Conduent Human Resource Services
Retirement Services

State of Alaska

Teachers' Retirement System Defined Contribution Retirement Plan

For Occupational Death and Disability and retiree Medical Benefits

Actuarial Valuation Report
As of June 30, 2016

May 2017

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May 23, 2017

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Certification of Actuarial Valuation

Dear Members of The Alaska Retirement Management Board, The Department of Revenue and The Department of Administration:

This report summarizes the annual actuarial valuation results of the State of Alaska Teachers' Retirement System Defined Contribution Retirement (TRS DCR) Plan as of June 30, 2016 performed by Conduent HR Services, LLC (Conduent), formerly known as Buck Consultants, LLC.

The actuarial valuation is based on financial information provided in the financial statements audited by KPMG LLP and member data provided by the Division of Retirement and Benefits and summarized in this report. The benefits considered are those delineated in Alaska statutes effective June 30, 2016. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Conduent is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of the Plan as of June 30, 2016.

TRS DCR is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for TRS DCR is to pay required contributions that remain level as a percent of TRS DCR compensation. The Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, Plan expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of TRS DCR compensation over a closed layered 25-year period. This objective is currently being met and is projected to continue to be met as required by the Alaska state statutes.

The Board and staff of the State of Alaska may use this report for the review of the operations of TRS DCR. Use of this report, for any other purpose or by anyone other than the Board or staff of the State of Alaska may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Conduent to review any statement you wish to make on the results contained in this report. Conduent will not accept any liability for any such statement made without the review by Conduent.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. In particular, retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. An analysis of the potential range of such future differences is beyond the scope of this valuation.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the Plan. The actuary performs an analysis of Plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The last full experience analysis was performed for the period July 1, 2009 to June 30, 2013. Based on that experience study, the Board adopted new assumptions effective for the June 30, 2014 valuation to better reflect expected future experience. Based on our annual analysis of recent claims experience, changes were made to the per capita claims cost rates effective June 30, 2016 to better reflect expected future healthcare experience. The DCR medical plan design was finalized in July 2016, and we adjusted cost factors accordingly to estimate the value of the benefits. Based on recent experience, the healthcare cost trend assumptions are still reasonable and were not changed. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Sections 5.2 and 5.3.

The assumptions and methods used to determine the healthcare Actuarial Required Contributions (ARC) of the Employers to TRS DCR as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Based on member data and asset information provided by the Division of Retirement and Benefits, we have prepared the trend data schedule under GASB No. 43 that is included in the Financial Section of the CAFR. We have also prepared the member data tables shown in Section 3 of this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions, solvency test, and analysis of financial experience for the Actuarial Section of the CAFR.

David Kershner is a Fellow of the Society of Actuaries and Larry Langer is an Associate of the Society of Actuaries. Both are Fellows of the Conference of Consulting Actuaries and Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Respectfully submitted,

David J. Kershner, FSA, EA, MAAA, FCA
Principal

Larry Langer, ASA, EA, MAAA, FCA
Principal

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters in accordance with the Qualification Standards of the American Academy of Actuaries.

Melissa A. Bissett, FSA, MAAA
Senior Consultant, Health & Productivity

Contents

Executive Summary

Overview

The State of Alaska Teachers' Retirement System Defined Contribution Retirement (TRS DCR) Plan provides occupational death & disability and retiree medical benefits to teachers and other eligible members hired after June 30, 2006 or who have elected participation in this plan. The Commissioner of the Department of Administration is responsible for administering the Plan. The Alaska Retirement Management Board has fiduciary responsibility over the assets of the Plan. This report presents the results of the actuarial valuation of the Plan as of the valuation date of June 30, 2016.

Purpose

An actuarial valuation is performed on the retirement plan annually as of the end of the fiscal year. The main purposes of the actuarial valuation detailed in this report are:

1. To determine the Employer/State contribution necessary to meet the Board's funding policy for the Plan;
2. To disclose the funding assets and liability measures as of the valuation date;
3. To disclose the healthcare accounting measures for the Plan required by GASB No. 43 for the last fiscal year;
4. To review the current funded status of the Plan and assess the funded status as an appropriate measure for determining actuarially determined contributions;
5. To compare actual and expected experience under the Plan during the last fiscal year; and
6. To report trends in contributions, assets, liabilities, and funded status over the last several years.

The actuarial valuation provides a "snapshot" of the funded position of TRS DCR based on the plan provisions, membership, assets, and actuarial assumptions as of the valuation date.

Funded Status

Where presented, references to "funded ratio" and "unfunded accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

Funded Status as of June 30[1] ($'s in 000's)	2015	2016
a. Actuarial Accrued Liability	$ 19,797	$ 22,007
b. Valuation Assets	20,847	28,733
c. Unfunded Actuarial Accrued Liability, (a) – (b)	$ (1,050)	$ (6,726)
d. Funded Ratio based on Valuation Assets, (b) ÷ (a)	105.3%	130.6%
e. Fair Value of Assets	$ 20,919	$ 27,216
f. Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	105.7%	123.7%

As shown above, the funded ratio based on valuation assets as of June 30, 2016 has increased from 105.3% to 130.6%. The total calculated employer contribution rate has decreased from 0.91% of payroll for FY18 to 0.73% for FY19. The key reasons for the change in the funded status are explained below.

The funded status for healthcare benefits is not necessarily an appropriate measure to confirm that assets are sufficient to settle health plan obligations as there are no available financial instruments for purchase. Future experience is likely to vary from assumptions thus a potential for actuarial gains or losses.

1. Retiree Medical Experience

Please refer to the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2016 for a full description of the assumptions and costs of the retiree medical plan. Adjustments from these costs and assumptions are described in this report.

The recent claims experience, described in Section 5.1 of this report (Section 6.2 of the TRS report) and noted in #7 below, created an actuarial gain of approximately $2.8 million.

2. Investment Experience

The approximate FY16 investment return based on fair value was (0.1)% compared to the expected investment return of 8.00% (net of investment and administrative expenses of approximately 0.4%). This resulted in a loss of approximately $1.9 million to the Plan from investment experience. The asset valuation method recognizes 20 percent of this loss ($389,000) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY12 investment loss, 20 percent of the FY13 investment gain, 20 percent of the FY14 investment gain and 20 percent of the FY15 investment loss were recognized this year. The approximate FY16 asset return based on actuarial value was 6.5% compared to the expected asset return of 8.00% (net of investment and administrative expenses).

1 Includes occupational death & disability and retiree medical benefits.

3. Salary Increases

During the period from June 30, 2015 to June 30, 2016, salary increases for continuing active members were slightly less than anticipated in the valuation assumptions.

4. Demographic Experience

The number of active members increased 7.03% from 4,095 at June 30, 2015 to 4,383 at June 30, 2016. The number of active members is growing annually since the opening of TRS DCR to new entrants as of July 1, 2006. The average age of active members increased from 39.15 to 39.57 and average credited service increased from 4.19 to 4.50 years.

The demographic experience gains/losses are shown on page 5.

5. Changes in Methods Since the Prior Valuation

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

6. Changes in Assumptions Since the Prior Valuation

There have been no changes in assumptions since the prior valuation. Healthcare claim costs are updated annually as described in Section 5.2.

7. Changes in Benefit Provisions Since the Prior Valuation

There have been changes in DCR medical benefit provisions since the prior valuation to reflect the adopted design as of July 2016. These changes are described in Section 5.1.

Comparative Summary of Key Actuarial Valuation Results

Total Employer/State Contribution Rates for Occupational Death & Disability for Fiscal Year:	2018	2019
a. Employer Normal Cost Rate	0.07%	0.08%
b. Past Service Cost Rate	(0.07)%	(0.08)%
c. Total Employer/State Contribution Rate, (a) + (b), not less than 0%	0.00%	0.00%
Total Employer/State Contribution Rates for Retiree Medical for Fiscal Year:	**2018**	**2019**
a. Employer Normal Cost Rate	0.85%	0.79%
b. Past Service Cost Rate	0.06%	(0.06)%
c. Total Employer/State Contribution Rate, (a) + (b), not less than 0%	0.91%	0.73%
Total Employer/State Contribution Rates for Fiscal Year:	**2018**	**2019**
a. Total Employer/State Contribution Rate	0.91%	0.73%
b. Board Adopted Total Employer/State Contribution Rate	0.91%	TBD

The exhibit below shows the historical Board adopted employer contribution rates for TRS DCR.

		Total Employer/State Contribution Rate		
Valuation Date	Fiscal Year	Occupational Death & Disability	Retiree Medical	Total
N/A	FY07	N/A	1.75%	1.75%
N/A	FY08	0.56%	0.99%	1.55%
N/A	FY09	0.62%	0.99%	1.61%
June 30, 2007	FY10	0.32%	1.03%	1.35%
June 30, 2008	FY11	0.28%	0.68%	0.96%
June 30, 2009	FY12	0.00%	0.58%	0.58%
June 30, 2010	FY13	0.00%	0.49%	0.49%
June 30, 2011	FY14	0.00%	0.47%	0.47%
June 30, 2012	FY15	0.00%	2.04%	2.04%
June 30, 2013	FY16	0.00%	2.04%	2.04%
June 30, 2014	FY17	0.00%	1.05%	1.05%
June 30, 2015	FY18	0.00%	0.91%	0.91%
June 30, 2016	FY19	TBD	TBD	TBD

Contribution rates are based on salary for TRS DCR members only.

