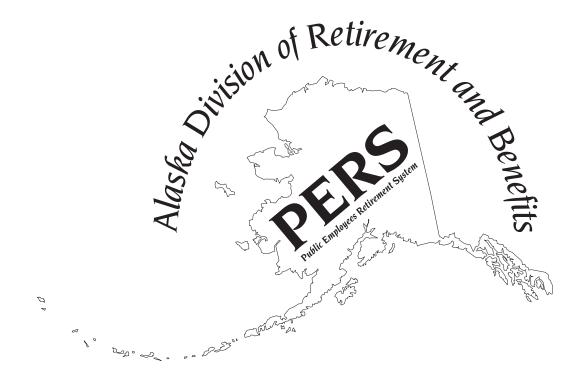


### ACTUARIAL SECTION



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### A Xerox Company

July 25, 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 Public Employees' Retirement System (PERS) 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 System were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. 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 System.

The State of Alaska Public Employees' Retirement System is funded by Employer, State, and Member Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for the State of Alaska Public Employees' Retirement System is to pay required contributions that remain level as a percent of total PERS 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, System expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of total PERS Compensation over a closed 25-year period. The compensation used to determine required contributions is the total compensation of all active members in PERS, including those hired after July 1, 2006 who are members of the Defined Contribution Retirement (DCR) Plan. 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 System and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the System. The actuary performs an analysis of System experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The last experience analysis was performed in 2010. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in this report.

### Actuarial Section

The assumptions and methods used to determine the Annual Required Contributions (ARC) of the Employers to the State of Alaska Public Employees' Retirement System 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 this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions, solvency test, and analysis of financial experience for the Actuarial Section of the CAFR.

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. Slishinsky, ASA, EA, MAAA

David H. Slashinsky

Principal, Consulting Actuary

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

Malux Mills

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

Melisse a Bissett

Senior Consultant, Health & Productivity

**buck**consultants

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 changed effective June 30, 2002.

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.

### **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 percent of pay. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, for GASB disclosure requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.

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

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, terminated vested members and disabled members not yet receiving benefits 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, 2002, the asset valuation method recognizes 20% of the difference between actual and expected investment return in each of the current and preceding four years. This method was phased in over the next five years. 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.



#### Changes in Methods Since the Prior Valuation

There have been no changes in methods since the prior valuation, except for any described in the healthcare sections below.

#### C. Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for the State of Alaska Public Employees' Retirement System postemployment healthcare plan. Note that methodology reflects the results of our annual experience rate update for the period July 1, 2011 to June 30, 2012.

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

We analyzed WFIS and Premera management level reporting for fiscal 2008 through fiscal 2011, as well as WFIS and Premera claim level data for the same period and derived recommended base claims cost rates as described in the following steps:

- 1. Based on analysis described in our Experience Study, dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation.
- 2. Available management level reporting does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups. Claim level reporting was used to augment cost data by Medicare status.
- 3. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For these "no-Part A" individuals, the State is the primary payer for hospital bills and other Part A services. Thus, claims costs are higher for the no-Part A group. To date, claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. Therefore, higher no-Part A claims are spread across the entire retired population and have been applied to future claims of current active employees projected to retire in the future. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate and will be lower. The smaller the no-Part A population, the more accrued liabilities will decrease.

Based on census data received from WFIS, 0.5% of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire and/or re-hire, date of birth, tier, etc.



All claims cost rates developed from management level reporting have been compared to similar rates developed from claim level data.

- 4. The steps above result in separate paid claims cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past four fiscal years. Medical claims cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription claims cost rates reflect differing average ages. We converted paid claim data to incurred cost rates projected from each historical data period to the valuation year using a weighted average of national and Alaska-specific trend factors and developed weighted average incurred claims cost rates. The assumed lag between medical claim incurred and paid dates is approximately 2.0 months for medical claims and 0.04 months for prescription claims.
- 5. 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 of the following provisions; however, none of the impacts have been included in the valuation results.

Because the State plan is retiree-only, and was in effect at the time the legislation was enacted, not all provisions 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.

### June 30, 2011 Valuation - FY 2012 Claims Cost Rates

Medical

|                                 |                        | Medical       |                 |
|---------------------------------|------------------------|---------------|-----------------|
|                                 | Pre-Medicare           | Medicare A&B  | Medicare B Only |
| Fiscal 2008 Paid Claims*        | \$169,598,064          | \$28,657,490  | \$6,079,463     |
| Membership*                     | 33,630                 | 21,434        | 893             |
| Paid Claims Cost Rate           | \$ 5,043               | \$ 1,337      | \$ 6,807        |
| Trend to FY2012                 | 1.468                  | 1.468         | 1.468           |
| FY 2012 Paid Cost Rate          | \$ 7,401               | \$ 1,962      | \$ 9,991        |
| Paid to Incurred Factor         | 1.013                  | 1.013         | 1.013           |
| FY 2012 Incurred Cost Rate      | \$ 7,497               | \$ 1,988      | \$ 10,120       |
| Fiscal 2009 Paid Claims*        | \$185,275,626          | \$39,286,392  | \$3,949,927     |
| Membership*                     | 32,943                 | 24,624        | 539             |
| Paid Claims Cost Rate           | \$ 5,624               | \$ 1,595      | \$ 7,327        |
| Trend to FY2012                 | 1.320                  | 1.320         | 1.320           |
| FY 2012 Paid Cost Rate          | \$ 7,421               | \$ 2,105      | \$ 9,668        |
| Paid to Incurred Factor         | 1.013                  | 1.013         | 1.013           |
| FY 2012 Incurred Cost Rate      | \$ 7,517               | \$ 2,132      | \$ 9,793        |
| Fiscal 2010 Paid Claims*        | \$199,739,865          | \$51,373,725  | \$1,215,832     |
| Membership*                     | 32,026                 | 27,915        | 156             |
| Paid Claims Cost Rate           | \$ 6,237               | \$ 1,840      | \$ 7,794        |
| Trend to FY2012                 | 1.222                  | 1.222         | 1.222           |
| FY 2012 Paid Cost Rate          | \$ 7,620               | \$ 2,249      | \$ 9,522        |
| Paid to Incurred Factor         | 1.013                  | 1.013         | 1.013           |
| FY 2012 Incurred Cost Rate      | \$ 7,719               | \$ 2,278      | \$ 9,645        |
| Fiscal 2011 Paid Claims*        | \$224,173,628          | \$53,570,005  | \$817,957       |
| Membership*                     | 31,362                 | 29,997        | 138             |
| Paid Claims Cost Rate           | \$ 7,148               | \$ 1,786      | \$ 5,927        |
| Trend to FY2012                 | 1.081                  | 1.081         | 1.081           |
| FY 2012 Paid Cost Rate          | \$ 7,726               | \$ 1,930      | \$ 6,407        |
| Paid to Incurred Factor         | 1.013                  | 1.013         | 1.013           |
| FY 2012 Incurred Cost Rate      | \$ 7,826               | \$ 1,955      | \$ 6,490        |
| Weighted Average 7/1/2011 – 6/3 | 30/2012 Incurred Claim | s Cost Rates: |                 |
| At average age                  | \$ 7,688               | \$ 2,123      | \$ 8,776        |
| At age 65                       | \$ 9,497               | \$ 1,551      | \$ 6,936        |

<sup>\*</sup>Claims and membership information presented covers all AlaskaCare retiree systems.

### June 30, 2011 Valuation - FY 2012 Claims Cost Rates (cont.)

**Prescription Drugs** 

|                               |                      | riescription Drugs | ·               |                |
|-------------------------------|----------------------|--------------------|-----------------|----------------|
|                               | Pre-Medicare         | Medicare A&B       | Medicare B Only | Total          |
| Fiscal 2008 Paid Claims*      | \$ 53,506,123        | \$ 52,529,773      | \$ 2,346,512    | \$ 312,717,425 |
| Membership*                   | 33,630               | 21,434             | 893             | 55,957         |
| Paid Claims Cost Rate         | \$ 1,591             | \$ 2,451           | \$ 2,627        | \$ 5,589       |
| Trend to FY2012               | 1.375                | 1.375              | 1.375           |                |
| FY 2012 Paid Cost Rate        | \$ 2,188             | \$ 3,371           | \$ 3,614        | \$ 8,023       |
| Paid to Incurred Factor       | 1.000                | 1.000              | 1.000           |                |
| FY 2012 Incurred Cost Rate    | \$ 2,189             | \$ 3,372           | \$ 3,615        | \$ 8,093       |
| Fiscal 2009 Paid Claims*      | \$ 61,062,842        | \$ 60,195,838      | \$ 1,412,907    | \$ 351,183,532 |
| Membership*                   | 32,943               | 24,624             | 539             | 58,106         |
| Paid Claims Cost Rate         | \$ 1,854             | \$ 2,445           | \$ 2,621        | \$ 6,044       |
| Trend to FY2012               | 1.237                | 1.237              | 1.237           |                |
| FY 2012 Paid Cost Rate        | \$ 2,292             | \$ 3,023           | \$ 3,241        | \$ 7,800       |
| Paid to Incurred Factor       | 1.000                | 1.000              | 1.000           |                |
| FY 2012 Incurred Cost Rate    | \$ 2,293             | \$ 3,024           | \$ 3,242        | \$ 7,868       |
| Fiscal 2010 Paid Claims*      | \$ 62,310,224        | \$ 73,005,066      | \$ 414,101      | \$ 388,058,813 |
| Membership*                   | 32,026               | 27,915             | 156             | 60,097         |
| Paid Claims Cost Rate         | \$ 1,946             | \$ 2,615           | \$ 2,654        | \$ 6,457       |
| Trend to FY2012               | 1.145                | 1.145              | 1.145           |                |
| FY 2012 Paid Cost Rate        | \$ 2,228             | \$ 2,995           | \$ 3,040        | \$ 7,716       |
| Paid to Incurred Factor       | 1.000                | 1.000              | 1.000           |                |
| FY 2012 Incurred Cost Rate    | \$ 2,228             | \$ 2,995           | \$ 3,040        | \$ 7,783       |
| Fiscal 2011 Paid Claims*      | \$ 46,903,585        | \$ 86,509,883      | \$ 386,305      | \$ 412,361,363 |
| Membership*                   | 31,362               | 29,997             | 138             | 61,497         |
| Paid Claims Cost Rate         | \$ 1,496             | \$ 2,884           | \$ 2,799        | \$ 6,705       |
| Trend to FY2012               | 1.045                | 1.045              | 1.045           |                |
| FY 2012 Paid Cost Rate        | \$ 1,563             | \$ 3,013           | \$ 2,925        | \$ 7,170       |
| Paid to Incurred Factor       | 1.000                | 1.000              | 1.000           |                |
| FY 2012 Incurred Cost Rate    | \$ 1,563             | \$ 3,014           | \$ 2,925        | \$ 7,233       |
| Weighted Average 7/1/2011 – 0 | 6/30/2012 Incurred ( | Claims Cost Rates: |                 |                |
| At average age                | \$ 2,038             | \$ 3,044           | \$ 3,103        | \$ 7,666       |
| At age 65                     | \$ 2,799             | \$ 2,799           | \$ 2,799        | \$ 8,198       |

 $<sup>\</sup>hbox{$^*$Claims and membership information presented covers all AlaskaCare retiree systems.}$ 



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

Below are the results of this analysis:

### Distribution of Per Capita Claims Cost by Age for the Period July 1, 2011 through June 30, 2012

| Age | Medical and<br>Medicare Parts<br>A & B | Medical and<br>Medicare<br>Part B Only | Prescription<br>Drug | Medicare Retiree<br>Drug Subsidy |
|-----|--|--|----------------------|----------------------------------|
| 45  | \$ 5,259                               | \$ 5,259                               | \$ 1,476             | \$ —                             |
| 50  | 5,951                                  | 5,951                                  | 1,754                | _                                |
| 55  | 6,733                                  | 6,733                                  | 2,083                | _                                |
| 60  | 7,996                                  | 7,996                                  | 2,414                | _                                |
| 65  | 1,551                                  | 6,936                                  | 2,799                | 534                              |
| 70  | 1,887                                  | 8,439                                  | 3,015                | 575                              |
| 75  | 2,241                                  | 10,020                                 | 3,216                | 614                              |
| 80  | 2,414                                  | 10,795                                 | 3,298                | 629                              |

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 as of June 30, 2009.

