## Buck

# State of Alaska 

Teachers' Retirement System
Information Required Under Governmental Accounting Standards Board Statement No. 75 as of June 30, 2017

## Buck

October 26, 2018

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

## RE: GASB 75 Report as of June 30, 2017 - TRS

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

We have prepared the required accounting information for Governmental Accounting Standards Board (GASB) Statement No. 75 (GASB 75) for the State of Alaska Teachers' Retirement System (TRS) for fiscal year ending June 30, 2018 based on a measurement date of June 30, 2017. GASB 75 replaces GASB 45 effective for fiscal years beginning after June 15, 2017. Please refer to the GASB 74 report dated November 17, 2017 for any supplemental information or documentation.

This report covers the postretirement healthcare (OPEB) portion of the defined benefit pension plan and the assets and liabilities of TRS. There is a separate GASB 68 report that covers the pension portion of TRS.

We certify that the information contained in this report has been prepared in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information fairly presents the actuarial position of TRS in accordance with the requirements of GASB 75 as of June 30, 2017.

The Alaska Retirement Management Board (ARMB) and staff of the State of Alaska and its auditors may use this report for the review of the operation of TRS. The report may also be used in the preparation of State of Alaska's audited financial statements. Use of this report for any other purpose or by anyone other than the ARMB, the staff of the State of Alaska or its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. Buck will accept no liability for any such statement, document or filing made without prior review by Buck.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. An analysis of the potential range of such future differences is beyond the scope of this report, except for the GASB 75 required disclosure of the sensitivity of net OPEB liability to changes in the discount rate and to changes in the healthcare cost trend rates.

In preparing the actuarial results, we have relied upon information provided by staff of the State of Alaska regarding plan provisions, participants, assets, contributions and other matters used in the actuarial valuation. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. The accuracy of the results presented herein is dependent on the accuracy of the data.

This valuation was prepared based on the actuarial assumptions and methods used in the June 30, 2016 actuarial valuation of TRS, except as noted herein. We rolled forward the liabilities from that date to June 30, 2017, as GASB 75 permits. In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of TRS and to reasonable longterm expectations.

This report was prepared under our supervision and in accordance with all applicable Actuarial Standards of Practice. David Kershner and Scott Young are Fellows of the Society of Actuaries, Enrolled Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

We are available to discuss this report with you at your convenience. David can be reached at 602-8036174 and Scott can be reached at 216-315-1929.

Respectfully submitted,


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Principal


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## Section 1 - GASB 75 Information

OPEB Expense

|  | FYE June 30, 2017 |  |
| :---: | :---: | :---: |
| Service cost | \$ | 31,605,000 |
| Interest cost |  | 224,435,000 |
| Expected return on assets |  | $(198,659,000)$ |
| Current period effect of benefit changes |  | 0 |
| Current period difference between expected and actual experience |  | $(17,030,000)$ |
| Current period effect of changes in assumptions |  | 0 |
| Current period difference between projected and actual investment earnings |  | $(24,712,000)$ |
| Member contributions |  | 0 |
| Administrative expenses |  | 5,908,000 |
| Service purchases and plan transfers |  | 0 |
| Current period recognition of prior years' deferred outflows of resources |  | 0 |
| Current period recognition of prior years' deferred inflows of resources |  | 0 |
| Other Additions Less Other Deductions |  | $(48,000)$ |
| Total |  | \$ 21,499,000 |

The employers' allocation of the OPEB expense for FYE June 30, 2017 is shown in Schedule C in Appendix 3.

The difference between projected and actual investment earnings is recognized over 5 years.
The effects of changes in assumptions and differences between expected and actual experience are recognized over the average future working lifetime. This period is:

- 2.4 years as of June 30, 2016 (for FYE June 30, 2017)


## Actuarial Assumptions

The total OPEB liability for fiscal year ending June 30, 2017 was determined by an actuarial valuation as of June 30, 2016, using the actuarial assumptions outlined in Section II, applied to all periods included in the measurement, and rolled forward to the measurement date of June 30, 2017.

The actuarial assumptions used in the June 30, 2016 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2009 to June 30, 2013, resulting in changes in actuarial assumptions adopted by the Alaska Retirement Management Board to better reflect expected future experience.

## Actuarial Cost Method

Entry Age Normal - Level Percentage of Payroll

## Asset Valuation Method

Invested assets are reported at fair value.

## Allocation of Net OPEB Liability

The employers' allocations of net OPEB liability as of June 30, 2016 and June 30, 2017 are shown in Appendix 1 and Appendix 2, respectively.

## Allocation of Deferred Outflows/Inflows of Resources

The employers' allocation of deferred outflows/inflows of resources as of June 30, 2017 is shown in Schedule C in Appendix 3.

## Allocation of Future Years' Recognition of Deferred Outflows/Inflows

The employers' allocation of June 30, 2017 deferred outflows/inflows recognition for each of the next five fiscal years and thereafter is shown in Schedule $D$ in Appendix 4

## Allocation Methodology

Amounts for FY2016 were allocated to employers based on the present value of contributions for FY2018-FY2039, as determined by projections based on the June 30, 2015 valuation.

Amounts for FY2017 were allocated to employers based on the present value of contributions for FY2019-FY2039, as determined by projections based on the June 30, 2016 valuation.

## Section 2 - Actuarial Assumptions and Methods

The funding method used in this valuation was adopted by the Board in October 2006. Changes in the amortization of unfunded actuarial accrued liability were made in 2014. The asset smoothing method used to determine valuation assets was changed effective June 30, 2014.

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

## Actuarial Cost Method - Entry Age Normal

Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost method. Any funding surplus or unfunded accrued liability is amortized over a closed 25 -year period (established June 30, 2014) as a level percentage of payroll amount. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined.

Projected 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 postemployment 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.

## Valuation of Assets

The actuarial asset value was reinitialized to equal Fair Value of Assets as of June 30, 2014. Beginning in 2015, the asset value method recognizes $20 \%$ of the gain or loss each year, for a period of 5 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 of Medical and Prescription Drug Benefits

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

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

## Benefits

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

## Administration and Data Sources

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

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

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

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

## Methodology

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

1. Develop historic annual incurred claim cost rates - an analysis of medical costs was completed based on claims information and enrollment data provided by Aetna and HealthSmart for each year in the experience period of fiscal 2013 through fiscal 2016.

- Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs for the upcoming year (e.g. from the experience period up through fiscal 2017).
- Buck applied an estimate to the medical claims in fiscal year 2016 to estimate incurred but not reported claims based upon a review of claim lags through July 2016. Pharmacy claims are deemed fully incurred.
- An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Available management level reporting does indicate claims and enrollment separately for Medicare and pre-Medicare plan participants, but only since January 1, 2014. HealthSmart data does not, but we did have overall statistics as to the percentage of claims and enrollment attributable to both groups. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For the "no-Part A" individuals who are required to enroll in Medicare Part B, the State is the primary payer for hospital bills and other Part A services. Claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. For Medicare Part B only participants, a lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B based upon manual rate models that estimate the Medicare covered proportion of medical costs. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate.
- Based on census data received from Aetna, $0.39 \%$ of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire and/or re-hire, date of birth, tier, etc.
- Based upon a reconciliation of valuation census data to the Aetna July 1, 2016 snapshot eligibility file, Buck adjusted member counts used for duplicate records where participants have dual coverage; i.e. primary coverage as a retiree and secondary coverage as the covered spouse of another retiree. This is to reflect the total cost per distinct individual/member which is then applied to distinct members in the valuation census.
- Buck understands that pharmacy claims reported do not reflect rebates. Based upon reported rebates in proportion to incurred claims for State of Alaska retiree plans, Buck reduced reported pharmacy incurred claims by $9 \%$ to estimate the rebates for the retiree population beginning January 1, 2014. We reduced historic pharmacy incurred claims by
$5.5 \%$ to reflect rebates on experience prior to January 1, 2014. These estimates were based upon reported rebates for retirees from Aetna and Envision Rx.

2. Develop estimated Retiree Drug Subsidy reimbursement - actual subsidy payments to the State were received for CY2009-CY2015, and the first six months of CY2016. Buck obtained this information based upon recorded and available information in the RDS Subsidy website and as provided by the State. The projected subsidy for FY 2017 was determined based on the historic ratio of subsidy received to claims incurred (adjusted for rebates), and then applied to the appropriate projection period. These amounts are applicable only to Medicare eligible participants.
3. Adjust for network change - based upon additional experience and updated reporting from Aetna (through March 31, 2016), we updated the adjustment to reflect the impact of the better network discounts realized. Buck referenced administrator reports provided by Alaska to compare the proportion of network savings to covered charges under Aetna and the prior administrator. We found the discounts to be approximately $6 \%$ higher under Aetna as a proportion of covered charges as compared to the prior administrator.
4. Adjust for claim fluctuation, anomalous experience, etc. - explicit adjustments are often made for anticipated large claims or other anomalous experience. Due to group size and demographics, we did not make any large claim adjustments. We do blend both Alaska plan-specific and national trend factors as described below. Buck compared data utilized to lag reports and quarterly plan experience presentations provided by the State and Aetna to assess accuracy and reasonableness of data.
5. Trend all data points to the projection period - project prior years' experience forward to fiscal 2017 for retiree benefits on an incurred claim basis. Trend factors derived from historic Alaskaspecific experience and national trend factors are shown in the table in item 6 below.
6. Apply credibility to prior experience - adjust prior year's data by assigning weight to recent periods, as shown at the right of the table below. Greater credibility is given to the past 24 months' experience. We have some run-out claims data, thus less estimation for complete claims in fiscal 2016 that is consistent with last year. We did not adjust the credibility weight further. Note also that we averaged projected plan costs using Alaska-specific trend factors and national trend factors, assigning $75 \%$ weight to Alaska-specific trends and $25 \%$ to national trends:

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

Trend assumptions used for rate development are assessed annually and as additional/improved reporting becomes available, we will incorporate into rate development as appropriate. Based upon recent experience trending up (mitigating historic gains), we are not proposing an update to the valuation healthcare cost trend assumption.
7. Develop separate administration costs - no adjustments were made for internal administrative costs. Third party retiree plan administration fees for fiscal 2017 are based upon rates in effect at the midpoint of the year, January 2017, based upon negotiations with Aetna as communicated by the State. Medical fees increased 1.4\% and pharmacy admin was reduced to \$0. We included a small fee for estimated fees that occur on a per occurrence basis (i.e. prior authorization, retiree direct bill). We also include PCORI fees under the Affordable Care Act. We estimated the 2017 rates based upon the 2016 rate of $\$ 2.26$ per member per year increased by $4 \%$. The annual per participant per year administrative cost rate for medical and prescription benefits (including PCORI) is \$206.88.
8. Healthcare Reform legislation passed on March 23, 2010 included several provisions with potential implications for the State of Alaska Retiree Health Plan liability. 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 of the health reform legislation apply to the State plan. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. We reviewed the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.
- As Transitional Reinsurance fees are only in effect until 2016, we excluded these for valuation purposes.
- The Plan will be subject to the high cost plan excise tax (Cadillac tax); however, the impact is not expected to significantly impact the OPEB liability. Based upon guidance available at the valuation date, Buck estimated the tax based upon a blended test of pre and post-Medicare projected costs and enrollment projections.
- A blended test compares a weighted average per capita cost (based upon proportions of pre/post Medicare eligible enrollments) to the tax cost thresholds in each projection year. Projected enrollment was based upon the 2016 enrollment data provided by Aetna, and 2016 valuation headcount projections for future years.
- We included administrative fees and applied Retiree Drug Subsidy reimbursements to the Medicare rates.
- We assumed claim costs would increase according to valuation trend assumptions from the June 30, 2016 valuation, and that the tax cost thresholds would increase at $3.0 \%$. The first year increased at $4 \%$ to reflect the additional $1 \%$ over inflation assumption.
- Buck determined the impact to be less than \$275,000 (0.01\%) of the projected June 30, 2016 healthcare actuarial accrued liability for the defined benefit plans. In addition, any additional per capita costs due to the tax were not expected to significantly impact trend over the long term.

The Trump administration has clearly announced its intention to repeal Healthcare Reform. As one of his first acts in office, President Trump issued an executive order that states that federal agencies can grant waivers, exemptions, and delays of "Obamacare" provisions that would impose costs on states or individuals. On February 15, 2016, CMS issued proposed rules that are intended to minimize adverse selection, but which might disrupt the fragile balance of the healthcare exchanges. We can expect more information about what is being altered.