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, retiree medical liabilities are gross of the retiree drug subsidy and are based on a discount rate in accordance with GASB parameters. Under GASB No. 43, the amortization of the unfunded liabilities is calculated as a level dollar amount.

Summary of Actuarial Gain/(Loss)

The following table shows the FY16 gain/(loss) on total actuarial accrued liability as of June 30, 2016 ($'s in 000's):

	Occupational Death & Disability	Retiree Medical	Total
Retirement Experience	$ 0	$ 0	$ 0
Termination Experience	(4)	1,313	1,309
Active Mortality Experience	58	(22)	36
Inactive Mortality Experience	0	0	0
Disability Experience	159	(22)	137
New Entrants	0	(1,176)	(1,176)
Rehires	0	0	0
Other Demographic Experience[1]	19	(987)	(968)
Salary Increases	0	N/A	0
Medical Claims Costs	N/A	(3,632)	(3,632)
EGWP Impact	N/A	6,400	6,400
Total	$ 232	$ 1,874	$ 2,106

[1] Reflects data and programming changes. Programming changes include one less year of delay for PRPA death benefits and refinements for deferred disability benefits.

Section 1 Actuarial Funding Results

Section 1.1 Actuarial Liabilities and Normal Cost
($'s in 000's)

As of June 30, 2016	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
Active Members		
Occupational Death Benefits	$ 562	$ 61
Occupational Disability Benefits	1,360	(42)
Medical and Prescription Drug Benefits	44,794	27,300
Medicare Part D Subsidy	(8,680)	(5,312)
Subtotal	$ 38,036	$ 22,007
Benefit Recipients		
Survivor Benefits	$ 0	$ 0
Disability Benefits	0	0
Medical and Prescription Drug Benefits	0	0
Medicare Part D Subsidy	0	0
Subtotal	$ 0	$ 0
Total	**$ 38,036**	**$ 22,007**
Total Occupational Death & Disability	**$ 1,922**	**$ 19**
Total Retiree Medical, Net of Part D Subsidy	**$ 36,114**	**$ 21,988**
Total Retiree Medical, Gross of Part D Subsidy	**$ 44,794**	**$ 27,300**

As of June 30, 2016	Normal Cost
Active Members	
Occupational Death Benefits	$ 65
Occupational Disability Benefits	173
Medical and Prescription Drug Benefits	2,950
Medicare Part D Subsidy	(578)
Subtotal	$ 2,610
Total	**$ 2,610**
Total Occupational Death & Disability	**$ 238**
Total Retiree Medical, Net of Part D Subsidy	**$ 2,372**
Total Retiree Medical, Gross of Part D Subsidy	**$ 2,950**

Section 1.2 Actuarial Contributions for FY19
($'s in 000's)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical	Total
1. Total Normal Cost	$ 238	$ 2,372	$ 2,610
2. DCR Plan Rate Payroll Projected for FY17	300,750	300,750	300,750
3. Employer Normal Cost Rate, (1) ÷ (2)	0.08%	0.79%	0.87%
Past Service Rate			
1. Actuarial Accrued Liability	$ 19	$ 21,988	$ 22,007
2. Valuation Assets	3,323	25,410	28,733
3. Total Unfunded Actuarial Accrued Liability, (1) – (2)	$ (3,304)	$ (3,422)	$ (6,726)
4. Funded Ratio based on Valuation Assets	17,489.5%	115.6%	130.6%
5. Past Service Cost Amortization Payment	(238)*	(171)	(409)
6. DCR Plan Rate Payroll Projected for FY17	300,750	300,750	300,750
7. Past Service Cost Rate, (5) ÷ (6)	(0.08)%*	(0.06)%	(0.14)%
Total Employer/State Contribution Rate, not less than 0%	**0.00%**	**0.73%**	**0.73%**

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer/State Contribution Rate as Percent of Total Payroll	Occupational Death & Disability	Retiree Medical	Total
1. Total Normal Cost	$ 238	$ 2,372	$ 2,610
2. Total DB and DCR Plan Rate Payroll Projected for FY17	750,379	750,379	750,379
3. Employer Normal Cost Rate, (1) ÷ (2)	0.03%	0.32%	0.35%
4. Past Service Cost Amortization Payment	$ (238)*	$ (171)	$ (409)
5. Past Service Cost Rate, (4) ÷ (2)	(0.03)%*	(0.02)%	(0.05)%
6. Total Employer/State Contribution Rate, (3) + (5)	0.00%	0.30%	0.30%

*Adjusted to offset normal cost, so employer contribution is not less than $0.

Schedule of Past Service Cost Amortizations – Occupational Death & Disability

Charge	Amortization Period: Date Created	Amortization Period: Years Left	Balances: Initial	Balances: Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	16	$ 16	$ 16	$ 1
FY08 Gain	06/30/2008	17	(392)	(407)	(33)
Change in Assumptions	06/30/2009	18	(82)	(84)	(6)
FY09 Gain	06/30/2009	18	(594)	(623)	(48)
Change in Assumptions	06/30/2010	19	(7)	(8)	(1)
FY10 Gain	06/30/2010	19	(479)	(501)	(37)
FY11 Gain	06/30/2011	20	(560)	(583)	(42)
FY12 Gain	06/30/2012	21	(129)	(135)	(9)
FY13 Gain	06/30/2013	22	(149)	(153)	(10)
Change in Assumptions	06/30/2014	23	(50)	(52)	(3)
PRPA Modification	06/30/2014	23	(25)	(25)	(2)
FY14 Gain	06/30/2014	23	(255)	(260)	(17)
FY15 Gain	06/30/2015	24	(275)	(279)	(18)
FY16 Gain	06/30/2016	25	(209)	(209)	(13)
Total				**$ (3,303)**	**$ (238)**

Schedule of Past Service Cost Amortizations – Retiree Medical

Charge	Amortization Period: Date Created	Amortization Period: Years Left	Balances: Initial	Balances: Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	16	$ (239)	$ (251)	$ (21)
Change in Assumptions	06/30/2008	17	84	91	7
FY08 Gain	06/30/2008	17	(393)	(407)	(33)
Change in Assumptions	06/30/2009	18	(69)	(70)	(5)
FY09 Gain	06/30/2009	18	(281)	(296)	(23)
Change in Assumptions[1]	06/30/2010	19	0	0	0
FY10 Gain	06/30/2010	19	(545)	(569)	(42)
FY11 Gain	06/30/2011	20	(94)	(97)	(7)
Change in Assumptions	06/30/2012	21	11,518	11,962	835
FY12 Gain	06/30/2012	21	(60)	(60)	(4)
FY13 Loss	06/30/2013	22	3,439	3,549	241
Change in Assumptions	06/30/2014	23	(9,736)	(9,957)	(658)
FY14 Loss	06/30/2014	23	1,616	1,652	109
FY15 Gain	06/30/2015	24	(3,485)	(3,527)	(227)
EGWP Impact	06/30/2016	25	(6,400)	(6,400)	(403)
FY16 Loss	06/30/2016	25	958	958	60
Total				**$ (3,422)**	**$ (171)**

[1] The net effect of changing assumptions was less than $1,000. The demographic assumption changes decreased liability by $133,000 and the economic assumption changes increased the liability by $133,000. Therefore, the net effect of all assumption changes is $0 for amortization purposes.

Schedule of Past Service Cost Amortizations – Total

	Amortization Period		Balances		Beginning-of-
Charge	Date Created	Years Left	Initial	Outstanding	Year Payment
Initial Unfunded Liability	06/30/2007	16	$ (223)	$ (235)	$ (20)
Change in Assumptions	06/30/2008	17	84	91	7
FY08 Gain	06/30/2008	17	(785)	(814)	(66)
Change in Assumptions	06/30/2009	18	(151)	(154)	(11)
FY09 Gain	06/30/2009	18	(875)	(919)	(71)
Change in Assumptions	06/30/2010	19	(7)	(8)	(1)
FY10 Gain	06/30/2010	19	(1,024)	(1,070)	(79)
FY11 Gain	06/30/2011	20	(654)	(680)	(49)
Change in Assumptions	06/30/2012	21	11,518	11,962	835
FY12 Gain	06/30/2012	21	(189)	(195)	(13)
FY13 Loss	06/30/2013	22	3,290	3,396	231
Change in Assumptions	06/30/2014	23	(9,786)	(10,009)	(661)
PRPA Modification	06/30/2014	23	(25)	(25)	(2)
FY14 Loss	06/30/2014	23	1,361	1,392	92
FY15 Gain	06/30/2015	24	(3,760)	(3,806)	(245)
EGWP Impact	06/30/2016	25	(6,400)	(6,400)	(403)
FY16 Loss	06/30/2016	25	749	749	47
Total				**$ (6,725)**	**$ (409)**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 16.442543. The amortization method is level percentage of pay.

