166,000	0.18473
Matanuska-Susitna Borough School District	722	88,123,000	5.14194
Pelican City School District	723	62,000	0.00362
Petersburg City School District	724	2,977,000	0.17371
Sitka Borough School District	727	8,733,000	0.50957
Skagway City School District	728	896,000	0.05228
Unalaska City School District	729	2,265,000	0.13216
Valdez City School District	730	3,592,000	0.20959
Wrangell Public School District	731	1,519,000	0.08863
Yakutat School District	732	398,000	0.02322
University of Alaska	733	27,471,000	1.60292
Galena City School District	735	4,898,000	0.28580
North Slope Borough School District	736	15,882,000	0.92671
State of Alaska	737	11,408,000	0.66565
Bristol Bay Borough School District	742	742,000	0.04330
Southeast Regional Resource Center	743	365,000	0.02130
Dillingham City School District	744	3,027,000	0.17662
Kenai Peninsula Borough School District	746	45,953,000	2.68134
Saint Mary's School District	748	1,130,000	0.06594
Northwest Arctic Borough School District	751	14,372,000	0.83860
Bering Strait School District	752	13,657,000	0.79688
Lower Yukon School District	753	11,494,000	0.67067
Lower Kuskokwim School District	754	24,548,000	1.43236
Kuspuk School District	755	2,524,000	0.14727

**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, 2019

<u>Employer/nonemployer</u>	<u>Employer/ nonemployer number</u>	<u>Present value of projected future contributions</u>	<u>Allocation percentage</u>
Southwest Region School District	756	\$ 4,964,000	0.28965 %
Lake And Peninsula Borough School District	757	3,482,000	0.20317
Aleutian Region School District	758	316,000	0.01844
Pribilof School District	759	474,000	0.02766
Iditarod Area School District	761	1,436,000	0.08379
Yukon / Koyukuk School District	762	4,511,000	0.26321
Yukon Flats School District	763	2,129,000	0.12423
Denali Borough School District	764	2,276,000	0.13280
Delta/Greely School District	765	3,715,000	0.21677
Alaska Gateway School District	766	2,495,000	0.14558
Copper River School District	767	1,710,000	0.09978
Chatham School District	768	1,133,000	0.06611
Southeast Island School District	769	1,606,000	0.09371
Annette Island School District	770	2,202,000	0.12849
Chugach School District	771	1,361,000	0.07941
Tanana School District	775	384,000	0.02241
Kashunamiut School District	777	1,517,000	0.08852
Yupiit School District	778	2,753,000	0.16064
Special Education Service Agency	779	851,000	0.04966
Aleutians East Borough School District	780	2,014,000	0.11752
Total present value of projected future employer contributions		697,018,000	40.67069
Total nonemployer:			
State of Alaska	999	1,016,791,000	59.32931
Total for all entities		\$ 1,713,809,000	100.00000 %

