

April 18, 2014

**VIA EMAIL**

Mr. Mike Barnhill  
Deputy Commissioner  
Department of Administration  
State of Alaska  
333 Willoughby Avenue  
6<sup>th</sup> Floor State Office Building  
Juneau, AK 99811-0208

**Re: Fiscal Note for CS HB 385 (Fin) Version - \$1 Billion / \$2 Billion Level % of Pay Amortization over 25 Years Proposal for Funding PERS and TRS**

Dear Mike:

As requested, we are providing the following information for a Fiscal Note on CS HB 385 (Fin), a Proposal that transfers an amount of \$3 billion from the budget reserve fund into the State of Alaska with \$1 billion allocated to the Public Employees' Retirement System (PERS) and \$2 billion to the Teachers' Retirement System (TRS) in fiscal year 2015. This proposal would also set the additional State contributions in fiscal years 2016 and thereafter based on a level percent of pay amortization of the unfunded liability over a 25 year period that is re-established in the 2015 fiscal year. The proposed changes would become effective as of July 1, 2014. Our results are based on the 2012 actuarial valuation results as the 2013 actuarial valuation results are not yet final. A projected analysis of the Proposal for PERS and TRS is shown in the exhibits following this letter.

**Actuarial Projection Analysis of Proposal**

The proposal changes the future pace and funding pattern of state and employer contributions to PERS and TRS. It does not change the benefit provisions, expected future benefit payments, or the actuarial liabilities of PERS and TRS. In order to measure the fiscal impact of the proposal, Buck performed 30-year actuarial projections of the expected funding patterns for both the current funding policy adopted by the Alaska Retirement Management Board (ARMB), referred to as the Baseline, and the Proposal.

First, the proposal provides increased immediate funding by transferring \$3 billion from the budget reserve fund to PERS and TRS in fiscal year 2015. This transfer immediately improves the funding levels of PERS and TRS and lowers future funding needs. Levels of funding at any point in time are measured by the funding ratio which equals the ratio of the systems assets divided by the accrued

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liability. For both PERS and TRS, the funding ratio is expected to increase almost 3% for PERS and 17% for TRS at the time of the transfer.

Second, future annual additional state assistance contributions are determined under the level percent amortization methodology over 25 years and are paid until the funding ratio reaches 100%. Based on our projections, we estimate this will occur in fiscal year 2040 for both PERS and TRS. This represents an extension of the funding period of nine years from the current policy which is expected to reach 100% funding by fiscal year 2031.

The overall impact to state funding of PERS and TRS is shown on Exhibit 1 and 2 attached. The fiscal impact of the \$3 billion transfer lowers overall state assistance funding, and the extension of the funding period by nine years increases overall employer funding. The net result is an increase in total state funding (state's contribution as an employer plus additional state assistance) from fiscal years 2015 to 2039 for PERS of \$2,134 million and an increase in total state funding for TRS of \$595 million, or a total increase of \$2,730 million. The funding of other non-state employers of PERS also increases from \$2,904 million to \$5,433 million, or a net increase of \$2,529 million. Greater detail of our projection results for both PERS and TRS is shown in Exhibits 3 through 6.

### **Funding Policy**

It should be noted that these projections are *not* predictions, but rather expectations assuming all of the actuarial assumptions are exactly realized, including an 8.00% investment rate of return in each year from 2014 to 2043. To the extent actual future experience is different from what we have assumed, the actual results will increase or decrease the funding levels shown in our projections. We recommend policy makers take this into consideration when setting long-term funding policy.

### **Summary for Analysis of Proposal**

The data, assumptions, plan provisions and methods used for the estimated costs are described in the actuarial valuation reports as of June 30, 2012 except that future contributions from the State have been based on the Proposal. We have also used the 12.50% investment rate of return in fiscal year 2013 and an 8.00% investment rate of return in all future years beyond fiscal year 2013 to project fund balances. The bill will become effective July 1, 2014.

Please let me know if you need any further information.

Sincerely,



David H. Sliskinsky, ASA, EA, MAAA, FCA  
Principal, Consulting Actuary

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c: Ms. Kathy Lea, State of Alaska  
Mr. Brandon Maitlen, State of Alaska  
Mr. Kevin Worley, State of Alaska  
Mr. Chris Hulla, Buck Consultants  
Ms. Kyla Kaltenbach, Buck Consultants