The equivalent single amortization period is 27.

Section 1.3 Actuarial Gain/(Loss) for FY16
($'s in 000's)

		Occupational Death & Disability	Retiree Medical	Total
1.	Expected Actuarial Accrued Liability			
	a. Actuarial Accrued Liability, June 30, 2015	$ 29	$ 19,768	$ 19,797
	b. Normal Cost for FY16	203	2,326	2,529
	c. Interest on (a) and (b) at 8.00%	19	1,768	1,787
	d. Benefit Payments for FY16	0	0	0
	e. Interest on (d) at 8.00%, adjusted for timing	0	0	0
	f. EGWP Impact	0	6,400	6,400
	g. Expected Actuarial Accrued Liability as of June 30, 2016, (a) + (b) + (c) – (d) – (e) – (f)	$ 251	$ 17,462	$ 17,713
2.	Actual Actuarial Accrued Liability, June 30, 2016	19	21,988	22,007
3.	**Liability Gain/(Loss), (1)(g) – (2)**	**$ 232**	**$ (4,526)**	**$ (4,294)**
4.	Expected Actuarial Asset Value			
	a. Actuarial Asset Value, June 30, 2015	$ 3,114	$ 17,733	$ 20,847
	b. Interest on (a) at 8.00%	249	1,419	1,668
	c. Employer/State Contributions for FY16	1	6,318	6,319
	d. Interest on (c) at 8.00%, adjusted for timing	0	248	248
	e. Benefit Payments for FY16	0	0	0
	f. Interest on (e) at 8.00%, adjusted for timing	0	0	0
	g. Expected Actuarial Asset Value, June 30, 2016, (a) + (b) + (c) + (d) – (e) – (f)	$ 3,364	$ 25,718	$ 29,082
5.	Actuarial Asset Value, June 30, 2016	3,323	25,410	28,733
6.	**Actuarial Asset Gain/(Loss), (5) – (4)(g)**	**$ (41)**	**$ (308)**	**$ (349)**
7.	**Actuarial Gain/(Loss), (3) + (6)**	**$ 191**	**$ (4,834)**	**$ (4,643)**
8.	**Contribution Gain/(Loss)**	**$ 18**	**$ 3,876**	**$ 3,894**
9.	**FY16 Gain/(Loss), (7) + (8)**	**$ 209**	**$ (958)**	**$ (749)**

Section 1.4 History of Unfunded Liability and Funded Ratio
($'s in 000's)

Valuation Date	Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)
June 30, 2007	$ 374	$ 597	159.7%	$ (223)
June 30, 2008	$ 801	$ 1,728	215.7%	$ (927)
June 30, 2009	$ 1,460	$ 3,424	234.5%	$ (1,964)
June 30, 2010	$ 2,448	$ 5,472	223.5%	$ (3,024)
June 30, 2011	$ 3,858	$ 7,566	196.1%	$ (3,708)
June 30, 2012	$ 16,874	$ 9,285	55.0%	$ 7,589
June 30, 2013	$ 22,138	$ 11,146	50.3%	$ 10,992
June 30, 2014	$ 16,296	$ 13,611	83.5%	$ 2,685
June 30, 2015	$ 19,797	$ 20,847	105.3%	$ (1,050)
June 30, 2016	$ 22,007	$ 28,733	130.6%	$ (6,726)

Section 2 Plan Assets

Section 2.1 Summary of Fair Value of Assets
($'s in 000's)

As of June 30, 2016	Occupational Death & Disability	Retiree Medical	Total	Allocation Percent
Cash and Short-Term Investments				
- Cash and Cash Equivalents	$ 33	$ 1,217	$ 1,250	4.7%
- Subtotal	$ 33	$ 1,217	$ 1,250	4.7%
Fixed Income Investments				
- Domestic Fixed Income Pool	$ 179	$ 1,284	$ 1,463	5.4%
- International Fixed Income Pool	50	357	407	1.5%
- Taxable Fixed Income Pool	26	330	356	1.3%
- High Yield Pool	110	789	899	3.4%
- Treasury Inflation Protection Pool	8	54	62	0.2%
- Emerging Debt Pool	21	153	174	0.7%
- Subtotal	$ 394	$ 2,967	$ 3,361	12.5%
Equity Investments				
- Domestic Equity Pool	$ 815	$ 5,844	$ 6,659	24.9%
- International Equity Pool	622	4,460	5,082	19.0%
- International Equity Small Cap Pool	42	302	344	1.3%
- Private Equity Pool	249	1,788	2,037	7.6%
- Emerging Markets Equity Pool	89	641	730	2.7%
- Alternative Equity	133	954	1,087	4.1%
- Subtotal	$ 1,950	$ 13,989	$ 15,939	59.6%
Other Investments				
- Real Estate Pool	$ 246	$ 1,765	$ 2,011	7.5%
- Other Investments Pool	308	2,209	2,517	9.4%
- Absolute Return Pool	206	1,475	1,681	6.3%
- Other Assets	0	0	0	0.0%
- Subtotal	$ 760	$ 5,449	$ 6,209	23.2%
Total Cash and Investments	$ 3,137	$ 23,622	$ 26,759	100.0%
Net Accrued Receivables	0	457	457	
Net Assets	$ 3,137	$ 24,079	$ 27,216	

Section 2.2 Changes in Fair Value of Assets During FY16
($'s in 000's)

Fiscal Year 2016		Occupational Death & Disability	Retiree Medical	Total
1.	Net Assets, June 30, 2015 (fair value)	$ 3,153	$ 17,766	$ 20,919
2.	Additions:			
a.	Member Contributions	$ 0	$ 0	$ 0
b.	Employer/State Contributions	1	6,318	6,319
c.	Interest and Dividend Income	57	361	418
d.	Net Appreciation (Depreciation) in Fair Value of Investments	(65)	(275)	(340)
e.	Other	0	0	0
f.	Total Additions	$ (7)	$ 6,404	$ 6,397
3.	Deductions:			
a.	Medical Benefits	$ 0	$ 0	$ 0
b.	Death & Disability Benefits	0	0	0
c.	Investment Expenses	1	5	6
d.	Administrative Expenses	8	86	94
e.	Total Deductions	$ 9	$ 91	$ 100
4.	Net Assets, June 30, 2016 (fair value)	$ 3,137	$ 24,079	$ 27,216
	Approximate Fair Value Investment Return Rate During FY16 Net of All Expenses	-0.5%	0.0%	(0.1)%

Section 2.3 Development of Actuarial Value of Assets
($'s in 000's)

The actuarial value of assets and the fair value were $0 at June 30, 2006. Investment gains and losses are recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of fair value as of the current valuation date.

		Occupational Death & Disability		Retiree Medical		Total
1. Investment Gain/(Loss) for FY16						
a. Fair Value, June 30, 2015	$	3,153	$	17,766	$	20,919
b. Contributions for FY16		1		6,318		6,319
c. Benefit Payments		0		0		0
d. Actual Investment Return *(net of expenses)*		(17)		(5)		(22)
e. Expected Return Rate *(net of expenses)*		8.00%		8.00%		8.00%
f. Expected Return		252		1,669		1,921
g. Investment Gain/(Loss) for the Year (d) – (f)		(269)		(1,674)		(1,943)
2. Actuarial Value, June 30, 2016						
a. Fair Value, June 30, 2016	$	3,137	$	24,079	$	27,216
b. Deferred Investment Gain/(Loss) as of June 30, 2016		(186)		(1,331)		(1,517)
c. Preliminary Actuarial Value, June 30, 2016 (a) – (b)	$	3,323	$	25,410	$	28,733
d. Upper Limit: 120% of Fair Value, June 30, 2016	$	3,764	$	28,894	$	32,658
e. Lower Limit: 80% of Fair Value, June 30, 2016	$	2,510	$	19,264	$	21,774
f. Actuarial Value, June 30, 2016, (c) limited by (d) and (e)	$	3,323	$	25,410	$	28,733
3. Ratio of Actuarial Value of Assets to Fair Value of Assets		105.9%		105.5%		105.6%
4. Approximate Actuarial Value Investment Return Rate During FY16 Net of All Expenses		6.7%		6.5%		6.5%

The tables below show the development of the investment gain/(loss) to be recognized in the current year.