1. Investment Return / Discount Rate 8.00% per year (geometric), compounded annually, net of expenses.

2. Salary Scale Inflation – 3.12% per year. Productivity – .50% per year. See Table

1 for salary scale rates.

3. Payroll Growth 3.62% per year. (Inflation + Productivity).

4. 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.

5. Mortality (Pre-termination)\* Peace Officer/Firefighter:

Based upon the 2005-2009 experience study, adopted in 2010 (see Table 2). 1994 Group Annuity Mortality (GAM) Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 80% of the male table for males and 60% of the female

table for females.

Others:

Based upon the 2005-2009 experience study, adopted in 2010 (see Table 3). 1994 GAM Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 75% of the male table for males and 55% of the female table for females. Deaths are assumed to be occupational 75% of the time for Peace Officer/

Firefighter, 55% of the time for Others.

6. Mortality (Post-termination)\* Based on the 2005-2009 experience study, adopted in 2010. 1994

GAM Table, sex-distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and with a 1-year set-

forward for females. (See Table 4.)

7. Total Turnover Based upon the 2005-2009 actual withdrawal experience. (See Table

5.)

8. Disability Incidence rates based upon the 2005-2009 actual experience, in

accordance with Table 6. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. Disabilities are assumed to be occupational 75% of the time for Peace Officer/

Firefighter, 55% of the time for Others.

<sup>\*</sup>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 109%.

| 9. Retirement                          | Retirement rates based upon accordance with Tables 7 assumed to retire at their Others. For Peace Officer/Fi are assumed to retire at agmembers are assumed to retire. | and 8. Deferred<br>earliest unreduce<br>refighter, Tier 1 de<br>e 53 and Tiers 2 | d vested members are<br>ed retirement date for<br>eferred vested members |
|--|--|--|--|
| 10. Marriage and Age Difference        | Wives are assumed to be the of male members and 70% married.   |  |  |
| 11. Dependent Children                 | Benefits to dependent child<br>who are married and betw<br>dependent children.   |  | _  |
| 12. Contribution Refunds               | 15% of terminating members have their contributions relabenefits are assumed to have   | funded. 100% of  | those with non-vested  |
| 13. COLA                               | Of those benefit recipients assumed to remain in Alasl   |  |  |
| 14. Post-Retirement Pension Adjustment | 50% and 75% of assumed tively, is valued for the ann Adjustment (PRPA) as spec   | ual automatic Po   | st-Retirement Pension  |
| 15. Expenses                           | All expenses are net of the  | investment retur   | n assumption.  |
| 16. Part-Time Status                   | Part-time employees are a<br>service per year for Peace<br>credited service per year fo  | Officer/Firefigh   | ter and 0.65 years of  |
| 17. Final Average Earnings             | Final Average Earnings is p<br>This amount is used as a mi<br>earnings in the future.  |  |  |
| 18. Per Capita Claims Cost             | Sample claims cost rates ac prescription benefits are sh   |  | for FY12 medical and   |
|  |  |  | Prescription   |
|  |  | Medical  | Drugs  |
|  | Pre-Medicare   | \$9,497  | \$2,799  |
|  | Medicare Parts A & B   | 1,551  | 2,799  |
|  | Medicare Part B Only   | 6,936  | 2,799  |

|                      | Medical | Drugs   |
|----------------------|---------|---------|
| 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     |

19. Third Party Administrator Fees

\$162.47 per person per year; assumed trend rate of 5% per year.

20. Medicare Part B Only

For actives and retirees not yet Medicare-eligible, participation is set based on whether the employee/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or re-hire.

21. 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 rate claims costs to get the FY13 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 valuations 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. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State of Alaska.

#### 22. Aging Factors

|       |         | Prescription |
|-------|---------|--------------|
| Age   | 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          |

23. Retired Member Contributions for Medical Benefits

Currently contributions are required for PERS members who are under age 60 and have less than 30 years of service (25 for Peace Officer/Firefighter). Eligible Tier 1 members are exempt from contribution requirements. Annual FY12 contributions based on monthly rates shown below for calendar 2011 and 2012 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in tier 2 or 3 who are assumed to retire prior to age 60 with less than 30 years of service and who are not disabled.

| Commence Code and      | Calendar 2012       | Calendar 2012        | Calendar 2011  Monthly |
|------------------------|---------------------|----------------------|------------------------|
| Coverage Category      | Annual Contribution | Monthly Contribution | Contribution           |
| Retiree Only           | \$ 9,684            | \$ 807               | \$ 791                 |
| Retiree and Spouse     | 19,380              | 1,615                | 1,583                  |
| Retiree and Child(ren) | 13,680              | 1,140                | 1,118                  |
| Retiree and Family     | 23,376              | 1,948                | 1,910                  |
| Composite              | 14,400              | 1,200                | 1,176                  |

24. Trend Rate for Retired Member Medical Contribution

The table below shows the rate used to project the retired member medical contributions from the shown fiscal year to the next fiscal year. For example, 6.3% is applied to the FY12 retired member medical contributions to get the FY13 retired member medical contributions.

| FY12           | 6.3% |
|----------------|------|
| FY13           | 6.0  |
| FY14           | 5.7  |
| FY15           | 5.3  |
| FY16           | 5.0  |
| FY17           | 5.0  |
| FY18           | 5.0  |
| FY19           | 5.0  |
| FY20 and later | 5.0  |

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2005 valuation. Note that actual FY12 retired member medical contributions are reflected in the valuation so trend on such contribution during FY12 is not applicable.

25. Healthcare Participation

100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

### Table 1 Alaska PERS Salary Scale

### Peace Officer/Firefighter:

| Year of Employment | Percent Increase |
|--------------------|------------------|
| 1-4                | 6.36%            |
| 5                  | 6.11             |
| 6                  | 5.61             |
| 7+                 | 4.12             |

#### Others:

| Year of Employment | Percent Increase |
|--------------------|------------------|
| 1                  | 9.60%            |
| 2                  | 7.60             |
| 3                  | 6.61             |
| 4                  | 6.11             |
| 5                  | 5.61             |
| 6+                 | Age-based        |

Rates vary slightly by age after 5 years of employment.

| Age | Percent Increase |
|-----|------------------|
| 25  | 5.11%            |
| 30  | 4.99             |
| 35  | 4.86             |
| 40  | 4.70             |
| 45  | 4.53             |
| 50  | 4.61             |
| 55  | 4.24             |
| 60+ | 3.62             |

Table 2 Alaska PERS Peace Officer/Firefighter Mortality Table (Pre-termination)

| Age | Male    | Female  |
|-----|---------|---------|
| 20  | 0.0303% | 0.0135% |
| 21  | 0.0323  | 0.0133  |
| 22  | 0.0345  | 0.0135  |
| 23  | 0.0380  | 0.0138  |
| 24  | 0.0419  | 0.0141  |
| 25  | 0.0470  | 0.0144  |
| 26  | 0.0534  | 0.0151  |
| 27  | 0.0569  | 0.0155  |
| 28  | 0.0590  | 0.0161  |
| 29  | 0.0609  | 0.0170  |
| 30  | 0.0627  | 0.0187  |
| 31  | 0.0642  | 0.0207  |
| 32  | 0.0656  | 0.0220  |
| 33  | 0.0663  | 0.0229  |
| 34  | 0.0664  | 0.0239  |
| 35  | 0.0666  | 0.0250  |
| 36  | 0.0674  | 0.0262  |
| 37  | 0.0697  | 0.0277  |
| 38  | 0.0721  | 0.0295  |
| 39  | 0.0753  | 0.0316  |
| 40  | 0.0792  | 0.0344  |
| 41  | 0.0837  | 0.0372  |
| 42  | 0.0890  | 0.0400  |
| 43  | 0.0943  | 0.0425  |
| 44  | 0.0997  | 0.0447  |
| 45  | 0.1059  | 0.0462  |
| 46  | 0.1133  | 0.0481  |
| 47  | 0.1226  | 0.0508  |
| 48  | 0.1331  | 0.0551  |
| 49  | 0.1445  | 0.0598  |
| 50  | 0.1571  | 0.0665  |
| 51  | 0.1716  | 0.0745  |
| 52  | 0.1883  | 0.0856  |
| 53  | 0.2100  | 0.0978  |
| 54  | 0.2331  | 0.1111  |
| 55  | 0.2644  | 0.1270  |
| 56  | 0.3015  | 0.1474  |
| 57  | 0.3466  | 0.1712  |
| 58  | 0.3989  | 0.1970  |
| 59  | 0.4489  | 0.2266  |
| 60  | 0.5050  | 0.2604  |

Table 3
Alaska PERS Others
Mortality Table (Pre-termination)

| Age | Male   | Female |
|-----|--------|--------|
| 20  | .0284% | .0123% |
| 21  | .0303  | .0122  |
| 22  | .0324  | .0123  |
| 23  | .0356  | .0127  |
| 24  | .0392  | .0129  |
| 25  | .0441  | .0132  |
| 26  | .0501  | .0138  |
| 27  | .0533  | .0142  |
| 28  | .0553  | .0148  |
| 29  | .0571  | .0156  |
| 30  | .0588  | .0171  |
| 31  | .0602  | .0189  |
| 32  | .0615  | .0202  |
| 33  | .0622  | .0210  |
| 34  | .0623  | .0219  |
| 35  | .0624  | .0229  |
| 36  | .0632  | .0240  |
| 37  | .0653  | .0254  |
| 38  | .0676  | .0271  |
| 39  | .0706  | .0289  |
| 40  | .0742  | .0315  |
| 41  | .0785  | .0341  |
| 42  | .0834  | .0366  |
| 43  | .0884  | .0389  |
| 44  | .0935  | .0409  |
| 45  | .0993  | .0423  |
| 46  | .1063  | .0441  |
| 47  | .1149  | .0466  |
| 48  | .1248  | .0505  |
| 49  | .1354  | .0548  |
| 50  | .1473  | .0610  |
| 51  | .1609  | .0683  |
| 52  | .1765  | .0784  |
| 53  | .1969  | .0897  |
| 54  | .2186  | .1018  |
| 55  | .2479  | .1164  |
| 56  | .2827  | .1352  |
| 57  | .3249  | .1570  |
| 58  | .3739  | .1806  |
| 59  | .4208  | .2077  |
| 60  | .4734  | .2387  |
| 00  | .4/34  | .230/  |

Table 4
Alaska PERS
Mortality Table (Post-termination)

| Age | Male    | Female  |
|-----|---------|---------|
| 50  | 0.1964% | 0.1241% |
| 51  | 0.2145  | 0.1426  |
| 52  | 0.2354  | 0.1631  |
| 53  | 0.2625  | 0.1851  |
| 54  | 0.2914  | 0.2117  |
| 55  | 0.3305  | 0.2457  |
| 56  | 0.3769  | 0.2854  |
| 57  | 0.4333  | 0.3284  |
| 58  | 0.4986  | 0.3777  |
| 59  | 0.5611  | 0.4339  |
| 60  | 0.6312  | 0.4979  |
| 61  | 0.7251  | 0.5701  |
| 62  | 0.8188  | 0.6527  |
| 63  | 0.9436  | 0.7450  |
| 64  | 1.0644  | 0.8442  |
| 65  | 1.1956  | 0.9476  |
| 66  | 1.3618  | 1.0523  |
| 67  | 1.5123  | 1.1499  |
| 68  | 1.6336  | 1.2424  |
| 69  | 1.7873  | 1.3422  |
| 70  | 1.9147  | 1.4342  |
| 71  | 2.0940  | 1.5830  |
| 72  | 2.2981  | 1.7260  |
| 73  | 2.5175  | 1.9177  |
| 74  | 2.7475  | 2.0940  |
| 75  | 3.0609  | 2.3377  |
| 76  | 3.0609  | 2.6690  |
| 77  | 3.7879  | 2.9853  |
| 78  | 4.2924  | 3.3273  |
| 79  | 4.8681  | 3.7068  |
| 80  | 5.5102  | 4.1355  |
| 81  | 6.2135  | 4.6249  |
| 82  | 6.9722  | 5.1616  |
| 83  | 7.6164  | 5.7377  |
| 84  | 8.4319  | 6.4966  |
| 85  | 9.1495  | 7.3658  |
|     |         |         |