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

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

Schedule of Pension Amounts by Employer and Nonemployer

As of and for the year ended June 30, 2019

Employer/nonemployer	Employer/ nonemployer number	Net pension liability	Deferred outflows of resources		
			Net difference between projected and actual investment earnings on pension plan investments	Change in proportion and difference between employer contributions and proportionate share of contributions	Total deferred outflows of resources
Employer:					
Anchorage School District	701	\$ 257,724,129	6,619,682	—	6,619,682
Cordova City School District	704	2,336,484	60,013	24,662	84,675
Craig City School District	705	2,047,558	52,592	—	52,592
Fairbanks North Star Borough School District	706	74,813,286	1,921,590	—	1,921,590
Haines Borough School District	707	1,419,553	36,461	—	36,461
Hoonah City School District	708	605,109	15,542	—	15,542
Hydaburg City School District	709	489,539	12,574	—	12,574
Juneau Borough School District	710	28,337,639	727,856	—	727,856
Kake City School District	712	932,195	23,944	53,026	76,970
Ketchikan Gateway Borough School District	714	13,989,467	359,322	—	359,322
Klawock City School District	717	1,242,927	31,925	—	31,925
Kodiak Island Borough School District	718	13,342,927	342,715	—	342,715
Nenana City School District	719	2,295,053	58,949	9,019	67,968
Nome City School District	720	3,451,847	88,661	—	88,661
Matanuska-Susitna Borough School District	722	96,079,327	2,467,812	—	2,467,812
Pelican City School District	723	67,598	1,736	—	1,736
Petersburg City School District	724	3,245,783	83,368	—	83,368
Sitka Borough School District	727	9,521,473	244,560	171,698	416,258
Skagway City School District	728	976,897	25,092	16,476	41,568
Unalaska City School District	729	2,469,499	63,429	—	63,429
Valdez City School District	730	3,916,309	100,591	—	100,591
Wrangell Public School District	731	1,656,145	42,538	—	42,538
Yakutat School District	732	433,934	11,146	—	11,146
University of Alaska	733	29,951,263	769,303	—	769,303
Galena City School District	735	5,340,224	137,164	—	137,164
North Slope Borough School District	736	17,315,932	444,762	776,323	1,221,085
State of Alaska	737	12,437,991	319,471	—	319,471
Bristol Bay Borough School District	742	808,993	20,779	48,379	69,158
Southeast Regional Resource Center	743	397,955	10,222	—	10,222
Dillingham City School District	744	3,300,298	84,769	—	84,769
Kenai Peninsula Borough School District	746	50,101,940	1,286,876	—	1,286,876
Saint Mary's School District	748	1,232,024	31,645	—	31,645
Northwest Arctic Borough School District	751	15,669,599	402,476	240,134	642,610
Bering Strait School District	752	14,890,044	382,453	—	382,453
Lower Yukon School District	753	12,531,754	321,880	—	321,880
Lower Kuskokwim School District	754	26,764,356	687,446	—	687,446
Kuspuk School District	755	2,751,883	70,683	—	70,683
Southwest Region School District	756	5,412,183	139,013	—	139,013
Lake And Peninsula Borough School District	757	3,796,378	97,511	—	97,511
Aleutian Region School District	758	344,531	8,849	—	8,849
Pribilof School District	759	516,796	13,274	—	13,274
Iditarod Area School District	761	1,565,652	40,214	7,336	47,550
Yukon / Koyukuk School District	762	4,918,283	126,327	96,798	223,125
Yukon Flats School District	763	2,321,220	59,621	35,176	94,797
Denali Borough School District	764	2,481,492	63,737	22,792	86,529
Delta/Greely School District	765	4,050,415	104,035	—	104,035
Alaska Gateway School District	766	2,720,265	69,870	—	69,870
Copper River School District	767	1,864,390	47,887	39,178	87,065
Chatham School District	768	1,235,295	31,729	—	31,729
Southeast Island School District	769	1,751,000	44,975	—	44,975
Annette Island School District	770	2,400,811	61,665	84,490	146,155
Chugach School District	771	1,483,880	38,114	26,515	64,629
Tanana School District	775	418,670	10,754	42,618	53,372
Kashunamiut School District	777	1,653,965	42,482	—	42,482
Yupit School District	778	3,001,559	77,095	—	77,095
Special Education Service Agency	779	927,834	23,832	7,918	31,750
Aleutians East Borough School District	780	2,195,837	56,400	—	56,400
Total attributable to employer contributions		759,949,390	19,519,411	1,702,538	21,221,949
Nonemployer:					
State of Alaska	999	1,108,593,610	28,474,389	10,836,781	39,311,170
Total for all entities		\$ 1,868,543,000	47,993,800	12,539,319	60,533,119