Occupational Death & Disability				
Fiscal Year Ended	**Asset Gain/(Loss)**	**Gain/(Loss) Recognized in Prior Years**	**Gain/(Loss) Recognized This Year**	**Gain/(Loss) Deferred to Future Years**
6/30/2012	$ (150)	$ (120)	$ (30)	$ 0
6/30/2013	99	60	20	19
6/30/2014	272	108	54	110
6/30/2015	(168)	(34)	(34)	(100)
6/30/2016	(269)	0	(54)	(215)
Total	**$ (216)**	**$ 14**	**$ (44)**	**$ (186)**

Retiree Medical				
Fiscal Year Ended	**Asset Gain/(Loss)**	**Gain/(Loss) Recognized in Prior Years**	**Gain/(Loss) Recognized This Year**	**Gain/(Loss) Deferred to Future Years**
6/30/2012	$ (382)	$ (304)	$ (78)	$ 0
6/30/2013	278	168	56	54
6/30/2014	928	372	186	370
6/30/2015	(694)	(139)	(139)	(416)
6/30/2016	(1,674)	0	(335)	(1,339)
Total	**$ (1,544)**	**$ 97**	**$ (310)**	**$ (1,331)**

Total				
Fiscal Year Ended	**Asset Gain/(Loss)**	**Gain/(Loss) Recognized in Prior Years**	**Gain/(Loss) Recognized This Year**	**Gain/(Loss) Deferred to Future Years**
6/30/2012	$ (532)	$ (424)	$ (108)	$ 0
6/30/2013	377	228	76	73
6/30/2014	1,200	480	240	480
6/30/2015	(862)	(173)	(173)	(516)
6/30/2016	(1,943)	0	(389)	(1,554)
Total	**$ (1,760)**	**$ 111**	**$ (354)**	**$ (1,517)**

Section 2.4 Historical Asset Rates of Return

	Actuarial Value		Fair Value	
Year Ending	**Annual**	**Cumulative***	**Annual**	**Cumulative***
June 30, 2008	6.4%	6.4%	(0.3)%	(0.3)%
June 30, 2009	3.2%	4.8%	(12.0)%	(6.3)%
June 30, 2010	4.2%	4.6%	6.4%	(2.3)%
June 30, 2011	7.4%	5.3%	18.9%	2.6%
June 30, 2012	6.9%	5.6%	1.6%	2.4%
June 30, 2013	7.7%	6.0%	11.9%	3.9%
June 30, 2014	10.9%	6.6%	18.0%	5.8%
June 30, 2015	9.5%	7.0%	3.1%	5.5%
June 30, 2016	6.5%	6.9%	-0.1%	4.9%

*Cumulative since FYE June 30, 2008.

Section 3 Accounting Information

Section 3.1 Schedule of Funding Progress
($'s in 000's)

Schedule of Funding Progress

The exhibit below shows the death and disability plan disclosure under GASB No. 25 for fiscal years 2007 through 2013. Pension accounting figures for fiscal years after 2013 are subject to GASB 67. Per KPMG, the new accounting standards under GASB 67 are not applicable to the Occupational Death & Disability benefits under this Plan.

	Actuarial Accrued Liabilities (AAL)	Actuarial Value of Assets	Funded Ratio	Unfunded AAL (UAAL)	Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30, 2013	$ 80	$ 2,532	3,165.0%	$ (2,452)	$ 206,771	(1.2)%
June 30, 2012	63	2,348	3,727.0%	(2,285)	200,043	(1.1)%
June 30, 2011	57	2,193	3,847.4%	(2,136)	170,606	(1.3)%
June 30, 2010	18	1,577	8,761.1%	(1,559)	118,813	(1.3)%
June 30, 2009	14	1,071	7,650.0%	(1,057)	89,708	(1.2)%
June 30, 2008	44	420	954.5%	(376)	56,369	(0.7)%
June 30, 2007	16	0	0.0%	16	28,410	0.1%

Pension accounting figures for fiscal years after 2013 are subject to GASB 67. Per KPMG, the new accounting standards under GASB 67 are not applicable to the Occupational Death & Disability benefits under this Plan.

The exhibit below shows the retiree medical disclosure without regard to Medicare Part D under GASB No. 43.

	Actuarial Accrued Liabilities (AAL)	Actuarial Value of Assets	Funded Ratio	Unfunded AAL (UAAL)	Covered Payroll	UAAL as a Percentage of Covered Payroll
June 30, 2016[1]	$ 53,070	$ 25,410	47.9%	$ 27,660	$ 289,714	9.5%
June 30, 2015	42,743	17,733	41.5%	25,010	255,186	9.8%
June 30, 2014	18,290	10,791	59.0%	7,499	229,971	3.3%
June 30, 2013	25,152	8,614	34.2%	16,538	206,771	8.0%
June 30, 2012	19,427	6,937	35.7%	12,490	200,043	6.2%
June 30, 2011	4,386	5,373	122.5%	(987)	170,606	(0.6)%
June 30, 2010	2,809	3,895	138.7%	(1,086)	118,813	(0.9)%
June 30, 2009	1,690	2,353	139.2%	(663)	89,708	(0.7)%
June 30, 2008	899	1,308	145.5%	(409)	56,369	(0.7)%
June 30, 2007	403	597	148.1%	(194)	28,410	(0.7)%

[1] Based on the partially funded discount rate of 5.5%. As of June 30, 2016, neither EGWP (adopted July 1, 2017 effective January 1, 2018) nor RDS are reflected for the GASB 43 valuation results.

Section 3.2 Schedule of Employer/State Contributions
($'s in 000's)

Schedule of Employer/State Contributions

The following shows the death and disability disclosure under GASB No. 25 for fiscal years ending 2007 through 2013. Pension accounting figures for fiscal years after 2013 are subject to GASB 67. Per KPMG, the new accounting standards under GASB 67 are not applicable to the Occupational Death & Disability benefits under this Plan.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2013	$ 0	100%
June 30, 2012	0	100%
June 30, 2011	474	100%
June 30, 2010	442	100%
June 30, 2009	623	100%
June 30, 2008	408	100%
June 30, 2007	72	0%

The following shows the retiree medical disclosure without regard to Medicare Part D subsidy under GASB No. 43 for fiscal year ending 2007 and later.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2016	$ 6,837	92%
June 30, 2015	6,099	93%
June 30, 2014	1,334	89%
June 30, 2013	1,241	89%
June 30, 2012	1,420	82%
June 30, 2011	1,422	81%
June 30, 2010	1,628	87%
June 30, 2009	1,162	85%
June 30, 2008	763	85%
June 30, 2007	575	100%

The exhibit below shows the annual required contribution (ARC) as a percentage of pay.

Valuation Date	Fiscal Year	Total Employer/State Contribution Rate		
		Occupational Death & Disability	Retiree Medical	Total
N/A	FY07	N/A	1.75%	1.75%
N/A	FY08	0.56%	1.16%	1.72%
N/A	FY09	0.62%	1.16%	1.78%
June 30, 2007	FY10	0.32%	1.18%	1.50%
June 30, 2008	FY11	0.28%	0.84%	1.12%
June 30, 2009	FY12	0.00%	0.71%	0.71%
June 30, 2010	FY13	0.00%	0.60%	0.60%
June 30, 2011	FY14	0.00%	0.58%	0.58%
June 30, 2012	FY15	0.00%	2.39%	2.39%
June 30, 2013	FY16	0.00%	2.36%	2.36%
June 30, 2014	FY17	0.00%	1.23%	1.23%
June 30, 2015	FY18	N/A*	N/A*	N/A*
June 30, 2016	FY19	N/A*	N/A*	N/A*

*GASB 74 accounting will be in effect beginning in FY17 and will be provided in a separate report.

GASB 43 ARC is based on DCR salary only and a level dollar basis to determine normal cost and amortization of the unfunded liability. These amounts are converted to percentage of pay. DB salary is the same salary used for determination of employer contribution rates.

Section 3.3 Notes to Trend Data

Actuarial Assumptions, Methods and Additional Information Under GASB

Valuation Date	June 30, 2016
Actuarial Cost Method	Entry Age Normal Level Percentage of Pay Normal Cost Basis for Occupational Death & Disability Level Dollar Normal Cost Basis for Retiree Medical
Amortization Method	Level Percentage of Pay for Occupational Death & Disability, Level Dollar for Retiree Medical. Closed with bases established annually.
Equivalent Single Amortization Period	12 years to reflect Retiree Medical liabilities without regard to Medicare Part D.
Asset Valuation Method	5-year smoothed market, 80% to 120% of fair value corridor
Actuarial Assumptions:	
Investment rate of return*	8.00% for Occupational Death & Disability (net of expenses), 5.50% for Retiree Medical
Projected salary increases	8.11% for first year of service grading down to 3.87% after 22 years

*Includes inflation at 3.12%

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

GASB 43 outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of assumed plan and employer asset returns on 1) the funded ratio and 2) the percentage of the annual required contribution (ARC) actually being contributed to the plan. The State of Alaska has utilized the first methodology to develop a discount rate to be used for June 30, 2015 disclosure.

TRS DCR retiree medical benefits were 34.2% funded as of June 30, 2013 (beginning of FY14), so for fiscal year ending 2016 a partially funded discount rate is required for disclosure. Based upon the funded ratio, an 8.00% fully funded discount rate and a 4.25% unfunded discount rate, the partially funded rate used only for GASB 43 purposes is 5.50%.