# Table 5 Alaska PERS Total Turnover Assumptions

### Peace Officer/Firefighter:

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

| Year of Employment | Unisex Rate |
|--------------------|-------------|
| 1                  | 15.00%      |
| 2                  | 10.00       |
| 3                  | 8.00        |
| 4                  | 7.00        |
| 5                  | 6.00        |

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

| Age | Male  | Female |
|-----|-------|--------|
| 20  | 4.11% | 5.19%  |
| 25  | 4.08  | 5.17   |
| 30  | 4.04  | 5.14   |
| 35  | 4.02  | 5.09   |
| 40  | 3.95  | 5.00   |
| 45  | 3.78  | 4.85   |
| 50  | 3.49  | 4.58   |
| 55  | 2.91  | 4.06   |
| 60  | 1.57  | 2.64   |
| 65+ | 4.32  | 5.40   |

### Table 5 Alaska PERS Total Turnover Assumptions

Others:

| Age | at. | н | 1 104 |
|-----|-----|---|-------|
| APC | al  |   |       |
|     |     |   |       |

| _                  | 20-34       | 35+          |
|--------------------|-------------|--------------|
| Year of Employment | Unisex Rate | Unisex Rates |
| 1                  | 29.00%      | 20.00%       |
| 2                  | 25.00       | 17.00        |
| 3                  | 20.00       | 14.00        |
| 4                  | 16.00       | 11.00        |
| 5                  | 13.00       | 10.00        |

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

| Age | Male  | Female |
|-----|-------|--------|
| 20  | 9.50% | 13.68% |
| 25  | 9.50  | 13.67  |
| 30  | 9.50  | 12.60  |
| 35  | 7.00  | 9.30   |
| 40  | 5.90  | 7.35   |
| 45  | 5.24  | 6.04   |
| 50  | 5.09  | 5.94   |
| 55  | 4.80  | 5.74   |
| 60  | 4.19  | 5.23   |
| 65+ | 5.50  | 6.25   |
|     |       |        |



### Table 6 Alaska PERS Disability Table

|     | Peace Officer/   | Other Member Rate |        |
|-----|------------------|-------------------|--------|
| Age | Firefighter Rate | Male              | Female |
| 20  | .088%            | .031%             | .024%  |
| 21  | .089             | .031              | .024   |
| 22  | .090             | .032              | .024   |
| 23  | .091             | .032              | .024   |
| 24  | .093             | .033              | .025   |
| 25  | .094             | .033              | .025   |
| 26  | .095             | .033              | .025   |
| 27  | .098             | .034              | .026   |
| 28  | .100             | .035              | .027   |
| 29  | .103             | .036              | .028   |
| 30  | .105             | .037              | .029   |
| 31  | .108             | .037              | .029   |
| 32  | .110             | .038              | .029   |
| 33  | .113             | .039              | .030   |
| 34  | .116             | .041              | .031   |
| 35  | .120             | .042              | .032   |
| 36  | .124             | .044              | .034   |
| 37  | .129             | .045              | .035   |
| 38  | .134             | .047              | .036   |
| 39  | .139             | .048              | .037   |
| 40  | .144             | .050              | .039   |
| 41  | .150             | .052              | .040   |
| 42  | .159             | .056              | .043   |
| 43  | .170             | .059              | .045   |
| 44  | .185             | .065              | .050   |
| 45  | .203             | .071              | .055   |
| 46  | .220             | .077              | .059   |
| 47  | .239             | .083              | .064   |
| 48  | .259             | .091              | .070   |
| 49  | .279             | .097              | .075   |
| 50  | .300             | .105              | .081   |
| 51  | .325             | .114              | .087   |
| 52  | .358             | .125              | .096   |
| 53  | .398             | .139              | .107   |
| 54  | .444             | .155              | .119   |
| 55  | .500             | .175              | .134   |
| 56  | .574             | .201              | .155   |
| 57  | .668             | .234              | .180   |
| 58  | .763             | .267              | .205   |
| 59  | .900             | .315              | .242   |
| 60  | 1.054            | .368              | .283   |

### Table 7 Alaska PERS Peace Officer/Firefighter Retirement Table

Retirement Rate

|                   | Reduced      | Unreduced    |
|-------------------|--------------|--------------|
| Age at Retirement | Unisex Rates | Unisex Rates |
| <50               | N/A          | 11.00%       |
| 50                | 10.00%       | 18.50        |
| 51                | 10.00        | 18.50        |
| 52                | 10.00        | 18.50        |
| 53                | 10.00        | 18.50        |
| 54                | 11.00        | 18.50        |
| 55                | 10.00        | 25.00        |
| 56                | 10.00        | 25.00        |
| 57                | 10.00        | 25.00        |
| 58                | 10.00        | 25.00        |
| 59                | 11.00        | 25.00        |
| 60                | N/A          | 30.00        |
| 61                | N/A          | 25.00        |
| 62                | N/A          | 30.00        |
| 63                | N/A          | 25.00        |
| 64-74             | N/A          | 50.00        |
| 75                | N/A          | 100.00       |



### Table 8 Alaska PERS Others Retirement Table

#### Retirement Rate

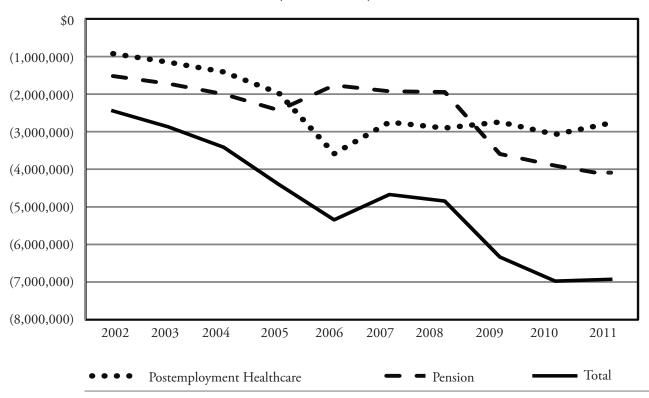
|                   | Retirement Rate         |                           |  |
|-------------------|-------------------------|---------------------------|--|
| Age at Retirement | Reduced<br>Unisex Rates | Unreduced<br>Unisex Rates |  |
| <50               | N/A                     | 10.00%                    |  |
| 50                | 8.00%                   | 30.00                     |  |
| 51                | 8.00                    | 30.00                     |  |
| 52                | 8.00                    | 30.00                     |  |
| 53                | 8.00                    | 30.00                     |  |
| 54                | 13.00                   | 30.00                     |  |
| 55                | 8.00                    | 30.00                     |  |
| 56                | 8.00                    | 17.50                     |  |
| 57                | 8.00                    | 17.50                     |  |
| 58                | 8.00                    | 16.50                     |  |
| 59                | 12.00                   | 16.50                     |  |
| 60                | N/A                     | 20.50                     |  |
| 61                | N/A                     | 16.50                     |  |
| 62                | N/A                     | 24.50                     |  |
| 63                | N/A                     | 20.50                     |  |
| 64                | N/A                     | 22.50                     |  |
| 65                | N/A                     | 26.00                     |  |
| 66                | N/A                     | 26.00                     |  |
| 67                | N/A                     | 26.00                     |  |
| 68                | N/A                     | 27.50                     |  |
| 69                | N/A                     | 30.00                     |  |
| 70-89             | N/A                     | 50.00                     |  |
| 90                |                         | 100.00                    |  |

### 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.

| Public Employees' Retirement System Funding Excess/(Unfunded Liability) (In thousands)                                    |              |                |                |       |
|---|--------------|----------------|----------------|-------|
| Actuarial Valuation Year Ended June 30 Postemployment Healthcare Pension Total Funding Excess/ (Unfunded Liability) Ratio |              |                |                |       |
| 2002  | \$ (924,746) | \$ (1,522,012) | \$ (2,446,758) | 75.2% |
| 2003  | (1,151,504)  | (1,722,868)    | (2,874,372)    | 72.8  |
| 2004  | (1,411,587)  | (2,001,915)    | (3,413,502)    | 70.2  |
| 2005  | (1,973,144)  | (2,428,778)    | (4,401,922)    | 65.7  |
| 2006  | (3,584,527)  | (1,762,978)    | (5,347,505)    | 62.8  |
| 2007  | (2,746,653)  | (1,923,320)    | (4,669,973)    | 68.0  |
| 2008  | (2,904,525)  | (1,943,510)    | (4,848,035)    | 69.5  |
| 2009  | (2,742,835)  | (3,593,558)    | (6,336,393)    | 61.8  |
| 2010  | (3,073,188)  | (3,901,840)    | (6,975,028)    | 61.5  |
| 2011  | (2,769,878)  | (4,156,898)    | (6,926,776)    | 63.0  |

### 10-YEAR TREND OF UNFUNDED LIABILITY (In thousands)



### Public Employees' Retirement System Employer Contribution Rates

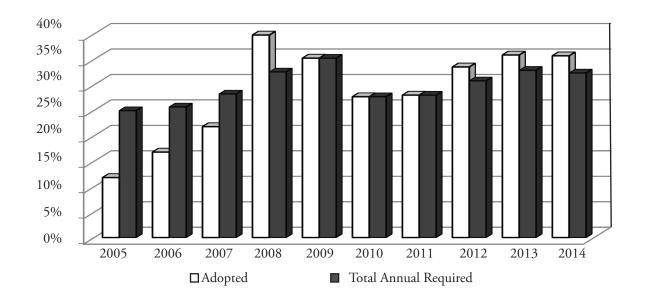
|                       | Actuarially Determined                       |                             |                 |                             |                    |  |  |
|-----------------------|--|-----------------------------|-----------------|-----------------------------|--------------------|--|--|
| Year Ended<br>June 30 | Actuarial<br>Valuation Year<br>Ended June 30 | Normal<br>Cost <sup>1</sup> | Past<br>Service | Total<br>Annual<br>Required | Adopted            |  |  |
| 2005                  | 2002   | 13.31%                      | 11.60%          | 24.91%                      | 11.77%             |  |  |
| 2006                  | 2003   | 13.24                       | 12.39           | 25.63                       | 16.77              |  |  |
| 2007                  | 2004   | 13.32                       | 14.87           | 28.19                       | 21.77              |  |  |
| 2008                  | 2005   | 14.48                       | 18.03           | 32.51                       | 39.76 <sup>2</sup> |  |  |
| 2009                  | 2006   | 13.72                       | 21.50           | 35.22                       | 35.22              |  |  |
| 2010                  | 2007   | 9.46                        | 18.19           | 27.65                       | 27.65              |  |  |
| 2011                  | 2008   | 9.33                        | 18.63           | 27.96                       | 27.96              |  |  |
| 2012                  | 2009   | 8.28                        | 22.48           | 30.76                       | 33.49              |  |  |
| 2013                  | 2010   | 8.67                        | 24.16           | 32.83                       | 35.84              |  |  |
| 2014                  | 2011   | 8.12                        | 24.19           | 32.31                       | 35.68              |  |  |

<sup>&</sup>lt;sup>1</sup> Also referred to as the consolidated rate.