We have not identified any other specific provisions of healthcare reform or its potential repeal that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

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

| Healthcare Cost Rate Data Source or <br> Assumption Change, 2016 vs. 2015 | Gain / Loss Impact on 2015 Valuation Results |
| :--- | :--- |
| Claim lag specific to medical and prescription <br> experience | Small |
| Individual claims level data | $-\quad$No impact on cost data used for 2016, though <br> potentially a source of future modifications <br> No impact on morbidity assumptions used for <br> 2016, though potentially a source of future <br> modifications |
| Explicit TPA fees | Negligible |
| Actual RDS payments received | Negligible |
| Aggregate claims data | Loss due to adjustment for removal of dual <br> coverage/duplicate members in reported enrollment <br> counts, offset by gain due to experience |
| Census Data | Small gain due to updated census |

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

- The Division of Retirement and Benefits provided pension valuation census data, which for people currently in receipt of healthcare benefits was supplemented by coverage data from the healthcare claims administrator (Aetna)
- Certain adjustments and assumptions were made to prepare the data for valuation:
- Some records provided on the Aetna data were associated with a participant social security number not listed on the RIN-to-SSN translation file. We did not add these records to the retiree medical valuation data as they were unable to tie with our pension valuation data (and therefore were unable to be associated with a specific plan or participant).
- Some in pay participants and beneficiaries on the pension valuation data who were previously assumed to be receiving medical benefits were not listed on the provided Aetna data. We have updated these records to only be valued under the pension valuation.
- Some records in the Aetna data were duplicates due to the dual coverage (i.e. coverage as a retiree and as a spouse of another retiree) allowed under the Plan. Records were changed for these members so that each member was only valued once. Any additional value of the dual coverage (due to coordination of benefits) is small and reflected in the per capita costs.
- Covered children included in the Aetna data were valued until age 23, unless handicapped. We assumed that those dependents over 23 were only eligible and included due to being handicapped.
- Buck understands that retiree medical coverage/eligibility is in place while a pension benefit is payable. If a participant dies, dependent coverage is only assumed to continue if they have ongoing pension/survivor benefits.
- For individuals included in the pension data expecting a future pension, we valued health benefits starting at the same point that the pension benefit is assumed to start.
- Future retirees' level of coverage is estimated according to valuation assumptions regarding spousal coverage.
- Limitations on the use of the valuation results due to uncertainty about various aspects of the data: Excluded records due to file mismatches are noted above but not are expected to have a material impact on the results.

Unresolved matters: None.

June 30, 2016 Valuation - FY 2017 Claims Cost Rates

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

*"Manual Adjustment" is the estimated savings due to the change in claims administrator effective January 1, 2014.

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

Below are the results of this analysis:

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

| Age | Medical and <br>  <br> B | Medical and Medicare <br> Part B Only | Prescription <br> Drug | Medicare Retiree <br> Drug Subsidy |
| :---: | :---: | :---: | :---: | :---: |
| 45 | $\$ 7,964$ | $\$ 7,964$ | $\$ 1,751$ | $\$-$ |
| 50 | 9,010 | 9,010 | 2,080 | - |
| 55 | 10,194 | 10,194 | 2,470 | - |
| 60 | 12,108 | 12,108 | 2,864 | - |
| 65 | 1,707 | 8,562 | 3,320 | 614 |
| 70 | 2,077 | 10,417 | 3,577 | 661 |
| 70 | 2,466 | 12,369 | 3,815 | 706 |

## Changes in Methods Since the Prior Valuation

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

The demographic and economic assumptions used in the June 30, 2016 valuation are described below. These assumptions were adopted by the Board in December 2014. These assumptions were the result of an experience study performed as of June 30, 2013.

| Investment Return / Discount Rate | 8.00\% per year (geometric), compounded annually, net of expenses. |
| :---: | :---: |
| Salary Scale | Inflation - $3.12 \%$ per year. <br> Productivity $-0.50 \%$ per year. <br> See Table 1 for salary scale rates. |
| Payroll Growth | $3.62 \%$ per year. (Inflation + Productivity). |
| Total Inflation | Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase $3.12 \%$ annually. |
| Mortality (Pre-termination)* | Based upon the 2010-2013 actual experience. (See Table 2). $68 \%$ of male rates and $60 \%$ of female rates of post-termination mortality. Deaths are assumed to result from non-occupational causes $85 \%$ of the time. |
| Mortality (Post-termination)* | Based upon the 2010-2013 actual experience. (See Table 3). $94 \%$ of male and $97 \%$ of female rates of RP-2000, 2000 Base Year projected to 2018 with Projection Scale BB, with a 3 -year setback for males and a 4 -year setback for females. |
| Turnover | Select and ultimate rates based upon the 2010-2013 actual withdrawal experience. (See Table 4). |
| Disability | Incidence rates based upon the 2010-2013 actual experience, in accordance with Table 5. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table, 2000 Base Year, projected to 2018 with Projection Scale BB. (See Table 7). |
| Retirement | Retirement rates based upon the 2010-2013 actual experience in accordance with Table 6. Deferred vested members are assumed to retire at their earliest unreduced retirement date. |
|  | The modified cash refund annuity is valued as a three-year certain and life annuity. |
| Marriage and Age Difference | Wives are assumed to be three years younger than husbands. $85 \%$ of male members and $75 \%$ of female members are assumed to be married. |
| Dependent Children | Benefits for dependent children have been valued only for members currently covering their dependent children. These benefits are only valued through the dependent children's age 23 (unless the child is disabled). |
| Contribution Refunds | $5 \%$ of terminating members with vested benefits are assumed to have their contributions refunded. $100 \%$ of those with non-vested benefits are assumed to have their contributions refunded. |
| Imputed Data | Data changes from the prior year which are deemed to have an immaterial impact on liabilities and contribution rates are assumed to be correct in the current year's client data. Nonvested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated with status based on their vesting percentage. |
| Active Rehire Assumption | Starting with the June 30, 2016 valuation, the Normal Cost used for determining contribution rates and in the projections includes a rehire assumption to account for anticipated rehires. The Normal Cost shown in the report includes the following \% loads (which were developed based on the prior 5 years of rehire loss experience): <br> - Pension: 18.49\% <br> - Healthcare: 10.39\% |
| Teacher Active Data Adjustment | To reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date, participants who are listed as terminated in the June 30 client data but active in the October 1 client records are updated to active status as of June 30 |