Based on GASB accounting rules, the retiree drug subsidy the State of Alaska receives under Medicare Part D has not been recognized for GASB 43 disclosure purposes.

As of June 20, 2016, neither EGWP (adopted July 1, 2017 effective January 1, 2018) nor RDS are reflected for the GASB 43 valuation results.

Section 3.4 Solvency Test
($'s in 000's)

The exhibit below shows the combined occupational death & disability and retiree medical solvency test for valuation dates June 30, 2010 and before.

	Actuarial Accrued Liability For:				Portion of Actuarial Accrued Liability Covered by Assets		
	(1)	(2)	(3)				
Valuation Date	Active Member Contributions	Inactive Members	Active Members (Employer-Financed Portion)	Valuation Assets	(1)	(2)	(3)
June 30, 2010[1]	$ 0	$ 0	$ 2,448	$ 5,472	100.0%	100.0%	100.0%
June 30, 2009[1]	0	0	1,460	3,424	100.0%	100.0%	100.0%
June 30, 2008[1]	0	0	801	1,728	100.0%	100.0%	100.0%
June 30, 2007	0	0	374	597	100.0%	100.0%	100.0%
June 30, 2006	0	0	0	0	100.0%	100.0%	100.0%

Retiree medical liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

[1] Change in Assumptions

The exhibit below shows the occupational death & disability solvency test for valuation dates June 30, 2006 and later.

	Occupational Death & Disability Actuarial Accrued Liability For:				Portion of Actuarial Accrued Liability Covered by Assets		
Valuation Date	(1) Active Member Contributions	(2) Inactive Members	(3) Active Members (Employer-Financed Portion)	Occupational Death & Disability Valuation Assets	(1)	(2)	(3)
June 30, 2016	$ 0	$ 0	$ 19	$ 3,323	100.0%	100.0%	100.0%
June 30, 2015	0	0	29	3,114	100.0%	100.0%	100.0%
June 30, 2014[1]	0	0	23	2,820	100.0%	100.0%	100.0%
June 30, 2013	0	0	80	2,532	100.0%	100.0%	100.0%
June 30, 2012	0	0	63	2,348	100.0%	100.0%	100.0%
June 30, 2011	0	0	57	2,193	100.0%	100.0%	100.0%
June 30, 2010[1]	0	0	18	1,577	100.0%	100.0%	100.0%
June 30, 2009[1]	0	0	14	1,071	100.0%	100.0%	100.0%
June 30, 2008	0	0	44	420	100.0%	100.0%	100.0%
June 30, 2007	0	0	16	0	100.0%	100.0%	0.0%
June 30, 2006	0	0	0	0	N/A	N/A	N/A

[1] Change in Assumptions

The exhibit below shows the retiree medical solvency test for valuation dates June 30, 2006 and later.

	Retiree Medical Actuarial Accrued Liability For:				Portion of Actuarial Accrued Liability Covered by Assets		
	(1)	(2)	(3)				
Valuation Date	Active Member Contributions	Inactive Members	Active Members (Employer-Financed Portion)	Retiree Medical Valuation Assets	(1)	(2)	(3)
June 30, 2016	$ 0	$ 0	$ 21,988	$ 25,410	100.0%	100.0%	100.0%
June 30, 2015	0	0	19,768	17,733	100.0%	100.0%	89.7%
June 30, 2014[1]	0	0	16,273	10,791	100.0%	100.0%	66.3%
June 30, 2013	0	0	22,058	8,614	100.0%	100.0%	39.1%
June 30, 2012[1]	0	0	16,811	6,937	100.0%	100.0%	41.3%
June 30, 2011	0	0	3,801	5,373	100.0%	100.0%	100.0%
June 30, 2010[1]	0	0	2,430	3,895	100.0%	100.0%	100.0%
June 30, 2009[1]	0	0	1,446	2,353	100.0%	100.0%	100.0%
June 30, 2008[1]	0	0	757	1,308	100.0%	100.0%	100.0%
June 30, 2007	0	0	358	597	100.0%	100.0%	100.0%
June 30, 2006	0	0	0	0	N/A	N/A	N/A

Retiree medical liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

[1] Change in Assumptions

Section 4 Member Data

Section 4.1 Summary of Members Included

As of June 30	2012	2013	2014	2015	2016[1]
Active Members					
1. Number	3,057	3,272	3,547	4,095	4,383
2. Average Age	37.61	38.10	38.52	39.15	39.57
3. Average Credited Service	3.00	3.52	3.90	4.19	4.50
4. Average Entry Age	34.61	34.58	34.62	34.96	35.07
5. Average Annual Earnings	$ 58,476	$ 60,496	$ 61,940	$ 63,635	$ 65,219
Retirees, Disabilitants and Beneficiaries					
1. Number	0	0	0	0	0
2. Average Age	N/A	N/A	N/A	N/A	N/A
3. Average Monthly Death & Disability Benefit	N/A	N/A	N/A	N/A	N/A
Inactive Members*					
1. Number	68	133	262	294	431
Total Number of Members	**3,125**	**3,405**	**3,809**	**4,389**	**4,814**

*Inactive members who have balances in the defined contribution retirement plan are not eligible for future occupational death & disability or retiree medical benefits.

Total and average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

[1] 143 members who were terminated before the valuation date were subsequently rehired, per client data as of October 1, 2016. These members were valued as active as of the valuation date.

Section 4.2 Age and Service Distribution of Active Members

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	1	$ 57,422	$ 57,422
20 – 24	117	5,881,590	50,270
25 – 29	700	39,748,998	56,784
30 – 34	1,027	64,895,639	63,190
35 – 39	743	48,819,439	65,706
40 – 44	524	35,861,368	68,438
45 – 49	432	29,871,205	69,146
50 – 54	374	26,793,205	71,640
55 – 59	263	18,792,409	71,454
60 – 64	154	11,384,704	73,927
65 – 69	40	3,105,797	77,645
70 – 74	7	584,543	83,506
75+	1	57,553	57,553
Total	4,383	$ 285,853,871	$ 65,219

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	175	$ 9,630,512	$ 55,031
1	717	41,589,946	58,006
2	598	36,181,390	60,504
3	521	32,884,616	63,118
4	435	28,562,671	65,661
0 – 4	2,446	148,849,134	60,854
5 – 9	1,777	124,806,055	70,234
10 – 14	158	12,038,149	76,191
15 – 19	2	160,533	80,267
20 – 24	0	0	0
25 – 29	0	0	0
30 – 34	0	0	0
35 – 39	0	0	0
40+	0	0	0
Total	4,383	$ 285,853,871	$ 65,219

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	1	0	0	0	0	0	0	0	0	1
20 – 24	117	0	0	0	0	0	0	0	0	117
25 – 29	601	99	0	0	0	0	0	0	0	700
30 – 34	488	516	23	0	0	0	0	0	0	1,027
35 – 39	356	352	34	1	0	0	0	0	0	743
40 – 44	256	242	26	0	0	0	0	0	0	524
45 – 49	223	191	18	0	0	0	0	0	0	432
50 – 54	176	173	24	1	0	0	0	0	0	374
55 – 59	130	108	25	0	0	0	0	0	0	263
60 – 64	73	75	6	0	0	0	0	0	0	154
65 – 69	21	17	2	0	0	0	0	0	0	40
70 – 74	3	4	0	0	0	0	0	0	0	7
75+	1	0	0	0	0	0	0	0	0	1
Total	2,446	1,777	158	2	0	0	0	0	0	4,383

Total and average annual earnings ("valuation pay") are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.3 Member Data Reconciliation

	Actives	Vested Inactive*	Retired	Disabled	Beneficiary	Total
As of June 30, 2015	4,095	294	0	0	0	4,389
Vested Termination	(196)	196	0	0	0	0
Non-vested Termination	(319)	(1)	0	0	0	(320)
Refund of Contributions	(43)	(49)	0	0	0	(92)
Disabled	0	0	0	0	0	0
Retired	0	0	0	0	N/A	0
Deceased, No Beneficiary	(2)	0	0	0	0	(2)
Deceased, With Beneficiary	0	0	0	0	0	0
Return to Active	56	(9)	0	0	0	47
Data Adjustment	1	0	0	0	0	1
New Entrant	791	N/A	N/A	N/A	N/A	791
As of June 30, 2016	4,383	431	0	0	0	4,814

*Inactive members who have balances in the defined contribution retirement plan are not eligible for future occupational death & disability or retiree medical benefits.

