Conduent Human Resource Services
Retirement Services

State of Alaska

Elected Public Officers Retirement System

Actuarial Valuation Report

As of June 30, 2016

May 2017

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May 23, 2017

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

Certification of Actuarial Valuation

To the Commissioner of the Department of Administration:

This report summarizes the annual actuarial valuation results of the State of Alaska Elected Public Officers Retirement System (EPORS) as of June 30, 2016 performed by Conduent HR Services, LLC (Conduent), formerly known as Buck Consultants, LLC.

The actuarial valuation is based on member data provided by the Division of Retirement and Benefits and medical enrollment data provided by the healthcare claims administrator (Aetna), all as 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 System 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 System as of June 30, 2016.

The contribution requirements are determined as a level dollar amount to reflect the cost to amortize the unfunded liability over a fixed 25-year period.

The staff of the State of Alaska may use this report for the review of the operations of EPORS. Use of this report, for any other purpose or by anyone other than the 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 System and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the System. The actuary performs an analysis of System 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 Department 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 claim cost rates effective June 30, 2016 to better reflect expected future healthcare experience. 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 Section 5.

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 healthcare 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 Elected Public Officers Retirement System (EPORS) provides pension and postemployment healthcare benefits to eligible members. The Commissioner of the Department of Administration is responsible for administering the System. This report presents the results of the actuarial valuation of the System benefits as of the valuation date of June 30, 2016.

Purpose

An actuarial valuation is performed on the retirement plan bi-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 contribution necessary to meet the Department's funding policy for the System;
2. To disclose the liability measures as of the valuation date;
3. To disclose the healthcare accounting measures for the System required by GASB No 43;
4. To review the current funded status of the System and assess the funded status as an appropriate measure for determining future actuarially determined contributions;
5. To compare actual and expected experience under the System; and
6. To report trends in contributions and liabilities over the last several years.

Since inception in 1976, benefits under EPORS have been paid for on a pay-as-you-go basis. This means that just enough money has been appropriated each year to pay the benefits as they come due. Under this method, no fund is built up and therefore, no investment earnings offset the State's cost. In Section 2.1 of this report, we have projected the total benefit payments under EPORS for the next 35 years.

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

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			**2014**		**2016**
Pension					
a.	Actuarial Accrued Liability	$	16,776,167	$	15,922,933
b.	Valuation Assets		0		0
c.	Unfunded Actuarial Accrued Liability, (a) – (b)	$	16,776,167	$	15,922,933
d.	Funding Ratio, (b) ÷ (a)		0%		0%
Healthcare					
a.	Actuarial Accrued Liability	$	3,281,098	$	2,210,360
b.	Valuation Assets		0		0
c.	Unfunded Actuarial Accrued Liability, (a) – (b)	$	3,281,098	$	2,210,360
d.	Funding Ratio, (b) ÷ (a)		0%		0%
Total					
a.	Actuarial Accrued Liability	$	20,057,265	$	18,133,293
b.	Valuation Assets		0		0
c.	Unfunded Actuarial Accrued Liability, (a) – (b)	$	20,057,265	$	18,133,293
d.	Funding Ratio, (b) ÷ (a)		0%		0%
Recommended Contribution			**FY15**		**FY17**
Total					
a.	Normal Cost	$	0	$	0
b.	Past Service Cost		1,387,664		1,254,554
c.	Total Annual Cost, (a) + (b)	$	1,387,664	$	1,254,554
d.	Expected Annual Benefit Payments and Claim Costs	$	1,631,129	$	1,456,205
e.	Total Annual Recommended Contribution [Greater of (c) and (d)]	$	1,631,129	$	1,456,205

1. **Actuarial vs. Pay-As-You-Go Funding**

Since inception in 1976, benefits under EPORS have been paid for on a pay-as-you-go basis. This means that just enough money has been appropriated each year to pay the benefits as they come due. Under this method, no fund is built up and therefore, no investment earnings offset the State's cost. In Section 2.1 of this report, we have projected the total benefit payments under EPORS for the next 35 years. Annual benefit payments are projected to decrease from their current levels, which are approximately $1,500,000 per year.

This valuation uses the Entry Age Normal Cost Method to disclose costs and liabilities. The actuarial funding method amortizes all unfunded liabilities over 25 years in level dollar payments. There is no normal cost component because benefits for the only active participant have been fully accrued. Accordingly, the actuarial costs associated with EPORS are past service costs only.

2. **Demographic Experience (Pension)**

Section 4 provides statistics on active and inactive participants. The number of active participants increased from zero at June 30, 2014 to one at June 30, 2016 due to a rehired participant.

The number of retirees and beneficiaries decreased 8.6% from 35 to 32, and their average age increased from 77.44 to 78.54. The number of vested terminated participants remained at zero.

As shown in Section 1.3, actual increases in variable benefits and COLA were less than expected. Overall, the demographic experience produced a loss of $636,038, including the mortality experience of the inactive members.