| COLA | Of those benefit recipients who are eligible for the COLA, 60\% are assumed to remain in Alaska and receive the COLA. |
| :---: | :---: |
| Sick Leave | 4.5 days of unused sick leave for each year of service are assumed to be available to be credited once the member is retired, terminates or dies. |
| Postretirement Pension Adjustment | $50 \%$ and $75 \%$ of assumed inflation, or $1.56 \%$ and $2.34 \%$ respectively, is valued for the annual automatic Postretirement Pension Adjustment (PRPA) as specified in the statute. |
| Expenses | The investment return assumption is net of all expenses. |
| Part-time Status | Part-time employees are assumed to earn 0.75 years of credited service per year. |
| Re-employment Option | We assume all re-employed retirees return to work under the Standard Option. |
| Service | Total credited service is provided by the State. We assume that this service is the only service that should be used to calculate benefits. Additionally, the State provides claimed service (including Bureau of Indian Affairs Service). Claimed service is used for vesting and eligibility purposes as described in Section 2.1. |
| Final Average Earnings | Final Average Earnings is provided on the data for active members. This amount is used as a minimum in the calculation of the average earnings in the future. |
| Per Capita Claims Cost | Sample claims cost rates adjusted to age 65 for FY17 medical benefits are shown below: |
|  |  Prescription <br> Medical Drugs |
|  | Pre-Medicare \$ 14,380 \$ 3,320 |
|  | Medicare Parts A \& B \$ 1,707 \$ 3,320 |
|  | Medicare Part B Only \$ 8,562 \$ 3,320 |
|  | Medicare Part D N/A \$ 614 |
| Third Party Administrator Fees | \$206.88 per person per year; assumed trend rate of 5\% per year. |
| Medicare Part B Only | For actives and retirees not yet Medicare-eligible, participation is set based on whether the employee/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or re-hire. |


| Health Cost Trend | The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, $8.8 \%$ is applied to the FY17 pre-Medicare medical claims cost to get the FY18 medical claims cost. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Medical Pre-65 | Medical Post-65 | Prescription Drugs |
|  | FY17 | 8.8\% | 5.8\% | 5.4\% |
|  | FY18 | 8.2\% | 5.7\% | 5.1\% |
|  | FY19 | 7.6\% | 5.6\% | 4.8\% |
|  | FY20 | 7.0\% | 5.6\% | 4.6\% |
|  | FY21 | 6.5\% | 5.6\% | 4.4\% |
|  | FY22 | 6.0\% | 5.6\% | 4.2\% |
|  | FY23 | 5.6\% | 5.6\% | 4.0\% |
|  | FY26 | 5.6\% | 5.6\% | 4.0\% |
|  | FY51 | 4.4\% | 4.0\% | 4.0\% |
|  | FY101 | 4.4\% | 4.0\% | 4.0\% |
|  | For the June 30, 2014 valuations and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2014 and projects out to 2090. The model has been populated with assumptions that are specific to the State of Alaska. |  |  |  |
|  |  |  |  |  |
| Aging Factors* | Age | Medical | Prescription Drugs |  |
|  | 0-44 | 2.0\% | 4.5\% |  |
|  | 45-54 | 2.5\% | 3.5\% |  |
|  | 55-64 | 3.5\% | 3.0\% |  |
|  | 65-74 | 4.0\% | 1.5\% |  |
|  | 75-84 | 1.5\% | 0.5\% |  |
|  | 85-95 | 0.5\% | 0.0\% |  |
|  | 96+ | 0.0\% | 0.0\% |  |
| Note that pre-65 the factor represents the amount to increase from the ages noted to the next age. However post-65, the factor represents the adjustment to get to the ages noted up to age in the range. That is, $2.5 \%$ is used to age from 54 to 55 , but $1.5 \%$ is used to age from 83 to 84 . |  |  |  |  |


| Retired Member Contributions for Medical Benefits | Currently contributions are required for TRS members who are under age 60 and have less than 25 years of service. Eligible Tier 1 members are exempt from contribution requirements. Annual FY17 contributions based on monthly rates shown below for calendar 2016 and 2017 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 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled. For dependent children, we value $1 / 3$ of the annual retiree contribution to estimate the per child rate based upon the assumed number of children in rates where children are covered: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coverage Category | Calendar 2017 <br> Annual Contribution |  | Calendar 2017 Monthly Contribution |  | Calendar 2016 Monthly Contribution |  |
| Retiree Only | \$ | 9,324 | \$ | 777 | \$ | 777 |
| Retiree and Spouse | \$ | 18,648 | \$ | 1,554 | \$ | 1,554 |
| Retiree and Child(ren) | \$ | 13,164 | \$ | 1,097 | \$ | 1,097 |
| Retiree and Family | \$ | 22,500 | \$ | 1,875 | \$ | 1,875 |
| Composite | \$ | 13,848 | \$ | 1,154 | \$ | 1,154 |

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, $6.2 \%$ is applied to the FY17 retired member medical contributions to get the FY18 retired member medical contributions.

| Trend Assumptions |  |
| :--- | :--- |
| FY17 | $6.2 \%$ |
| FY18 | $5.8 \%$ |
| FY19 | $5.4 \%$ |
| FY20 | $5.0 \%$ |
| FY21 | $4.7 \%$ |
| FY22 | $4.4 \%$ |
| FY26 | $4.1 \%$ |
| FY51 | $4.0 \%$ |
| FY101 | $4.0 \%$ |

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2014 valuation. Note that actual FY17 retired member medical contributions are reflected in the valuation so trend on such contribution during FY17 is not applicable.
$100 \%$ of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. $10 \%$ of nonsystem paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