Effective June 30, 2008 the Defined Benefits Plan became a defined benefit, cost sharing, multiple employer plan. Prior to 2008 rates were calculated by employer and only the average employer contribution rate is reflected on this schedule for 2007 and earlier.

Valuations are used to set contribution rates in future years.

### 10-YEAR COMPARISON OF AVERAGE EMPLOYER CONTRIBUTION RATES



<sup>&</sup>lt;sup>2</sup> The ARMB recognized the fact that the Plan becomes a closed Plan on July 1, 2006, and set a rate reflecting no payroll growth.

| Public Employees' Retirement System Schedule of Active Member Valuation Data |                    |   |                               |  |   |  |  |  |
|--|--------------------|---|-------------------------------|--|---|--|--|--|
| Valuation<br>Date  | Number             | Annual<br>Earnings<br>(In thousands) <sup>1</sup> | Annual<br>Average<br>Earnings | Percent Increase/ (Decrease) in Average Earnings | Number of<br>Participating<br>Employers |  |  |  |
| All Others   |                    |   |                               |  |   |  |  |  |
| June 30, 2011  | 22,118             | \$1,342,122                                       | \$60,680                      | 4.7%   | 160                                     |  |  |  |
| June 30, 2010  | 24,054             | 1,393,803   | 57,945                        | 4.5  | 160                                     |  |  |  |
| June 30, 2009  | 25,089             | 1,390,971   | 55,441                        | 5.1  | 160                                     |  |  |  |
| June 30, 2008  | 26,301             | 1,387,117   | 52,740                        | 6.9  | 159                                     |  |  |  |
| June 30, 2007  | 28,675             | 1,414,145   | 49,316                        | 9.5  | 160                                     |  |  |  |
| June 30, 2006  | 31,286             | 1,408,863   | 45,032                        | 4.2  | 160                                     |  |  |  |
| June 30, 2005  | 30,997             | 1,338,962   | 43,197                        | 2.3  | 160                                     |  |  |  |
| June 30, 2004  | 30,907             | 1,305,670   | 42,245                        | 1.8  | 161                                     |  |  |  |
| June 30, 2003  | 31,338             | 1,300,041   | 41,484                        | 1.8  | 160                                     |  |  |  |
| June 30, 2002  | 30,547             | 1,245,055   | 40,759                        | 0.3  | 161                                     |  |  |  |
|  |                    | Peace Office                                      | r / Firefighter               |  |   |  |  |  |
| June 30, 2011  | 2,275              | \$199,537   | \$87,709                      | 8.6%   | 160                                     |  |  |  |
| June 30, 2010  | 2,388              | 192,895   | 80,777                        | 2.8  | 160                                     |  |  |  |
| June 30, 2009  | 2,476              | 194,519   | 78,562                        | 5.0  | 160                                     |  |  |  |
| June 30, 2008  | 2,549              | 190,729   | 74,825                        | 4.9  | 159                                     |  |  |  |
| June 30, 2007  | 2,687              | 191,674   | 71,334                        | 9.3  | 160                                     |  |  |  |
| June 30, 2006  | 2,785              | 181,830   | 65,289                        | 2.5  | 160                                     |  |  |  |
| June 30, 2005  | 2,733              | 174,155   | 63,723                        | 3.0  | 160                                     |  |  |  |
| June 30, 2004  | 2,705              | 167,317   | 61,855                        | 4.9  | 161                                     |  |  |  |
| June 30, 2003  | 2,727              | 160,743   | 58,945                        | 0.8  | 160                                     |  |  |  |
| June 30, 2002  | 2,695              | 157,632   | 58,490                        | 3.4  | 161                                     |  |  |  |
| <sup>1</sup> Prior to June 30, 200   | 06, unannualized e | arnings were used. Sta                            | arting June 30, 2006,         | annualized earnings                              | are used.                               |  |  |  |

### Actuarial Section

| Public Employees' Retirement System                                       |                         |  |                         |  |                              |                               |  |  |  |
|---|-------------------------|--|-------------------------|--|------------------------------|-------------------------------|--|--|--|
| Schedule of Benefit Recipients Added to and Removed from Rolls            |                         |  |                         |  |                              |                               |  |  |  |
|   | Ado                     | ded to Rolls                               | Remov                   | ed from Rolls                              | om Rolls Rolls - End of Year |                               | Percent                                      |  |  |
| Year<br>Ended   | <b>No.</b> <sup>1</sup> | Annual<br>Pension<br>Benefits <sup>1</sup> | <b>No.</b> <sup>1</sup> | Annual<br>Pension<br>Benefits <sup>1</sup> | No.                          | Annual<br>Pension<br>Benefits | Increase in<br>Annual<br>Pension<br>Benefits | Average<br>Annual<br>Pension<br>Benefits |  |
|   |                         |  |                         | All Others                                 |                              |                               |  |  |  |
| June 30, 2011   | 1,595                   | \$37,100,217                               | 554                     | \$ 6,897,899                               | 24,601                       | \$456,243,016                 | 7.1%   | \$18,546                                 |  |
| June 30, 2010   | 1,667                   | 35,089,579                                 | 517                     | 8,712,630                                  | 23,560                       | 426,040,698                   | 6.6  | 18,083                                   |  |
| June 30, 2009   | 1,340                   | 25,402,811                                 | 476                     | 28,773                                     | 22,410                       | 399,663,749                   | 6.8  | 17,834                                   |  |
| June 30, 2008   | 1,454                   | 28,498,471                                 | 466                     | 5,349,935                                  | 21,546                       | 374,289,711                   | 6.6  | 17,372                                   |  |
| June 30, 2007   | 1,479                   | 28,985,748                                 | 454                     | (14,280,390)                               | 20,558                       | 351,141,175                   | 14.1   | 17,081                                   |  |
| June 30, 2006   | 1,494                   | 26,193,750                                 | 384                     | 2,265,651                                  | 19,533                       | 307,875,037                   | 8.4  | 15,762                                   |  |
| June 30, 2005   | 1,287                   | 22,966,842                                 | 296                     | 17,019,851                                 | 18,423                       | 283,946,938                   | 2.1  | 15,413                                   |  |
| June 30, 2004   | 1,346                   | 27,617,383                                 | 354                     | 6,823,010                                  | 17,432                       | 277,999,947                   | 8.1  | 15,948                                   |  |
| June 30, 2003   | 1,445                   | 27,802,265                                 | 351                     | 6,507,821                                  | 16,440                       | 257,205,574                   | 9.0  | 15,645                                   |  |
| June 30, 2002   | 1,135                   | 27,484,388                                 | 332                     | 8,039,486                                  | 15,346                       | 235,911,130                   | 9.0  | 15,373                                   |  |
|   |                         |  | Peac                    | e Officer / Fire                           | fighter                      |                               |  |  |  |
| June 30, 2011   | 114                     | \$ 3,772,720                               | 33                      | \$ 116,090                                 | 2,758                        | \$89,500,495                  | 4.3%   | \$32,451                                 |  |
| June 30, 2010   | 118                     | 3,593,724                                  | 46                      | 1,413,071                                  | 2,677                        | 85,843,865                    | 2.6  | 32,067                                   |  |
| June 30, 2009   | 108                     | 2,759,299                                  | 39                      | (518,134)                                  | 2,605                        | 83,663,212                    | 4.1  | 32,116                                   |  |
| June 30, 2008   | 125                     | 3,556,519                                  | 28                      | 191,073                                    | 2,536                        | 80,385,779                    | 4.4  | 31,698                                   |  |
| June 30, 2007   | 138                     | 3,930,564                                  | 67                      | (2,546,491)                                | 2,439                        | 77,020,333                    | 9.2  | 31,579                                   |  |
| June 30, 2006   | 118                     | 3,289,370                                  | 30                      | 209,287                                    | 2,368                        | 70,543,278                    | 4.6  | 29,790                                   |  |
| June 30, 2005   | 145                     | 3,904,737                                  | 5                       | 3,332,357                                  | 2,280                        | 67,463,195                    | 0.9  | 29,589                                   |  |
| June 30, 2004   | 174                     | 6,388,270                                  | 25                      | 904,310                                    | 2,140                        | 66,890,815                    | 8.9  | 31,257                                   |  |
| June 30, 2003   | 143                     | 4,923,581                                  | 21                      | 802,499                                    | 1,991                        | 61,406,855                    | 7.2  | 30,842                                   |  |
| June 30, 2002   | 157                     | 6,155,365                                  | 19                      | 744,917                                    | 1,869                        | 57,285,773                    | 10.4   | 30,650                                   |  |
| <sup>1</sup> Numbers are estimated, and include other internal transfers. |                         |  |                         |  |                              |                               |  |  |  |

# Public Employees' Retirement System Pension Solvency Test (In thousands)

|                             | Pension Aggregate Accrued Liability For: |              |              |                        | Portion of Accrued Liabilities<br>Covered by Assets |       |      |  |
|-----------------------------|--|--------------|--------------|------------------------|---|-------|------|--|
|                             | (1)                                      | (2)          | (3)          |                        |   |       |      |  |
|                             |  |              | Active       |                        |   |       |      |  |
|                             |  |              | Members      |                        |   |       |      |  |
|                             | Active                                   |              | (Employer-   | Pension                |   |       |      |  |
| Valuation                   | Member                                   | Inactive     | Financed     | Valuation              |   |       |      |  |
| Date                        | Contributions                            | Members      | Portion)     | Assets                 | (1)   | (2)   | (3)  |  |
| June 30, 2011               | \$ 1,421,967                             | \$ 6,657,517 | \$ 2,839,563 | \$ 6,762,149           | 100.0%  | 80.2% | — %  |  |
| June 30, 2010 <sup>1</sup>  | 1,388,029                                | 6,268,461    | 2,715,182    | 6,469,832              | 100.0   | 81.1  | _    |  |
| June 30, 2009               | 1,315,924                                | 5,914,959    | 2,471,203    | 6,108,528              | 100.0   | 81.0  | _    |  |
| June 30, 2008               | 1,242,288                                | 5,606,402    | 2,305,592    | 7,210,772              | 100.0   | 100.0 | 15.7 |  |
| June 30, 2007               | 1,203,007                                | 5,282,132    | 2,177,185    | 6,739,004              | 100.0   | 100.0 | 11.7 |  |
| June 30, 2006 <sup>12</sup> | 1,157,755                                | 4,933,609    | 2,002,679    | 6,331,065              | 100.0   | 100.0 | 12.0 |  |
| June 30, 2005               | 1,104,821                                | 4,627,467    | 1,354,903    | 6,016,713 <sup>3</sup> | 100.0   | 100.0 | 21.0 |  |

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

<sup>&</sup>lt;sup>2</sup> Change in Methods

<sup>&</sup>lt;sup>3</sup> The pension and postemployment healthcare valuation assets were allocated using a ratio of fair value of assets as of June 30, 2005

### Actuarial Section

### Public Employees' Retirement System Postemployment Healthcare Solvency Test (In thousands)

|                             |                                    | mployment Heal<br>te Accrued Liab |   |  |        | f Accrued lered by As |      |
|-----------------------------|------------------------------------|-----------------------------------|---|--|--------|-----------------------|------|
| Valuation<br>Date           | (1)  Active  Member  Contributions | (2) Inactive Members              | (3) Active Members (Employer- Financed Portion) | Post-<br>Employment<br>Healthcare<br>Valuation<br>Assets | (1)    | (2)                   | (3)  |
| June 30, 2011               | \$ —                               | \$ 4,812,845                      | \$ 3,008,658                                    | \$ 5,051,625   | 100.0% | 100.0%                | 7.9% |
| June 30, 2010 <sup>1</sup>  | _                                  | 4,581,806                         | 3,179,014                                       | 4,687,632  | 100.0  | 100.0                 | 3.3  |
| June 30, 2009               | _                                  | 4,232,394                         | 2,644,891                                       | 4,134,450  | 100.0  | 97.7                  | _    |
| June 30, 2008 <sup>1</sup>  | _                                  | 4,166,270                         | 2,567,589                                       | 3,829,334  | 100.0  | 91.9                  | _    |
| June 30, 2007               |                                    | 3,684,906                         | 2,223,703                                       | 3,161,956  | 100.0  | 85.8                  |      |
| June 30, 2006 <sup>12</sup> | _                                  | 3,990,202                         | 2,304,168                                       | 2,709,843  | 100.0  | 67.9                  | _    |
| June 30, 2005               | _                                  | 4,039,591                         | 1,718,059                                       | 2,426,2063   | 100.0  | 60.1                  | _    |