3. **Retiree Medical Experience and Assumptions**

As described in Section 5.2, recent claims experience and actual healthcare enrollment created an actuarial loss of approximately $47,788 (including health plan enrollment data and other miscellaneous changes). There was also a demographic experience loss of approximately $115,079, for a net loss of $162,867.

4. **Members Included**

The governor, lieutenant governor, and members of the Alaska State Legislature holding office between January 1, 1976 and October 14, 1976.

5. **Changes in Methods Since the Prior Valuation**

There have been no material changes in asset or valuation methods since the prior valuation. Enhanced health plan enrollment data resulted in some offsetting cost increases and enrollment decreases as part of the per capita cost development.

6. **Changes in Assumptions Since the Prior Valuation**

There have been no changes in the 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 no changes in benefit provisions since the prior valuation.

Section 1 Actuarial Funding Results

Section 1.1 Actuarial Liabilities and Normal Cost

	Normal Cost	Actuarial Accrued Liability
Active Participants		
Retirement Benefits	$ 0	$ 1,622,103
Health Benefits	0	282,048
Subtotal	$ 0	$ 1,904,151
Retirees and Survivors		
Retirement Benefits		$ 14,300,830
Health Benefits		1,928,312
Subtotal		$ 16,229,142
Vested Terminations		
Retirement Benefits		$ 0
Health Benefits		0
Subtotal		$ 0
Total		**$ 18,133,293**

The Medicare Part D subsidy is included in the calculation of the postemployment healthcare actuarial accrued liability.

Section 1.2 Actuarial Contributions as of June 30, 2016

1.	Total Normal Cost	$ 0
2.	Actuarial Accrued Liability	18,133,293
3.	Valuation Assets	0
4.	Total Unfunded Actuarial Accrued Liability, (2) – (3)	$ 18,133,293
5.	Funded Ratio, (3) ÷ (2)	0.00%
6.	Past Service Cost Amortization Payment [1]	1,197,665
7.	Annual Actuarial Contribution at Beginning of Year, (1) + (6)	1,197,665
8.	Interest at 4.75%	56,889
9.	Annual Actuarial Contribution at End of Year, (7) + (8)	$ 1,254,554
10.	Expected Benefit Payments and Claim Costs for the Upcoming Year	$ 1,456,205
11.	Annual Recommended Contribution [Greater of (9) and (10)]	$ 1,456,205

[1] Calculated as a level dollar amount over a 25-year period as of June 30, 2016.

Section 1.3 Actuarial Gain/(Loss) for FY15 and FY16

			Pension	Healthcare	Total
1.	Expected Actuarial Accrued Liability				
	a.	Actuarial Accrued Liability, June 30, 2014	$ 16,776,167	$ 3,281,098	$ 20,057,265
	b.	Normal Cost for FY15	0	0	0
	c.	Interest on (a) and (b) at 4.75%	796,868	155,852	952,720
	d.	Actual Benefit Payments for FY15	1,375,105	474,524	1,849,629
	e.	Interest on (d) at 4.75%, adjusted for timing	32,280	11,139	43,419
	f.	Expected Actuarial Accrued Liability, June 30, 2015, (a) + (b) + (c) – (d) – (e)	16,165,650	2,951,287	19,116,937
	g.	Normal Cost for FY16	0	0	0
	h.	Interest on (a) and (b) at 4.75%	767,868	140,186	908,054
	i.	Actual Benefit Payments for FY16	1,309,702	457,402	1,767,104
	j.	Interest on (d) at 4.75%, adjusted for timing	30,745	10,737	41,482
	k.	Change in Actuarial Assumptions/Methods	0	(575,841)	(575,841)
	l.	Change in actual increases versus expected increases in variable benefits and COLA	(306,176)	0	(306,176)
	m.	Expected Accrued Liability as of June 30, 2016, (f) + (g) + (h) – (i) – (j) + (k) + (l)	$ 15,286,895	$ 2,047,493	$ 17,334,388
2.	Actual Actuarial Accrued Liability, June 30, 2016		15,922,933	2,210,360	18,133,293
3.	**Liability Gain/(Loss), (1)(m) – (2)**		**$ (636,038)**	**$ (162,867)**	**$ (798,905)**

Section 2 Cash Flows

Section 2.1 Estimated Cash Flows

Year Starting July 1	Estimated Annual Payments
2016	$ 1,456,205
2017	1,552,397
2018	1,518,361
2019	1,491,866
2020	1,460,345
2021	1,406,991
2022	1,366,888
2023	1,324,628
2024	1,280,835
2025	1,236,014
2026	1,190,397
2027	1,144,046
2028	1,096,755
2029	1,048,354
2030	998,779
2031	947,717
2032	895,134
2033	841,237
2034	786,307
2035	730,831
2036	675,429
2037	620,771
2038	567,312
2039	515,603
2040	466,005
2041	418,662
2042	373,937
2043	331,918
2044	292,553
2045	255,950
2046	222,060
2047	190,928
2048	162,655
2049	137,269
2050	114,726
2051	94,980

Section 3 Accounting Information

Section 3.1 Historical Exhibits

Schedule of Employer Contributions

The following shows the annual required contribution under GASB No. 25 for fiscal year ending in 2006 through 2013. GASB No. 67 amended GASB No. 25 for fiscal years after 2013.