Table 1
Alaska TRS
Salary Scale

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

Table 2
Alaska TRS
Mortality Table (Pre-termination)

| Age | Male | Female | Age | Male | Female |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 0.000182 | 0.000098 | 53 | 0.001295 | 0.000855 |
| 21 | 0.000191 | 0.000101 | 54 | 0.001483 | 0.000908 |
| 22 | 0.000200 | 0.000104 | 55 | 0.001615 | 0.000985 |
| 23 | 0.000209 | 0.000105 | 56 | 0.001766 | 0.001054 |
| 24 | 0.000216 | 0.000105 | 57 | 0.001901 | 0.001132 |
| 25 | 0.000222 | 0.000106 | 58 | 0.002117 | 0.001221 |
| 26 | 0.000226 | 0.000107 | 59 | 0.002409 | 0.001344 |
| 27 | 0.000228 | 0.000109 | 60 | 0.002643 | 0.001501 |
| 28 | 0.000228 | 0.000111 | 61 | 0.002917 | 0.001659 |
| 29 | 0.000229 | 0.000114 | 62 | 0.003229 | 0.001837 |
| 30 | 0.000231 | 0.000118 | 63 | 0.003599 | 0.002080 |
| 31 | 0.000238 | 0.000123 | 64 | 0.004021 | 0.002367 |
| 32 | 0.000249 | 0.000130 | 65 | 0.004504 | 0.002723 |
| 33 | 0.000269 | 0.000137 | 66 | 0.005057 | 0.003118 |
| 34 | 0.000302 | 0.000146 | 67 | 0.005594 | 0.003582 |
| 35 | 0.000340 | 0.000169 | 68 | 0.006202 | 0.004036 |
| 36 | 0.000382 | 0.000193 | 69 | 0.007017 | 0.004546 |
| 37 | 0.000425 | 0.000217 | 70 | 0.007828 | 0.005130 |
| 38 | 0.000468 | 0.000240 | 71 | 0.008702 | 0.005696 |
| 39 | 0.000509 | 0.000262 | 72 | 0.009643 | 0.006297 |
| 40 | 0.000547 | 0.000283 | 73 | 0.010813 | 0.006959 |
| 41 | 0.000584 | 0.000305 | 74 | 0.011964 | 0.007841 |
| 42 | 0.000618 | 0.000330 | 75 | 0.013285 | 0.008701 |
| 43 | 0.000653 | 0.000357 | 76 | 0.014797 | 0.009678 |
| 44 | 0.000692 | 0.000389 | 77 | 0.016508 | 0.010757 |
| 45 | 0.000736 | 0.000427 | 78 | 0.018423 | 0.011923 |
| 46 | 0.000787 | 0.000470 | 79 | 0.020534 | 0.013163 |
| 47 | 0.000846 | 0.000517 | 80 | 0.022841 | 0.014502 |
| 48 | 0.000913 | 0.000567 | 81 | 0.025382 | 0.015972 |
| 49 | 0.000979 | 0.000620 | 82 | 0.028208 | 0.017607 |
| 50 | 0.001050 | 0.000674 | 83 | 0.031344 | 0.019438 |
| 51 | 0.001126 | 0.000731 | 84 | 0.035081 | 0.021486 |
| 52 | 0.001208 | 0.000791 | 85 | 0.039193 | 0.023782 |
|  |  |  |  |  |  |

Table 3
Alaska TRS
Mortality Table (Post-termination)

| Age | Male | Female | Age | Male | Female |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 0.001544 | 0.001124 | 85 | 0.057637 | 0.039636 |
| 51 | 0.001656 | 0.001219 | 86 | 0.064248 | 0.043940 |
| 52 | 0.001777 | 0.001318 | 87 | 0.072770 | 0.048789 |
| 53 | 0.001904 | 0.001424 | 88 | 0.082264 | 0.054261 |
| 54 | 0.002181 | 0.001513 | 89 | 0.092884 | 0.060450 |
| 55 | 0.002375 | 0.001641 | 90 | 0.104794 | 0.068659 |
| 56 | 0.002597 | 0.001756 | 91 | 0.118129 | 0.077983 |
| 57 | 0.002795 | 0.001887 | 92 | 0.132941 | 0.088452 |
| 58 | 0.003113 | 0.002035 | 93 | 0.149196 | 0.100021 |
| 59 | 0.003543 | 0.002240 | 94 | 0.165479 | 0.112560 |
| 60 | 0.003887 | 0.002501 | 95 | 0.182705 | 0.125866 |
| 61 | 0.004289 | 0.002765 | 96 | 0.200693 | 0.139699 |
| 62 | 0.004749 | 0.003062 | 97 | 0.219249 | 0.153813 |
| 63 | 0.005293 | 0.003466 | 98 | 0.233940 | 0.164973 |
| 64 | 0.005913 | 0.003946 | 99 | 0.252821 | 0.178741 |
| 65 | 0.006624 | 0.004538 | 100 | 0.267022 | 0.188730 |
| 66 | 0.007436 | 0.005196 | 101 | 0.285888 | 0.201393 |
| 67 | 0.008227 | 0.005970 | 102 | 0.299408 | 0.209540 |
| 68 | 0.009121 | 0.006727 | 103 | 0.318102 | 0.220440 |
| 69 | 0.010318 | 0.007576 | 104 | 0.331094 | 0.226232 |
| 70 | 0.011511 | 0.008550 | 105 | 0.349384 | 0.237489 |
| 71 | 0.012798 | 0.009494 | 106 | 0.360058 | 0.246863 |
| 72 | 0.014180 | 0.010494 | 107 | 0.368483 | 0.258063 |
| 73 | 0.015902 | 0.011599 | 108 | 0.374013 | 0.270683 |
| 74 | 0.017595 | 0.013068 | 109 | 0.376000 | 0.284323 |
| 75 | 0.019536 | 0.014502 | 110 | 0.376000 | 0.298577 |
| 76 | 0.021760 | 0.016130 | 111 | 0.376000 | 0.313043 |
| 77 | 0.024276 | 0.017929 | 112 | 0.376000 | 0.327318 |
| 78 | 0.027093 | 0.019871 | 113 | 0.376000 | 0.340998 |
| 79 | 0.030198 | 0.021938 | 114 | 0.376000 | 0.353678 |
| 80 | 0.033590 | 0.024170 | 115 | 0.376000 | 0.364959 |
| 81 | 0.037326 | 0.026620 | 116 | 0.376000 | 0.374435 |
| 82 | 0.041482 | 0.029345 | 117 | 0.376000 | 0.381702 |
| 83 | 0.046095 | 0.032397 | 118 | 0.376000 | 0.386359 |
| 84 | 0.051589 | 0.035811 | 119 | 0.376000 | 0.388000 |