**Exhibit 1**

**State of Alaska PERS and TRS  
Financial Projections (in Thousands)  
Summary of State Assistance**

Fiscal Year End	Baseline - Current ARM Board Funding Policy			\$3B State Contribution in FY15; Level Percent of Pay Amortization; Re-initialize amortization and asset balances in FY15			Cost / (Savings) to Additional State Assistance		
	PERS	TRS	Total	PERS	TRS	Total	PERS	TRS	Total
2013	\$310,528	\$298,101	\$608,629	\$310,528	\$298,101	\$608,629	\$0	\$0	\$0
2014	312,473	316,847	629,320	312,473	316,847	629,320	0	0	0
2015	519,676	455,904	975,580	1,000,000	2,000,000	3,000,000	480,324	1,544,096	2,024,420
2016	563,210	485,905	1,049,115	188,455	156,287	344,742	(374,755)	(329,618)	(704,373)
2017	555,103	492,448	1,047,551	186,132	162,666	348,798	(368,971)	(329,782)	(698,753)
2018	528,170	488,074	1,016,244	182,657	169,536	352,193	(345,513)	(318,538)	(664,051)
2019	517,221	489,890	1,007,111	179,070	176,807	355,877	(338,151)	(313,083)	(651,234)
2020	487,881	484,378	972,259	177,066	184,564	361,630	(310,815)	(299,814)	(610,629)
2021	466,935	483,595	950,530	175,380	192,463	367,843	(291,555)	(291,132)	(582,687)
2022	445,553	482,885	928,438	174,823	200,507	375,330	(270,730)	(282,378)	(553,108)
2023	424,549	482,733	907,282	174,336	209,028	383,364	(250,213)	(273,705)	(523,918)
2024	404,298	482,225	886,523	174,934	218,552	393,486	(229,364)	(263,673)	(493,037)
2025	383,915	481,478	865,393	175,382	227,633	403,015	(208,533)	(253,845)	(462,378)
2026	363,879	481,273	845,152	176,029	236,974	413,003	(187,850)	(244,299)	(432,149)
2027	342,312	480,405	822,717	176,023	246,265	422,288	(166,289)	(234,140)	(400,429)
2028	320,269	479,517	799,786	176,808	256,034	432,842	(143,461)	(223,483)	(366,944)
2029	296,545	478,207	774,752	177,268	265,913	443,181	(119,277)	(212,294)	(331,571)
2030	0	249,950	249,950	177,862	275,790	453,652	177,862	25,840	203,702
2031	0	0	0	178,344	285,945	464,289	178,344	285,945	464,289
2032	0	0	0	178,346	295,550	473,896	178,346	295,550	473,896
2033	0	0	0	178,377	305,712	484,089	178,377	305,712	484,089
2034	0	0	0	176,786	315,844	492,630	176,786	315,844	492,630
2035	0	0	0	174,962	325,458	500,420	174,962	325,458	500,420
2036	0	0	0	173,065	334,707	507,772	173,065	334,707	507,772
2037	0	0	0	170,075	343,006	513,081	170,075	343,006	513,081
2038	0	0	0	164,880	349,374	514,254	164,880	349,374	514,254
2039	0	0	0	149,765	339,738	489,503	149,765	339,738	489,503
2040	0	0	0	0	0	0	0	0	0
2041	0	0	0	0	0	0	0	0	0
2042	0	0	0	0	0	0	0	0	0
2043	0	0	0	0	0	0	0	0	0
<b>Totals for 2015 &amp; After</b>	<b>\$6,619,516</b>	<b>\$7,478,867</b>	<b>\$14,098,383</b>	<b>\$5,216,825</b>	<b>\$8,074,353</b>	<b>\$13,291,178</b>	<b>(\$1,402,691)</b>	<b>\$595,486</b>	<b>(\$807,205)</b>

**Exhibit 2**

**State of Alaska PERS and TRS  
Financial Projections (in Thousands)**

Summary of Total State Contributions - State's Share of Employer Contributions Plus Additional State Assistance

Fiscal Year End	Baseline - Current ARM Board Funding Policy			\$3B State Contribution in FY15; Level Percent of Pay Amortization; Re-initialize amortization and asset balances in FY15			Total State Contribution Cost / (Savings)		
	PERS	TRS	Total	PERS	TRS	Total	PERS	TRS	Total
2013	\$559,312	\$298,101	\$857,413	\$559,312	\$298,101	\$857,413	\$0	\$0	\$0
2014	558,699	316,847	875,546	558,699	316,847	875,546	0	0	0
2015	764,457	455,904	1,220,361	1,244,781	2,000,000	3,244,781	480,324	1,544,096	2,024,420
2016	807,472	485,905	1,293,377	432,717	156,287	589,004	(374,755)	(329,618)	(704,373)
2017	799,743	492,448	1,292,191	430,772	162,666	593,438	(368,971)	(329,782)	(698,753)
2018	774,002	488,074	1,262,076	428,489	169,536	598,025	(345,513)	(318,538)	(664,051)
2019	765,041	489,890	1,254,931	426,890	176,807	603,697	(338,151)	(313,083)	(651,234)
2020	738,108	484,378	1,222,486	427,293	184,564	611,857	(310,815)	(299,814)	(610,629)
2021	720,186	483,595	1,203,781	428,631	192,463	621,094	(291,555)	(291,132)	(582,687)
2022	702,268	482,885	1,185,153	431,538	200,507	632,045	(270,730)	(282,378)	(553,108)
2023	685,320	482,733	1,168,053	435,107	209,028	644,135	(250,213)	(273,705)	(523,918)
2024	669,945	482,225	1,152,170	440,581	218,552	659,133	(229,364)	(263,673)	(493,037)
2025	655,062	481,478	1,136,540	446,529	227,633	674,162	(208,533)	(253,845)	(462,378)
2026	641,281	481,273	1,122,554	453,431	236,974	690,405	(187,850)	(244,299)	(432,149)
2027	626,623	480,405	1,107,028	460,334	246,265	706,599	(166,289)	(234,140)	(400,429)
2028	612,247	479,517	1,091,764	468,786	256,034	724,820	(143,461)	(223,483)	(366,944)
2029	596,985	478,207	1,075,192	477,708	265,913	743,621	(119,277)	(212,294)	(331,571)
2030	106,053	249,950	356,003	487,508	275,790	763,298	381,455	25,840	407,295
2031	4,534	0	4,534	498,055	285,945	784,000	493,521	285,945	779,466
2032	3,153	0	3,153	508,933	295,550	804,483	505,780	295,550	801,330
2033	2,467	0	2,467	520,726	305,712	826,438	518,259	305,712	823,971
2034	2,006	0	2,006	532,232	315,844	848,076	530,226	315,844	846,070
2035	1,197	0	1,197	544,206	325,458	869,664	543,009	325,458	868,467
2036	626	0	626	556,820	334,707	891,527	556,194	334,707	890,901
2037	326	0	326	569,148	343,006	912,154	568,822	343,006	911,828
2038	0	0	0	580,068	349,374	929,442	580,068	349,374	929,442
2039	0	0	0	581,997	339,738	921,735	581,997	339,738	921,735
2040	0	0	0	0	0	0	0	0	0
2041	0	0	0	0	0	0	0	0	0
2042	0	0	0	0	0	0	0	0	0
2043	0	0	0	0	0	0	0	0	0
<b>Totals 2015 &amp; After</b>	<b>\$10,679,102</b>	<b>\$7,478,867</b>	<b>\$18,157,969</b>	<b>\$12,813,280</b>	<b>\$8,074,353</b>	<b>\$20,887,633</b>	<b>\$2,134,178</b>	<b>\$595,486</b>	<b>\$2,729,664</b>