Year Ended June 30	Total Annual Required Contribution	Percentage Contributed
2013	$ 2,027,451	100%
2012	2,005,829	100%
2011	1,993,326	100%
2010	2,079,786	100%
2009	1,832,107	100%
2008	1,747,475	100%
2007	1,670,005	100%
2006	1,630,202	100%

The annual required contribution is the greater of the annual recommended contribution and the statutorily required contribution described in AS 39.37.110.

Schedule of Funding Progress

The exhibit below shows the pension disclosure under GASB No. 25 for fiscal years ending in 2005 through 2012.

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
June 30, 2005[1]	$ 20,028,323	$ 0	0%	$ 20,028,323	$ 160,181	12,503.57%
June 30, 2006	$ 16,264,560	$ 0	0%	$ 16,264,560	$ 93,576	17,381.12%
June 30, 2008	$ 22,194,484	$ 0	0%	$ 22,194,484	$ 0	N/A
June 30, 2010	$ 19,550,666	$ 0	0%	$ 19,550,666	$ 0	N/A
June 30, 2012	$ 18,220,782	$ 0	0%	$ 18,220,782	$ 0	N/A

[1] This was the first valuation completed since GASB 25 was adopted.

Section 3.2 Postemployment Healthcare

The exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43.

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
June 30, 2006	$ 2,982,910	$ 0	0%	$ 2,982,910	$ 93,576	3,187.69%
June 30, 2008	$ 5,168,446	$ 0	0%	$ 5,168,446	$ 0	N/A
June 30, 2010	$ 4,707,442	$ 0	0%	$ 4,707,442	$ 0	N/A
June 30, 2012	$ 4,353,245	$ 0	0%	$ 4,353,245	$ 0	N/A
June 30, 2014	$ 3,614,458	$ 0	0%	$ 3,614,458	$ 0	N/A
June 30, 2016	$ 2,451,580	$ 0	0%	$ 2,451,580	$ 99,986	2,451.92%

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
Amortization Method	Level dollar basis
Equivalent Single Amortization Period	25 years
Asset Valuation Method	N/A
Actuarial Assumptions:	
Investment rate of return*	4.75%
Projected salary increases	None
*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.

The State of Alaska Elected Public Officers Retirement System's retiree healthcare benefits are currently fully funded using the pay-as-you-go method. For this system, the pay-as-you-go cost exceeds the annual required contribution (ARC). GASB states that for plans that contribute more than the ARC, the discount rate used in the valuation should reflect the long-term investment yield on plan assets. The State of Alaska is utilizing a discount rate of 4.75% as of June 30, 2016.

Using the GASB 43 discount rate determined above and disregarding future Medicare Part D payments, the fiscal 2016 employer ARC for accounting purposes is $202,019 for healthcare benefits. Fiscal year 2017 actuarially determined contribution rates will be developed separately for compliance with GASB 74.

Section 4 Member Data

Section 4.1 Summary of Members Included

		As of June 30, 2014	As of June 30, 2016
Active Members			
1.	Number	0	1
2.	Average Age	0.00	68.96
3.	Average Service Years	0.00	25.72
4.	Average Annual Pay	$0	$99,986
Vested Terminated Members			
1.	Number	0	0
2.	Average Age	0.00	0.00
3.	Average Service	0.00	0.00
Retirees and Beneficiaries			
1.	Number	35	32
2.	Average Age	77.44	78.54
3.	Average Monthly Retirement Benefits	$3,318	$3,385

Section 5 Basis of the Actuarial Valuation

Section 5.1 Summary of Plan Provisions

1. Members Included

The governor, lieutenant governor, and members of the Alaska State Legislature holding office between January 1, 1976 and October 14, 1976.

2. Member Contributions

a. Mandatory employee contribution: 7% of salary.

b. Interest Credited: 4.5% compounded semi-annually on June 30 and December 31.

c. Voluntary Refund at Termination: Return of contributions with interest.

d. Refund at Death: If no eligible survivors, return of contribution with interest to designated beneficiary or beneficiaries.

3. Normal Retirement Benefit

a. Eligibility: Age 60 with 5 or more years of paid service.

b. Type: Life with automatic 50% joint and survivor benefit if married at least one year prior to date of death. If the accrued benefit formula percentage is less than 60% at the time of death, the survivor benefit may not be less than 30% of the monthly salary authorized for the office at the time or 30% of average monthly compensation.

c. Amount: Members may irrevocably choose between two types of benefit calculations at the time of retirement: variable Alaska Statute (AS) 39.37.050(a)(1) and fixed AS 39.37.050(a)(2). Under the variable method, benefits are calculated based on the active salary of the office from which the member retired. Benefits may raise or lower depending on the change in the active salary. The fixed method bases the calculation on the average monthly compensation as defined in AS 39.35.680. Benefits calculated under the fixed method do not change when the active salary changes. Benefit calculation is 5% for each year of elected public officer service plus 2% for any other PERS service performed to a maximum of 75% times either the salary of the office from which the member retired or the average monthly salary depending on which option is chosen.