Table 4
Alaska TRS
Turnover Assumptions
Select Rates of Turnover During the First 8 Years of Employment

| Service | Male | Female |
| :---: | :---: | :---: |
| 0 | 0.204 | 0.170 |
| 1 | 0.204 | 0.170 |
| 2 | 0.168 | 0.140 |
| 3 | 0.144 | 0.120 |
| 4 | 0.120 | 0.100 |
| 5 | 0.108 | 0.090 |
| 6 | 0.090 | 0.075 |
| 7 | 0.072 | 0.060 |

Ultimate Rates of Turnover After the First 8 Years of Employment

| Age | Male | Female | Age | Male | Female |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | 0.031209 | 0.037185 | 40 | 0.030159 | 0.036224 |
| 16 | 0.031170 | 0.037157 | 41 | 0.030085 | 0.036155 |
| 17 | 0.031138 | 0.037138 | 42 | 0.030010 | 0.036086 |
| 18 | 0.031107 | 0.037129 | 43 | 0.029866 | 0.035976 |
| 19 | 0.031091 | 0.037120 | 44 | 0.029721 | 0.035867 |
|  |  |  |  |  |  |
| 20 | 0.030847 | 0.036848 | 45 | 0.029577 | 0.035757 |
| 21 | 0.030831 | 0.036848 | 46 | 0.029432 | 0.035648 |
| 22 | 0.030799 | 0.036839 | 47 | 0.029288 | 0.035538 |
| 23 | 0.030776 | 0.036839 | 48 | 0.029046 | 0.035380 |
| 24 | 0.030736 | 0.036830 | 49 | 0.028805 | 0.035221 |
|  |  |  |  |  |  |
| 25 | 0.030705 | 0.036830 | 50 | 0.028563 | 0.035063 |
| 26 | 0.030673 | 0.036820 | 51 | 0.028248 | 0.034847 |
| 27 | 0.030642 | 0.036762 | 52 | 0.027878 | 0.034595 |
| 28 | 0.030610 | 0.041480 | 53 | 0.027468 | 0.034296 |
| 29 | 0.030579 | 0.046198 | 54 | 0.046305 | 0.059961 |
|  |  |  |  |  |  |
| 30 | 0.030555 | 0.050917 | 55 | 0.045414 | 0.059285 |
| 31 | 0.030540 | 0.055635 | 56 | 0.044334 | 0.058410 |
| 32 | 0.030516 | 0.060353 | 57 | 0.043012 | 0.057288 |
| 33 | 0.030500 | 0.055569 | 58 | 0.041567 | 0.056018 |
| 34 | 0.030455 | 0.050784 | 59 | 0.039826 | 0.054401 |
|  |  |  |  |  |  |
| 35 | 0.030431 | 0.046000 | 60 | 0.037868 | 0.052569 |
| 36 | 0.030407 | 0.041215 | 61 | 0.035694 | 0.050523 |
| 37 | 0.030383 | 0.036431 | 62 | 0.033170 | 0.048197 |
| 38 | 0.030308 | 0.036362 | 63 | 0.030294 | 0.045540 |
| 39 | 0.030234 | 0.036293 | 64 | 0.027176 | 0.042653 |
|  |  |  |  |  |  |
|  |  |  | $65+$ | 0.054000 | 0.066000 |
|  |  |  |  |  |  |

Table 5
Alaska TRS
Disability Table

| Age | Unisex |
| :---: | :---: |
| 20 | 0.000560 |
| 21 | 0.000563 |
| 22 | 0.000565 |
| 23 | 0.000574 |
| 24 | 0.000583 |
| 25 | 0.000593 |
| 26 | 0.000602 |
| 27 | 0.000611 |
| 28 | 0.000611 |
| 29 | 0.000612 |
| 30 | 0.000612 |
| 31 | 0.000613 |
| 32 | 0.000613 |
| 33 | 0.000622 |
| 34 | 0.000631 |
| 35 | 0.000641 |
| 36 | 0.000650 |
| 37 | 0.000659 |
| 38 | 0.000674 |
| 39 | 0.000689 |
| 40 | 0.000703 |
| 41 | 0.000718 |
| 42 | 0.000733 |
| 43 | 0.000770 |
| 44 | 0.000806 |
| 45 | 0.000843 |
| 46 | 0.000879 |
| 47 | 0.000916 |
| 48 | 0.000975 |
| 49 | 0.001034 |
| 50 | 0.001093 |
| 51 | 0.001152 |
| 52 | 0.001211 |
| 53 | 0.001356 |
| 54 | 0.001501 |

Table 6
Alaska TRS

## Retirement Table

|  |  | Unreduced |  |
| :---: | :---: | :---: | :---: |
| Age | Reduced | Misex | Male | Female