Note: Assumes TRS does not contain any State Employers.

**Exhibit 3**

**State of Alaska PERS  
Financial Projections (in Thousands)**

**Baseline - Level Dollar Amortization over 25 years and 12.5% Investment Return in FY13, 8% in FY14 and later years**

Fiscal Year End	Investment Return: 8.00%				Flow Amounts During Following 12 Months								Recognized Asset Gain/(Loss)	Ending Actuarial Assets	41.70% Municipal Er Cont's	58.30% State Er Cont's	State Assist Cont's	State Cont's	Total Er/State Cont's	
	Valuation Amounts on July 1 (Beginning of Fiscal Year)	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs								Investment Earnings
2013	\$11,832,030	\$19,292,361	61.3%	(\$7,460,331)	\$2,245,686	\$426,731	\$310,528	\$118,879	\$856,138	\$973,954	(\$117,816)	\$1,399,035	(\$924,132)	\$12,189,117	\$177,947	\$248,784	\$310,528	\$559,312	\$737,259	
2014	12,189,117	20,109,112	60.6%	(7,919,995)	2,295,881	422,343	312,473	120,633	855,449	1,056,528	(201,079)	994,291	195,922	13,178,251	176,117	246,226	312,473	558,699	734,816	
2015	13,178,251	20,885,260	63.1%	(7,707,009)	2,357,693	419,865	519,676	114,150	1,053,691	1,140,515	(86,824)	1,061,950	162,400	14,315,777	175,084	244,781	519,676	764,457	939,541	
2016	14,315,777	21,614,302	66.2%	(7,298,525)	2,428,744	418,974	563,210	107,781	1,089,965	1,225,841	(135,876)	1,137,751	(76,850)	15,240,802	174,712	244,262	563,210	807,472	982,184	
2017	15,240,802	22,291,137	68.4%	(7,050,335)	2,508,301	419,623	555,103	101,655	1,076,381	1,305,131	(228,750)	1,213,993	100,740	16,326,785	174,983	244,640	555,103	799,743	974,726	
2018	16,326,785	22,919,638	71.2%	(6,592,853)	2,595,896	421,668	528,170	95,970	1,045,808	1,380,741	(334,933)	1,288,394	0	17,280,246	175,836	245,832	528,170	774,002	949,838	
2019	17,280,246	23,501,895	73.5%	(6,221,649)	2,692,279	425,077	517,221	90,469	1,032,767	1,456,528	(423,761)	1,360,934	0	18,217,419	177,257	247,820	517,221	765,041	942,298	
2020	18,217,419	24,035,658	75.8%	(5,818,239)	2,792,589	429,205	487,881	85,274	1,002,360	1,537,884	(535,524)	1,431,251	0	19,113,146	178,978	250,227	487,881	738,108	917,086	
2021	19,113,146	24,512,466	78.0%	(5,399,320)	2,898,156	434,392	466,935	80,182	981,509	1,621,417	(639,908)	1,498,536	0	19,971,774	181,141	253,251	466,935	720,186	901,327	
2022	19,971,774	24,925,074	80.1%	(4,953,300)	3,008,108	440,335	445,553	75,193	961,081	1,698,588	(737,507)	1,563,139	0	20,797,406	183,620	256,715	445,553	702,268	885,888	
2023	20,797,406	25,278,587	82.3%	(4,481,181)	3,123,760	447,292	424,549	56,540	928,381	1,771,109	(842,728)	1,624,820	0	21,579,498	186,521	260,771	424,549	685,320	871,841	
2024	21,579,498	25,570,418	84.4%	(3,990,920)	3,248,785	455,655	404,298	51,656	911,609	1,835,920	(924,311)	1,683,971	0	22,339,158	190,008	265,647	404,298	669,945	859,953	
2025	22,339,158	25,795,109	86.6%	(3,455,951)	3,379,794	465,089	383,915	46,641	895,645	1,924,239	(1,028,594)	1,740,357	0	23,050,921	193,942	271,147	383,915	655,062	849,004	
