



**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, 2011

July 2012

**buck**consultants®

Submitted By:  
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# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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July 27, 2012

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, 2011 performed by 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, 2011. 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. Buck Consultants, LLC 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.

The State of Alaska Teachers' Retirement System DCR Plan is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for the State of Alaska Teachers' Retirement System DCR Plan 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 25-year period. This objective is currently being met and is projected to continue to be met.

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 experience analysis was performed in 2010. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Section 5 beginning on page 32.

The assumptions and methods used to determine the Annual Required Contributions (ARC) of the Employers to the State of Alaska Teachers' Retirement System DCR Plan as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statements No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and 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 Schedule of Funding Progress, Schedule of Employer Contributions, and trend data schedules under GASB Nos. 25 and 43 that are included in the Financial Section of the CAFR. We have also prepared the member data tables shown in Section 4 of this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions and solvency test for the Actuarial Section of the CAFR.

The undersigned are Enrolled Actuaries, a Fellow and an Associate of the Society of 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,

BUCK CONSULTANTS, LLC



David H. Slushinsky, ASA, EA, MAAA  
Principal, Consulting Actuary



Michael D. Mills, FSA, EA, MAAA  
Director, Consulting Actuary

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



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

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## EXECUTIVE SUMMARY

### Overview

The State of Alaska Teachers' Retirement System DCR Plan provides occupational death & disability and retiree medical benefits to teachers and other eligible participants 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 benefits as of the valuation date of June 30, 2011.

### Purpose

An actuarial valuation is performed on the retirement plan annually as of the beginning 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 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 accounting measures for the Plan required by GASB Nos. 25 and 43 as of the end of the last fiscal year;
4. To review the current funded status of the Plan;
5. To compare actual and expected experience under the Plan during the last fiscal year;
6. And 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 the TRS DCR Plan based on the plan provisions, membership, assets, and actuarial assumptions as of the valuation date.

### Funding Status

The funding status is a measure of the progress that has been made in funding the plan as of the valuation date. It is determined as a ratio of the actuarial value of assets divided by the total actuarial accrued liability on the valuation date. A ratio of over 100% represents a plan that is ahead in funding, and a ratio of less than 100% represents a plan that is behind in funding on the valuation date. A comparative summary of the funding ratio from the prior and current actuarial valuations follows:

| Funding Status as of June 30 <sup>1</sup>                  | 2010         | 2011         |
|--|--------------|--------------|
| (a) Accrued Liability <sup>2</sup>                         | \$ 2,448     | \$ 3,858     |
| (b) Valuation Assets <sup>2</sup>                          | <u>5,472</u> | <u>7,566</u> |
| (c) Unfunded Accrued Liability <sup>2</sup> , (a) – (b)    | \$ (3,024)   | \$ (3,708)   |
| (d) Funding Ratio based on Valuation Assets, (b) ÷ (a)     | 223.5%       | 196.1%       |
| (e) Fair Value of Assets <sup>2</sup>                      | \$ 5,077     | \$ 7,825     |
| (f) Funding Ratio based on Fair Value of Assets, (e) ÷ (a) | 207.4%       | 202.8%       |

<sup>1</sup> Includes occupational death & disability and retiree medical benefits.

<sup>2</sup> In thousands.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## *Executive Summary (cont'd)*

As shown previously, the funding ratio based on valuation assets as of June 30, 2011 has decreased from 223.5% to 196.1%, a decrease of 27.4%. The total calculated employer contribution rate has decreased from 0.49% of payroll for FY13 to 0.47% for FY14, a decrease of 0.02%. The reasons for the change in the funded status and calculated contribution rate are explained below.

### **(1) Retiree Medical Costs and Assumptions**

Please refer to the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2011 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.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2011 for TRS with some adjustments to reflect the differences between the DCR medical plan and the DB medical plan. These differences include different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY11 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

### **(2) Investment Experience**

The approximate FY11 investment return based on fair value was 18.9% compared to the expected investment return of 8.00%. This resulted in a gain of approximately \$650,000 to the Plan from investment experience. The asset valuation method recognizes 20% of this gain (\$130,000) this year and an additional 20% in each of the next 4 years. In addition, 20% of the FY07 investment loss, 20% of the FY08 investment loss, 20% of the FY09 investment loss and 20% of the FY10 investment loss were recognized this year. The approximate FY11 asset return based on actuarial value was 7.4% compared to the expected asset return of 8.00%. The net result was an asset loss of \$36,000 which decreased the funded ratio by 0.9%.

### **(3) Salary Increase**

During the period from June 30, 2010 to June 30, 2011, salary increases for continuing active members were slightly more than anticipated in the valuation assumptions.

### **(4) Demographic Experience**

The number of active participants increased 20.57% from 2,246 at June 30, 2010 to 2,708 at June 30, 2011 due to the opening of the DCR Plan to new entrants as of July 1, 2006. The average age of active participants increased from 36.79 to 37.25 and average credited service increased from 2.07 to 2.62 years.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## *Executive Summary (cont'd)*

### **(5) Changes in Methods Since the Prior Valuation**

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

### **(6) Changes in Assumptions Since the Prior Valuation**

There have been no changes in assumptions since the prior valuation, except for the assumption regarding Medicare Part B only participation for pre-65 retirees and active members. We now determine the Part B only status based on number of quarters worked since date of hire or re-hire where applicable.

### **(7) Changes in Benefit Provisions Since the Prior Valuation**

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

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## *Comparative Summary of Key Actuarial Valuation Results*

| <b>Total Employer Contribution Rates for Occupational Death &amp; Disability for Fiscal Year Ending:</b> | <b>2013</b>    | <b>2014</b>    |
|--|----------------|----------------|
| (a) Employer Normal Cost Rate  | 0.04%          | 0.05%          |
| (b) Past Service Cost Rate   | <u>(0.04)%</u> | <u>(0.05)%</u> |
| (c) Total Employer Contribution Rate, (a) + (b),<br>not less than 0%                                     | 0.00%          | 0.00%          |

| <b>Total Employer Contribution Rates for Retiree Medical for Fiscal Year Ending:</b> | <b>2013</b>    | <b>2014</b>    |
|--|----------------|----------------|
| (a) Employer Normal Cost Rate  | 0.57%          | 0.54%          |
| (b) Past Service Cost Rate   | <u>(0.08)%</u> | <u>(0.07)%</u> |
| (c) Total Employer Contribution Rate, (a) + (b),<br>not less than 0%                 | 0.49%          | 0.47%          |

| <b>Total Employer Contribution Rates for Fiscal Year Ending:</b> | <b>2013</b> | <b>2014</b> |
|--|-------------|-------------|
| (a) Total Employer Contribution Rate                             | 0.49%       | 0.47%       |
| (b) Board Adopted Total Employer Contribution Rate               | 0.49%       | 0.47%       |

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

| Valuation Date | Fiscal Year | Total Employer Contribution Rate      |                 |       |
|----------------|-------------|---------------------------------------|-----------------|-------|
|                |             | Occupational<br>Death &<br>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% |

Contribution rates are based on salary for DCR Plan 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 based on a discount rate in accordance with GASB parameters.