Table 7
Alaska TRS
Disabled Mortality Rates

| Age | Male | Female | Age | Male | Female |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\leq 45$ | 0.0214 | 0.0071 | 80 | 0.0833 | 0.0582 |
| 46 | 0.0226 | 0.0078 | 81 | 0.0880 | 0.0621 |
| 47 | 0.0238 | 0.0085 | 82 | 0.0928 | 0.0662 |
| 48 | 0.0250 | 0.0093 | 83 | 0.0978 | 0.0707 |
| 49 | 0.0262 | 0.0101 | 84 | 0.1028 | 0.0755 |
| 50 | 0.0275 | 0.0109 | 85 | 0.1079 | 0.0806 |
| 51 | 0.0287 | 0.0118 | 86 | 0.1130 | 0.0862 |
| 52 | 0.0299 | 0.0127 | 87 | 0.1204 | 0.0921 |
| 53 | 0.0311 | 0.0137 | 88 | 0.1282 | 0.0985 |
| 54 | 0.0324 | 0.0144 | 89 | 0.1362 | 0.1054 |
| 55 | 0.0336 | 0.0151 | 90 | 0.1503 | 0.1148 |
| 56 | 0.0348 | 0.0158 | 91 | 0.1667 | 0.1249 |
| 57 | 0.0354 | 0.0164 | 92 | 0.1841 | 0.1359 |
| 58 | 0.0359 | 0.0171 | 93 | 0.2022 | 0.1475 |
| 59 | 0.0365 | 0.0176 | 94 | 0.2209 | 0.1611 |
| 60 | 0.0370 | 0.0182 | 95 | 0.2400 | 0.1745 |
| 61 | 0.0376 | 0.0188 | 96 | 0.2594 | 0.1877 |
| 62 | 0.0382 | 0.0194 | 97 | 0.2790 | 0.2003 |
| 63 | 0.0389 | 0.0204 | 98 | 0.2934 | 0.2084 |
| 64 | 0.0396 | 0.0214 | 99 | 0.3128 | 0.2192 |
| 65 | 0.0404 | 0.0226 | 100 | 0.3264 | 0.2250 |
| 66 | 0.0413 | 0.0238 | 101 | 0.3459 | 0.2362 |
| 67 | 0.0422 | 0.0252 | 102 | 0.3585 | 0.2455 |
| 68 | 0.0434 | 0.0267 | 103 | 0.3762 | 0.2613 |
| 69 | 0.0454 | 0.0284 | 104 | 0.3850 | 0.2741 |
| 70 | 0.0477 | 0.0303 | 105 | 0.3979 | 0.2931 |
| 71 | 0.0502 | 0.0323 | 106 | 0.4000 | 0.3078 |
| 72 | 0.0529 | 0.0345 | 107 | 0.4000 | 0.3227 |
| 73 | 0.0558 | 0.0368 | 108 | 0.4000 | 0.3374 |
| 74 | 0.0591 | 0.0393 | 109 | 0.4000 | 0.3515 |
| 75 | 0.0625 | 0.0420 | 110 | 0.4000 | 0.3646 |
| 76 | 0.0662 | 0.0449 | 111 | 0.4000 | 0.3762 |
| 77 | 0.0702 | 0.0479 | 112 | 0.4000 | 0.3860 |
| 78 | 0.0744 | 0.0511 | 113 | 0.4000 | 0.3935 |
| 79 | 0.0788 | 0.0546 | 114 | 0.4000 | 0.3983 |
|  |  |  | 115+ | 0.4000 | 0.4000 |

## Changes in Actuarial Assumptions Since the Prior Valuation

There have been no changes in actuarial assumptions since the prior valuation.

## Section 3 - Summary of Plan Provisions

## 1. Effective Date

July 1, 1955, with amendments through June 30, 2016. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the TRS before July 1, 1990 (Tier 1) are eligible for different benefits than members hired after June 30, 1990 (Tier 2). 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 Teachers' 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 TRS funds.

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

## 3. Employers Included

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

## 4. Membership

Membership in the Alaska TRS is mandatory for the following employees hired before July 1, 2006:

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- positions requiring a teaching certificate as a condition of employment in the Department of Education and Early Development and the Department of Labor and Workforce Development;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator;
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under the TRS;
- members on approved sabbatical leave under AS 14.20.310;
- certain State legislators who have elected to be covered under the TRS; and
- a teacher who has filed for worker's compensation benefits due to an on-the-job assault and who, as a result of the physical injury, is placed on leave without pay.

Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by the TRS.

Employees who work half-time in the TRS and Public Employees' Retirement System (PERS) simultaneously are eligible for half-time TRS and PERS 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

TRS members receive a year of membership credit if they work a minimum of 172 days during the school year (July 1 through June 30 of the following year). Fractional credit is determined based on the number of days worked. Part-time members who work at least $50 \%$ of full-time receive membership credit for each day in proportion to full-time service. Credit is granted for all Alaskan public school service.

Members may claim other types of service, including:

- Outside teaching service in out-of-state schools or Alaska private schools (not more than ten years may be claimed);
- Military service (not more than five years of military service or ten years of combined outside and military service may be claimed);
- Alaska Bureau of Indian Affairs (BIA) service;
- Retroactive Alaskan service that was not creditable at the time it occurred, but later became creditable because of legislative change;
- Unused sick leave credit after members retire; and
- Leave of absence without pay.

Except for retroactive Alaska service that occurred before July 1, 1955, and unused sick leave, contributions are required for all claimed service.

Members receiving TRS disability benefits continue to earn TRS credit while disabled.
Survivors who are receiving occupational death benefits continue to earn TRS service credit while occupational survivor benefits are being paid.

## 6. Employer Contributions

TRS 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 payroll amount over a closed 25 -year period starting June 30, 2014.

Employer rates cannot be less than the normal cost rate.

## 7. Additional State Contribution

Pursuant to AS14.25.070 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 (12.56\%) will be sufficient to pay the total contribution rate adopted by The State of Alaska Retirement Management Board.

## 8. Member Contributions

Mandatory Contributions: Members are required to contribute $8.65 \%$ of their base salaries. Members' contributions are deducted from gross salaries before federal income taxes are withheld.

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

1\% Supplemental Contributions: Members who joined the system before July 1, 1982 and elected to participate in the supplemental contributions provision are required to contribute an additional $1 \%$ of their salaries. Supplemental contributions are deducted from gross salaries after federal income taxes are withheld. Under the supplemental provision, an eligible spouse or dependent child will receive a survivor's allowance or spouse's pension if the member dies (see (13) below). Supplemental contributions are only refundable upon death (see (13) below).

Interest: Members' contributions earn 4.5\% interest, compounded annually on June 30.
Refund of Contributions: Terminated members may receive refunds of their member contribution accounts which includes their mandatory 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 TRS service may be reinstated upon reemployment in the TRS 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, 1990 (Tier 1) and age 60 or early retirement at age 55 if they were hired on or after July 1, 1990 (Tier 2). Additionally, they must have at least:
(i) eight years of paid-up membership service;
(ii) 15 years of paid-up creditable service, the last five years of which are membership service, and they were first hired under the TRS before July 1, 1975;
(iii) five years of paid-up membership service and three years of paid-up Alaska Bureau of Indian Affairs service;
(iv) 12 years of combined part-time and full-time paid-up membership service;
(v) two years of paid-up membership service if they are vested in the Public Employees' Retirement System (PERS); or
(vi) one year of paid-up membership service if they are retired from the PERS.
b. Members may retire at any age when they have:
(i) 25 years of paid-up creditable service, the last five years of which are membership service;
(ii) 20 years of paid-up membership service;
(iii) 20 years of combined paid-up membership and Alaska Bureau of Indian Affairs service, the last five years of which are membership service; or
(iv) 20 years of combined paid-up part-time and full-time membership 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 to retire at any age under (b) above. Members may receive early, actuarially reduced benefits when they reach early retirement age and complete the service required.