2026	23,050,921	25,934,450	88.9%	(2,883,529)	3,517,793	475,818	363,879	42,214	881,911	1,991,781	(1,109,870)	1,793,885	0	23,734,936	198,416	277,402	363,879	641,281	839,697	
2027	23,734,936	26,004,608	91.3%	(2,269,672)	3,662,757	487,669	342,312	38,093	868,074	2,062,704	(1,194,630)	1,845,044	0	24,385,350	203,358	284,311	342,312	626,623	829,981	
2028	24,385,350	25,997,577	93.8%	(1,612,227)	3,815,471	500,820	320,269	33,958	855,047	2,123,648	(1,268,601)	1,893,972	0	25,010,721	208,842	291,978	320,269	612,247	821,089	
2029	25,010,721	25,917,989	96.5%	(907,268)	3,975,899	515,334	296,545	30,217	842,096	2,177,117	(1,335,021)	1,941,217	0	25,616,917	214,894	300,440	296,545	596,985	811,879	
2030	25,616,917	25,769,017	99.4%	(152,100)	4,143,703	181,909	0	26,520	208,429	2,226,897	(2,018,468)	1,962,735	0	25,561,184	75,856	106,053	0	106,053	181,909	
2031	25,561,184	25,549,181	100.0%	12,003	4,320,656	7,777	0	23,332	31,109	2,303,286	(2,272,177)	1,948,068	0	25,237,075	3,243	4,534	0	4,534	7,777	
2032	25,237,075	25,227,017	100.0%	10,058	4,506,592	5,408	0	20,730	26,138	2,351,333	(2,325,195)	1,919,899	0	24,831,779	2,255	3,153	0	3,153	5,408	
2033	24,831,779	24,821,687	100.0%	10,092	4,702,683	4,232	0	17,870	22,102	2,374,058	(2,351,956)	1,886,350	0	24,366,173	1,765	2,467	0	2,467	4,232	
2034	24,366,173	24,357,984	100.0%	8,189	4,915,446	3,441	0	15,238	18,679	2,405,178	(2,386,499)	1,847,642	0	23,827,316	1,435	2,006	0	2,006	3,441	
2035	23,827,316	23,817,428	100.0%	9,888	5,135,408	2,054	0	13,352	15,406	2,427,129	(2,411,723)	1,803,471	0	23,219,064	857	1,197	0	1,197	2,054	
2036	23,219,064	23,210,536	100.0%	8,528	5,363,274	1,073	0	11,263	12,336	2,461,663	(2,449,327)	1,753,220	0	22,522,957	447	626	0	626	1,073	
2037	22,522,957	22,515,424	100.0%	7,533	5,600,200	560	0	9,520	10,080	2,462,456	(2,452,376)	1,697,409	0	21,767,990	234	326	0	326	560	
2038	21,767,990	21,761,882	100.0%	6,108	5,846,914	0	0	7,601	7,601	2,440,642	(2,433,041)	1,637,843	0	20,972,792	0	0	0	0	0	
2039	20,972,792	20,968,326	100.0%	4,466	6,103,819	0	0	6,104	6,104	2,415,802	(2,409,698)	1,575,226	0	20,138,320	0	0	0	0	0	
2040	20,138,320	20,135,179	100.0%	3,141	6,368,696	0	0	5,095	5,095	2,423,877	(2,418,782)	1,508,085	0	19,227,623	0	0	0	0	0	
2041	19,227,623	19,225,406	100.0%	2,217	6,645,068	0	0	3,987	3,987	2,384,529	(2,360,542)	1,437,712	0	18,304,793	0	0	0	0	0	
2042	18,304,793	18,303,380	100.0%	1,413	6,931,674	0	0	2,773	2,773	2,308,626	(2,305,853)	1,366,218	0	17,365,158	0	0	0	0	0	
2043	17,365,158	17,364,761	100.0%	397	7,230,997	0	0	2,169	2,169	2,249,003	(2,246,834)	1,293,940	0	16,412,264	0	0	0	0	0	
<b>Totals 2015 &amp; After</b>						\$ 6,963,270	\$ 6,619,516	\$ 1,215,547	\$ 14,798,333					\$2,903,684	\$ 4,059,586	\$ 6,619,516	\$ 10,679,102	\$ 13,582,786		
															21.38%			78.62%	100.00%	

**Exhibit 4**

**State of Alaska PERS  
Financial Projections (in Thousands)  
Level Percent of Pay Amortization over 25 years and 12.5% Investment Return in FY13, 8% in FY14 and later years  
\$1B State Contribution in FY15; Re-initialize amortization and asset balances in FY15; Calculated State Contributions in future years**