d. Variable Benefit Increases/Decreases: Members who elect a variable benefit will have their benefit recalculated when the active salary of the position they retired from changes. If the salary lowers, retirement benefits will also be lowered.

e. Cost of Living Increases: Retired members who select the variable option are eligible for post-retirement pension increases (Chapter 91, Section 1 SLA 2001) if they have been receiving benefits without an increase for at least 10 years. Benefits will be increased by 75% of the cost of living increase calculated from the date of the last benefit adjustment or the date when the member retired, whichever is later. The member may not receive another adjustment based on the salary and, if appropriate, allowances established under AS 24.10.110, authorized for the office from which the member retired until the resultant increase in benefits equals or exceeds the increase based on the post retirement pension adjustments. Increases in benefit payments under the post retirement pension adjustment are effective July 1 of each calendar year.

4. Early Retirement Benefit

a. Eligibility: At least age 55 with 5 or more years of paid service or any age with 20 or more years of paid service.

b. Type: Life benefit with automatic 50% joint and survivor benefit if married at least one year prior to date of death. If the accrued benefit formula percentage is less than 60% at the time of death, the survivor benefit may not be less than 30% of the monthly salary authorized for the office at the time or 30% of average monthly compensation.

c. Amount: Normal retirement benefit based on service to early retirement date reduced 0.5% per month for each month which precedes normal retirement date. Members may irrevocably choose between two types of benefit calculations at the time of retirement: variable AS 39.37.050(a)(1) and fixed AS 39.37.050(a)(2). Under the variable method, benefits are calculated based on the active salary of the office from which the member retired. Benefits may raise or lower depending on the change in the active salary. The fixed method bases the calculation on the average monthly compensation as defined in AS 39.35.680. Benefits calculated under the fixed method do not change when the active salary changes. Benefit calculation is 5% for each year of elected public officer service plus 2% for any other PERS service times either the salary of the office from which the member retired or the average monthly salary depending on which option is chosen.

d. Variable Benefit Increases/Decreases: Members who elect a variable benefit will have their benefit recalculated when the active salary of the position they retired from changes. If the salary lowers, retirement benefits will also be lowered.

e. Cost of Living Increases: Retired members who select the variable option are eligible for post-retirement pension increases (Chapter 91, Section 1 SLA 2001) if they have been receiving benefits without an increase for at least 10 years. Benefits will be increased by 75% of the cost of living increase calculated from the date of the last benefit adjustment or the date when the member retired, whichever is later. The member may not receive another adjustment based on the salary and, if appropriate, allowances established under AS 24.10.110, authorized for the office from which the member retired until the resultant increase in benefits equals or exceeds the increase based on the post retirement pension adjustments. Increases in benefit payments under the post retirement pension adjustment are effective July 1 of each calendar year.

5. Deferred Vested Benefit

a. Eligibility: Vested with 5 or more years of paid service. Benefits may commence at Early or Normal retirement.

b. Type: Normal or Early retirement benefit.

c. Amount: Calculated in the same manner as a Normal or Early retirement benefit.

d. Variable Benefit Increases/Decreases: Same provisions as Normal or Early retirement.

e. Cost of Living Increases: Same provisions as Normal or Early retirement.

6. Retirement for Incapacity Benefit

a. Eligibility: Incapacitated from performing the duties of their position at any age with five or more years of paid service.

b. Type: Monthly benefit received until death.

c. Amount: Calculated in the same manner as a Normal retirement except benefits commence the first of the month following an approved recommendation of the review board.

d. Variable Benefit Increases/Decreases: Same provisions as Normal retirement.

e. Cost of Living Increases: Same provisions as Normal retirement.

7. Death Benefit Before Retirement

Provided the deceased member accrued at least 2 years of credited service and had been married for at least 1 year the spouse is entitled to an automatic survivor benefit of 50% of the accrued benefit at the time of death. If the accrued benefit formula percentage is less than 60% at the time of death, the survivor benefit may not be less than 30% of the monthly salary authorized for the office at the time or 30% of average monthly compensation. If there is no surviving spouse but there are dependent children at the time of death, 50% of the above benefit may be divided in equal shares to the dependent children for the duration of their dependency. If there is no spouse or dependent children, the contribution account balance, plus interest, will be paid to the designated beneficiary or beneficiaries.

8. Medical Benefits

Each retiree is provided with medical and prescription drug benefits with no premium payment required. These benefits are available for the lifetime of the retiree and for the lifetime of the spouse if a survivor benefit is payable. Benefits are also available to eligible dependents for the duration of their dependency.

Section 5.2 Descriptions of Actuarial Methods and Valuation Procedures

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 surplus or unfunded accrued liability is amortized over 25 years on a level dollar basis.

Projected pension and preretirement spouse's death benefits were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for pension benefits (constant dollar amount for healthcare benefits), from the assumed entry age to the assumed retirement age 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 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.