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	Change in assumptions	Change 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 change in proportion and difference between employer contributions and proportionate share of contributions	
					Proportionate share of contributions	Total pension expense (benefit)
6,988,804	1,823,906	4,132,213	12,944,923	19,803,485	(190,355)	19,613,130
63,359	16,535	—	79,894	179,535	247,709	427,244
55,524	14,491	168,415	238,430	157,334	(116,035)	41,299
2,028,741	529,451	190,678	2,748,870	5,748,642	1,592,131	7,340,773
38,495	10,046	121,169	169,710	109,078	(156,125)	(47,047)
16,409	4,282	9,749	30,440	46,496	(174,051)	(127,555)
13,275	3,464	68,817	85,556	37,616	(91,121)	(53,505)
768,443	200,545	75,952	1,044,940	2,177,460	292,900	2,470,360
25,279	6,597	—	31,876	71,630	(19,261)	52,369
379,358	99,003	279,109	757,470	1,074,949	16,957	1,091,906
33,705	8,796	19,979	62,480	95,506	37,877	133,383
361,825	94,428	784,045	1,240,298	1,025,269	(481,987)	543,282
62,236	16,242	—	78,478	176,352	101,174	277,526
93,605	24,429	273,514	391,548	265,239	(469,756)	(204,517)
2,605,420	679,951	1,503,931	4,789,302	7,382,721	308,517	7,691,238
1,833	478	1,488	3,799	5,194	(1,255)	3,939
88,017	22,970	13,309	124,296	249,406	39,752	289,158
258,197	67,383	—	325,580	731,629	474,697	1,206,326
26,491	6,913	—	33,404	75,065	34,565	109,630
66,966	17,477	73,927	158,370	189,756	(91,676)	98,080
106,200	27,716	491,481	625,397	300,929	(513,924)	(212,995)
44,910	11,720	45,603	102,233	127,258	(90,486)	36,772
11,767	3,071	29,908	44,746	33,343	(51,842)	(18,499)
812,200	211,964	815,790	1,839,954	2,301,451	(1,073,424)	1,228,027
144,813	37,793	224,690	407,296	410,342	(88,048)	322,294
469,563	122,544	—	592,107	1,330,554	2,008,283	3,338,837
337,289	88,027	22,995	448,311	955,730	(59,305)	896,425
21,938	5,725	—	27,663	62,163	97,003	159,166
10,791	2,816	108,598	122,205	30,579	(191,983)	(161,404)
89,495	23,356	12,896	125,747	253,594	(89,834)	163,760
1,358,634	354,570	288,370	2,001,574	3,849,826	917,442	4,767,268
33,409	8,719	42,509	84,637	94,669	33,720	128,389
424,919	110,893	—	535,812	1,204,050	865,806	2,069,856
403,779	105,376	988,776	1,497,931	1,144,149	(634,274)	509,875
339,828	88,687	466,339	894,854	962,938	(50,952)	911,986
725,779	189,411	713,420	1,628,610	2,056,569	(256,629)	1,799,940
74,624	19,475	18,390	112,489	211,454	(83,277)	128,177
146,764	38,302	61,218	246,284	415,871	423,068	838,939
102,948	26,867	101,138	230,953	291,713	95,260	386,973
9,343	2,438	4,004	15,785	26,474	5,654	32,128
14,014	3,657	38,048	55,719	39,711	(1,900)	37,811
42,456	11,080	—	53,536	120,304	79,811	200,115
133,371	34,807	—	168,178	377,920	349,310	727,230
62,945	16,427	—	79,372	178,362	172,543	350,905
67,292	17,561	—	84,853	190,678	129,345	320,023
109,837	28,665	66,173	204,675	311,233	3,026	314,259
73,766	19,251	25,738	118,755	209,025	90,935	299,960
50,557	13,194	—	63,751	143,259	11,918	155,177
33,498	8,742	19,637	61,877	94,920	(60,926)	33,994
47,483	12,392	16,727	76,602	134,547	57,577	192,124
65,104	16,990	—	82,094	184,478	141,473	325,951
40,239	10,501	—	50,740	114,021	55,355	169,376
11,353	2,963	—	14,316	32,171	13,009	45,180
44,851	11,705	85,057	141,613	127,090	(153,803)	(26,713)
81,394	21,242	83,772	186,408	230,639	224,242	454,881
25,160	6,566	—	31,726	71,295	35,232	106,527
59,545	15,540	51,747	126,832	168,728	(25,332)	143,396
20,607,840	5,378,140	12,539,319	38,525,299	58,394,399	3,738,730	62,133,129
30,062,160	7,845,485	—	37,907,645	85,184,167	(3,738,730)	81,445,437
50,670,000	13,223,625	12,539,319	76,432,944	143,578,566	—	143,578,566