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

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

<sup>&</sup>lt;sup>2</sup> Change in Methods

 $<sup>^{3}</sup>$  The pension and postemployment healthcare valuation assets were allocated using a ratio of fair value of assets as of June 30, 2005

### Public Employees' Retirement System Analysis of Financial Experience

Change in Employer/State Contribution Rate Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years Resulting From Differences Between Assumed Experience and Actual Experience

| Type of  | Change in Employer/State<br>Contribution Rate During Fiscal Year |        |         |                |                |  |  |
|--|--|--------|---------|----------------|----------------|--|--|
| (Gain) or Loss                                   | 2011   | 2010   | 2009    | 2008           | 2007           |  |  |
| Health Experience                                | (1.82)%  | 0.24%  | (2.21)% | (0.97)%        | (5.64)%        |  |  |
| Salary Experience                                | 0.31   | 0.06   | 0.23    | 0.54           | 0.23           |  |  |
| Investment Experience                            | 0.26   | 0.28   | 5.31    | (0.59)         | (1.03)         |  |  |
| Demographic Experience                           | 0.29   | (0.30) | (0.29)  | (0.60)         | (0.17)         |  |  |
| Contribution Shortfall                           | 0.44   | (0.67) | (0.24)  | (0.11)         | 0.94           |  |  |
| (Gain) or Loss During Year From Experience       | (0.52)   | (0.39) | 2.80    | (1.73)         | (5.67)         |  |  |
| Non-recurring changes                            |  |        |         |                |                |  |  |
| Asset Valuation Method                           | _  | -      | _       | _              | -              |  |  |
| Past Service Amortization Change                 | _  | -      | _       | _              | -              |  |  |
| Assumption and Method Changes                    | _  | 2.46   | _       | 2.04           | (1.90)*        |  |  |
| System Benefit Changes                           |  |        |         |                |                |  |  |
| Composite (Gain) or Loss During Year             | (0.52)   | 2.07   | 2.80    | 0.31           | (7.57)         |  |  |
| Beginning Employer/State Contribution Rate       | 32.83  | 30.76  | 27.96   | 27.65          | 35.22          |  |  |
| Ending Employer/State Contribution Rate          | <u>32.31</u> %   | 32.83% | 30.76%  | <u>27.96</u> % | <u>27.65</u> % |  |  |
| Fiscal Year Above Rate is Applied                | FY14   | FY13   | FY12    | FY11           | FY10           |  |  |
| *Includes change in rate by using total payroll. |  |        |         |                |                |  |  |

### Public Employees' Retirement System Analysis of Financial Experience

Change in Employer/State Contribution Rate Due to (Gains) and Losses in Accrued Liabilities During the Last Three Fiscal Years Resulting From Differences Between Assumed Experience and Actual Experience

|  | Change in Employer/State Contribution Rate During F |                |                |                |                |                |  |
|--|---|----------------|----------------|----------------|----------------|----------------|--|
| Type of                                    |   | Pension        |                | Healthcare     |                |                |  |
| (Gain) or Loss                             | 2011  | 2010           | 2009           | 2011           | 2010           | 2009           |  |
| Health Experience                          | N/A   | N/A            | N/A            | (1.82)%        | 0.24%          | (2.21)%        |  |
| Salary Experience                          | 0.31%   | 0.06%          | 0.23%          | N/A            | N/A            | N/A            |  |
| Investment Experience                      | _   | (0.19)         | 4.72           | 0.26           | 0.47           | 0.59           |  |
| Demographic Experience                     | 0.29  | (0.30)         | (0.29)         | N/A            | N/A            | N/A            |  |
| Contribution Shortfall                     | 0.42  | 0.36           | 0.01           | 0.02           | (1.03)         | (0.25)         |  |
| (Gain) or Loss During Year From Experience | 1.02  | (0.07)         | 4.67           | (1.54)         | (0.32)         | (1.87)         |  |
| Non-recurring changes                      |   |                |                |                |                |                |  |
| Asset Valuation Method                     | _   | _              | _              | _              | _              | _              |  |
| Past Service Amortization Change           | _   | _              | _              | _              | _              | _              |  |
| Assumption and Method Changes              | _   | 0.87           | _              | _              | 1.59           | _              |  |
| System Benefit Changes                     |   |                |                |                |                |                |  |
| Composite (Gain) or Loss During Year       | 1.02  | 0.80           | 4.67           | (1.54)         | 1.27           | (1.87)         |  |
| Beginning Employer/State Contribution Rate | 15.45   | 14.65          | 9.98           | 17.38          | 16.11          | 17.98          |  |
| Ending Employer/State Contribution Rate    | <u>16.47</u> %                                      | <u>15.45</u> % | <u>14.65</u> % | <u>15.84</u> % | <u>17.38</u> % | <u>16.11</u> % |  |
| Fiscal Year Above Rate is Applied          | FY14  | FY13           | FY12           | FY14           | FY13           | FY12           |  |

#### (1) Effective Date

January 1, 1961, with amendments through June 30, 2008. Chapter 82, 1986 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the PERS before July 1, 1986 (Tier 1) are eligible for different benefits than members hired after June 30, 1986 (Tier 2). Chapter 4, 1996 Session Laws of Alaska created a third tier for members who were first hired after June 30, 1996 (Tier 3). Chapter 9, 2005 Session Laws of Alaska, closed the plan to new members hired after June 30, 2006.

#### (2) Administration of Plan

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

Prior to June 30, 2005, the Public Employees' Retirement Board prescribed policies and adopted regulations and performed other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division was responsible for investing PERS funds.

On July 27, 2005, Senate Bill 141, enacted as Chapter 9, 2005 Session laws of Alaska, replaced the Public Employees' Retirement Board and the Alaska State Pension Investment Board with the Alaska Retirement Management Board.

#### (3) Employers Included

Currently there are 160 employers participating in the PERS, including the State of Alaska and 159 political subdivisions and public organizations.

#### (4) Membership

PERS membership is mandatory for all permanent full-time and part-time employees of the State of Alaska and participating political subdivisions and public organizations, unless they are specifically excluded by Alaska Statute or employer participation agreements. Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by the PERS. Elected officials may waive PERS membership.

Certain members of the Alaska Teachers' Retirement System (TRS) are eligible for PERS retirement benefits for their concurrent elected public official service with municipalities. In addition, employees who work half-time in the PERS and TRS simultaneously are eligible for half-time PERS and TRS credit.

Senate Bill 141, signed into law on July 27, 2005, closes the Plan effective July 1, 2006, to new members first hired on or after July 1, 2006.

#### (5) Credited Service

Permanent employees who work at least 30 hours a week earn full-time credit; part-time employees working between 15 and 30 hours a week earn partial credit based upon the number of hours worked. Members receiving PERS occupational disability benefits continue to earn PERS credit while disabled. Survivors who are receiving occupational death benefits continue to earn PERS service credit while occupational survivor benefits are being paid.

Members may claim other types of service, including:

- part-time State of Alaska service rendered after December 31, 1960, and before January 1, 1976;
- service with the State, former Territory of Alaska, or U.S. Government in Alaska before January 1, 1961;
- past Peace Officer, correctional officer, fire fighter, and special officer service after January 1, 1961;
- military service (not more than five years may be claimed);
- temporary service after December 31, 1960;
- elected official service before January 1, 1981;
- Alaska Bureau of Indian Affairs service;
- past service rendered by employees who worked half-time in the PERS and Teachers' Retirement System (TRS) simultaneously;
- leave without pay service after June 13, 1987, while receiving Workers' Compensation;
- · Village Public Safety Officer service; and
- service as a temporary employee of the legislature before July 1, 1979, but this service must have been claimed no later than July 1, 2003, or by the date of retirement, if sooner (not more than 10 years may be claimed).

Except for service before January 1, 1961, with the State, former Territory of Alaska, or U.S. Government in Alaska, contributions are required for all past service.

Past employment with participating political subdivisions that occurred before the employers joined the PERS is creditable if the employers agree to pay the required contributions.

At the election of certain PERS members, certain service may be credited in the same fashion as members in the State of Alaska Teachers' Retirement System (TRS).

Members employed as dispatchers or within a state correctional facility may, at retirement, elect to convert their dispatcher or correctional facility service from "all other" service to Peace Officer/Firefighter service and retire under the 20 year retirement option. Members pay the full actuarial cost of conversion.

### (6) Employer Contributions

PERS employers contribute the amounts required, in addition to employees' contributions, to fund the benefits of the system.

The normal cost rate is a uniform rate for all participating employers (less the value of members' contributions).

The past service rate is a uniform rate for all participating employers to amortize the unfunded past service liability with payments that are a level percentage of pay amount over fixed 25-year periods.

Employer rates cannot be less than the normal cost rate.

Pursuant to AS 39.35.255 effective July 1, 2008, each PERS employer will pay a simple uniform contribution rate of 22% of member payroll.

#### (7) Additional State Contributions

Pursuant to AS 39.35.280 effective July 1, 2008, the State shall contribute an amount (in addition to the State contribution as an employer) that when combined with the employer contribution (22%) will be sufficient to pay the total contribution rate adopted by The Alaska Retirement Management Board.

#### (8) Member Contributions

**Mandatory Contributions:** Peace Officer/Firefighter members are required to contribute 7.5% of their compensation; all Others contribute 6.75%. Those all Others who have elected to have their service calculated under the Teachers' Retirement System rules contribute 9.76% of their compensation. Members' contributions are deducted from gross wages before federal income taxes are withheld.

**Contributions for Claimed Service:** Member contributions are also required for most of the claimed service described in (5).

**Voluntary Contributions:** Members may voluntarily contribute up to 5% of their salary on an after-tax basis. Voluntary contributions are recorded in a separate account and are payable to the:

- (a) member in lump sum payment upon termination of employment;
- (b) member's beneficiary if the member dies; or
- (c) member in a lump sum, life annuity, or payments over a designated period of time when the member retires.

Interest: Members' contributions earn 4.5% interest, compounded semiannually on June 30 and December 31.

**Refund of Contributions:** Terminated members may receive refunds of their member contribution accounts which includes their mandatory and voluntary contributions, indebtedness payments, and interest earned. Terminated members' accounts may be attached to satisfy claims under Alaska Statute 09.38.065, federal income tax levies, and valid Qualified Domestic Relations Orders.

**Reinstatement of Contributions:** Refunded accounts and the corresponding PERS service may be reinstated upon reemployment in the PERS prior to July 1, 2010. Interest accrues on refunds until paid in full or members retire.

#### (9) Retirement Benefits

#### Eligibility:

- (a) Members, including deferred vested members, are eligible for normal retirement at age 55 or early retirement at age 50 if they were hired before July 1, 1986 (Tier 1), and 60 or early retirement at age 55 if they were hired after July 1, 1986 (Tiers 2 & 3). Additionally, they must have at least:
  - (i) five years of paid-up PERS service;
  - (ii) 60 days of paid-up PERS service as employees of the legislature during each of the five legislative sessions and they were first hired by the legislature before May 30, 1987;
  - (iii) 80 days of paid-up PERS service as employees of the legislature during each of the five legislative sessions and they were first hired by the legislature after May 29, 1987;
  - (iv) two years of paid-up PERS service and they are vested in the Teachers' Retirement System; or
  - (v) two years of paid-up PERS service and a minimum three years of TRS service to qualify for a public service benefit.
- (b) Members may retire at any age when they have:
  - (i) 20 paid-up years of PERS Peace Officer/Firefighter service; or
  - (ii) 30 paid-up years of PERS "all other" or "elected official" service.