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## *Comparative Summary of Key Actuarial Valuation Results (cont'd)*

### Summary of Actuarial Gain/(Loss)

The following table shows the gain/(loss) on total accrued liability (in thousands):

|                                 | <u>Occupational<br/>Death &amp; Disability</u> | <u>Retiree<br/>Medical</u> | <u>Total</u> |
|---------------------------------|--|----------------------------|--------------|
| - Retirement Experience         | \$ 0   | \$ 0                       | \$ 0         |
| - Termination Experience        | 0  | 62                         | 62           |
| - Active Mortality Experience   | 20   | (3)                        | 17           |
| - Inactive Mortality Experience | 0  | 0                          | 0            |
| - Disability Experience         | 25   | (2)                        | 23           |
| - New Entrants                  | (2)  | (262)                      | (264)        |
| - Rehires                       | (1)  | (162)                      | (163)        |
| - Other Demographic Experience  | (30)   | (131)                      | (161)        |
| - Salary Increases              | 0  | N/A                        | 0            |
| - Medical Claims Costs          | N/A  | 107                        | 107          |
| - Total                         | \$ 12  | \$ (391)                   | \$ (379)     |

A gain on total accrued liability is favorable to the Plan. A loss is unfavorable.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 1

### Actuarial Funding Results

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 1.1

### Actuarial Liabilities and Normal Cost (\$'s in 000's)

| As of June 30, 2011                                   | Present Value<br>of Projected<br>Benefits | Accrued<br>(Past Service)<br>Liability |
|---|---|--|
| <b>Active Members</b>                                 |   |  |
| Occupational Death Benefits                           | \$ 349                                    | \$ 31                                  |
| Occupational Disability Benefits                      | 407                                       | 26                                     |
| Medical and Prescription Drug Benefits                | 10,676                                    | 4,386                                  |
| Medicare Part D Subsidy                               | <u>(1,406)</u>                            | <u>(585)</u>                           |
| Subtotal  | \$ 10,026                                 | \$ 3,858                               |
| <b>Benefit Recipients</b>                             |   |  |
| Survivor Benefits                                     | \$ 0                                      | \$ 0                                   |
| Disability Benefits                                   | 0   | 0                                      |
| Medical and Prescription Drug Benefits                | 0   | 0                                      |
| Medicare Part D Subsidy                               | <u>0</u>                                  | <u>0</u>                               |
| Subtotal  | \$ 0                                      | \$ 0                                   |
| <b>Total</b>  | <b>\$ 10,026</b>                          | <b>\$ 3,858</b>                        |
| <b>Total Occupational Death &amp; Disability</b>      | <b>\$ 756</b>                             | <b>\$ 57</b>                           |
| <b>Total Retiree Medical, Net of Part D Subsidy</b>   | <b>\$ 9,270</b>                           | <b>\$ 3,801</b>                        |
| <b>Total Retiree Medical, Gross of Part D Subsidy</b> | <b>\$ 10,676</b>                          | <b>\$ 4,386</b>                        |
| <b>As of June 30, 2011</b>                            |   | <b>Normal<br/>Cost</b>                 |
| <b>Active Members</b>                                 |   |  |
| Occupational Death Benefits                           |   | \$ 36                                  |
| Occupational Disability Benefits                      |   | 44                                     |
| Medical and Prescription Drug Benefits                |   | 1,000                                  |
| Medicare Part D Subsidy                               |   | <u>(133)</u>                           |
| Subtotal  |   | \$ 947                                 |
| <b>Total</b>  |   | <b>\$ 947</b>                          |
| <b>Total Occupational Death &amp; Disability</b>      |   | <b>\$ 80</b>                           |
| <b>Total Retiree Medical, Net of Part D Subsidy</b>   |   | <b>\$ 867</b>                          |
| <b>Total Retiree Medical, Gross of Part D Subsidy</b> |   | <b>\$ 1,000</b>                        |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 1.2

### Actuarial Contributions – FY14 (\$'s in 000's)

| Normal Cost Rate  | Occupational<br>Death &<br>Disability | Retiree<br>Medical | Total        |
|---|---------------------------------------|--------------------|--------------|
| (1) Total Normal Cost                                     | \$ 80                                 | \$ 867             | \$ 947       |
| (2) DCR Plan Member Salaries Projected for FY12           | 160,509                               | 160,509            | 160,509      |
| (3) Employer Normal Cost Rate, (1) / (2)                  | 0.05%                                 | 0.54%              | 0.59%        |
| <b>Past Service Rate</b>                                  |                                       |                    |              |
| (1) Accrued Liability                                     | \$ 57                                 | \$ 3,801           | \$ 3,858     |
| (2) Valuation Assets                                      | <u>2,193</u>                          | <u>5,373</u>       | <u>7,566</u> |
| (3) Total Unfunded Liability, (1) – (2)                   | \$ (2,136)                            | \$ (1,572)         | \$ (3,708)   |
| (4) Funded Ratio based on Valuation Assets                | 3,847.4%                              | 141.4%             | 196.1%       |
| (5) Past Service Cost Amortization Payment                | (80)*                                 | (105)              | (185)        |
| (6) DCR Plan Member Salaries Projected for FY12           | 160,509                               | 160,509            | 160,509      |
| (7) Past Service Cost Rate, (5) / (6)                     | (0.05)%*                              | (0.07)%            | (0.12)%      |
| <b>Total Employer Contribution Rate, not less than 0%</b> | <b>0.00%</b>                          | <b>0.47%</b>       | <b>0.47%</b> |

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

#### Total Employer Contribution Rate as Percent of Total Payroll

|  |          |          |          |
|--|----------|----------|----------|
| (1) Total Normal Cost  | \$ 80    | \$ 867   | \$ 947   |
| (2) Total DB and DCR Plan Member Salaries Projected for FY12 | 731,652  | 731,652  | 731,652  |
| (3) Employer Normal Cost Rate, (1) / (2)                     | 0.01%    | 0.12%    | 0.13%    |
| (4) Past Service Cost Amortization Payment                   | \$ (80)* | \$ (105) | \$ (185) |
| (5) Past Service Cost Rate, (4) / (2)                        | (0.01)%  | (0.01)%  | (0.02)%  |
| (6) Total Employer Contribution Rate, (3) + (5)              | 0.00%    | 0.11%    | 0.11%    |

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

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 1.2 (cont'd)

### Actuarial Contributions – FY14 (\$'s in 000's)

#### Schedule of Past Service Cost Amortizations – Occupational Death & Disability

| Charge                     | Amortization Period |            | Balances |                   | Beginning-of-Year Payment |
|----------------------------|---------------------|------------|----------|-------------------|---------------------------|
|                            | Date Created        | Years Left | Initial  | Outstanding       |                           |
| Initial Unfunded Liability | 06/30/2007          | 21         | \$ 16    | \$ 16             | \$ 1                      |
| FY08 Gain                  | 06/30/2008          | 22         | (392)    | (406)             | (28)                      |
| Change in Assumptions      | 06/30/2009          | 23         | (82)     | (84)              | (6)                       |
| FY09 Gain                  | 06/30/2009          | 23         | (594)    | (609)             | (40)                      |
| Change in Assumptions      | 06/30/2010          | 24         | (7)      | (8)               | (1)                       |
| FY10 Gain                  | 06/30/2010          | 24         | (479)    | (485)             | (31)                      |
| FY11 Gain                  | 06/30/2011          | 25         | (560)    | (560)             | (35)                      |
| <b>Total</b>               |                     |            |          | <b>\$ (2,136)</b> | <b>\$ (140)</b>           |