**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, 2019

(1) Plan Description

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

The Plan is established under Alaska Statute 14.25, which defines the benefit and contribution provisions and may be amended only by the State of Alaska (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. The Plan is closed to all new members effective July 1, 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.

**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, 2019

(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 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 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 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 Plan for the fiscal years 2020 to 2039. 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 (the Board). Employer contributions were 8.41% of annual payroll for the fiscal year 2019.

Alaska Statute 14.25.085 requires the State, as a nonemployer contributing entity, to 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.

(5) Collective Net Pension Liability

(a) Components of Collective Net Pension Liability

The components of the collective net pension liability of the Plan as of June 30, 2019, is as follows:

Total pension liability	\$ 7,380,472,000
Plan fiduciary net position	<u>(5,511,929,000)</u>
Net pension liability	<u>\$ 1,868,543,000</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, 2019

The total pension liability for the June 30, 2019 measurement date was determined by an actuarial valuation as of June 30, 2018, which was rolled forward to June 30, 2019. This actuarial valuation used the following actuarial assumptions as of the June 30, 2019 measurement date:

Inflation	2.50% per year
Salary increases	Graded by service, from 6.75% to 2.75%
Investment rate of return	7.38%, net of pension plan investment expenses. This is based on an average inflation rate of 2.50% and a real rate of return of 4.88%.
Mortality	Pre-termination and post-termination mortality rates were based upon the 2013-2017 actual mortality experience. Pre-termination mortality rates were based on 100% of the RP-2014 white-collar employee table with MP-2017 generational improvement. Post-termination mortality rates were based on 93% of male and 90% of female rates of the RP-2014 white-collar healthy annuitant table with MP-2017 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.

The actuarial assumptions used in the June 30, 2018 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2013 to June 30, 2017. As a result of this experience study, the Board adopted updated actuarial assumptions for the June 30, 2018 actuarial valuation to better reflect expected future experience.

**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, 2019

(b) Long-Term Expected Rate of Return

The long-term expected rate of return on 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 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 by adding expected inflation. Best estimates of arithmetic real rates of return, excluding the inflation component of 2.50%, for each major asset class included in the Plan's target asset allocation is summarized in the following table:

Asset class	Long-term expected real rate of return
Domestic equity	8.16%
Global equity (non-U.S.)	7.51
Intermediate treasuries	1.58
Opportunistic	3.96
Real assets	4.76
Private equity	11.39
Cash equivalents	0.83

(c) Discount Rate

The discount rate used to measure the total pension liability was 7.38%. 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 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 Plan investments was applied to all periods of projected benefit payments to determine the total pension liability in accordance with the method prescribed by GASB Statement No. 67, *Financial Reporting for Pension Plans*. 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 2.79% as of June 30, 2019.

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

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June 30, 2019

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

The following presents the collective net pension liability of the Plan as of June 30, 2019 calculated using the discount rate of 7.38%, as well as what the Plan's collective 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:

	1% decrease (6.38%)	Current discount rate (7.38%)	1% increase (8.38%)
\$	2,691,688,000	1,868,543,000	1,177,412,000

(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, 2019:

	Year of deferral	Amortization period	Beginning of year balance	Additions	Deductions	End of year balance
Deferred outflows of resources:						
Difference between projected and actual earnings on pension plan investments						
	2015	5 years	\$ 43,368,000	—	43,368,000	—
	2016	5 years	176,335,600	—	88,167,800	88,167,800
	2017	5 years	(143,735,400)	—	(47,911,800)	(95,823,600)
	2018	5 years	(12,694,400)	—	(3,173,600)	(9,520,800)
	2019	5 years	—	81,463,000	16,292,600	65,170,400
			<u>\$ 63,273,800</u>	<u>81,463,000</u>	<u>96,743,000</u>	<u>47,993,800</u>
Deferred inflows of resources:						
Difference between expected and actual experience						
	2018	1.7 years	\$ 53,979,059	—	53,979,059	—
	2019	1.6 years	—	135,120,000	84,450,000	50,670,000
			<u>53,979,059</u>	<u>135,120,000</u>	<u>138,429,059</u>	<u>50,670,000</u>
Change in assumptions	2019	1.6 years	—	35,263,000	22,039,375	13,223,625
Total deferred inflows of resources			<u>\$ 53,979,059</u>	<u>170,383,000</u>	<u>160,468,434</u>	<u>63,893,625</u>

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

Notes to Schedule of Employer and Nonemployer Allocations and
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June 30, 2019

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 as follows:

Year ending June 30:	
2020	\$ (10,518,625)
2021	(34,792,800)
2022	13,119,000
2023	<u>16,292,600</u>
Total	<u>\$ (15,899,825)</u>

(7) Collective Pension Expense

The components of the collective pension expense (excluding employer specific amounts) for the year ending June 30, 2019 are as follows:

Service cost	\$ 60,810,000
Interest on total pension liability	575,706,000
Member contributions	(35,763,000)
Administrative expense	3,018,000
Expected investment return net of investment expenses	(396,435,000)
Other	(32,000)
Recognition (amortization) of deferred outflows/inflows of resources:	
Difference between projected and actual investment earnings on pension plan investments	96,743,000
Change in assumptions	(22,039,375)
Difference between expected and actual experience	<u>(138,429,059)</u>
Total pension expense	<u>\$ 143,578,566</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, 2019

Employer	Employer number	Present value of projected future State contributions	Employer proportionate share
Anchorage School District	701	\$ 350,573,000	34.47837 %
Cordova City School District	704	3,179,000	0.31265
Craig City School District	705	2,785,000	0.27390
Fairbanks North Star Borough School District	706	101,769,000	10.00884
Haines Borough School District	707	1,931,000	0.18991
Hoonah City School District	708	817,000	0.08035
Hydaburg City School District	709	661,000	0.06501
Juneau Borough School District	710	38,549,000	3.79124
Kake City School District	712	1,270,000	0.12490
Ketchikan Gateway Borough School District	714	19,025,000	1.87108
Klawock City School District	717	1,688,000	0.16601
Kodiak Island Borough School District	718	18,152,000	1.78522
Nenana City School District	719	3,123,000	0.30714
Nome City School District	720	4,696,000	0.46185
Matanuska-Susitna Borough School District	722	130,690,000	12.85318
Pelican City School District	723	94,000	0.00924
Petersburg City School District	724	4,418,000	0.43450
Sitka Borough School District	727	12,948,000	1.27342
Skagway City School District	728	1,327,000	0.13051
Unalaska City School District	729	3,358,000	0.33025
Valdez City School District	730	5,323,000	0.52351
Wrangell Public School District	731	2,254,000	0.22168
Yakutat School District	732	590,000	0.05803
University of Alaska	733	40,743,000	4.00702
Galena City School District	735	7,264,000	0.71440
North Slope Borough School District	736	23,555,000	2.31660
Bristol Bay Borough School District	742	1,099,000	0.10809
Southeast Regional Resource Center	743	544,000	0.05350
Dillingham City School District	744	4,483,000	0.44090
Kenai Peninsula Borough School District	746	68,151,000	6.70256
Saint Mary's School District	748	1,676,000	0.16483
Northwest Arctic Borough School District	751	21,312,000	2.09601
Bering Strait School District	752	20,255,000	1.99205
Lower Yukon School District	753	17,042,000	1.67606
Lower Kuskokwim School District	754	36,407,000	3.58058
Kuspuk School District	755	3,737,000	0.36753
Southwest Region School District	756	7,362,000	0.72404
Lake And Peninsula Borough School District	757	5,169,000	0.50836
Aleutian Region School District	758	469,000	0.04613