**Benefit Type:** Lifetime benefits are paid to members. Eligible members may receive normal, unreduced benefits when they (1) reach normal retirement age and complete the service required; or (2) satisfy the minimum service requirements under the "20 and out" or "30 and out" provisions. Members may receive early, actuarially reduced benefits when they reach early retirement age and complete the service required.

Members may elect an early retirement or a joint and survivor option. Members who entered the PERS prior to July 1, 1996 may also select a 66-2/3 last survivor option and a level income option. Under these options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

**Benefit Calculations:** Retirement benefits are calculated by multiplying the average monthly compensation (AMC) times credited PERS service times the percentage multiplier. The AMC is determined by averaging the salaries earned during the five highest (three highest for Peace Officer/Firefighter members or members hired prior to July 1, 1996) consecutive payroll years. Members must earn at least 115 days of credit in the last year worked to include it in the AMC calculation. The PERS pays a minimum benefit of \$25.00 per month for each year of service when the calculated benefit is less.

The percentage multipliers for Peace Officer/Firefighter members are 2% for the first ten years of service and 2.5% for all service over 10 years.

The percentage multipliers for all Others are 2% for the first ten years, 2.25% for the next ten years, and 2.5% for all remaining service earned on or after July 1, 1986. All service before that date is calculated at 2%.

**Indebtedness:** Members who terminate and refund their PERS contributions are not eligible to retire, unless they return to PERS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. PERS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded PERS service is included in total service for the purpose of calculating retirement benefits. However, if a member is otherwise eligible to retire, when refunds are not completely paid before retirement, benefits are actuarially reduced for life. Indebtedness balances may also be created when a member purchases qualified claimed service.

#### (10) Reemployment of Retired Members

Retirement and retiree healthcare benefits are suspended while retired members are reemployed under the PERS. During reemployment, members earn additional PERS service and contributions are withheld from their wages. A member who retired with a normal retirement benefit can elect to waive payment of PERS contributions. The waiver allows the member to continue receiving the retirement benefit during the period of reemployment. Members who elect the waiver option do not earn additional PERS service. The Waiver Option first became effective July 1, 2005 and applies to reemployment periods after that date. The Waiver Option is not available to members who retired early or under the Retirement Incentive Programs (RIPs). The Waiver Option is no longer available after June 30, 2009.

Members retired under the Retirement Incentive Programs (RIPs) who return to employment under the PERS, Teachers' Retirement System (TRS), or the University of Alaska's Optional Retirement Plan will:

- (a) forfeit the three years of incentive credits that they received;
- (b) owe the PERS 150% of the benefits that they received for state and political subdivision members, and 110% for school district employees, under the 1996-2000 RIP, which may include costs for health insurance, excluding amounts that they paid to participate for the 1986 and 1989 RIPs. Under prior RIPs, the penalty is 110% of the benefits received; and
- (c) be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

Employers make contributions to the unfunded liability of the plan on behalf of rehired retired members at the rate the employer is making contributions to the unfunded liability of the plan for other members.



#### (11) Postemployment Healthcare Benefits

Major medical benefits are provided to retirees and their surviving spouses by the PERS for all employees hired before July 1, 1986 (Tier 1) and disabled retirees. Employees hired after June 30, 1986 (Tier 2) and their surviving spouses with five years of credited service (or ten years of credited service for those first hired after June 30, 1996 (Tier 3)) must pay the full monthly premium if they are under age sixty and will receive benefits paid by the PERS if they are over age sixty. Tier 3 Members with between five and ten years of credited service must pay the full monthly premium regardless of their age. Tier 2 and Tier 3 Members with less than five years of credited service are not eligible for postemployment healthcare benefits. Tier 2 Members who are receiving a conditional benefit and are age eligible are eligible for postemployment healthcare benefits. In addition, Peace Officers and their surviving spouses with twenty-five years of Peace Officer membership service and Other employees and their surviving spouses with thirty years of membership service receive benefits paid by the PERS, regardless of their age or date of hire. Peace Officers / Firefighters who are disabled between 20 and 25 years must pay the full monthly premium.

#### (12) Disability Benefits

Monthly disability benefits are paid to permanently disabled members until they die, recover or become eligible for normal retirement. Members are appointed to normal retirement on the first of the month after they become eligible.

**Occupational Disability:** Members are not required to satisfy age or service requirements to be eligible for occupational disability. Monthly benefits are equal to 40% of their gross monthly compensation on the date of their disability. Members on occupational disability continue to earn PERS service until they become eligible for normal retirement. Peace Officer/Firefighter members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

**Nonoccupational Disability:** Members must be vested (five paid-up years of PERS service) to be eligible for nonoccupational disability benefits. Monthly benefits are calculated based on the member's average monthly compensation and PERS service on the date of termination from employment because of disability. Members do not earn PERS service while on nonoccupational disability.

#### (13) Death Benefits

Monthly death benefits may be paid to a spouse or dependent children upon the death of a member. If monthly benefits are not payable under the occupational and nonoccupational death provisions, the designated beneficiary receives the lump sum benefit described below.

**Occupational Death:** When an active member (vested or nonvested) dies from occupational causes, a monthly survivor's pension may be paid to the spouse. The pension equals 40% of the member's gross monthly compensation on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date. Survivors of Peace Officer/Firefighter members receive the greater of 50% of the member's gross monthly compensation on the date of death or disability, or 75% of the member's monthly normal retirement benefit (including service projected to Normal Retirement). If the member is unmarried with no children, a refund of contributions is payable to the estate.

**Death after Occupational Disability:** When a member dies while occupationally disabled, benefits are paid as described above in Occupational Death.

**Nonoccupational Death:** When a vested member dies from nonoccupational causes, the surviving spouse may elect to receive a monthly 50% joint and survivor benefit or a lump sum benefit. The monthly benefit is calculated on the member's average monthly compensation and PERS service at the time of termination or death.

**Lump Sum Nonoccupational Death Benefit:** Upon the death of a member who has less than one year of service, the designated beneficiary receives the member's contribution account, which includes mandatory and voluntary contributions, indebtedness payments, and interest earned. If the member has more than one year of PERS service or is vested, the beneficiary also receives \$1,000 and \$100 for each year of PERS service.

**Death After Retirement:** When a retired member dies, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check. If the member selected a survivor option at retirement, the eligible spouse receives continuing, lifetime monthly benefits.

#### (14) Postretirement Pension Adjustments

Postretirement pension adjustments (PRPAs) are granted annually to eligible benefit recipients when the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage increases during the preceding calendar year. PRPAs are calculated by multiplying the recipient's base benefit, including past PRPAs, excluding the Alaska COLA, times:

- (a) 75% of the CPI increase in the preceding calendar year or 9%, whichever is less, if the recipient is at least age 65 or on PERS disability; or
- (b) 50% of the CPI increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60, or has been receiving benefits for at least five years.

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who first entered the PERS before July 1, 1986 (Tier 1) if the CPI increases and the funding ratio is at least 105%.

In a year where an ad hoc PRPA is granted, eligible recipients will receive the higher of the two calculations.

#### (15) Alaska Cost of Living Allowance

Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (COLA) equal to 10% of their base benefits or \$50, whichever is more. The following benefit recipients are eligible:

- (a) members who first entered the PERS before July 1, 1986 (Tier 1) and their survivors;
- (b) members who first entered the PERS after June 30, 1986 (Tiers 2 & 3) and their survivors if they are at least age 65; and
- (c) all disabled members.



#### Changes in Benefit Provisions Since the Prior Valuation

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

### **buck**consultants

### A Xerox Company

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 Public Employees' Retirement System Defined Contribution Retirement (PERS 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 Public Employees' 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 Public Employees' Retirement System DCR Plan is to pay required contributions that remain level as a percent of PERS 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 PERS 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 this report.

## Actuarial Section

The assumptions and methods used to determine the Annual Required Contributions (ARC) of the Employers to the State of Alaska Public Employees' 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 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. Slishinsky, ASA, EA, MAAA

David H. Sloshinsky

Principal, Consulting Actuary

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

Miles Mills

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

Melisse a Bissett

Senior Consultant, Health & Productivity

**buck**consultants

Summary of Actuarial Assumptions and Changes in Assumptions

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 & 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 disability 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.



Summary of Actuarial Assumptions and Changes in Assumptions

#### 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 Public Employees' 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 PERS 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 (25 years for PERS peace officer/firefighter) 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.

#### 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.

| 1. | Investment Return / Discount | 8.00% per year (geometric), compounded annually, net of expenses. |
|----|------------------------------|---|
|    | Rate                         |   |

| 2. | Salary Scale | Inflation – 3.12% per year.   |
|----|--------------|-------------------------------|
|    |              | Productivity – 0.5% per year. |

3. Payroll Growth 3.62% per year. (Inflation + Productivity)

4. 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.

See Table 1 for salary scale rates.

5. Mortality (Pre-termination)\* Peace Officer/Firefighter:

Based upon the 2005-2009 actual mortality experience of the PERS DB Plan (see Table 2). 80% of the 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and 60% for females.

Others:

Based upon the 2005-2009 actual mortality experience of the PERS DB Plan (see Table 3). 75% of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and 55% for females.

Deaths are assumed to be occupational 75% of the time for Peace Officer/Firefighter, 55% of the time for Others.

6. Mortality (Post-termination)\* 1994 GAM Table, 1994 Base Year without margin projected to 2013

using Projection Scale AA for males and with one-year set-forward for

females. (See Table 4.)

7. Turnover Select rates were estimated and ultimate rates were set to the PERS DB

Plan's rates loaded by 10%. (See Table 5.)

8. Disability Incidence rates based upon the 2005-2009 actual experience of the

PERS DB Plan, in accordance with Table 6. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. Disabilities are assumed to be occupational 75% of the time for Peace

Officer/ Firefighter, 55% of the time for Others.

9. Retirement Retirement rates were estimated in accordance with Table 7.

10. Marriage and Age Difference Wives are assumed to be three years younger than husbands. 80% of

male members and 70% of female members are assumed to be married.

<sup>\*</sup>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 109%.

# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Actuarial Assumptions and Changes in Assumptions

11. Part-time Status Part-time employees are assumed to earn 1.00 years of credited service per year for

Peace Officer/Firefighter and 0.65 years of credited service per year for Other

members.

12. Expenses All expenses are net of the investment return assumption.

13. Per Capita Claims Cost Sample claims cost rates adjusted to age 65 for FY12 medical benefits are shown

below:

|                      | Medical | Prescription Drugs |
|----------------------|---------|--------------------|
| 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                |

14. Third Party
Administrator Fees

\$162.47 per person per year; assumed trend rate of 5% per year.

15. Base Claims Cost Adjustments Due to higher initial copays, deductibles, out-of-pocket limits and member cost sharing compared to the DB medical plan, the following cost adjustments are applied to the per capita claims cost rates above:

- 0.941 for the medical plan.
- 0.993 for the prescription drug plan.
- 0.952 for the annual indexing of member cost sharing.