#### Schedule of Past Service Cost Amortizations – Retiree Medical

| Charge                             | Amortization Period |            | Balances |                   | Beginning-of-Year Payment |
|------------------------------------|---------------------|------------|----------|-------------------|---------------------------|
|                                    | Date Created        | Years Left | Initial  | Outstanding       |                           |
| Initial Unfunded Liability         | 06/30/2007          | 21         | \$ (239) | \$ (249)          | \$ (17)                   |
| Change in Assumptions              | 06/30/2008          | 22         | 84       | 89                | 6                         |
| FY08 Gain                          | 06/30/2008          | 22         | (393)    | (407)             | (28)                      |
| Change in Assumptions              | 06/30/2009          | 23         | (69)     | (70)              | (5)                       |
| FY09 Gain                          | 06/30/2009          | 23         | (281)    | (289)             | (19)                      |
| Change in Assumptions <sup>3</sup> | 06/30/2010          | 24         | 0        | 0                 | 0                         |
| FY10 Gain                          | 06/30/2010          | 24         | (545)    | (552)             | (36)                      |
| FY11 Gain                          | 06/30/2011          | 25         | (94)     | (94)              | (6)                       |
| <b>Total</b>                       |                     |            |          | <b>\$ (1,572)</b> | <b>\$ (105)</b>           |

<sup>3</sup> The net effect of changing assumptions is less than \$1,000. The demographic assumption changes decreased liability by \$133 thousand and the economic assumption changes increased the liability by \$133 thousand. Therefore, the net effect of all assumption changes is \$0 for amortization purposes.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 1.2 (cont'd)

### Actuarial Contributions – FY14 (\$'s in 000's)

#### Schedule of Past Service Cost Amortizations – Total

| Charge                     | Amortization Period |            | Balances |                   | Beginning-of-Year Payment |
|----------------------------|---------------------|------------|----------|-------------------|---------------------------|
|                            | Date Created        | Years Left | Initial  | Outstanding       |                           |
| Initial Unfunded Liability | 06/30/2007          | 21         | \$ (223) | \$ (233)          | \$ (16)                   |
| Change in Assumptions      | 06/30/2008          | 22         | 84       | 89                | 6                         |
| FY08 Gain                  | 06/30/2008          | 22         | (785)    | (813)             | (56)                      |
| Change in Assumptions      | 06/30/2009          | 23         | (151)    | (154)             | (11)                      |
| FY09 Gain                  | 06/30/2009          | 23         | (875)    | (898)             | (59)                      |
| Change in Assumptions      | 06/30/2010          | 24         | (7)      | (8)               | (1)                       |
| FY10 Gain                  | 06/30/2010          | 24         | (1,024)  | (1,037)           | (67)                      |
| FY11 Gain                  | 06/30/2011          | 25         | (654)    | (654)             | (41)                      |
| <b>Total</b>               |                     |            |          | <b>\$ (3,708)</b> | <b>\$ (245)</b>           |

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 15.134694. The amortization method is level percentage of pay.

The equivalent single amortization period is 23.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 1.3

### Actuarial Gain/(Loss) for FY11 (\$'s in 000's)

|  | Occupational<br>Death &<br>Disability | Retiree Medical | Total           |
|--|---------------------------------------|-----------------|-----------------|
| (1) Expected Actuarial Accrued Liability   |                                       |                 |                 |
| (a) Accrued Liability, June 30, 2010   | \$ 18                                 | \$ 2,430        | \$ 2,448        |
| (b) Normal Cost for FY11   | 46                                    | 727             | 773             |
| (c) Interest on (a) and (b) at 8.00%   | 5                                     | 253             | 258             |
| (d) Benefit Payments for FY11  | 0                                     | 0               | 0               |
| (e) Interest on (d) at 8.00% for<br>one-half year                                      | 0                                     | 0               | 0               |
| (f) Expected Accrued Liability as of June 30, 2011<br>(a) + (b) + (c) - (d) - (e)      | \$ 69                                 | \$ 3,410        | \$ 3,479        |
| (2) Actual Accrued Liability, June 30, 2011  | 57                                    | 3,801           | 3,858           |
| <b>(3) Liability Gain/(Loss), (1)(f) - (2)</b>   | <b>\$ 12</b>                          | <b>\$ (391)</b> | <b>\$ (379)</b> |
| (4) Expected Actuarial Asset Value   |                                       |                 |                 |
| (a) Actuarial Asset Value, June 30, 2010   | \$ 1,577                              | \$ 3,895        | \$ 5,472        |
| (b) Interest on (a) at 8.00%   | 126                                   | 312             | 438             |
| (c) Employer Contributions for FY11  | 474                                   | 1,154           | 1,628           |
| (d) Interest on (c) at 8.00% for<br>one-half year                                      | 19                                    | 45              | 64              |
| (e) Benefit Payments for FY11  | 0                                     | 0               | 0               |
| (f) Interest on (e) at 8.00% for<br>one-half year                                      | 0                                     | 0               | 0               |
| (g) Expected Actuarial Asset Value, June 30, 2011<br>(a) + (b) + (c) + (d) - (e) - (f) | \$ 2,196                              | \$ 5,406        | \$ 7,602        |
| (5) Actuarial Asset Value, June 30, 2011   | 2,193                                 | 5,373           | 7,566           |
| <b>(6) Actuarial Asset Gain/(Loss), (5) - (4)(g)</b>                                   | <b>\$ (3)</b>                         | <b>\$ (33)</b>  | <b>\$ (36)</b>  |
| <b>(7) Actuarial Gain/(Loss), (3) + (6)</b>  | <b>\$ 9</b>                           | <b>\$ (424)</b> | <b>\$ (415)</b> |
| <b>(8) Effect of the 2-Year Delay on Contributions</b>                                 | <b>\$ 551</b>                         | <b>\$ 518</b>   | <b>\$ 1,069</b> |
| <b>(9) FY11 Gain/(Loss) to be Amortized, (7) + (8)</b>                                 | <b>\$ 560</b>                         | <b>\$ 94</b>    | <b>\$ 654</b>   |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 1.4

### History of UAAL and Funded Ratio (\$'s in 000's)

| Valuation Date | Aggregate Accrued Liability | Valuation Assets | Assets as a Percent of Accrued Liability | Unfunded Accrued Liabilities (UAL) |
|----------------|-----------------------------|------------------|--|------------------------------------|
| 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)                         |