**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, 2019

Employer	Employer number	Present value of projected future State contributions	Employer proportionate share
Pribilof School District	759	\$ 702,000	0.06904 %
Iditarod Area School District	761	2,132,000	0.20968
Yukon / Koyukuk School District	762	6,692,000	0.65815
Yukon Flats School District	763	3,154,000	0.31019
Denali Borough School District	764	3,378,000	0.33222
Delta/Greely School District	765	5,511,000	0.54200
Alaska Gateway School District	766	3,700,000	0.36389
Copper River School District	767	2,532,000	0.24902
Chatham School District	768	1,680,000	0.16523
Southeast Island School District	769	2,384,000	0.23446
Annette Island School District	770	3,269,000	0.32150
Chugach School District	771	2,019,000	0.19857
Tanana School District	775	573,000	0.05635
Kashunamiut School District	777	2,252,000	0.22148
Yupit School District	778	4,081,000	0.40136
Special Education Service Agency	779	1,259,000	0.12382
Aleutians East Borough School District	780	2,985,000	0.29357
		\$ 1,016,791,000	100.00000 %

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, 2019

Employer	Employer number	State proportionate share of net pension liability attributable to employer	Employer pension expense and related revenue attributable to special funding situation
Anchorage School District	701	\$ 382,225,050	\$ 29,370,117
Cordova City School District	704	3,466,021	266,329
Craig City School District	705	3,036,448	233,320
Fairbanks North Star Borough School District	706	110,957,378	8,525,948
Haines Borough School District	707	2,105,343	161,774
Hoonah City School District	708	890,764	68,446
Hydaburg City School District	709	720,679	55,377
Juneau Borough School District	710	42,029,458	3,229,537
Kake City School District	712	1,384,664	106,397
Ketchikan Gateway Borough School District	714	20,742,703	1,593,866
Klawock City School District	717	1,840,404	141,416
Kodiak Island Borough School District	718	19,790,882	1,520,728
Nenana City School District	719	3,404,965	261,637
Nome City School District	720	5,119,986	393,419
Matanuska-Susitna Borough School District	722	142,489,557	10,948,876
Pelican City School District	723	102,487	7,875
Petersburg City School District	724	4,816,886	370,129
Sitka Borough School District	727	14,117,031	1,084,751
Skagway City School District	728	1,446,810	111,173
Unalaska City School District	729	3,661,182	281,325
Valdez City School District	730	5,803,596	445,947
Wrangell Public School District	731	2,457,506	188,834
Yakutat School District	732	643,269	49,429
University of Alaska	733	44,421,547	3,413,345
Galena City School District	735	7,919,842	608,559
North Slope Borough School District	736	25,681,701	1,973,378
Bristol Bay Borough School District	742	1,198,225	92,071
Southeast Regional Resource Center	743	593,116	45,575
Dillingham City School District	744	4,887,755	375,574
Kenai Peninsula Borough School District	746	74,304,123	5,709,518
Saint Mary's School District	748	1,827,320	140,411
Northwest Arctic Borough School District	751	23,236,188	1,785,465
Bering Strait School District	752	22,083,755	1,696,912
Lower Yukon School District	753	18,580,664	1,427,735
Lower Kuskokwim School District	754	39,694,065	3,050,086
Kuspuk School District	755	4,074,401	313,076