Summary of Actuarial Assumptions and Changes in Assumptions

16. 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.

|       | Medical | Prescription 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.

| 17 | . 1 | Agin | g J | Factors |
|----|-----|------|-----|---------|
|----|-----|------|-----|---------|

| Age   | Medical | Prescription 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     | _                  |
| 94+   |         | _                  |

18. 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 PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 1 Alaska PERS DCR Plan Salary Scale

#### Peace Officer/Firefighter:

| Year of Employment | Percent Increase |
|--------------------|------------------|
| 1-4                | 6.36%            |
| 5                  | 6.11             |
| 6                  | 5.61             |
| 7+                 | 4.12             |

#### Others:

| Year of Employment | Percent Increase |  |
|--------------------|------------------|--|
| 1                  | 9.60%            |  |
| 2                  | 7.60             |  |
| 3                  | 6.61             |  |
| 4                  | 6.11             |  |
| 5                  | 5.61             |  |
| 6+                 | Age-based        |  |

Rates vary slightly by age after 6 years of employement.

| Age | Percent Increase |
|-----|------------------|
| 25  | 5.11%            |
| 30  | 4.99             |
| 35  | 4.86             |
| 40  | 4.70             |
| 45  | 4.53             |
| 50  | 4.61             |
| 55  | 4.24             |
| 60+ | 3.62             |

Summary of Actuarial Assumptions and Changes in Assumptions

Table 2 Alaska PERS Peace Officer/Firefighter DCR Plan Mortality Table (Pre-termination)

| Age | Male    | Female  |
|-----|---------|---------|
| 20  | 0.0303% | 0.0135% |
| 21  | 0.0323  | 0.0133  |
| 22  | 0.0345  | 0.0135  |
| 23  | 0.0380  | 0.0138  |
| 24  | 0.0419  | 0.0141  |
| 25  | 0.0470  | 0.0144  |
| 26  | 0.0534  | 0.0151  |
| 27  | 0.0569  | 0.0155  |
| 28  | 0.0590  | 0.0161  |
| 29  | 0.0609  | 0.0170  |
| 30  | 0.0627  | 0.0187  |
| 31  | 0.0642  | 0.0207  |
| 32  | 0.0656  | 0.0220  |
| 33  | 0.0663  | 0.0229  |
| 34  | 0.0664  | 0.0239  |
| 35  | 0.0666  | 0.0250  |
| 36  | 0.0674  | 0.0262  |
| 37  | 0.0697  | 0.0277  |
| 38  | 0.0721  | 0.0295  |
| 39  | 0.0753  | 0.0316  |
| 40  | 0.0792  | 0.0344  |
| 41  | 0.0837  | 0.0372  |
| 42  | 0.0890  | 0.0400  |
| 43  | 0.0943  | 0.0425  |
| 44  | 0.0997  | 0.0447  |
| 45  | 0.1059  | 0.0462  |
| 46  | 0.1133  | 0.0481  |
| 47  | 0.1226  | 0.0508  |
| 48  | 0.1331  | 0.0551  |
| 49  | 0.1445  | 0.0598  |
| 50  | 0.1571  | 0.0665  |
| 51  | 0.1716  | 0.0745  |
| 52  | 0.1883  | 0.0856  |
| 53  | 0.2100  | 0.0978  |
| 54  | 0.2331  | 0.1111  |
| 55  | 0.2644  | 0.1270  |
| 56  | 0.3015  | 0.1474  |
| 57  | 0.3466  | 0.1712  |
| 58  | 0.3989  | 0.1970  |
| 59  | 0.4489  | 0.2266  |
| 60  | 0.5050  | 0.2604  |



# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Actuarial Assumptions and Changes in Assumptions

Table 3 Alaska PERS Others DCR Plan Mortality Table (Pre-termination)

| Age | Male           | Female |
|-----|----------------|--------|
| 20  | .0284%         | .0123% |
| 21  | .0303          | .0122  |
| 22  | .0324          | .0123  |
| 23  | .0356          | .0127  |
| 24  | .0392          | .0129  |
| 25  | .0441          | .0132  |
| 26  | .0501          | .0138  |
| 27  | .0533          | .0142  |
| 28  | .0553          | .0148  |
| 29  | .0571          | .0156  |
| 30  | .0588          | .0171  |
| 31  | .0602          | .0189  |
| 32  | .0615          | .0202  |
| 33  | .0622          | .0210  |
| 34  | .0623          | .0219  |
| 35  | .0624          | .0229  |
| 36  | .0632          | .0240  |
| 37  | .0653          | .0254  |
| 38  | .0676          | .0271  |
| 39  | .0706          | .0289  |
| 40  | .0742          | .0315  |
| 41  | .0785          | .0341  |
| 42  | .0834          | .0366  |
| 43  | .0884          | .0389  |
| 44  | .0935          | .0409  |
| 45  | .0993          | .0423  |
| 46  | .1063          | .0441  |
| 47  | .1149          | .0466  |
| 48  | .1248          | .0505  |
| 49  | .1354          | .0548  |
| 50  | .1473          | .0610  |
| 51  | .1609          | .0683  |
| 52  | .1765          | .0784  |
| 53  | .1969          | .0897  |
| 54  | .2186          | .1018  |
| 55  | .2479          | .1164  |
| 56  | .2827          | .1352  |
| 57  | .3249          | .1570  |
| 58  | .3739          | .1806  |
| 59  | .4208          | .2077  |
| 60  | .4734          | .2387  |
| 00  | •1/ <i>J</i> 1 | .230/  |

Summary of Actuarial Assumptions and Changes in Assumptions

Table 4
Alaska PERS DCR Plan
Mortality Table (Post-termination)

| Age | Male    | Female  |
|-----|---------|---------|
| 50  | 0.1964% | 0.1241% |
| 51  | 0.2145  | 0.1426  |
| 52  | 0.2354  | 0.1631  |
| 53  | 0.2625  | 0.1851  |
| 54  | 0.2914  | 0.2117  |
| 55  | 0.3305  | 0.2457  |
| 56  | 0.3769  | 0.2854  |
| 57  | 0.4333  | 0.3284  |
| 58  | 0.4986  | 0.3777  |
| 59  | 0.5611  | 0.4339  |
| 60  | 0.6312  | 0.4979  |
| 61  | 0.7251  | 0.5701  |
| 62  | 0.8188  | 0.6527  |
| 63  | 0.9436  | 0.7450  |
| 64  | 1.0644  | 0.8442  |
| 65  | 1.1956  | 0.9476  |
| 66  | 1.3618  | 1.0523  |
| 67  | 1.5123  | 1.1499  |
| 68  | 1.6336  | 1.2424  |
| 69  | 1.7873  | 1.3422  |
| 70  | 1.9147  | 1.4342  |
| 71  | 2.0940  | 1.5830  |
| 72  | 2.2981  | 1.7260  |
| 73  | 2.5175  | 1.9177  |
| 74  | 2.7475  | 2.0940  |
| 75  | 3.0609  | 2.3377  |
| 76  | 3.0609  | 2.6690  |
| 77  | 3.7879  | 2.9853  |
| 78  | 4.2924  | 3.3273  |
| 79  | 4.8681  | 3.7068  |
| 80  | 5.5102  | 4.1355  |
| 81  | 6.2135  | 4.6249  |
| 82  | 6.9722  | 5.1616  |
| 83  | 7.6164  | 5.7377  |
| 84  | 8.4319  | 6.4966  |
| 85  | 9.1495  | 7.3658  |



# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 5 Alaska PERS DCR Plan Turnover Assumptions

Peace Officer/Firefighter:

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

| Year of Employment | Rate   |
|--------------------|--------|
| 1                  | 15.00% |
| 2                  | 12.00  |
| 3                  | 10.00  |
| 4                  | 9.00   |
| 5                  | 8.00   |

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

| Age | Male    | Female  | Age | Male    | Female  |
|-----|---------|---------|-----|---------|---------|
| 20  | 4.5263% | 5.7054% | 45  | 4.1616% | 5.3309% |
| 21  | 4.5208  | 5.7028  | 46  | 4.1102  | 5.2844  |
| 22  | 4.5147  | 5.7002  | 47  | 4.0500  | 5.2300  |
| 23  | 4.5076  | 5.6979  | 48  | 3.9838  | 5.1703  |
| 24  | 4.4983  | 5.6939  | 49  | 3.9139  | 5.1088  |
| 25  | 4.4904  | 5.6920  | 50  | 3.8376  | 5.0419  |
| 26  | 4.4829  | 5.6893  | 51  | 3.7480  | 4.9627  |
| 27  | 4.4729  | 5.6818  | 52  | 3.6377  | 4.8621  |
| 28  | 4.4651  | 5.6751  | 53  | 3.5111  | 4.7458  |
| 29  | 4.4561  | 5.6656  | 54  | 3.3711  | 4.6171  |
| 30  | 4.4492  | 5.6574  | 55  | 3.2063  | 4.4617  |
| 31  | 4.4410  | 5.6467  | 56  | 2.9998  | 4.2580  |
| 32  | 4.4349  | 5.6376  | 57  | 2.7433  | 3.9959  |
| 33  | 4.4286  | 5.6264  | 58  | 2.4705  | 3.7140  |
| 34  | 4.4237  | 5.6148  | 59  | 2.1189  | 3.3355  |
| 35  | 4.4169  | 5.6007  | 60  | 1.7240  | 2.9081  |
| 36  | 4.4088  | 5.5856  | 61  | 1.2905  | 2.4421  |
| 37  | 4.3959  | 5.5672  | 62  | 0.7855  | 1.9006  |
| 38  | 4.3798  | 5.5474  | 63  | 0.2146  | 1.2892  |
| 39  | 4.3615  | 5.5260  | 64  | 4.7520  | 0.6289  |
| 40  | 4.3413  | 5.5039  | 65+ | 4.7520  | 5.9400  |
| 41  | 4.3175  | 5.4794  | _   |         |         |
| 42  | 4.2869  | 5.4494  |     |         |         |
| 43  | 4.2525  | 5.4167  |     |         |         |
| 44  | 4.2106  | 5.3772  |     |         |         |

Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 5 Alaska PERS DCR Plan Turnover Assumptions

Others:

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

| Year of Employment | Rate   |
|--------------------|--------|
| 1                  | 29.00% |
| 2                  | 25.00  |
| 3                  | 20.00  |
| 4                  | 16.00  |
| 5                  | 15.00  |

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

| Age | Male     | Female   | Age | Male    | Female  |
|-----|----------|----------|-----|---------|---------|
| 20  | 10.4500% | 15.0446% | 45  | 5.7664% | 6.6418% |
| 21  | 10.4500  | 15.0442  | 46  | 5.7411  | 6.6260  |
| 22  | 10.4500  | 15.0424  | 47  | 5.7110  | 6.6061  |
| 23  | 10.4500  | 15.0421  | 48  | 5.6759  | 6.5825  |
| 24  | 10.4500  | 15.0407  | 49  | 5.6397  | 6.5591  |
| 25  | 10.4500  | 15.0407  | 50  | 5.5982  | 6.5318  |
| 26  | 10.4500  | 15.0403  | 51  | 5.5505  | 6.5002  |
| 27  | 10.4500  | 15.0379  | 52  | 5.4941  | 6.4620  |
| 28  | 10.4500  | 15.0346  | 53  | 5.4300  | 6.4184  |
| 29  | 10.4500  | 15.0307  | 54  | 5.3605  | 6.3716  |
| 30  | 10.4500  | 13.8600  | 55  | 5.2807  | 6.3160  |
| 31  | 9.9000   | 13.0900  | 56  | 5.1834  | 6.2432  |
| 32  | 9.2400   | 12.2100  | 57  | 5.0650  | 6.1491  |
| 33  | 8.5030   | 11.5500  | 58  | 4.9352  | 6.0429  |
| 34  | 8.0850   | 10.8900  | 59  | 4.7792  | 5.9079  |
| 35  | 7.7000   | 10.2300  | 60  | 4.6045  | 5.7553  |
| 36  | 7.3700   | 9.5700   | 61  | 4.4089  | 5.5858  |
| 37  | 7.0950   | 9.1300   | 62  | 4.1829  | 5.3912  |
| 38  | 6.8750   | 8.6900   | 63  | 3.9259  | 5.1701  |
| 39  | 6.7100   | 8.3600   | 64  | 3.6453  | 4.9289  |
| 40  | 6.4900   | 8.0818   | 65+ | 6.0500  | 6.8750  |
| 41  | 6.3030   | 8.0705   |     |         |         |
| 42  | 6.1050   | 8.0578   |     |         |         |
| 43  | 5.9290   | 8.0461   |     |         |         |
| 44  | 5.7966   | 8.0325   |     |         |         |



Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 6 Alaska PERS DCR Plan Disability Table

|     | Peace Officer/   | Other Member Rate |        |  |
|-----|------------------|-------------------|--------|--|
| Age | Firefighter Rate | Male              | Female |  |
| 20  | .088%            | .031%             | .024%  |  |
| 21  | .089             | .031              | .024   |  |
| 22  | .090             | .032              | .024   |  |
| 23  | .091             | .032              | .024   |  |
| 24  | .093             | .033              | .025   |  |
| 25  | .094             | .033              | .025   |  |
| 26  | .095             | .033              | .025   |  |
| 27  | .098             | .034              | .026   |  |
| 28  | .100             | .035              | .027   |  |
| 29  | .103             | .036              | .028   |  |
| 30  | .105             | .037              | .029   |  |
| 31  | .108             | .037              | .029   |  |
| 32  | .110             | .038              | .029   |  |
| 33  | .113             | .039              | .030   |  |
| 34  | .116             | .041              | .031   |  |
| 35  | .120             | .042              | .032   |  |
| 36  | .124             | .044              | .034   |  |
| 37  | .129             | .045              | .035   |  |
| 38  | .134             | .047              | .036   |  |
| 39  | .139             | .048              | .037   |  |
| 40  | .144             | .050              | .039   |  |
| 41  | .150             | .052              | .040   |  |
| 42  | .159             | .056              | .043   |  |
| 43  | .170             | .059              | .045   |  |
| 44  | .185             | .065              | .050   |  |
| 45  | .203             | .071              | .055   |  |
| 46  | .220             | .077              | .059   |  |
| 47  | .239             | .083              | .064   |  |
| 48  | .259             | .091              | .070   |  |
| 49  | .279             | .097              | .075   |  |
| 50  | .300             | .105              | .081   |  |
| 51  | .325             | .114              | .087   |  |
| 52  | .358             | .125              | .096   |  |
| 53  | .398             | .139              | .107   |  |
| 54  | .444             | .155              | .119   |  |
| 55  | .500             | .175              | .134   |  |
| 56  | .574             | .201              | .155   |  |
| 57  | .668             | .234              | .180   |  |
| 58  | .763             | .267              | .205   |  |
| 59  |                  |                   |        |  |
| ))  | .900             | .315              | .242   |  |



Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 7 Alaska PERS 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  |

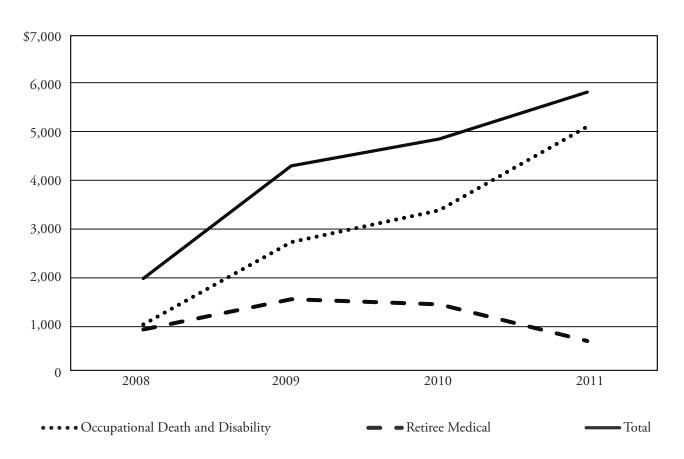
#### Changes in Actuarial Assumptions Since the Prior Valuation

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.

# Public Employees' Retirement System Defined Contribution Retirement Plan For Occupational Death and Disability and Retiree Medical Benefits Funding Excess/(Unfunded Liability) (In thousands)

| Actuarial<br>Valuation Year<br>Ended June 30 | Occupational Death and Disability | Retiree<br>Medical | Total<br>Funding Excess/<br>(Unfunded Liability) | Funded Ratio |
|--|-----------------------------------|--------------------|--|--------------|
| 2008   | \$ 1,046                          | \$ 943             | \$ 1,989   | 198.6%       |
| 2009   | 2,735                             | 1,562              | 4,297  | 199.6        |
| 2010   | 3,386                             | 1,460              | 4,846  | 171.1        |
| 2011   | 5,100                             | 707                | 5,807  | 143.8        |

## 4-YEAR TREND OF FUNDING EXCESS (In thousands)



# Public Employees' Retirement System Defined Contribution Retirement Plan For Occupational Death and Disability and Retiree Medical Benefits Employer Contribution Rates

|                | Actuarially Determined   |                                  |        |                    |                                  |        |                                  |        |      |
|----------------|--------------------------|----------------------------------|--------|--------------------|----------------------------------|--------|----------------------------------|--------|------|
|                | Actuarial<br>Valuation   | Occupa<br>Death and I            |        |                    | Total<br>Annual Required         |        |                                  |        | oted |
| Fiscal<br>Year | Year<br>Ended<br>June 30 | Peace<br>Officer/<br>Firefighter | Others | Retiree<br>Medical | Peace<br>Officer/<br>Firefighter | Others | Peace<br>Officer/<br>Firefighter | Others |      |
| 2007           | N/A                      | 0.40%                            | 0.30%  | 1.75%              | 2.15%                            | 2.05%  | 2.15%                            | 2.05%  |      |
| 2008           | N/A                      | 1.33                             | 0.58   | 0.99               | 2.32                             | 1.57   | 2.32                             | 1.57   |      |
| 2009           | N/A                      | 1.33                             | 0.58   | 0.99               | 2.32                             | 1.57   | 2.32                             | 1.57   |      |
| 2010           | 2007                     | 1.33                             | 0.30   | 0.83               | 2.16                             | 1.13   | 2.16                             | 1.13   |      |
| 2011           | 2008                     | 1.18                             | 0.31   | 0.55               | 1.73                             | 0.86   | 1.73                             | 0.86   |      |
| 2012           | 2009                     | 0.97                             | 0.11   | 0.51               | 1.48                             | 0.62   | 1.48                             | 0.62   |      |
| 2013           | 2010                     | 0.99                             | 0.14   | 0.48               | 1.47                             | 0.62   | 1.47                             | 0.62   |      |
| 2014           | 2011                     | 1.14                             | 0.20   | 0.48               | 1.53                             | 1.69   | 1.53                             | 1.69   |      |

Valuations are used to set contribution rates in future years.



# Public Employees' Retirement System Defined Contribution Retirement Plan For Occupational Death and Disability and Retiree Medical Benefits Schedule of Active Member Valuation Data

| Valuation<br>Date | Number | Annual<br>Earnings <sup>1</sup><br>(In thousands) | Annual<br>Average<br>Earnings | Percent Increase/<br>(Decrease) in<br>Average Earnings | Number of<br>Participating<br>Employers |
|-------------------|--------|---|-------------------------------|--|---|
| June 30, 2011     | 10,965 | \$524,088   | \$47,796                      | 4.8%   | 160                                     |
| June 30, 2010     | 9,232  | 421,187   | 45,622                        | 5.4  | 160                                     |
| June 30, 2009     | 7,256  | 314,118   | 43,291                        | 7.2  | 160                                     |
| June 30, 2008     | 5,052  | 203,955   | 40,371                        | 8.1  | 159                                     |
| June 30, 2007     | 2,827  | 105,611   | 37,358                        | _  | 160                                     |
| June 30, 2006     |        | _   | _                             | _  | _                                       |

<sup>&</sup>lt;sup>1</sup>Annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

# Public Employees' Retirement System Defined Contribution Retirement Plan Occupational Death and Disability Solvency Test (In thousands)

|                            | _                                  | Occupational Death and Disability Aggregate Accrued Liability For: |   |  |        | f Accrued lered by As |        |
|----------------------------|------------------------------------|--|---|--|--------|-----------------------|--------|
| Valuation<br>Date          | (1)  Active  Member  Contributions | (2) Inactive Members   | (3) Active Members (Employer- Financed Portion) | Occupational Death and Disability Valuation Assets | (1)    | (2)                   | (3)    |
| June 30, 2011              | \$ —                               | \$ —   | \$1,949   | \$ 7,049   | 100.0% | 100.0%                | 100.0% |
| June 30, 2010 <sup>1</sup> | _                                  | _  | 853   | 4,801  | 100.0  | 100.0                 | 100.0  |
| June 30, 2009 <sup>1</sup> | _                                  | _  | 403   | 3,138  | 100.0  | 100.0                 | 100.0  |
| June 30, 2008              | _                                  | _  | 242   | 1,288  | 100.0  | 100.0                 | 100.0  |
| June 30, 2007              | _                                  | _  | 48  | 188  | 100.0  | 100.0                 | _      |
| June 30, 2006              | _                                  | _  | _   | _  | N/A    | N/A                   | N/A    |

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

## Actuarial Section

#### Public Employees' Retirement System Defined Contribution Retirement Plan Retiree Medical Solvency Test (In thousands)

|                            | Retiree Medical<br>Aggregate Accrued Liability For: |                      |   |   |        | f Accrued lered by As |        |
|----------------------------|---|----------------------|---|---|--------|-----------------------|--------|
| Valuation<br>Date          | (1)  Active  Member  Contributions                  | (2) Inactive Members | (3) Active Members (Employer- Financed Portion) | Retiree<br>Medical<br>Valuation<br>Assets | (1)    | (2)                   | (3)    |
| June 30, 2011              | \$ —  | \$ —                 | \$ 11,302                                       | \$ 12,009                                 | 100.0% | 100.0%                | 100.0% |
| June 30, 2010 <sup>1</sup> | _   | _                    | 7,185   | 8,767                                     | 100.0  | 100.0                 | 100.0  |
| June 30, 2009 <sup>1</sup> | _   | _                    | 3,913   | 5,475                                     | 100.0  | 100.0                 | 100.0  |
| June 30, 2008 <sup>1</sup> | _   | _                    | 1,776   | 2,719                                     | 100.0  | 100.0                 | 100.0  |
| June 30, 2007              | _   | _                    | 711   | 1,067                                     | 100.0  | 100.0                 | _      |
| June 30, 2006              | _   |                      | _   | _   | 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>&</sup>lt;sup>1</sup> Change in Assumptions

# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN 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 160 employers participating in the PERS DCR Plan, including the State of Alaska, and 159 political subdivisions and public 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 employees of the State of Alaska, participating political subdivisions or public
  organizations. An employee must be regularly scheduled to work 30 or more hours per week to be considered
  full-time by the PERS. An employee must be regularly scheduled to work 15 or more hours per week but less than
  30 hours to be considered a part-time employee for PERS purposes.
- Elected state officials.
- Elected municipal officials who are compensated and receive at least \$2,001.00 per month.

Members can convert to the DCR Plan if they are an eligible nonvested member of the PERS 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 PERS DCR Plan.

#### (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 for Others members and 25 years of service for Peace Officer/Firefighter members, or b) Medicare eligible and 10 years of service.

# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Plan Provisions and Changes in Plan Provisions

- 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:

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

#### (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 for Others members of 25 years of service for Peace Officer/Firefighter members.
- Peace Officer/Firefighter members may select the defined contribution account or the monthly benefit payable as if they were retiring under Tier 3 (service continues during disability, final average salary is as of date of disability).
- 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.



# STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM DEFINED CONTRIBUTION RETIREMENT PLAN Summary of Plan Provisions and Changes in Plan Provisions

#### (8) Occupational Death Benefits

- Benefit is 40% of salary for Others members and 50% of salary for Peace Officer/Firefighter members.
- 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.