Fiscal Year End	Investment Return: 8.00%				Flow Amounts During Following 12 Months								Recognized Asset Gain/(Loss)	Ending Actuarial Assets	41.70% Municipal Er Cont's	58.30% State Er Cont's	State Assist Cont's	State Cont's	Total Er/State Cont's					
	Valuation Amounts on July 1 (Beginning of Fiscal Year)	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs								Investment Earnings				
2013	\$11,832,030	\$19,292,361	61.3%	(\$7,460,331)	\$2,245,686	\$426,731	\$310,528	\$118,879	\$856,138	\$973,954	(\$117,816)	\$1,399,035	(\$924,132)	\$12,189,117	\$177,947	\$248,784	\$310,528	\$559,312	\$737,259					
2014	12,189,117	20,109,112	60.6%	(7,919,995)	2,295,881	422,343	312,473	120,633	855,449	1,056,528	(201,079)	994,291	195,922	13,178,251	176,117	246,226	312,473	558,699	734,816					
2015	13,364,540	20,885,260	63.1%	(7,707,009)	2,357,693	419,865	1,000,000	114,150	1,534,015	1,140,515	393,500	1,121,563	0	14,879,603	175,084	244,781	1,000,000	1,244,781	1,419,865					
2016	14,879,603	21,614,302	68.8%	(6,734,699)	2,428,744	418,974	188,455	107,781	715,210	1,225,841	(510,631)	1,173,927	0	15,542,899	174,712	244,262	188,455	432,717	607,429					
2017	15,542,899	22,291,137	69.7%	(6,748,238)	2,508,301	419,623	186,132	101,655	707,410	1,305,131	(597,721)	1,223,215	0	16,168,393	174,983	244,640	186,132	430,772	605,755					
2018	16,168,393	22,919,638	70.5%	(6,751,245)	2,595,896	421,668	182,657	95,970	700,295	1,380,741	(680,446)	1,269,615	0	16,757,562	175,836	245,832	182,657	428,489	604,325					
2019	16,757,562	23,501,895	71.3%	(6,744,333)	2,692,279	425,077	179,070	90,469	694,616	1,456,528	(761,912)	1,313,154	0	17,308,804	177,257	247,820	179,070	426,890	604,147					
2020	17,308,804	24,035,658	72.0%	(6,726,854)	2,792,589	429,205	177,066	85,274	691,545	1,537,884	(846,339)	1,353,588	0	17,816,053	178,978	250,227	177,066	427,293	606,271					
2021	17,816,053	24,512,466	72.7%	(6,696,413)	2,898,156	434,392	175,380	80,182	689,954	1,621,417	(931,463)	1,390,481	0	18,275,071	181,141	253,251	175,380	428,631	609,772					
2022	18,275,071	24,925,074	73.3%	(6,650,003)	3,008,108	440,335	174,823	75,193	690,351	1,698,588	(1,008,237)	1,423,910	0	18,690,744	183,620	256,715	174,823	431,538	615,158					
2023	18,690,744	25,278,587	73.9%	(6,587,843)	3,123,760	447,292	174,336	56,540	678,168	1,771,109	(1,092,941)	1,453,579	0	19,051,382	186,521	260,771	174,336	435,107	621,628					
2024	19,051,382	25,570,418	74.5%	(6,519,036)	3,248,785	455,655	174,934	51,656	682,245	1,835,920	(1,153,675)	1,479,855	0	19,377,562	190,008	265,647	174,934	440,581	630,589					
2025	19,377,562	25,795,109	75.1%	(6,417,547)	3,379,794	465,089	175,382	46,641	687,112	1,924,239	(1,237,127)	1,502,399	0	19,642,834	193,942	271,147	175,382	446,529	640,471					
2026	19,642,834	25,934,450	75.7%	(6,291,616)	3,517,793	475,818	176,029	42,214	694,061	1,991,781	(1,297,720)	1,521,045	0	19,866,159	198,416	277,402	176,029	453,431	651,847					