Total and average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.4 Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2016	4,383	$ 285,854	$ 65,219	2.5%	58
June 30, 2015	4,095	260,584	63,635	2.7%	58
June 30, 2014	3,547	219,701	61,940	2.4%	58
June 30, 2013	3,272	197,944	60,496	3.5%	58
June 30, 2012	3,057	178,761	58,476	4.7%	58
June 30, 2011	2,708	151,269	55,860	5.6%	58
June 30, 2010	2,246	118,813	52,900	5.7%	58
June 30, 2009	1,792	89,708	50,061	6.4%	58
June 30, 2008	1,198	56,369	47,053	6.2%	58

Total and average annual earnings ("valuation pay") are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.5 Active Member Payroll Reconciliation

	Payroll Field	Payroll Data (000s)
a)	DRB actual reported salaries FY16 – employer list	$ 309,687
b)	DRB actual reported salaries FY16 – valuation data	269,119
c)	Include October data adjustment for rehires	278,030
d)	Annualized valuation data	285,854
e)	Valuation payroll as of June 30, 2016	304,669
f)	Rate payroll for FY17	300,750

a) Actual reported salaries from DRB employer listing showing all payroll paid during FY16, including those who were not active as of June 30, 2016

b) Payroll from valuation data for people who are in active status as of June 30, 2016

c) Payroll from (b) including additional people added who were listed as active as of October 1, 2016 and were run as active in the valuation

d) Payroll from (c) annualized for both new entrants and part-timers

e) Payroll from (d) with one year of salary scale applied to estimate salaries payable for the upcoming year

f) Payroll from (e) with the part-timer annualization removed

Section 5 Basis of the Actuarial Valuation

Section 5.1 Summary of Plan Provisions

1. **Effective Date**

   July 1, 2006, with amendments through June 30, 2016.

2. **Administration of Plan**

   The Commissioner of Administration or the Commissioner's designee is the administrator of the Plan. The Attorney General of the state is the legal counsel for the Plan and shall advise the administrator and represent the Plan in legal proceedings.

   The Alaska Retirement Management Board prescribes policies, adopts regulations, invests the funds, and performs other activities necessary to carry out the provisions of the Plan.

3. **Employers Included**

   Currently there are 57 employers participating in TRS DCR, including the State of Alaska, 53 school districts, and four other eligible organizations.

4. **Membership**

   An employee of a participating employer who first enters service on or after July 1, 2006, or a member of the defined benefit plan who works for an employer who began participation on or after July 1, 2006, and meets the following criteria is a member in the Plan:

   - Permanent full-time or part-time elementary or secondary teachers, school nurses, or a person in a position requiring a teaching certificate as a condition of hire in a public school of the State of Alaska, the Department of Education and Early Development or in the Department of Labor and Workforce Development.

   - Full-time or part-time teachers at the University of Alaska or persons occupying full-time administrative positions requiring academic standing who are not in the University's Optional Retirement Plan.

   Members can convert to TRS DCR if they are an eligible nonvested member of the TRS defined benefit plan whose employer consents to transfers to the defined contribution plan and they elect to transfer his or her account balance to TRS DCR.

5. **Member Contributions**

   Other than the member-paid premiums show on the next page, there are no member contributions for the occupational death & disability and retiree medical benefits.

6. Retiree Medical Benefits

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility is the earlier of a) 30 years of service or b) Medicare eligible and 10 years of service.

- No retiree medical benefits are provided until normal retirement eligibility. The member's and any covered dependent premium is 100% until the member is Medicare eligible. Upon the member's Medicare-eligibility, the required contribution will follow the service based schedule shown below.

- Coverage cannot be denied except for failure to pay premium.

- Members who are receiving disability benefits or survivors who are receiving monthly survivor benefits are not eligible until the member meets, or would have met if he/she had lived, the normal retirement eligibility requirements.

- The following is a summary of the medical benefit design adopted in July 2016. The plan description below is used for valuation purposes and indicates participant cost-sharing. Please refer to the benefit handbook for more details.

Plan Design Feature	In-Network*	Out-of-Network *(1)
Deductible (single/family)	$300/$600	
Medical services (participant share)	20%	40%
Emergency Room Copay (non-emergent use)	$100	$100
Medical Out-of-Pocket Maximum (single/family, after deductible)	$1,200 / $2,400	$2,400 / $4,800
Medicare Coordination	Carve-out	
Pharmacy	No Deductible	
Retail Generic (per 30-day fill):	20% $10 min / $50 max	40%
Retail Non-Formulary Brand (per 30-day fill):	25% $25 min / $75 max	
Retail Formulary Brand (per 30-day fill):	35% $80 min / $150 max	
Mail-Order Generic:	$20 copay	
Mail-Order Non-Formulary Brand:	$50 copay	
Mail-Order Formulary Brand	$100 copay	
Pharmacy Out-of-Pocket Max (single/family)	$1,000 / $2,000	
Medicare Pharmacy Arrangement	Retiree Drug Subsidy / Employer Group Waiver Plan effective 1/1/2018	
Wellness/Preventative	100%, Not subject to deductible	

(1) OON applies only to non-Medicare eligible participants.

*Assumed to increase annually to mitigate impact of healthcare cost trend

- Conduent used its manual rate models to determine relative plan values for the defined benefit (DB) retiree medical plan and the adopted DCR retiree medical plan outlined above. We applied the ratio of the DCR retiree health plan value to the DB retiree health plan value to the per capita costs determined for each of pre/post-Medicare medical and pharmacy benefits (including RDS) to estimate corresponding values for the adopted DCR retiree medical plan design. These factors are noted in Section 5.3. We further adjusted the Medicare medical manual rate to reflect the Medicare coordination method adopted. The RDS subsidy offset in 2018 was increased by 60% to reflect estimated Medicare reimbursements under the Employer Group Waiver Plan (EGWP) arrangement. We reflect estimated discounts and pharmacy rebates in the defined benefit medical cost assumptions so no further adjustment was needed for the DCR medical plan. The network differential is reflected in the relative plan value adjustments.

- The medical plan's coverage is supplemental to Medicare. Medicare coordination is described in the 2016 DCR Plan Handbook, referred to in the industry as carve-out coordination: Medicare payment is deducted from the Medicare allowable expense and plan parameters are applied to that amount. Starting at 2018, the prescription drug coverage is a Medicare Part D EGWP arrangement.

- The premium for Medicare-eligible retirees will be based on the member's years of service. The percentage of premium paid by the member is as follows:

Years of Service	Percent of Premium Paid by Member
Less than 15 years	30%
15 – 19	25%
20 – 24	20%
25 – 29	15%
30 years or more	10%

  The premium for dependents who are not eligible for Medicare aligns with the member's subsidy. While a member is not Medicare-eligible, premiums are 100% of the estimated cost[1].

  Members have a separate defined contribution Health Reimbursement Arrangement account that can be used to pay for premiums or other medical expenses.

  For valuation purposes this year, we set premiums equal to the age related plan costs and apply the plan subsidy percentage; thus reflecting the updated cost using enrollment information. Future premiums calculated and charged to participants will be determined to reflect any adjustment due to the updated defined benefit plan data as current premiums were determined using information based upon enrollment with dual coverage members.

- Coverage will continue for surviving spouses of covered retired members.

7. Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.

- Disability Benefit Adjustment: The disability benefit is incurred by 75% of the cost of living increase in the preceding calendar year or 9%, whichever is less.

- Member earns service while on occupational disability.

- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years of service, or at any age with 30 years of service.

[1] As per discussion with the State, reflects updated understanding of statute regarding retiree contribution requirements and employer subsidies.

- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

8. Occupational Death Benefits

- Benefit is 40% of salary.
- Survivor's Pension Adjustment: 50% of the cost of living increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60 on July 1, or under age 60 if the recipient has been receiving TRS benefits for at least 8 years as of July 1.
- Benefits cease when the member would have become eligible for normal retirement.
- The period during which the survivor is receiving benefits is counted as service credit toward retiree medical benefits.
- No retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

9. Changes Since the Prior Valuation

- Updated non-Medicare eligible dependent coverage premiums to reflect subsidy when the member is Medicare-eligible.
- Updated factors used to adjust the defined benefit plan costs to reflect adopted DCR plan design

Section 5.2 Description of Actuarial Methods and Valuation Procedures

The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was implemented effective June 30, 2006.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Actuarial Method – Entry Age Normal Cost.

Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost Method. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with GASB requirements in effect when the plan was adopted, the net amortization period will not exceed 30 years. These requirements are being amended. Under the new accounting standards that will become applicable to Postemployment Benefit Plans Other Than Pension Plans (GASB 74 and 75), the GASB requirements will not directly control amortization periods used for funding of the plan. Per KPMG, the new accounting standards under GASB 67 (and 68) are not applicable to the Occupational Death & Disability benefits under TRS DCR.

Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for death and disability benefits (constant dollar amount for retiree medical benefits), from the assumed entry age to the last age with a future benefit were applied to the projected benefits to determine the normal cost (the portion of the total cost of the Plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total DCR Plan payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the Plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for beneficiaries and disabled members currently receiving benefits (if any) was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

Valuation of Assets

Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over five years. Fair Value of Assets was $0 as of June 30, 2006. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the fair value of assets.

Valuation of Retiree Medical and Prescription Drug Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 6.2(d) of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2016.