Valuation of Assets – Not applicable since there are no plan assets.

Valuation of Medical and Prescription Drug Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for PERS postemployment healthcare plan. Note that methodology reflects the results of our annual experience rate update for the period July 1, 2016 to June 30, 2017. Healthcare cost trend and retiree contribution increase assumptions for the period after June 30, 2017 remain unchanged from the June 30, 2014 valuation.

Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods, i.e., medical claims, prescription drug claims, administrative costs, etc. Separate analysis is limited by the availability and historic credibility of cost and enrollment data for each component of cost. This valuation reflects non-prescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes, as described below. Analysis to date on Medicare Part A coverage is limited since Part A claim data is not available by individual, nor is this status incorporated into historical claim data.

<u>Benefits</u>

Medical, prescription drug, dental, vision and audio coverage is provided through the AlaskaCare Retiree Health Plan and is available to employees of the State and subdivisions who meet retirement criteria based on the retirement plan tier in effect at their date of hire. Health plan provisions do not vary by retirement tier or age, except for Medicare coordination for those Medicare-eligible. Dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation as those are retiree-pay all benefits where rates are assumed to be self-supporting. Conduent relies upon rates set by a third-party for the DVA benefits. Conduent reviewed historical rate-setting information and believes that contribution rate adjustments made are not unreasonable.

Administration and Data Sources

The plan was administered by Wells Fargo Insurance Services (acquired by HealthSmart, in January 2012) from July 1, 2009 through December 31, 2013 and by Aetna effective January 1, 2014.

- Claims incurred and enrollment data for July 2012 through June 2016 (FY13 through FY16), with claims paid through July 2016 were provided by HealthSmart and Aetna and are included in our analysis.
- Aetna provided census information identifying Medicare Part B only participants. These participants are identified when hospital claims are denied by Medicare; Aetna then flags that participant as a Part B only participant. Conduent added newly identified participants to our list of Medicare Part B only participants. Conduent assumes that once identified as Part B only, that participant remains in that status until we are notified otherwise.

For the June 30, 2016 valuation, Aetna provided a snapshot file as of July 1, 2016 of retirees and dependents that included a coverage level indicator. After analysis of this file during the valuation census data preparation, Conduent learned that dual coverage participants are reflected in eligibility files multiple times to administer coordination of benefits. This method carries over to enrollment reporting. This resulted in higher per capita costs to address the removal of the dual coverage membership and to cover the value of any additional coordinated benefits. This was offset by a reduction in the number of unique members valued.

Available historic management level reporting from HealthSmart does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups. Historical claim level reporting and estimated impacts of Medicare coordination and plan design were used to augment more recent cost data by Medicare status. Aetna does provide separate experience by Medicare status and is incorporated into per capita rate development for each year of experience included in our claim base with corresponding weights applied in the final per capita cost.

Methodology

Conduent developed per capita costs and projected historic claim data to fiscal 2017 for retirees using the following summarized steps:

1. Develop historic annual incurred claim cost rates – an analysis of medical costs was completed based on claims information and enrollment data provided by Aetna and HealthSmart for each year in the experience period of fiscal 2013 through fiscal 2016.
    - Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs for the upcoming year (e.g. from the experience period up through fiscal 2017).
    - Conduent applied an adjustment to the medical claims in fiscal year 2016 to estimate incurred but not reported claims based upon a review of claim lags through July 2016. Pharmacy claims are deemed fully incurred.
    - An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Available management level reporting does indicate claims and enrollment separately for Medicare and pre-Medicare plan participants, but only since January 1, 2014. HealthSmart data does not, but we did have overall statistics as to the percentage of claims and enrollment attributable to both groups. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For the “no-Part A” individuals

who are required to enroll in Medicare Part B, the State is the primary payer for hospital bills and other Part A services. Claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. For Medicare Part B only participants, a lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B based upon manual rate models that estimate the Medicare covered proportion of medical costs. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate.

- Based on census data received from Aetna, 0.39% of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire and/or re-hire, date of birth, tier, etc.
- Based upon a reconciliation of valuation census data to the Aetna July 1, 2016 snapshot eligibility file, Conduent adjusted member counts used for duplicate records where participants have dual coverage; i.e. primary coverage as a retiree and secondary coverage as the covered spouse of another retiree. This is to reflect the total cost per distinct individual/member which is then applied to distinct members in the valuation census.
- Conduent understands that pharmacy claims reported do not reflect rebates. Based upon reported rebates in proportion to incurred claims for State of Alaska retiree plans, Conduent reduced reported pharmacy incurred claims by 9% to estimate the rebates for the retiree population beginning January 1, 2014. We reduced historic pharmacy incurred claims by 5.5% to reflect rebates on experience prior to January 1, 2014. These estimates were based upon reported rebates for retirees from Aetna and Envision Rx.