2027	19,866,159	26,004,608	76.4%	(6,138,449)	3,662,757	487,669	176,023	38,093	701,785	2,062,704	(1,360,919)	1,536,195	0	20,041,435	203,358	284,311	176,023	460,334	663,692					
2028	20,041,435	25,997,577	77.1%	(5,956,142)	3,815,471	500,820	176,808	33,958	711,586	2,123,648	(1,412,062)	1,548,039	0	20,177,412	208,842	291,978	176,808	468,786	677,628					
2029	20,177,412	25,917,989	77.9%	(5,740,577)	3,975,899	515,334	177,268	30,217	722,819	2,177,117	(1,454,298)	1,557,100	0	20,280,214	214,894	300,440	177,268	477,708	692,602					
2030	20,280,214	25,769,017	78.7%	(5,488,803)	4,143,703	531,126	177,862	26,520	735,508	2,226,897	(1,491,389)	1,563,727	0	20,352,552	221,480	309,646	177,862	487,508	708,988					
2031	20,352,552	25,549,181	79.7%	(5,196,629)	4,320,656	548,390	178,344	23,332	750,066	2,303,286	(1,553,220)	1,566,854	0	20,366,186	228,679	319,711	178,344	498,055	726,734					
2032	20,366,186	25,227,017	80.7%	(4,860,831)	4,506,592	567,044	178,346	20,730	766,120	2,351,333	(1,585,213)	1,566,529	0	20,347,502	236,457	330,587	178,346	508,933	745,390					
2033	20,347,502	24,821,687	82.0%	(4,474,185)	4,702,683	587,220	178,377	17,870	783,467	2,374,058	(1,590,591)	1,564,749	0	20,321,660	244,871	342,349	178,377	520,726	765,597					
2034	20,321,660	24,357,984	83.4%	(4,036,324)	4,915,446	609,685	176,786	15,238	801,709	2,405,178	(1,603,469)	1,562,007	0	20,280,198	254,239	355,446	176,786	532,232	786,471					
2035	20,280,198	23,817,428	85.1%	(3,537,230)	5,135,408	633,351	174,962	13,352	821,665	2,427,129	(1,605,464)	1,558,464	0	20,233,198	264,107	369,244	174,962	544,206	808,313					
2036	20,233,198	23,210,536	87.2%	(2,977,338)	5,363,274	658,242	173,065	11,263	842,570	2,461,663	(1,619,093)	1,553,977	0	20,168,082	274,487	383,755	173,065	556,820	831,307					
2037	20,168,082	22,515,424	89.6%	(2,347,342)	5,600,200	684,516	170,075	9,520	864,111	2,462,456	(1,598,345)	1,549,457	0	20,119,194	285,443	399,073	170,075	569,148	854,591					
2038	20,119,194	21,761,882	92.5%	(1,642,688)	5,846,914	712,157	164,880	7,601	884,638	2,440,642	(1,556,004)	1,547,068	0	20,110,258	296,969	415,188	164,880	580,068	877,037					
2039	20,110,258	20,968,326	95.9%	(858,068)	6,103,819	741,393	149,765	6,104	897,262	2,415,802	(1,518,540)	1,547,290	0	20,139,008	309,161	432,232	149,765	581,997	891,158					
2040	20,139,008	20,135,179	100.0%	3,829	6,368,696	0	0	5,095	5,095	2,423,877	(2,418,782)	1,508,140	0	19,228,366	0	0	0	0	0					
2041	19,228,366	19,225,406	100.0%	2,960	6,645,068	0	0	3,987	3,987	2,364,529	(2,360,542)	1,437,772	0	18,305,596	0	0	0	0	0					
2042	18,305,596	18,303,380	100.0%	2,216	6,931,674	0	0	2,773	2,773	2,308,626	(2,305,853)	1,366,282	0	17,366,025	0	0	0	0	0					
2043	17,366,025	17,364,761	100.0%	1,264	7,230,997	0	0	2,169	2,169	2,249,003	(2,246,834)	1,293,631	0	16,412,822	0	0	0	0	0					
<b>Totals 2015 &amp; After</b>														\$ 5,433,485	\$ 7,596,455	\$ 5,216,825	\$ 12,813,280	\$ 18,246,765						
														29.78%			70.22%			100.00%				