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 2

### Plan Assets

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 2.1

### Summary of Fair Value of Assets (\$'s in 000's)

| As of June 30, 2011                  | Occupational<br>Death &<br>Disability | Retiree<br>Medical | Total<br>Fair Value | Allocation<br>Percent |
|--------------------------------------|---------------------------------------|--------------------|---------------------|-----------------------|
| Cash and Short-Term Investments      |                                       |                    |                     |                       |
| - Cash and Cash Equivalents          | \$ 26                                 | \$ 62              | \$ 88               | 1.1%                  |
| - Subtotal                           | \$ 26                                 | \$ 62              | \$ 88               | 1.1%                  |
| Fixed Income Investments             |                                       |                    |                     |                       |
| - Domestic Fixed Income Pool         | \$ 284                                | \$ 692             | \$ 976              | 12.7%                 |
| - International Fixed Income Pool    | 44                                    | 108                | 152                 | 2.0%                  |
| - High Yield Pool                    | 44                                    | 106                | 150                 | 2.0%                  |
| - Treasury Inflation Protection Pool | 70                                    | 170                | 240                 | 3.1%                  |
| - Emerging Debt Pool                 | <u>44</u>                             | <u>106</u>         | <u>150</u>          | <u>2.0%</u>           |
| - Subtotal                           | \$ 486                                | \$ 1,182           | \$ 1,668            | 21.8%                 |
| Equity Investments                   |                                       |                    |                     |                       |
| - Domestic Equity Pool               | \$ 653                                | \$ 1,589           | \$ 2,242            | 29.3%                 |
| - International Equity Pool          | 411                                   | 999                | 1,410               | 18.4%                 |
| - Private Equity Pool                | 154                                   | 375                | 529                 | 6.9%                  |
| - Emerging Markets Equity Pool       | <u>108</u>                            | <u>263</u>         | <u>371</u>          | <u>4.8%</u>           |
| - Subtotal                           | \$ 1,326                              | \$ 3,226           | \$ 4,552            | 59.4%                 |
| Other Investments                    |                                       |                    |                     |                       |
| - Real Estate Pool                   | \$ 223                                | \$ 542             | \$ 765              | 10.0%                 |
| - Other Investments Pool             | 64                                    | 154                | 218                 | 2.8%                  |
| - Absolute Return Pool               | 110                                   | 267                | 377                 | 4.9%                  |
| - Other Assets                       | <u>0</u>                              | <u>0</u>           | <u>0</u>            | <u>0.0%</u>           |
| - Subtotal                           | \$ 397                                | \$ 963             | \$ 1,360            | 17.7%                 |
| Total Cash and Investments           | \$ 2,235                              | \$ 5,433           | \$ 7,668            | 100.0%                |
| Net Accrued Receivables              | <u>45</u>                             | <u>112</u>         | <u>157</u>          |                       |
| Net Assets                           | \$ 2,280                              | \$ 5,545           | \$ 7,825            |                       |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 2.2

### Changes in Fair Value of Assets (\$'s in 000's)

| Fiscal Year 2011 (in thousands)  | Occupational<br>Death & Disability | Retiree Medical | Total<br>Fair Value |
|--|------------------------------------|-----------------|---------------------|
| (1) Net Assets, June 30, 2010<br>(fair value)                                    | \$ 1,479                           | \$ 3,598        | \$ 5,077            |
| (2) Additions:   |                                    |                 |                     |
| (a) Member Contributions   | \$ 0                               | \$ 0            | \$ 0                |
| (b) Employer Contributions   | 474                                | 1,154           | 1,628               |
| (c) Interest and Dividend Income   | 41                                 | 99              | 140                 |
| (d) Net Appreciation (Depreciation) in<br>Fair Value of Investments              | 286                                | 694             | 980                 |
| (e) Other  | 0                                  | 0               | 0                   |
| (f) Total Additions  | <u>\$ 801</u>                      | <u>\$ 1,947</u> | <u>\$ 2,748</u>     |
| (3) Deductions:  |                                    |                 |                     |
| (a) Medical Benefits   | \$ 0                               | \$ 0            | \$ 0                |
| (b) Death & Disability Benefits  | 0                                  | 0               | 0                   |
| (c) Investment Expenses  | 0                                  | 0               | 0                   |
| (d) Administrative Expenses  | 0                                  | 0               | 0                   |
| (e) Total Deductions   | <u>\$ 0</u>                        | <u>\$ 0</u>     | <u>\$ 0</u>         |
| (4) Net Assets, June 30, 2011<br>(fair value)                                    | \$ 2,280                           | \$ 5,545        | \$ 7,825            |
| Approximate Fair Value Investment Return<br>Rate During FY11 Net of All Expenses | 18.9%                              | 18.9%           | 18.9%               |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 2.3

### Actuarial Value of Assets (\$'s in 000's)

The actuarial value of assets and the fair value were \$0 at June 30, 2006. Future investment gains and losses will be 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.

| In Thousands  | Occupational<br>Death &<br>Disability | Retiree<br>Medical | Total    |
|---|---------------------------------------|--------------------|----------|
| (1) Deferral of Investment Return/(Loss) for FY11   |                                       |                    |          |
| (a) Fair Value, June 30, 2010   | \$ 1,479                              | \$ 3,598           | \$ 5,077 |
| (b) Contributions for FY11  | 474                                   | 1,154              | 1,628    |
| (c) Benefit Payments for FY11   | 0                                     | 0                  | 0        |
| (d) Actual Investment Return ( <i>net of expenses</i> )                                   | 327                                   | 793                | 1,120    |
| (e) Expected Return Rate ( <i>net of expenses</i> )                                       | 8.00%                                 | 8.00%              | 8.00%    |
| (f) Expected Return   | 137                                   | 333                | 470      |
| (g) Investment Gain/(Loss) for the Year ( <i>d. - f.</i> )                                | 190                                   | 460                | 650      |
| (h) Deferred Investment Return/(Loss)   | 87                                    | 172                | 259      |
| (2) Actuarial Value, June 30, 2011  |                                       |                    |          |
| (a) Fair Value, June 30, 2011   | \$ 2,280                              | \$ 5,545           | \$ 7,825 |
| (b) 2011 Deferred Investment Return/(Loss)  | 87                                    | 172                | 259      |
| (c) Preliminary Actuarial Value, June 30, 2011<br>( <i>a. - b.</i> )                      | 2,193                                 | 5,373              | 7,566    |
| (d) Upper Limit: 120% of Fair Value, June 30, 2011  | 2,735                                 | 6,653              | N/A      |
| (e) Lower Limit: 80% of Fair Value, June 30, 2011   | 1,825                                 | 4,437              | N/A      |
| (f) Actuarial Value, June 30, 2011<br>( <i>c. limited by d. and e.</i> )                  | \$ 2,193                              | \$ 5,373           | \$ 7,566 |
| (g) Ratio of Actuarial Value of Assets to<br>Fair Value of Assets                         | 96.2%                                 | 96.9%              | 96.7%    |
| (h) Approximate Actuarial Value Investment<br>Return Rate During FY11 Net of All Expenses | 7.8%                                  | 7.2%               | 7.4%     |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 2.3 (cont'd)

### Actuarial Value of Assets (\$'s in 000's)

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

#### Occupational Death & Disability

| Plan Year Ended | Asset Gain/(Loss) | Gain/(Loss)<br>Recognized in Prior<br>Years | Gain/(Loss)<br>Recognized This<br>Year | Gain/(Loss)<br>Deferred to Future<br>Years |
|-----------------|-------------------|---|--|--|
| 6/30/2007       | \$ 0              | \$ 0  | \$ 0                                   | \$ 0                                       |
| 6/30/2008       | (25)              | (15)  | (5)                                    | (5)  |
| 6/30/2009       | (127)             | (50)  | (25)                                   | (52)                                       |
| 6/30/2010       | (14)              | (3)   | (3)                                    | (8)  |
| 6/30/2011       | 190               | 0   | 38                                     | 152  |
| <b>Total</b>    | <b>\$ 24</b>      | <b>\$ (68)</b>                              | <b>\$ 5</b>                            | <b>\$ 87</b>                               |

#### Retiree Medical

| Plan Year Ended | Asset Gain/(Loss) | Gain/(Loss)<br>Recognized in Prior<br>Years | Gain/(Loss)<br>Recognized This<br>Year | Gain/(Loss)<br>Deferred to Future<br>Years |
|-----------------|-------------------|---|--|--|
| 6/30/2007       | \$ (9)            | \$ (8)                                      | \$ (1)                                 | \$ 0                                       |
| 6/30/2008       | (71)              | (42)  | (14)                                   | (15)                                       |
| 6/30/2009       | (369)             | (148)                                       | (74)                                   | (147)                                      |
| 6/30/2010       | (58)              | (12)  | (12)                                   | (34)                                       |
| 6/30/2011       | 460               | 0   | 92                                     | 368  |
| <b>Total</b>    | <b>\$ (47)</b>    | <b>\$ (210)</b>                             | <b>\$ (9)</b>                          | <b>\$ 172</b>                              |