2. Develop estimated Retiree Drug Subsidy reimbursement - actual subsidy payments to the State were received for CY2009-CY2015, and the first six months of CY2016. Conduent obtained this information based upon recorded and available information in the RDS Subsidy website and as provided by the State. The projected subsidy for FY 2017 was determined based on the historic ratio of subsidy received to claims incurred (adjusted for rebates), and then applied to the appropriate projection period. These amounts are applicable only to Medicare eligible participants.
3. Adjust for network change – based upon additional experience and updated reporting from Aetna (through March 31, 2016), we updated the adjustment to reflect the impact of the better network discounts realized. Conduent referenced administrator reports provided by Alaska to compare the proportion of network savings to covered charges under Aetna and the prior administrator. We found the discounts to be approximately 6% higher under Aetna as a proportion of covered charges as compared to the prior administrator.
4. Adjust for claim fluctuation, anomalous experience, etc. – explicit adjustments are often made for anticipated large claims or other anomalous experience. Due to group size and demographics, we did not make any large claim adjustments. We do blend both Alaska plan-specific and national trend factors as described below. Conduent compared data utilized to lag reports and quarterly plan experience presentations provided by the State and Aetna to assess accuracy and reasonableness of data.
5. Trend all data points to the projection period – project prior years' experience forward to fiscal 2017 for retiree benefits on an incurred claim basis. Trend factors derived from historic Alaska-specific experience and national trend factors are shown in the table in item 6 below.

6. Apply credibility to prior experience – adjust prior year's data by assigning weight to recent periods, as shown at the right of the table below. Greater credibility is given to the past 24 months' experience. We have some run-out claims data, thus less estimation for complete claims in fiscal 2016 that is consistent with last year. We did not adjust the credibility weight further. Note also that we averaged projected plan costs using Alaska-specific trend factors and national trend factors, assigning 75% weight to Alaska-specific trends and 25% to national trends:

Alaska-Specific and National Average Weighted Trend from Experience Period to Valuation Year			
Experience Period	**Medical**	**Prescription**	**Weighting Factors**
FY2013 to FY2014	8.9%	7.1%	10%
FY2014 to FY2015	7.7%	6.5%	20%
FY2015 to FY2016	6.4%	7.1%	35%
FY2016 to FY2017	5.3%	8.5%	35%

Trend assumptions used for rate development are assessed annually and as additional/improved reporting becomes available, we will incorporate into rate development as appropriate. Based upon recent experience trending up (mitigating historic gains), we are not proposing an update to the valuation healthcare cost trend assumption.

7. Develop separate administration costs – no adjustments were made for internal administrative costs. Third party retiree plan administration fees for fiscal 2017 are based upon rates in effect at the midpoint of the year, January 2017, based upon negotiations with Aetna as communicated by the State. Medical fees increased 1.4% and pharmacy admin was reduced to $0. We included a small fee for estimated fees that occur on a per occurrence basis (i.e. prior authorization, retiree direct bill). We also include PCORI fees under the Affordable Care Act. We estimated the 2017 rates based upon the 2016 rate of $2.26 per member per year increased by 4%. The annual per participant per year administrative cost rate for medical and prescription benefits (including PCORI) is $206.88.

8. 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 of the following provisions; however, none of the impacts have been included in the valuation results.

   - Because the State plan is retiree-only, and was in effect at the time the legislation was enacted, not all provisions of the health reform legislation apply to the State plan. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. We reviewed the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.
   - As Transitional Reinsurance fees are only in effect until 2016, we excluded these for valuation purposes.
   - The Plan will be subject to the high cost plan excise tax (Cadillac tax); however, the impact is not expected to significantly impact the OPEB liability. Based upon guidance available at the valuation date, Conduent estimated the tax based upon a blended test of pre and post-Medicare projected costs and enrollment projections.
     - A blended test compares a weighted average per capita cost (based upon proportions of pre/post Medicare eligible enrollments) to the tax cost thresholds in each projection year. Projected enrollment was based upon the 2016 enrollment data provided by Aetna, and 2016 valuation headcount projections for future years.

– We included administrative fees and applied Retiree Drug Subsidy reimbursements to the Medicare rates.

- We assumed claim costs would increase according to valuation trend assumptions from the June 30, 2016 valuation, and that the tax cost thresholds would increase at 3.0%. The first year increased at 4% to reflect the additional 1% over inflation assumption.
- Conduent determined the impact to be less than $1,000 (<0.01%) of the projected June 30, 2016 healthcare actuarial accrued liability for the defined benefit plans. In addition, any additional per capita costs due to the tax were not expected to significantly impact trend over the long term.

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.

We have not identified any other specific provisions of healthcare reform or its potential repeal 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.