**Exhibit 5**

**State of Alaska TRS  
Financial Projections (in Thousands)**

**Baseline - Level Dollar Amortization over 25 years and 12.5% Investment Return in FY13, 8% in FY14 and later years**

Fiscal Year End	Investment Return: 8.00%				Flow Amounts During Following 12 Months								Recognized Asset Gain/(Loss)	Ending Actuarial Assets	
	Valuation Amounts on July 1 (Beginning of Fiscal Year)				Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs			Investment Earnings
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)											
2013	\$4,869,154	\$9,346,444	52.1%	(\$4,477,290)	\$743,957	49.56%	\$70,604	\$298,101	\$53,263	\$421,968	\$525,672	(\$103,704)	\$570,927	(\$393,887)	\$4,942,490
2014	4,942,490	9,651,582	51.2%	(4,709,092)	762,692	50.10%	67,056	316,847	54,446	438,349	556,844	(118,495)	402,046	90,090	5,316,131
2015	5,316,131	9,944,626	53.5%	(4,628,495)	783,438	66.31%	63,594	455,904	52,102	571,600	586,966	(15,366)	428,675	72,872	5,802,312
2016	5,802,312	10,223,597	56.8%	(4,421,285)	805,914	67.76%	60,182	485,905	49,736	595,823	618,454	(22,631)	461,350	(29,854)	6,211,177
2017	6,211,177	10,485,997	59.2%	(4,274,820)	830,268	66.16%	56,857	492,448	47,420	596,725	648,576	(51,851)	495,200	43,566	6,698,092
2018	6,698,092	10,731,508	62.4%	(4,033,416)	855,825	63.28%	53,492	488,074	45,199	586,765	675,904	(89,139)	529,114	0	7,138,067
2019	7,138,067	10,963,107	65.1%	(3,825,040)	882,669	61.18%	50,127	489,890	42,905	582,922	705,092	(122,170)	562,919	0	7,578,816
2020	7,578,816	11,177,357	67.8%	(3,598,541)	911,010	58.30%	46,741	484,378	40,631	571,750	739,563	(167,813)	596,273	0	8,007,276
2021	8,007,276	11,367,833	70.4%	(3,360,557)	940,957	56.00%	43,341	483,595	38,284	565,220	771,294	(206,074)	628,943	0	8,430,145
2022	8,430,145	11,533,410	73.1%	(3,103,265)	973,382	53.73%	40,113	482,885	35,978	558,976	799,992	(241,016)	661,306	0	8,850,435
2023	8,850,435	11,678,589	75.8%	(2,828,154)	1,008,495	51.55%	37,146	482,733	26,120	545,999	825,117	(279,118)	693,351	0	9,264,668
2024	9,264,668	11,804,774	78.5%	(2,540,106)	1,045,905	49.38%	34,243	482,225	23,847	540,315	847,540	(307,225)	725,312	0	9,682,755
2025	9,682,755	11,906,243	81.3%	(2,223,488)	1,085,268	47.26%	31,420	481,478	21,488	534,386	877,945	(343,559)	757,232	0	10,096,428
2026	10,096,428	11,978,919	84.3%	(1,882,491)	1,126,840	45.26%	28,735	481,273	19,269	529,277	915,165	(385,888)	788,541	0	10,499,081
2027	10,499,081	12,014,999	87.4%	(1,515,918)	1,170,697	43.27%	26,156	480,405	17,092	523,653	942,377	(418,724)	819,374	0	10,899,731
2028	10,899,731	12,019,893	90.7%	(1,120,162)	1,217,232	41.35%	23,808	479,517	14,972	518,297	965,075	(446,778)	850,250	0	11,303,203
2029	11,303,203	11,999,271	94.2%	(696,068)	1,266,672	39.47%	21,748	478,207	13,047	513,002	988,765	(475,763)	881,311	0	11,708,751
2030	11,708,751	11,947,250	98.0%	(238,499)	1,318,359	20.47%	19,918	249,950	11,338	281,206	1,015,267	(734,061)	903,533	0	11,878,223
2031	11,878,223	11,862,365	100.1%	15,858	1,373,136	0.24%	3,296	0	9,749	13,045	1,052,765	(1,039,720)	904,975	0	11,743,478
2032	11,743,478	11,727,157	100.1%	16,321	1,430,917	0.17%	2,433	0	8,442	10,875	1,071,218	(1,060,343)	893,325	0	11,576,460
2033	11,576,460	11,561,467	100.1%	14,993	1,491,916	0.13%	1,939	0	7,161	9,100	1,076,092	(1,066,992)	879,686	0	11,389,154
2034	11,389,154	11,375,441	100.1%	13,713	1,556,143	0.10%	1,556	0	6,069	7,625	1,087,071	(1,079,446)	864,176	0	11,173,884
2035	11,173,884	11,161,401	100.1%	12,483	1,622,872	0.07%	1,136	0	5,031	6,167	1,110,566	(1,104,399)	845,897	0	10,915,382
2036	10,915,382	10,904,315	100.1%	11,067	1,692,489	0.05%	846	0	4,231	5,077	1,108,805	(1,103,728)	825,250	0	10,636,904
2037	10,636,904	10,627,228	100.1%	9,676	1,764,921	0.03%	529	0	3,530	4,059	1,104,345	(1,100,286)	803,121	0	10,339,739
2038	10,339,739	10,331,515	100.1%	8,224	1,840,538	0.02%	368	0	2,945	3,313	1,098,370	(1,095,057)	779,573	0	10,024,255
2039	10,024,255	10,017,472	100.1%	6,783	1,919,401	0.02%	384	0	2,303	2,687	1,092,046	(1,089,359)	754,579	0	9,689,475
2040	9,689,475	9,684,161	100.1%	5,314	2,000,850	0.02%	400	0	1,801	2,201	1,079,552	(1,077,351)	728,309	0	9,340,433
2041	9,340,433	9,336,574	100.0%	3,859	2,085,904	0.01%	209	0	1,460	1,669	1,066,437	(1,064,768)	700,923	0	8,976,588
2042	8,976,588	8,974,342	100.0%	2,246	2,174,467	0.01%	217	0	1,087	1,304	1,048,163	(1,046,859)	672,579	0	8,602,308
2043	8,602,308	8,601,721	100.0%	587	2,266,698	0.00%	0	0	907	907	1,020,993	(1,020,086)	644,587	0	8,226,809
<b>Totals 2015 &amp; After</b>					<b>\$</b>	<b>650,934</b>	<b>\$</b>	<b>7,478,867</b>	<b>\$</b>	<b>554,144</b>	<b>\$</b>	<b>8,683,945</b>			



**Exhibit 6**

**State of Alaska TRS  
Financial Projections (in Thousands)**

**Level Percent of Pay Amortization over 25 years and 12.5% Investment Return in FY13, 8% in FY14 and later years  
\$2B State Contribution in FY15; Re-initialize amortization and asset balances in FY15; Calculated State Contributions in future years**