**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, 2019

Employer	Employer number	State proportionate share of net pension liability attributable to employer	Employer pension expense and related revenue attributable to special funding situation
Southwest Region School District	756	\$ 8,026,690	\$ 616,770
Lake And Peninsula Borough School District	757	5,635,691	433,046
Aleutian Region School District	758	511,344	39,292
Pribilof School District	759	765,381	58,812
Iditarod Area School District	761	2,324,491	178,614
Yukon / Koyukuk School District	762	7,296,198	560,639
Yukon Flats School District	763	3,438,764	264,234
Denali Borough School District	764	3,682,988	283,000
Delta/Greely School District	765	6,008,569	461,698
Alaska Gateway School District	766	4,034,060	309,977
Copper River School District	767	2,760,606	212,125
Chatham School District	768	1,831,682	140,746
Southeast Island School District	769	2,599,243	199,725
Annette Island School District	770	3,564,147	273,869
Chugach School District	771	2,201,289	169,147
Tanana School District	775	624,734	48,004
Kashunamiut School District	777	2,455,325	188,667
Yupitit School District	778	4,449,460	341,896
Special Education Service Agency	779	1,372,671	105,476
Aleutians East Borough School District	780	3,254,506	250,075
Total for all employers		\$ 1,108,593,610	\$ 85,184,167

See accompanying independent auditors' report.

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

Supplemental Schedule of Employer and Nonemployer Contributions (Unaudited)

For the year ended June 30, 2019

Employer/nonemployer	Employer number	Actual employer contributions
Employers:		
Anchorage School District	701	\$ 13,405,087
Cordova City School District	704	118,029
Craig City School District	705	114,814
Fairbanks North Star Borough School District	706	3,731,294
Haines Borough School District	707	38,117
Hoonah City School District	708	27,354
Hydaburg City School District	709	10,813
Juneau Borough School District	710	1,465,890
Kake City School District	712	18,019
Ketchikan Gateway Borough School District	714	826,781
Klawock City School District	717	73,941
Kodiak Island Borough School District	718	583,204
Nenana City School District	719	96,183
Nome City School District	720	113,224
Matanuska-Susitna Borough School District	722	4,982,200
Pelican City School District	723	(343)
Petersburg City School District	724	192,576
Sitka Borough School District	727	436,775
Skagway City School District	728	35,004
Unalaska City School District	729	72,536
Valdez City School District	730	248,144
Wrangell Public School District	731	74,356
Yakutat School District	732	21,722
University of Alaska	733	1,829,659
Galena City School District	735	221,982
North Slope Borough School District	736	649,289
State of Alaska	737	1,095,527
Bristol Bay Borough School District	742	26,751
Southeast Regional Resource Center	743	16,072
Dillingham City School District	744	82,530
Kenai Peninsula Borough School District	746	2,372,112
Saint Mary's School District	748	62,525
Northwest Arctic Borough School District	751	398,426
Bering Strait School District	752	405,562
Lower Yukon School District	753	519,029
Lower Kuskokwim School District	754	922,679
Kuspuk School District	755	76,182
Southwest Region School District	756	157,951
Lake And Peninsula Borough School District	757	46,896
Aleutian Region School District	758	11,751
Pribilof School District	759	9,192
Iditarod Area School District	761	45,915

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

Supplemental Schedule of Employer and Nonemployer Contributions (Unaudited)

For the year ended June 30, 2019

<u>Employer/nonemployer</u>	<u>Employer number</u>	<u>Actual employer contributions</u>
Yukon / Koyukuk School District	762	\$ 184,057
Yukon Flats School District	763	69,750
Denali Borough School District	764	110,107
Delta/Greely School District	765	170,907
Alaska Gateway School District	766	82,923
Copper River School District	767	47,105
Chatham School District	768	16,403
Southeast Island School District	769	45,295
Annette Island School District	770	71,948
Chugach School District	771	92,071
Tanana School District	775	11,848
Kashunamiut School District	777	42,981
Yupiiit School District	778	107,334
Special Education Service Agency	779	37,078
Aleutians East Borough School District	780	79,651
Total employer contributions		36,805,208
Nonemployer:		
State of Alaska	999	127,364,762
Total for all entities		\$ 164,169,970

See accompanying independent auditors' report.