#### Total

| Plan Year Ended | Asset Gain/(Loss) | Gain/(Loss)<br>Recognized in Prior<br>Years | Gain/(Loss)<br>Recognized This<br>Year | Gain/(Loss)<br>Deferred to Future<br>Years |
|-----------------|-------------------|---|--|--|
| 6/30/2007       | \$ (9)            | \$ (8)                                      | \$ (1)                                 | \$ 0                                       |
| 6/30/2008       | (96)              | (57)  | (19)                                   | (20)                                       |
| 6/30/2009       | (496)             | (198)                                       | (99)                                   | (199)                                      |
| 6/30/2010       | (72)              | (15)  | (15)                                   | (42)                                       |
| 6/30/2011       | 650               | 0   | 130                                    | 520  |
| <b>Total</b>    | <b>\$ (23)</b>    | <b>\$ (278)</b>                             | <b>\$ (4)</b>                          | <b>\$ 259</b>                              |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 2.4

### Historical Asset Rate of Return

| Year Ending   | Actuarial Value |            | Fair Value |            |
|---------------|-----------------|------------|------------|------------|
|               | 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%       |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 3

### Accounting Information

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 3.1

### Schedule of Funding Progress (\$'s in 000's)

The exhibit below shows the death and disability plan disclosure under GASB No. 25.

|               | Actuarial Accrued<br>Liabilities (AAL) |    | Actuarial Value<br>of Assets | Funded Ratio | Unfunded AAL<br>(UAAL) | Covered Payroll | UAAL as a<br>Percentage of<br>Covered Payroll |
|---------------|--|----|------------------------------|--------------|------------------------|-----------------|---|
| 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%  |

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

|               | Actuarial Accrued<br>Liabilities (AAL) |    | Actuarial Value<br>of Assets | Funded Ratio | Unfunded AAL<br>(UAAL) | Covered Payroll | UAAL as a<br>Percentage of<br>Covered Payroll |
|---------------|--|----|------------------------------|--------------|------------------------|-----------------|---|
| 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)%  |



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 3.2

### Schedule of Employer Contributions (\$'s in 000's)

The following shows the death and disability disclosure under GASB No. 25 for fiscal year ending 2007 and later.

| Fiscal Year Ending | Annual Required Contribution (ARC) | Percentage of ARC Contributed |
|--------------------|------------------------------------|-------------------------------|
| 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, 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 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% |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 3.3

### Notes To Trend Data

#### Actuarial Assumptions, Methods and Additional Information Under GASB

|                                       |   |
|---------------------------------------|---|
| Valuation Date                        | June 30, 2011   |
| Actuarial Cost Method                 | Entry Age Normal<br>Level Percentage of Pay for Occupational Death & Disability<br>Level Dollar for Retiree Medical |
| Amortization Method                   | Level Percent of Pay, closed with bases established annually  |
| Equivalent Single Amortization Period | 23 years  |
| Asset Valuation Method                | 5-year smoothed market  |
| Actuarial Assumptions:                |   |
| Investment rate of return*            | 8.00%   |
| Projected salary increases            | 6.11% for first 5 years of service grading down to 3.62% after 20 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.

The State of Alaska Teachers' Retirement System DCR Plan's retiree medical benefits are fully funded. Therefore, the 8.00% discount rate used for GASB 25 reporting is also applied herein for GASB 43 reporting.

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.

Disregarding future Medicare Part D payments, the fiscal 2014 employer ARC for accounting purposes is 0.58% of pay for retiree medical benefits and 0.58% of pay for retiree medical and death and disability benefits combined.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## 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.

| Valuation Date             | Aggregate Accrued Liability For:   |                         |  | Valuation Assets | Portion of Accrued Liabilities Covered by Assets |        |        |
|----------------------------|------------------------------------|-------------------------|--|------------------|--|--------|--------|
|                            | (1)<br>Active Member Contributions | (2)<br>Inactive Members | (3)<br>Active Members<br>(Employer-Financed Portion) |                  | (1)  | (2)    | (3)    |
| June 30, 2010 <sup>1</sup> | \$ 0                               | \$ 0                    | \$ 2,448   | \$ 5,472         | 100.0%   | 100.0% | 100.0% |
| June 30, 2009 <sup>1</sup> | 0                                  | 0                       | 1,460  | 3,424            | 100.0%   | 100.0% | 100.0% |
| June 30, 2008 <sup>1</sup> | 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                | 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).

<sup>1</sup> Change in Assumptions

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 3.4 (cont'd)

### Solvency Test (\$'s in 000's)

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

| Valuation Date             | Occupational Death & Disability<br>Aggregate Accrued Liability For: |                            |   |   | Portion of Accrued Liabilities<br>Covered by Assets |        |        |
|----------------------------|---|----------------------------|---|---|---|--------|--------|
|                            | (1)<br>Active Member<br>Contributions                               | (2)<br>Inactive<br>Members | (3)<br>Active Members<br>(Employer-<br>Financed<br>Portion) | Occupational<br>Death & Disability<br>Valuation<br>Assets | (1)   | (2)    | (3)    |
| June 30, 2011              | \$ 0  | \$ 0                       | \$ 57   | \$ 2,193  | 100.0%  | 100.0% | 100.0% |
| June 30, 2010 <sup>1</sup> | 0   | 0                          | 18  | 1,577   | 100.0%  | 100.0% | 100.0% |
| June 30, 2009 <sup>1</sup> | 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    |

<sup>1</sup> Change in Assumptions

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 3.4 (cont'd)

### Solvency Test (\$'s in 000's)

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

| Valuation Date             | Retiree Medical<br>Aggregate Accrued Liability For: |                     |  |   | Portion of Accrued Liabilities<br>Covered by Assets |        |        |
|----------------------------|---|---------------------|--|---|---|--------|--------|
|                            | (1)   | (2)                 | (3)  | Retiree<br>Medical<br>Valuation<br>Assets | (1)   | (2)    | (3)    |
|                            | Active Member<br>Contributions                      | Inactive<br>Members | Active Members<br>(Employer-<br>Financed<br>Portion) |   |   |        |        |
| June 30, 2011              | \$ 0  | \$ 0                | \$ 3,801   | \$ 5,373                                  | 100.0%  | 100.0% | 100.0% |
| June 30, 2010 <sup>1</sup> | 0   | 0                   | 2,430  | 3,895                                     | 100.0%  | 100.0% | 100.0% |
| June 30, 2009 <sup>1</sup> | 0   | 0                   | 1,446  | 2,353                                     | 100.0%  | 100.0% | 100.0% |
| June 30, 2008 <sup>1</sup> | 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).