Investment Return: 8.00%

Fiscal Year End	Valuation Amounts on July 1 (Beginning of Fiscal Year)				Flow Amounts During Following 12 Months										Recognized Asset Gain/(Loss)	Ending Actuarial Assets
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings			
2013	\$4,869,154	\$9,346,444	52.1%	(\$4,477,290)	\$743,957	49.56%	\$70,604	\$298,101	\$53,263	\$421,968	\$525,672	(\$103,704)	\$570,927	(\$393,887)	\$4,942,490	
2014	4,942,490	9,651,582	51.2%	(4,709,092)	762,692	50.34%	67,056	316,847	54,446	438,349	556,844	(118,495)	402,046	90,090	5,316,131	
2015	5,390,462	9,944,626	53.5%	(4,628,495)	783,438	263.40%	63,594	2,000,000	52,102	2,115,696	586,966	1,528,730	570,790	0	7,489,982	
2016	7,489,982	10,223,597	73.3%	(2,733,615)	805,914	26.86%	60,182	156,287	49,736	266,205	618,454	(352,249)	589,687	0	7,727,420	
2017	7,727,420	10,485,997	73.7%	(2,758,577)	830,268	26.44%	56,857	162,666	47,420	266,943	648,576	(381,633)	607,689	0	7,953,476	
2018	7,953,476	10,731,508	74.1%	(2,778,032)	855,825	26.06%	53,492	169,536	45,199	268,227	675,904	(407,677)	624,941	0	8,170,740	
2019	8,170,740	10,963,107	74.5%	(2,792,367)	882,669	25.71%	50,127	176,807	42,905	269,839	705,092	(435,253)	641,439	0	8,376,926	
2020	8,376,926	11,177,357	74.9%	(2,800,431)	911,010	25.39%	46,741	184,564	40,631	271,936	739,563	(467,627)	656,865	0	8,566,164	
2021	8,566,164	11,367,833	75.4%	(2,801,669)	940,957	25.06%	43,341	192,463	38,284	274,088	771,294	(497,206)	671,060	0	8,740,018	
2022	8,740,018	11,533,410	75.8%	(2,793,392)	973,382	24.72%	40,113	200,507	35,978	276,598	799,992	(523,394)	684,173	0	8,900,797	
2023	8,900,797	11,678,589	76.2%	(2,777,792)	1,008,495	24.41%	37,146	209,028	26,120	272,294	825,117	(552,823)	696,144	0	9,044,118	
2024	9,044,118	11,804,774	76.6%	(2,760,656)	1,045,905	24.17%	34,243	218,552	23,847	276,642	847,540	(570,898)	707,214	0	9,180,434	
2025	9,180,434	11,906,243	77.1%	(2,725,809)	1,085,268	23.87%	31,420	227,633	21,488	280,541	877,945	(597,404)	717,348	0	9,300,378	
2026	9,300,378	11,978,919	77.6%	(2,678,541)	1,126,840	23.58%	28,735	236,974	19,269	284,978	915,165	(630,187)	725,914	0	9,396,105	
2027	9,396,105	12,014,999	78.2%	(2,618,894)	1,170,697	23.27%	26,156	246,265	17,092	289,513	942,377	(652,864)	732,971	0	9,476,212	
2028	9,476,212	12,019,893	78.8%	(2,543,681)	1,217,232	22.99%	23,808	256,034	14,972	294,814	965,075	(670,261)	739,019	0	9,544,970	
2029	9,544,970	11,999,271	79.5%	(2,454,301)	1,266,672	22.71%	21,748	265,913	13,047	300,708	988,765	(688,057)	744,146	0	9,601,059	
2030	9,601,059	11,947,250	80.4%	(2,346,191)	1,318,359	22.43%	19,918	275,790	11,338	307,046	1,015,267	(708,221)	748,156	0	9,640,994	
2031	9,640,994	11,862,365	81.3%	(2,221,371)	1,373,136	22.16%	18,342	285,945	9,749	314,036	1,052,765	(738,729)	750,443	0	9,652,708	
2032	9,652,708	11,727,157	82.3%	(2,074,449)	1,430,917	21.84%	16,962	295,550	8,442	320,954	1,071,218	(750,264)	751,257	0	9,653,701	
2033	9,653,701	11,561,467	83.5%	(1,907,766)	1,491,916	21.55%	15,796	305,712	7,161	328,669	1,076,092	(747,423)	751,846	0	9,658,124	
2034	9,658,124	11,375,441	84.9%	(1,717,317)	1,556,143	21.25%	14,836	315,844	6,069	336,749	1,087,071	(750,322)	752,463	0	9,660,265	
2035	9,660,265	11,161,401	86.6%	(1,501,136)	1,622,872	20.92%	14,047	325,458	5,031	344,536	1,110,566	(766,030)	752,331	0	9,646,566	
2036	9,646,566	10,904,315	88.5%	(1,257,749)	1,692,489	20.57%	13,438	334,707	4,231	352,376	1,108,805	(756,429)	751,995	0	9,642,132	
2037	9,642,132	10,627,228	90.7%	(985,096)	1,764,921	20.17%	12,979	343,006	3,530	359,515	1,104,345	(744,830)	752,449	0	9,649,751	
2038	9,649,751	10,331,515	93.4%	(681,764)	1,840,538	19.67%	12,660	349,374	2,945	364,979	1,098,370	(733,391)	753,786	0	9,670,146	
2039	9,670,146	10,017,472	96.5%	(347,326)	1,919,401	18.35%	12,472	339,738	2,303	354,513	1,092,046	(737,533)	754,884	0	9,687,497	
2040	9,687,497	9,684,161	100.0%	3,336	2,000,850	0.02%	400	0	1,801	2,201	1,079,552	(1,077,351)	729,131	0	9,339,277	
2041	9,339,277	9,336,574	100.0%	2,703	2,085,904	0.01%	209	0	1,460	1,669	1,066,437	(1,064,768)	701,811	0	8,976,320	
2042	8,976,320	8,974,342	100.0%	1,978	2,174,467	0.01%	217	0	1,087	1,304	1,048,163	(1,046,859)	673,538	0	8,602,999	
2043	8,602,999	8,601,721	100.0%	1,278	2,266,698	0.00%	0	0	907	907	1,020,993	(1,020,086)	644,814	0	8,227,727	
<b>Totals 2015 &amp; After</b>					<b>\$</b>	<b>769,979</b>	<b>\$</b>	<b>8,074,353</b>	<b>\$</b>	<b>554,144</b>	<b>\$</b>	<b>9,398,476</b>				