The following table summarizes data sources and assumptions and the relative impact changes in each have on healthcare cost projections for 2016 as compared to 2015:

Healthcare Cost Rate Data Source or Assumption Change, 2016 vs. 2014	Gain / Loss Impact on 2014 Valuation Results
Claim lag specific to medical and prescription experience	Small
Individual claims level data	– No impact on cost data used for 2016, though potentially a source of future modifications – No impact on morbidity assumptions used for 2016, though potentially a source of future modifications
Explicit TPA fees	Negligible
Actual RDS payments received	Negligible
Aggregate claims data	Loss due to adjustment for removal of dual coverage/duplicate members in reported enrollment counts, offset by gain due to experience
Census Data	Small gain due to updated enrollment data

In accordance with actuarial standards, we note the following specific data sources and steps taken to value retiree medical benefits:

- The Division of Retirement and Benefits provided pension valuation census data, which for people currently in receipt of healthcare benefits was supplemented by coverage data from the healthcare claims administrator (Aetna)
- Certain adjustments and assumptions were made to prepare the data for valuation:
  – Some records provided on the Aetna data were associated with a participant social security number not listed on the RIN-to-SSN translation file. We did not add these records to the retiree medical valuation data as they were unable to tie with our pension valuation data (and therefore were unable to be associated with a specific plan or participant).

- Some in pay participants and beneficiaries on the pension valuation data who were previously assumed to be receiving medical benefits were not listed on the provided Aetna data. We have updated these records to only be valued under the pension valuation.
- Some records in the Aetna data were duplicates due to the dual coverage (i.e. coverage as a retiree and as a spouse of another retiree) allowed under the Plan. Records were changed for these members so that each member was only valued once. Any additional value of the dual coverage (due to coordination of benefits) is small and reflected in the per capita costs.
- Covered children included in the Aetna data were valued until age 23, unless handicapped. We assumed that those dependents over 23 were only eligible and included due to being handicapped.
- Conduent understands that retiree medical coverage/eligibility is in place while a pension benefit is payable. If a participant dies, dependent coverage is only assumed to continue if they have ongoing pension/survivor benefits.
- For individuals included in the pension data expecting a future pension, we valued health benefits starting at the same point that the pension benefit is assumed to start.

- Limitations on the use of the valuation results due to uncertainty about various aspects of the data: Excluded records due to file mismatches are noted above but not are expected to have a material impact on the results.

Unresolved matters: None.

June 30, 2016 Valuation – FY 2017 Claims Cost Rates

	Medical			Prescription Drugs			
	Pre-Medicare	Medicare A&B	Medicare B Only	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2013 Incurred Claims	**$ 239,986,289**	**$ 73,469,050**	**$ 1,901,151**	**$ 49,738,435**	**$ 93,999,808**	**$ 538,020**	**$ 459,632,753**
Membership	23,522	32,984	217	23,522	32,984	217	56,723
Paid Claims Cost Rate	$ 10,203	$ 2,227	$ 8,761	$ 2,115	$ 2,850	$ 2,479	$ 8,103
Trend to FY2017	1.313	1.313	1.313	1.325	1.325	1.325	
FY 2017 Paid Cost Rate	$ 13,399	$ 2,925	$ 11,506	$ 2,801	$ 3,775	$ 3,284	$ 10,670
Manual Adjustment*	0.940	0.940	0.940	0.934	0.934	0.934	
FY 2017 Incurred Cost Rate	**$ 12,595**	**$ 2,750**	**$ 10,815**	**$ 2,616**	**$ 3,526**	**$ 3,067**	**$ 10,010**
Fiscal 2014 Incurred Claims	**$ 224,167,427**	**$ 68,834,329**	**$ 2,428,446**	**$ 39,572,896**	**$ 115,011,779**	**$ 605,633**	**$ 450,620,510**
Membership	21,322	36,843	223	21,322	36,843	223	58,388
Paid Claims Cost Rate	$ 10,514	$ 1,868	$ 10,890	$ 1,856	$ 3,122	$ 2,716	$ 7,718
Trend to FY2017	1.205	1.205	1.205	1.237	1.237	1.237	
FY 2017 Paid Cost Rate	$ 12,673	$ 2,252	$ 13,126	$ 2,295	$ 3,861	$ 3,359	$ 9,386
Manual Adjustment*	0.970	0.970	0.970	0.967	0.967	0.967	
FY 2017 Incurred Cost Rate	**$ 12,293**	**$ 2,184**	**$ 12,733**	**$ 2,220**	**$ 3,733**	**$ 3,248**	**$ 9,095**
Fiscal 2015 Incurred Claims	**$ 222,942,485**	**$ 73,220,895**	**$ 3,066,493**	**$ 55,314,988**	**$ 118,431,447**	**$ 651,667**	**$ 473,627,975**
Membership	20,920	38,263	242	20,920	38,263	242	59,425
Paid Claims Cost Rate	$ 10,657	$ 1,914	$ 12,671	$ 2,644	$ 3,095	$ 2,693	$ 7,970
Trend to FY2017	1.120	1.120	1.120	1.162	1.162	1.162	
FY 2017 Paid Cost Rate	$ 11,940	$ 2,144	$ 14,197	$ 3,071	$ 3,595	$ 3,128	$ 9,050
Manual Adjustment*	1.000	1.000	1.000	1.000	1.000	1.000	
FY 2017 Incurred Cost Rate	**$ 11,940**	**$ 2,144**	**$ 14,197**	**$ 3,071**	**$ 3,595**	**$ 3,128**	**$ 9,050**
Fiscal 2016 Incurred Claims	**$ 225,325,571**	**$ 83,147,336**	**$ 1,892,894**	**$ 57,222,142**	**$ 135,947,721**	**$ 803,500**	**$ 504,339,164**
Membership	20,049	40,480	275	20,049	40,480	275	60,804
Paid Claims Cost Rate	$ 11,239	$ 2,054	$ 6,883	$ 2,854	$ 3,358	$ 2,922	$ 8,295
Trend to FY2017	1.053	1.053	1.053	1.085	1.085	1.085	
FY 2017 Paid Cost Rate	$ 11,830	$ 2,162	$ 7,245	$ 3,096	$ 3,643	$ 3,169	$ 8,833
Manual Adjustment*	1.000	1.000	1.000	1.000	1.000	1.000	
FY 2017 Incurred Cost Rate	**$ 11,830**	**$ 2,162**	**$ 7,245**	**$ 3,096**	**$ 3,643**	**$ 3,169**	**$ 8,833**
Weighted Average 7/1/2016-6/30/2017 Incurred Claims Cost Rates:							
At average age	$ 12,037	$ 2,219	$ 11,133	$ 2,864	$ 3,632	$ 3,160	$ 9,079
At age 65	$ 14,380	$ 1,707	$ 8,562	$ 3,320	$ 3,320	$ 3,320	$ 8,783