<sup>1</sup> Change in Assumptions

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 4

### Member Data

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 4.1

### Summary of Members Included

| As of June 30                                     | 2007       | 2008         | 2009         | 2010         | 2011         |
|---|------------|--------------|--------------|--------------|--------------|
| <b>Active Members</b>                             |            |              |              |              |              |
| (1) Number  | 641        | 1,198        | 1,792        | 2,246        | 2,708        |
| (2) Average Age                                   | 36.63      | 36.82        | 37.10        | 36.79        | 37.25        |
| (3) Average Credited Service                      | 0.91       | 1.29         | 1.68         | 2.07         | 2.62         |
| (4) Average Entry Age                             | 35.72      | 35.53        | 35.42        | 34.72        | 34.63        |
| (5) Average Annual Earnings                       | \$ 44,322  | \$ 47,053    | \$ 50,061    | \$ 52,900    | \$ 55,860    |
| <b>Retirees, Disableds and Beneficiaries</b>      |            |              |              |              |              |
| (1) Number  | 0          | 0            | 0            | 0            | 0            |
| (2) Average Age                                   | N/A        | N/A          | N/A          | N/A          | N/A          |
| (3) Average Monthly Death &<br>Disability Benefit | N/A        | N/A          | N/A          | N/A          | N/A          |
| <b>Inactive Members*</b>                          |            |              |              |              |              |
| (1) Number  | 0          | 3            | 4            | 4            | 24           |
| <b>Total Number of Members</b>                    | <b>641</b> | <b>1,201</b> | <b>1,796</b> | <b>2,250</b> | <b>2,732</b> |

\*Inactive members are not eligible for future benefits from the Plan.

Average annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 4.2

### Age and Service Distribution of Active Members

#### Annual Earnings by Age

| Age          | Number       | Total Annual Earnings | Average Annual Earnings |
|--------------|--------------|-----------------------|-------------------------|
| 0 – 19       | 0            | \$ 0                  | \$ 0                    |
| 20 – 24      | 106          | 5,047,803             | 47,621                  |
| 25 – 29      | 784          | 40,287,987            | 51,388                  |
| 30 – 34      | 552          | 30,063,001            | 54,462                  |
| 35 – 39      | 344          | 19,733,856            | 57,366                  |
| 40 – 44      | 262          | 15,140,475            | 57,788                  |
| 45 – 49      | 247          | 14,705,579            | 59,537                  |
| 50 – 54      | 193          | 11,697,338            | 60,608                  |
| 55 – 59      | 139          | 9,162,594             | 65,918                  |
| 60 – 64      | 67           | 4,508,160             | 67,286                  |
| 65 – 69      | 14           | 922,495               | 65,893                  |
| 70 – 74      | 0            | 0                     | 0                       |
| 75+          | 0            | 0                     | 0                       |
| <b>Total</b> | <b>2,708</b> | <b>\$ 151,269,288</b> | <b>\$ 55,860</b>        |

#### Annual Earnings by Credited Service

| Years of Service | Number       | Total Annual Earnings | Average Annual Earnings |
|------------------|--------------|-----------------------|-------------------------|
| 0                | 120          | \$ 5,682,120          | \$ 47,351               |
| 1                | 719          | 37,968,635            | 52,808                  |
| 2                | 644          | 35,829,463            | 55,636                  |
| 3                | 542          | 30,951,145            | 57,105                  |
| 4                | 427          | 25,047,401            | 58,659                  |
| 0 – 4            | 2,452        | 135,478,764           | 55,252                  |
| 5 – 9            | 253          | 15,568,000            | 61,534                  |
| 10 – 14          | 3            | 222,524               | 74,175                  |
| 15 – 19          | 0            | 0                     | 0                       |
| 20 – 24          | 0            | 0                     | 0                       |
| 25 – 29          | 0            | 0                     | 0                       |
| 30 – 34          | 0            | 0                     | 0                       |
| 35 – 39          | 0            | 0                     | 0                       |
| 40+              | 0            | 0                     | 0                       |
| <b>Total</b>     | <b>2,708</b> | <b>\$ 151,269,288</b> | <b>\$ 55,860</b>        |

#### Years of Credited Service by Age

| Age          | Years of Service |            |          |          |          |          |          |          |          | Total        |
|--------------|------------------|------------|----------|----------|----------|----------|----------|----------|----------|--------------|
|              | 0-4              | 5-9        | 10-14    | 15-19    | 20-24    | 25-29    | 30-34    | 35-39    | 40+      |              |
| 0 – 19       | 0                | 0          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0            |
| 20 – 24      | 106              | 0          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 106          |
| 25 – 29      | 738              | 46         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 784          |
| 30 – 34      | 499              | 52         | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 552          |
| 35 – 39      | 301              | 43         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 344          |
| 40 – 44      | 235              | 27         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 262          |
| 45 – 49      | 216              | 29         | 2        | 0        | 0        | 0        | 0        | 0        | 0        | 247          |
| 50 – 54      | 161              | 32         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 193          |
| 55 – 59      | 124              | 15         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 139          |
| 60 – 64      | 59               | 8          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 67           |
| 65 – 69      | 13               | 1          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 14           |
| 70 – 74      | 0                | 0          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0            |
| 75+          | 0                | 0          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0            |
| <b>Total</b> | <b>2,452</b>     | <b>253</b> | <b>3</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2,708</b> |

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 4.3

### Member Data Reconciliation

|                            | Actives | Vested<br>Inactive | Retired | Disabled | Beneficiary | Total |
|----------------------------|---------|--------------------|---------|----------|-------------|-------|
| Total as of July 1, 2010   | 2,246   | 4                  | 0       | 0        | 0           | 2,250 |
| Vested Termination         | (16)    | 16                 | 0       | 0        | 0           | 0     |
| Non-vested Termination     | (309)   | 0                  | 0       | 0        | 0           | (309) |
| Refund of Contributions    | (16)    | 0                  | 0       | 0        | 0           | (16)  |
| Disabled                   | 0       | 0                  | 0       | 0        | 0           | 0     |
| Retired                    | 0       | 0                  | 0       | 0        | 0           | 0     |
| Deceased, No Beneficiary   | 0       | 0                  | 0       | 0        | 0           | 0     |
| Deceased, With Beneficiary | 0       | 0                  | 0       | 0        | 0           | 0     |
| Return to Active           | 118     | 0                  | 0       | 0        | 0           | 118   |
| Data Adjustment            | 4       | 4                  | 0       | 0        | 0           | 8     |
| New Entrant                | 681     | 0                  | 0       | 0        | 0           | 681   |
| Total as of July 1, 2011   | 2,708   | 24                 | 0       | 0        | 0           | 2,732 |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## 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, 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                                |
| June 30, 2007  | 641    | 28,410                  | 44,322                  | 0.0%   | 58                                |
| June 30, 2006  | 0      | 0                       | 0                       | 0.0%   | 58                                |

Annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5

### Basis of the Actuarial Valuation

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.1

### Summary of Plan Provisions and Changes in Plan Provisions

#### (1) Effective Date

July 1, 2006, with amendments through June 30, 2011.

#### (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 58 employers participating in the TRS DCR Plan, 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 participant 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 the DCR Plan 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 the TRS DCR Plan.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.1 (cont'd)

### Summary of Plan Provisions and Changes in Plan Provisions

#### (5) Member Contributions

There are no member contributions for the occupational death & disability and retiree medical benefits.

#### (6) Retiree Medical

- 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 premium is 100% until they are Medicare eligible.
- 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 plan's coverage is supplemental to Medicare.
- The Medicare-eligible premium will be based on the member's years of service. The percentage of premium paid by the member is as follows:

| <b>Years of Service</b> | <b>Percent of Premium Paid<br/>by Member</b> |
|-------------------------|--|
| Less than 15 years      | 30%  |
| 15 – 19                 | 25%  |
| 20 – 24                 | 20%  |
| 25 – 29                 | 15%  |
| 30 years or more        | 10%  |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.1 (cont'd)

### Summary of Plan Provisions and Changes in Plan Provisions

#### (7) Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.
- There is no increase in the benefit after commencement.
- 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.
- 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.
- There is no increase in the benefit after commencement.
- 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.

#### Changes Since the Prior Valuation

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

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## 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.