Due to the lack of experience for the DCR retiree medical plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2016 for the Defined Benefit (DB) retiree healthcare plan covering TRS, PERS, and others. The DB rates were used with some adjustments. The claims costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include network steerage, different coverage levels, different Medicare coordination for medical benefits, and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, upcoming FY17 claims costs were reduced 3.1% for medical and 11.2% for prescription drugs. In addition, to account for the difference in Medicare coordination, upcoming FY17 medical claims costs for Medicare eligible retirees were further reduced 33.75%. The health care trend rate used for the DB health benefits was reduced 0.2% each year for the DCR health benefits to reflect the fact that the retiree healthcare benefits to be offered to DCR members will have annual indexing of member cost sharing features such as deductibles and out-of-pocket amounts.

No implicit subsidies are assumed. Employees projected to retire with 30 years of service prior to Medicare are valued with commencement deferred to Medicare eligibility, as such members will be required to pay the full plan premium. Explicit subsidies for disabled and normal retirement are determined using the plan-defined age-related percentages of total projected plan costs, again with no implicit subsidy assumed.

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

Because EGWP subsidies are dependent upon risk scores which have not previously been measured for the State retiree population, and because EGWP subsidies are highly leveraged, there is considerable uncertainty in the estimate.

The estimate of the impact of the EGWP arrangement is a somewhat conservative estimate based on our experience with other similar implementations. EGWP subsidies are provided by three mechanisms, a capitation amount, a discount on brand name drugs (provided by pharmaceutical manufacturers rather than the federal government but still through the administration of a pharmacy benefit manager), and catastrophic payment.

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

Healthcare Reform

Healthcare Reform legislation passed on March 23, 2010 included several provisions with potential implications for the State of Alaska Retiree Health Plan liability. Conduent evaluated the impact due to these provisions; however, only the Patient Centered Outcomes Research Institute fee impact has been included in the valuation results as part of administrative fee.

Because the State plan is retiree-only, not all provisions are required. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. The adopted DCR plan does not place lifetime limits on benefits, but does restrict dependent child coverage.

The Plan will be subject to the high cost plan excise tax (Cadillac tax) and the value of the Health Reimbursement Account must be included along with projected plan costs. The excise tax was originally to be effective for 2018; legislation passed in December 2015 delayed it to 2020. Based upon guidance available at the time of disclosure, Conduent determined the impact on plan liabilities to be immaterial (approximately $110,000 (0.5%)) based on a blend of projected pre-Medicare and Medicare retirees and related cost projections. Participants will be responsible for any tax to the extent they are reflected in retiree contributions.

The Trump administration has clearly announced its intention to repeal healthcare reform. As one of his first acts in office, President Trump issued an executive order that states that federal agencies can grant waivers, exemptions and delays of “Obamacare” provisions that would impose costs on states or individuals. On February 15, 2016, CMS issued proposed rules that are intended to minimize adverse selection, but which might disrupt the fragile balance of the healthcare exchanges. We can expect more information about what is being altered. As of the writing of this letter we have not identified any action that has already formally been adopted that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

Changes in Methods From the Prior Valuation

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

Section 5.3 Summary of Actuarial Assumptions

The demographic and economic assumptions used in the June 30, 2016 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2014. These assumptions were the result of an experience study performed for the TRS defined benefit plan as of June 30, 2013.

Investment Return / Discount Rate	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Inflation – 3.12% per year. Productivity – 0.50% per year. See Table 1 for salary scale rates.
Payroll Growth	3.62% per year. (Inflation + Productivity).
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Mortality (Pre-termination)*	Based upon the 2010-2013 actual experience. (See Table 2). 68% of male rates and 60% of female rates of post-termination mortality. Deaths are assumed to result from occupational causes 15% of the time.
Mortality (Post-termination)*	Based upon the 2010-2013 actual experience. (See Table 3). 94% of male and 97% of female rates of RP-2000, 2000 Base Year projected to 2018 with Projection Scale BB, with a 3-year setback for males and a 4-year setback for females. Disability Mortality in accordance with the RP-2000 Disabled Retiree Mortality Table, 2000 Base Year, projected to 2018 with Projection Scale BB.
Turnover	Select and ultimate rates based upon the 2010-2013 actual withdrawal experience. (See Table 4).
Disability	Incidence rates based upon the 2010-2013 actual experience, in accordance with Table 5. Disabilities are assumed to result from occupational causes 15% of the time.
Retirement	Retirement rates based upon the 2010 - 2013 actual experience in accordance with Table 6. Deferred vested members are assumed to retire at their earliest unreduced retirement date.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 85% of male members and 75% of female members are assumed to be married at termination from active service.

*The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2014 with an Actual Deaths to Expected Deaths ratio of 110%.

Per Capita Claims Cost	Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY17 medical benefits are shown below:

	Medical	Prescription Drugs
Pre-Medicare	$ 14,380	$ 3,320
Medicare Parts A & B	$ 1,707	$ 3,320
Medicare Part B Only	$ 8,562	$ 3,320
Medicare Part D	N/A	$ 614

Members are assumed to attain Medicare eligibility at age 65.

Third Party Administrator Fees	$206.88 per person per year; assumed trend rate of 5% per year.
Base Claims Cost Adjustments	Due to higher initial copays, deductibles, out-of-pocket limits and member cost sharing compared to the DB medical plan, the following cost adjustments are applied to the per capita claims cost rates above: • 0.969 for the medical plan. • 0.6625 for the medical Medicare coordination method. • 0.888 for the prescription drug plan.
Imputed Data	Data changes from the prior year which are deemed to have an immaterial impact on liabilities and contribution rates are assumed to be correct in the current year's client data. Nonvested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated with status based on their vesting percentage.
Active Data Adjustment	To reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated on the June 30 client data but active in the October 1 client records are updated to active status.

Health Cost Trend

The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 8.8% is applied to the FY17 pre-Medicare medical claims cost to get the FY18 medical claims cost.

	Medical Pre-65	Medical Post-65	Prescription Drugs
FY17	8.8%	5.8%	5.4%
FY18	8.2%	5.7%	5.1%
FY19	7.6%	5.6%	4.8%
FY20	7.0%	5.6%	4.6%
FY21	6.5%	5.6%	4.4%
FY22	6.0%	5.6%	4.2%
FY23	5.6%	5.6%	4.0%
FY25	5.6%	5.6%	4.0%
FY50	4.4%	4.0%	4.0%
FY100	4.4%	4.0%	4.0%

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

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

Aging Factors*

Age	Medical	Prescription Drugs
0-44	2.0%	4.5%
45-54	2.5%	3.5%
55-64	3.5%	3.0%
65-74	4.0%	1.5%
75-84	1.5%	0.5%
85-94	0.5%	0.0%
96+	0.0%	0.0%

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

Retiree Medical Participation

Decrement Due to Disability		**Decrement Due to Retirement**		
Age	Percent Participation	**Age**		**Percent Participation**
<56	73.00%	55		40.0%
56	77.50%	56		50.0%
57	79.75%	57		55.0%
58	82.00%	58		60.0%
59	84.25%	59		65.0%
60	86.50%	60		70.0%
61	88.75%	61		75.0%
62	91.00%	62		80.0%
63	93.25%	63		85.0%
64	95.50%	64		90.0%
65+	94.00%	65+	Years of Svc	
			<15	70.5%
			15-19	75.2%
			20-24	79.9%
			25-29	89.3%
			30+	94.0%

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

Table 1
Alaska TRS DCR Plan
Salary Scale

Years of service	Percent Increase
0	8.11%
1	7.51
2	6.91
3	6.41
4	6.11
5	6.11
6	5.90
7	5.69
8	5.55
9	5.40
10	5.26
11	5.11
12	4.96
13	4.84
14	4.72
15	4.60
16	4.49
17	4.37
18	4.27
19	4.17
20	4.07
21	3.97
22+	3.87

Table 2
Alaska TRS DCR Plan
Mortality Table (Pre-termination)

Age	Male	Female	Age	Male	Female
20	0.0182%	0.0098%	55	0.1615%	0.0985%
21	0.0191	0.0101	56	0.1766	0.1054
22	0.0200	0.0104	57	0.1901	0.1132
23	0.0209	0.0105	58	0.2117	0.1221
24	0.0216	0.0105	59	0.2409	0.1344
25	0.0222	0.0106	60	0.2643	0.1501
26	0.0226	0.0107	61	0.2917	0.1659
27	0.0228	0.0109	62	0.3229	0.1837
28	0.0228	0.0111	63	0.3599	0.2080
29	0.0229	0.0114	64	0.4021	0.2367
30	0.0231	0.0118	65	0.4504	0.2723
31	0.0238	0.0123	66	0.5057	0.3118
32	0.0249	0.0130	67	0.5594	0.3582
33	0.0269	0.0137	68	0.6202	0.4036
34	0.0302	0.0146	69	0.7017	0.4546
35	0.0340	0.0169	70	0.7828	0.5130
36	0.0382	0.0193	71	0.8702	0.5696
37	0.0425	0.0217	72	0.9643	0.6297
38	0.0468	0.0240	73	1.0813	0.6959
39	0.0509	0.0262	74	1.1964	0.7841
40	0.0547	0.0283	75	1.3285	0.8701
41	0.0584	0.0305	76	1.4797	0.9678
42	0.0618	0.0330	77	1.6508	1.0757
43	0.0653	0.0357	78	1.8423	1.1923
44	0.0692	0.0389	79	2.0534	1.3163
45	0.0736	0.0427	80	2.2841	1.4502
46	0.0787	0.0470	81	2.5382	1.5972
47	0.0846	0.0517	82	2.8208	1.7607
48	0.0913	0.0567	83	3.1344	1.9438
49	0.0979	0.0620	84	3.5081	2.1486
50	0.1050	0.0674	85	3.9193	2.3782
51	0.1126	0.0731			
52	0.1208	0.0791			
53	0.1295	0.0855			
54	0.1483	0.0908			