Following the development of total projected costs, a distribution of per capita claims cost was developed. This was accomplished by allocating total projected costs to the population census used in the valuation. The allocation was done separately for each of prescription drugs and medical costs for the Medicare eligible and pre-Medicare populations. The allocation weights were developed using participant counts by age and assumed morbidity and aging factors. Results were tested for reasonableness based on historical trend and external benchmarks for costs paid by Medicare.

Below are the results of this analysis:

Distribution of Per Capita Claims Cost by Age
for the Period July 1, 2016 through June 30, 2017

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare Retiree Drug Subsidy
45	$ 7,964	$ 7,964	$ 1,751	$ -
50	9,010	9,010	2,080	-
55	10,194	10,194	2,470	-
60	12,108	12,108	2,864	-
65	1,707	8,562	3,320	614
70	2,077	10,417	3,577	661
75	2,466	12,369	3,815	706
80	2,657	13,325	3,911	723

Changes in Methods Since the Prior Valuation

There were no changes in valuation methods except for the changes described in the healthcare sections above.

Section 5.3 Summary of Actuarial Assumptions

Investment Return/Discount Rate	4.75% per year, compounded annually, net of expenses.
Pre-retirement Mortality	96% of all rates of the RP-2000 table, 2000 Base Year projected to 2018 with Projection Scale BB.
Post-retirement Mortality	96% of all rates of the RP-2000 table, 2000 Base Year projected to 2018 with Projection Scale BB.
Salary Scale	None.
Variable Benefit Increases	3.62% per year, compounded annually.
Inflation Rate	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Per Capita Claims Cost	Sample claims cost rates adjusted to age 65 for FY17 medical and prescription 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

Medicare Part B Only	For actives and retirees not yet Medicare-eligible, participation is set based on whether the employee/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or re-hire.
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%
FY26	5.6%	5.6%	4.0%
FY51	4.4%	4.0%	4.0%
FY101	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. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State of Alaska.

Aging Factors*	<table><tr><th>Age</th><th>Medical</th><th>Prescription Drugs</th></tr><tr><td>0-44</td><td>2.0%</td><td>4.5%</td></tr><tr><td>45-54</td><td>2.5%</td><td>3.5%</td></tr><tr><td>55-64</td><td>3.5%</td><td>3.0%</td></tr><tr><td>65-74</td><td>4.0%</td><td>1.5%</td></tr><tr><td>75-84</td><td>1.5%</td><td>0.5%</td></tr><tr><td>85-95</td><td>0.5%</td><td>0.0%</td></tr><tr><td>96+</td><td>0.0%</td><td>0.0%</td></tr></table> * 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.
Medical Participation	Because medical benefits are provided at no cost to the retiree, we have assumed 100% participation in the medical plans.
Turnover	None.
Retirement	100% commencement at age 70.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. Members are assumed to be married at retirement.
Disability	None.

Glossary of Terms

Actuarial Accrued Liability	Total accumulated cost to fund pension 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 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 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	Disclosure measure of annual pension cost.
GASB 25	Governmental Accounting Standards Board Statement Number 25 which specifies how the Annual Required Contribution (ARC) is to be calculated. This statement has been amended by GASB 67.
GASB 43	Governmental Accounting Standards Board Statement Number 43 which specifies how the Annual Required Contribution (ARC) is to be calculated.
GASB 67	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.
GASB 74	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 pension plans.
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.
Unfunded Actuarial Accrued Liability (UAAL)	The portion of the actuarial accrued liability not offset by plan assets.
Vested Benefits	Benefits which are unconditionally guaranteed regardless of employment status.