#### Valuation of Liabilities

##### (A) Actuarial Method – Entry Age Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years.

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.

##### (B) 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 were \$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.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.2 (cont'd)

### Description of Actuarial Methods and Valuation Procedures

#### (C) Valuation of Retiree Medical Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 6.2(c) of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2011.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2011 for TRS 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 different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY11 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

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 participants will be required to pay the full plan premium. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of total projected plan costs, again with no implicit subsidy assumed.

#### 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. Buck evaluated the impact due to 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 are required. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. We did look at the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.

The Plan will be subject to the high cost plan excise tax (Cadillac tax). Based upon guidance available at the time of disclosure Buck estimated the year in which the tax would potentially affect Alaska to be sufficiently far into the future to produce a minimal impact. Buck determined the impact to be immaterial based on a blend of pre-Medicare and Medicare retirees.

We have not identified any other specific provisions of healthcare reform 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.



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 5.3

### Summary of Actuarial Assumptions and Changes in Assumptions

The demographic and economic assumptions used in the June 30, 2011 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed for the DB Plan as of June 30, 2009.

|                                   |   |
|-----------------------------------|---|
| Investment Return / Discount Rate | 8.00% per year (geometric), compounded annually, net of expenses.   |
| Salary Scale                      | Inflation – 3.12% per year.<br>Productivity – 0.5% per year.<br>See Table 1 for salary scale rates.   |
| Payroll Growth                    | 3.62% per year.   |
| 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 2005-2009 actual experience of the TRS DB Plan. (See Table 2). 55% of the 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for females and 45% for males. 15% of deaths are assumed to result from occupational causes. |
| Mortality (Post-termination)*     | Based upon the 2005-2009 actual experience of the TRS DB Plan. (See Table 3). 3-year setback of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for females and 4-year setback for males.   |
| Turnover                          | Select rates were estimated and ultimate rates were set to the TRS DB Plan's rates loaded by 10%. (See Table 4).  |
| Disability                        | Incidence rates based upon the 2005-2009 actual experience of the TRS DB Plan, in accordance with Table 5. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. 15% of disabilities are assumed to result from occupational causes.                                 |
| Retirement                        | Retirement rates were estimated in accordance with Table 6.   |
| 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.   |
| Part-time Status                  | Part-time employees are assumed to earn 0.60 years of credited service per year.  |

\*The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2010 with an Actual Deaths to Expected Deaths ratio of 117%.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

|                                |   |                               |
|--------------------------------|---|-------------------------------|
| Expenses                       | All expenses are net of the investment return assumption.   |                               |
| Per Capita Claims Cost         | Sample claims cost rates adjusted to age 65 for FY12 medical benefits are shown below:  |                               |
|                                | <b>Medical</b>  | <b>Prescription<br/>Drugs</b> |
| Pre-Medicare                   | \$ 9,497  | \$ 2,799                      |
| Medicare Parts A & B           | \$ 1,551  | \$ 2,799                      |
| Medicare Part B Only           | \$ 6,936  | \$ 2,799                      |
| Medicare Part D                | N/A   | \$ 534                        |
| Third Party Administrator Fees | \$162.47 per person per year; assumed trend rate of 5% per year.  |                               |
| Base Claims Cost Adjustments   | <p>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:</p> <ul style="list-style-type: none"> <li>• 0.941 for the medical plan.</li> <li>• 0.993 for the prescription drug plan.</li> <li>• 0.952 for the annual indexing of member cost sharing.</li> </ul> |                               |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

#### 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, 6.4% is applied to the FY12 medical claims costs to get the FY13 medical claims costs.

|       | Prescription |       |
|-------|--------------|-------|
|       | Medical      | Drugs |
| FY12  | 6.4%         | 7.1%  |
| FY13  | 5.9%         | 5.9%  |
| FY14  | 5.9%         | 5.9%  |
| FY15  | 5.9%         | 5.9%  |
| FY16  | 5.9%         | 5.9%  |
| FY17  | 5.9%         | 5.9%  |
| FY18  | 5.9%         | 5.9%  |
| FY25  | 5.8%         | 5.8%  |
| FY50  | 5.7%         | 5.7%  |
| FY100 | 5.1%         | 5.1%  |

For the June 30, 2008 valuation and later, the 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 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State of Alaska.

#### Aging Factors

| Age   | Prescription |       |
|-------|--------------|-------|
|       | Medical      | Drugs |
| 0-44  | 2.0%         | 4.5%  |
| 45-54 | 2.5%         | 3.5%  |
| 55-64 | 3.5%         | 3.0%  |
| 65-73 | 4.0%         | 1.5%  |
| 74-83 | 1.5%         | 0.5%  |
| 84-93 | 0.5%         | 0.0%  |
| 94+   | 0.0%         | 0.0%  |

#### Retiree Medical Participation

| Years of Service | Percent Participation |
|------------------|-----------------------|
| 10-14            | 75%                   |
| 15-19            | 80%                   |
| 20-24            | 85%                   |
| 25-29            | 95%                   |
| 30+              | 100%                  |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

Table 1  
Alaska TRS DCR Plan  
Salary Scale

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| <u>Year of Employment</u> | <u>Unisex Rate</u> |
|---------------------------|--------------------|
| 1-6                       | 6.11%              |
| 7                         | 5.94               |
| 8                         | 5.78               |
| 9                         | 5.61               |
| 10                        | 5.44               |
| 11                        | 5.28               |
| 12                        | 5.11               |
| 13                        | 4.94               |
| 14                        | 4.78               |
| 15                        | 4.61               |
| 16                        | 4.45               |
| 17                        | 4.28               |
| 18                        | 4.11               |
| 19                        | 3.95               |
| 20                        | 3.78               |
| 21+                       | 3.62               |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

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

| <u>Age</u> | <u>Male</u> | <u>Female</u> |
|------------|-------------|---------------|
| 20         | .017%       | .012%         |
| 21         | .018        | .012          |
| 22         | .019        | .012          |
| 23         | .021        | .013          |
| 24         | .024        | .013          |
| 25         | .026        | .013          |
| 26         | .030        | .014          |
| 27         | .032        | .014          |
| 28         | .033        | .015          |
| 29         | .034        | .016          |
| 30         | .035        | .017          |
| 31         | .036        | .019          |
| 32         | .037        | .020          |
| 33         | .037        | .021          |
| 34         | .037        | .022          |
| 35         | .037        | .023          |
| 36         | .038        | .024          |
| 37         | .039        | .025          |
| 38         | .041        | .027          |
| 39         | .042        | .029          |
| 40         | .045        | .032          |
| 41         | .047        | .034          |
| 42         | .050        | .037          |
| 43         | .053        | .039          |
| 44         | .056        | .041          |
| 45         | .060        | .042          |
| 46         | .064        | .044          |
| 47         | .069        | .047          |
| 48         | .075        | .051          |
| 49         | .081        | .055          |
| 50         | .088        | .061          |
| 51         | .097        | .068          |
| 52         | .106        | .078          |
| 53         | .118        | .090          |
| 54         | .131        | .102          |
| 55         | .149        | .116          |
| 56         | .170        | .135          |
| 57         | .195        | .157          |
| 58         | .224        | .181          |
| 59         | .253        | .208          |
| 60         | .284        | .239          |
| 61         | .326        | .274          |
| 62         | .368        | .314          |
| 63         | .425        | .359          |
| 64         | .479        | .410          |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