Table 3
Alaska TRS DCR Plan
Mortality Table (Post-termination)

Age	Male	Female	Age	Male	Female
50	0.1544%	0.1124%	85	5.7637%	3.9636%
51	0.1656	0.1219	86	6.4248	4.3940
52	0.1777	0.1318	87	7.2770	4.8789
53	0.1904	0.1424	88	8.2264	5.4261
54	0.2181	0.1513	89	9.2884	6.0450
55	0.2375	0.1641	90	10.4794	6.8659
56	0.2597	0.1756	91	11.8129	7.7983
57	0.2795	0.1887	92	13.2941	8.8452
58	0.3113	0.2035	93	14.9196	10.0021
59	0.3543	0.2240	94	16.5479	11.2560
60	0.3887	0.2501	95	18.2705	12.5866
61	0.4289	0.2765	96	20.0693	13.9699
62	0.4749	0.3062	97	21.9249	15.3813
63	0.5293	0.3466	98	23.3940	16.4973
64	0.5913	0.3946	99	25.2821	17.8741
65	0.6624	0.4538	100	26.7022	18.8730
66	0.7436	0.5196	101	28.5888	20.1393
67	0.8227	0.5970	102	29.9408	20.9540
68	0.9121	0.6727	103	31.8102	22.0440
69	1.0318	0.7576	104	33.1094	22.6232
70	1.1511	0.8550	105	34.9384	23.7489
71	1.2798	0.9494	106	36.0058	24.6863
72	1.4180	1.0494	107	36.8483	25.8063
73	1.5902	1.1599	108	37.4013	27.0683
74	1.7595	1.3068	109	37.6000	28.4323
75	1.9536	1.4502	110	37.6000	29.8577
76	2.1760	1.6130	111	37.6000	31.3043
77	2.4276	1.7929	112	37.6000	32.7318
78	2.7093	1.9871	113	37.6000	34.0998
79	3.0198	2.1938	114	37.6000	35.3678
80	3.3590	2.4170	115	37.6000	36.4959
81	3.7326	2.6620	116	37.6000	37.4435
82	4.1482	2.9345	117	37.6000	38.1702
83	4.6095	3.2397	118	37.6000	38.6359
84	5.1589	3.5811	119	100.0000	100.0000

Table 4
Alaska TRS DCR Plan
Turnover Assumptions

Select Rates of Turnover During the First 5 Years of Employment

Service	Male	Female
0	20.70%	21.80%
1	19.55	18.70
2	16.10	15.40
3	13.80	13.20
4	11.50	11.00
5	7.32	8.05

Ultimate Rates of Turnover After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
15	6.2959%	6.6811%	40	6.1753%	6.5647%
16	6.2959	6.6811	41	6.1604	6.5516
17	6.2959	6.6811	42	6.1455	6.5386
18	6.2959	6.6811	43	6.1081	6.5175
19	6.2959	6.6811	44	6.0706	6.4965
20	6.2959	6.6811	45	6.0332	6.4754
21	6.2959	6.6811	46	5.9957	6.4544
22	6.2959	6.6811	47	5.9583	6.4333
23	6.2903	6.6773	48	5.9053	6.3975
24	6.2847	6.6735	49	5.8522	6.3617
25	6.2791	6.6697	50	5.7992	6.3259
26	6.2735	6.6659	51	5.7461	6.2901
27	6.2679	6.6621	52	5.6931	6.2543
28	6.2623	6.6583	53	5.5800	6.1818
29	6.2567	6.6544	54	5.4670	6.1093
30	6.2512	6.6506	55	5.3539	6.0367
31	6.2456	6.6467	56	5.2409	5.9642
32	6.2400	6.6429	57	5.1278	5.8917
33	6.2360	6.6351	58	5.1711	6.0021
34	6.2320	6.6273	59	5.2144	6.1125
35	6.2280	6.6194	60	5.2578	6.2230
36	6.2240	6.6116	61	5.3011	6.3334
37	6.2200	6.6038	62	5.3444	6.4438
38	6.2051	6.5908	63	5.7296	6.6292
39	6.1902	6.5777	64	6.1148	6.8146
			65+	6.5000	7.0000

Table 5
Alaska TRS DCR Plan
Disability Table

Age	Unisex
< 19	0.0560%
20	0.0560
21	0.0563
22	0.0565
23	0.0574
24	0.0583
25	0.0593
26	0.0602
27	0.0611
28	0.0611
29	0.0612
30	0.0612
31	0.0613
32	0.0613
33	0.0622
34	0.0631
35	0.0641
36	0.0650
37	0.0659
38	0.0674
39	0.0689
40	0.0703
41	0.0718
42	0.0733
43	0.0770
44	0.0806
45	0.0843
46	0.0879
47	0.0916
48	0.0975
49	0.1034
50	0.1093
51	0.1152
52	0.1211
53	0.1356
54	0.1501

Table 6
Alaska TRS DCR Plan
Retirement Table

Age	Rate
< 54	2.0%
55	3.0
56	3.0
57	3.0
58	3.0
59	3.0
60	5.0
61	5.0
62	10.0
63	5.0
64	5.0
65	25.0
66	25.0
67	25.0
68	20.0
69	20.0
> 70	100.0

Glossary of Terms

Actuarial Accrued Liability	Total accumulated cost to fund pension or postemployment benefits arising from service in all prior years.
Actuarial Cost Method	Technique used to assign or allocate, in a systematic and consistent manner, the expected cost of a pension or postemployment plan for a group of plan members to the years of service that give rise to that cost.
Actuarial Present Value of Projected Benefits	Amount which, together with future interest, is expected to be sufficient to pay all future benefits.
Actuarial Valuation	Study of probable amounts of future pension or postemployment benefits and the necessary amount of contributions to fund those benefits.
Actuary	Person who performs mathematical calculations pertaining to pension and insurance benefits based on specific procedures and assumptions.
Annual Required Contribution (ARC)	Disclosure measure of annual pension or postretirement benefit cost under GASB 25, 27, 43 and 45.
GASB 25 and 27	Governmental Accounting Standards Board Statement Number 25, which specifies how the ARC was to have been calculated, and Number 27, which specifies Employer reporting of Pension Cost.
GASB 43 and 45	Governmental Accounting Standards Board Statement Number 43, which specifies how the ARC is to be calculated, and Number 45, which specifies Employer reporting of Other Postemployment Benefit (OPEB) Cost.
GASB 67 and 68	Governmental Accounting Standards Board Statement Number 67 amends Number 25 effective for the fiscal year beginning after June 15, 2013, and defines new financial reporting requirements for public pension plans. Governmental Accounting Standards Board Statement Number 68 amends Number 27 effective for fiscal years beginning after June 15, 2014 and defines new accounting and financial reporting requirements for employers sponsoring public pension plans.

GASB 74 and 75	Governmental Accounting Standards Board Statement Number 74 amends Number 43 effective for the fiscal year beginning after June 15, 2016, and defines new financial reporting requirements for public postemployment benefit plans. Governmental Accounting Standards Board Statement Number 75 amends Number 45 effective for fiscal years beginning after June 15, 2017, and defines new accounting and financial reporting requirements for employers sponsoring public postemployment benefit plans.
Liquidity Factor	Is calculated as the average annual Fair Value of Assets divided by the total annual benefit payments. This measures the approximate number of years that assets will cover benefit payments without contributions or investment return. Trend shows solvency risk.
Maturity Ratio	The ratio of the actuarial accrued liability for members who are no longer active to the total actuarial accrued liability. A ratio of over 50% indicates a mature plan. The higher the maturity ratio, the more volatile the contribution rate will be from year to year given actuarial gains and losses.
Normal Cost	That portion of the actuarial present value of benefits assigned to a particular year in respect to an individual participant or the plan as a whole.
Rate Payroll	Members’ earnings used to determine contribution rates.
Unfunded Actuarial Accrued Liability (UAAL)	The portion of the actuarial accrued liability not offset by plan assets.
Valuation Payroll	Members’ earnings used to determine Normal Cost and Actuarial Accrued Liability.
Vested Benefits	Benefits which are unconditionally guaranteed regardless of employment.