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

| <u>Age</u> | <u>Male</u> | <u>Female</u> |
|------------|-------------|---------------|
| 50         | .142%       | .085%         |
| 51         | .153        | .092          |
| 52         | .166        | .100          |
| 53         | .181        | .111          |
| 54         | .196        | .124          |
| 55         | .215        | .143          |
| 56         | .235        | .163          |
| 57         | .263        | .185          |
| 58         | .291        | .212          |
| 59         | .331        | .246          |
| 60         | .377        | .285          |
| 61         | .433        | .328          |
| 62         | .499        | .378          |
| 63         | .561        | .434          |
| 64         | .631        | .498          |
| 65         | .725        | .570          |
| 66         | .819        | .653          |
| 67         | .944        | .745          |
| 68         | 1.064       | .844          |
| 69         | 1.196       | .948          |
| 70         | 1.362       | 1.052         |
| 71         | 1.512       | 1.150         |
| 72         | 1.634       | 1.242         |
| 73         | 1.787       | 1.342         |
| 74         | 1.915       | 1.434         |
| 75         | 2.094       | 1.583         |
| 76         | 2.298       | 1.726         |
| 77         | 2.518       | 1.918         |
| 78         | 2.748       | 2.094         |
| 79         | 3.061       | 2.338         |
| 80         | 3.361       | 2.669         |
| 81         | 3.788       | 2.985         |
| 82         | 4.292       | 3.327         |
| 83         | 4.868       | 3.707         |
| 84         | 5.510       | 4.136         |
| 85         | 6.214       | 4.625         |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

**Table 4**  
**Alaska TRS DCR Plan**  
**Turnover Assumptions**

#### Select Rates of Turnover During the First 5 Years of Employment

| Year of<br>Employment | Rate |
|-----------------------|------|
| 0                     | 18%  |
| 1                     | 17%  |
| 2                     | 14%  |
| 3                     | 12%  |
| 4                     | 10%  |

#### Ultimate Rates of Turnover After the First 5 Years of Employment

| Age | Male    | Female  | Age | Male    | Female  |
|-----|---------|---------|-----|---------|---------|
| 15  | 4.9042% | 4.8122% | 40  | 4.7508% | 4.6924% |
| 16  | 4.8981  | 4.8085  | 41  | 4.7372  | 4.6815  |
| 17  | 4.8931  | 4.8061  | 42  | 4.7199  | 4.6706  |
| 18  | 4.8882  | 4.8049  | 43  | 4.7038  | 4.6609  |
| 19  | 4.8857  | 4.8037  | 44  | 4.6827  | 4.6488  |
| 20  | 4.8474  | 4.7686  | 45  | 4.6593  | 4.6343  |
| 21  | 4.8448  | 4.7686  | 46  | 4.6345  | 4.6210  |
| 22  | 4.8399  | 4.7674  | 47  | 4.6035  | 4.6028  |
| 23  | 4.8362  | 4.7674  | 48  | 4.5676  | 4.5823  |
| 24  | 4.8300  | 4.7662  | 49  | 4.5306  | 4.5617  |
| 25  | 4.8250  | 4.7662  | 50  | 4.4884  | 4.5375  |
| 26  | 4.8201  | 4.7650  | 51  | 4.4389  | 4.5097  |
| 27  | 4.8151  | 4.7638  | 52  | 4.3808  | 4.4770  |
| 28  | 4.8102  | 4.7601  | 53  | 4.3164  | 4.4383  |
| 29  | 4.8052  | 4.7565  | 54  | 4.2447  | 4.3971  |
| 30  | 4.8015  | 4.7529  | 55  | 4.1630  | 4.3475  |
| 31  | 4.7991  | 4.7505  | 56  | 4.0640  | 4.2834  |
| 32  | 4.7953  | 4.7456  | 57  | 3.9427  | 4.2011  |
| 33  | 4.7929  | 4.7420  | 58  | 3.8103  | 4.1080  |
| 34  | 4.7916  | 4.7372  | 59  | 3.6507  | 3.9894  |
| 35  | 4.7892  | 4.7323  | 60  | 3.4713  | 3.8551  |
| 36  | 4.7854  | 4.7251  | 61  | 3.2720  | 3.7050  |
| 37  | 4.7805  | 4.7190  | 62  | 3.0406  | 3.5344  |
| 38  | 4.7718  | 4.7105  | 63  | 2.7770  | 3.3396  |
| 39  | 4.7619  | 4.7021  | 64  | 2.4912  | 3.1279  |
|     |         |         | 65+ | 4.9500  | 4.8400  |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

**Section 5.3 (cont'd)**

## Summary of Actuarial Assumptions and Changes in Assumptions

**Table 5  
Alaska TRS DCR Plan  
Disability Table**

| <u>Age</u> | <u>Male</u> | <u>Female</u> |
|------------|-------------|---------------|
| 20         | .022%       | .020%         |
| 21         | .022        | .020          |
| 22         | .023        | .021          |
| 23         | .023        | .021          |
| 24         | .024        | .022          |
| 25         | .024        | .022          |
| 26         | .024        | .022          |
| 27         | .025        | .022          |
| 28         | .026        | .023          |
| 29         | .026        | .024          |
| 30         | .027        | .025          |
| 31         | .027        | .025          |
| 32         | .028        | .025          |
| 33         | .029        | .026          |
| 34         | .030        | .027          |
| 35         | .030        | .027          |
| 36         | .032        | .029          |
| 37         | .033        | .030          |
| 38         | .034        | .031          |
| 39         | .035        | .032          |
| 40         | .037        | .033          |
| 41         | .038        | .035          |
| 42         | .041        | .037          |
| 43         | .043        | .039          |
| 44         | .047        | .043          |
| 45         | .052        | .047          |
| 46         | .056        | .050          |
| 47         | .061        | .055          |
| 48         | .066        | .060          |
| 49         | .071        | .064          |
| 50         | .077        | .069          |
| 51         | .083        | .075          |
| 52         | .091        | .082          |
| 53         | .102        | .091          |
| 54         | .114        | .102          |
| 55         | .128        | .115          |
| 56         | .147        | .133          |
| 57         | .171        | .154          |
| 58         | .195        | .176          |
| 59         | .230        | .207          |
| 60         | .270        | .243          |
| 61         | .312        | .281          |
| 62         | .362        | .325          |
| 63         | .418        | .376          |
| 64         | .477        | .429          |



# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

Table 6  
Alaska TRS DCR Plan  
Retirement Table

| Age   | Rate |
|-------|------|
| <55   | 2%   |
| 55-59 | 3%   |
| 60    | 5%   |
| 61    | 5%   |
| 62    | 10%  |
| 63    | 5%   |
| 64    | 5%   |
| 65    | 25%  |
| 66    | 25%  |
| 67    | 25%  |
| 68    | 20%  |
| 69    | 20%  |
| 70    | 100% |

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## Section 5.3 (cont'd)

### Summary of Actuarial Assumptions and Changes in Assumptions

#### Changes in Actuarial Assumptions Since the Prior Valuation

There have been no changes in assumptions since the prior valuation, except for the assumption regarding Medicare Part B only participation for pre-65 retirees and active members. We now determine the Part B only status based on number of quarters worked since date of hire or re-hire where applicable.

# State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan

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## *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 and 27                                | Governmental Accounting Standards Board Statement Number 25 which specifies how the Annual Required Contribution (ARC) is to be 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 Annual Required Contribution (ARC) is to be calculated, and Number 45 which specifies Employer reporting of Other Post-Employment Benefit (OPEB) Cost.  |
| 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.   |
| 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.  |