Members may select joint and survivor options and a last survivor option. Under those options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

Benefit Calculation: Retirement benefits are calculated by multiplying the average base salary (ABS) times the total TRS service times the percentage multiplier. The ABS is determined by averaging the salaries earned during the three highest school years. Members must earn at least 115 days of credit in a school year to include it in the ABS calculation. The TRS pays a minimum benefit of $\$ 25.00$ per month for each year of service when the calculated benefit is less.

The percentage multipliers are $2 \%$ for the first 20 years and $2.5 \%$ for all remaining service. Service before July 1, 1990 is calculated at $2 \%$.

Indebtedness: Members who terminate and refund their TRS contributions are not eligible to retire unless they return to TRS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. TRS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded TRS service is included in total service for the purpose of calculating retirement benefits. However, 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

Retirees who return to work in a permanent full-time or part-time TRS position after a Normal Retirement are eligible to return under the Standard Option.

Under the Standard Option, retirement and retiree healthcare benefits are suspended while retired members are reemployed under the TRS. During reemployment, members earn additional TRS service and contributions are withheld from their wages.

Members retired under the RIP who return to employment under the TRS, Public Employees' Retirement System (PERS), Judicial Retirement System (JRS) or the University of Alaska's Optional Retirement Plan will:
a. forfeit the three years of incentive credits that they received;
b. owe the TRS $110 \%$ of the benefits that they received under the RIP, which may include costs for health insurance, excluding amounts that they paid to participate; 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

When pension benefits begin, major medical benefits are provided by the TRS to (1) all employees first hired before July 1, 1990 (Tier 1) and their surviving spouses and (2) members and their surviving spouses who have twenty-five years of membership service, are disabled or age sixty or older, regardless of their initial hire dates. Employees first hired after June 30, 1990 (Tier 2) and their surviving spouses may receive major medical benefits prior to age sixty by paying premiums.

Medical, prescription drug, dental, vision and audio coverage is provided through the AlaskaCare Retiree Health Plan. Health plan provisions do not vary by retirement tier or age, except for Medicare coordination. Participants in dental, vision, and audio coverage pay a full self-supporting rate and those benefits are not included in this valuation.

Surviving spouses continue coverage only if a pension payment form that provided survivor benefits was elected. Alternate payees (i.e. individuals who are the subject of a domestic relations order or DRO) are allowed to participate in the plan, but must pay the full cost. For individuals included in the pension data expecting a future pension, we valued health benefits starting at the same point that the pension benefit is assumed to start.

Where premiums are required prior to age 60 (Tier 2), the valuation bases this payment upon the age of the retiree.

Participants in the defined benefit plan are covered under the following benefit design:

| Plan Feature | Amounts |
| :--- | :---: |
| Deductible (single/family) | $\$ 150 / \$ 450$ |
| Coinsurance - most services | $20 \%$ |
| Outpatient surgery/testing | $0 \%$ |
| Maximum Out-of-Pocket (single/family, excl. deductible) | $\$ 800 / \$ 2,400$ |
| Rx Copays (generic/ brand/mail-order), does not apply to OOP max | $\$ 4 / \$ 8 / \$ 0$ |
| Lifetime Maximum | $\$ 2,000,000$ |

The plan coordinates with Medicare on a traditional Coordination of Benefits Method.

## 12. Disability Benefits

Monthly disability benefits are paid to permanently disabled members until they die, recover or become eligible for normal retirement. To be eligible, members must have at least five years of paid-up membership service.

Disability benefits are equal to $50 \%$ of the member's base salary at the time of disability. The benefit is increased by $10 \%$ of the base salary for each minor child, up to a maximum of $40 \%$. Members continue to earn TRS service until eligible for normal retirement.

Members are appointed to normal retirement on the first of the month after they become eligible.

## 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 supplemental contributions provision or occupational and nonoccupational death provisions, the designated beneficiary receives the lump sum benefit described below.

Occupational Death: When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse, unless benefits are payable under the supplemental contributions provision (below). The pension equals $40 \%$ of the member's base salary 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 average base salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date.

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, unless benefits are payable under the supplemental contributions provision (below). The monthly benefit is calculated on the member's average base salary and TRS service accrued at the time of death.

Lump Sum Benefit: Upon the death of an active member who has less than one year of service or an inactive member who is not vested, the designated beneficiary receives the member's contribution account, which includes mandatory contributions, indebtedness payments, and interest earned. Any supplemental contributions will also be refunded. If the member has more than one year of TRS service or is vested, the beneficiary also receives
$\$ 1,000$ and $\$ 100$ for each year of TRS service, up to a maximum of $\$ 3,000$. An additional $\$ 500$ may be payable if the member is survived by dependent children.

Supplemental Contributions Provision: Members are eligible for supplemental coverage if they joined the TRS before July 1, 1982, elected to participate in the supplemental provision, and made the required contributions. A survivor's allowance or spouse's pension (below) may be payable if the member made supplemental contributions for at least one year and dies while in membership service or while disabled under the TRS. In addition, the allowance and pension may be payable if the member dies while retired or in deferred vested status if supplemental contributions were made for at least five years.
a. Survivor's Allowance: If the member is survived by dependent children, the surviving spouse and dependent children are entitled to a survivor's allowance. The allowance for the spouse is equal to $35 \%$ of the member's base salary at the time of death or disability, plus $10 \%$ for each dependent child up to a maximum of $40 \%$. The allowance terminates and a spouse's pension becomes payable when there is no longer an eligible dependent child.
b. Spouse's Pension: The spouse's pension is equal to $50 \%$ of the retirement benefit that the deceased member was receiving or the unreduced retirement benefit that the deceased member would have received if retired at the time of death. The spouse's pension begins on the first of the month after the member's death or termination of the survivor's allowance.
c. Death After Retirement: If a joint and survivor option was selected at retirement, the eligible spouse receives continuing, lifetime monthly benefits after the member dies. A survivor's allowance or spouse's pension may be payable if the member participated in the supplemental contributions provision. If a joint and survivor option was not selected and benefits are not payable under the supplemental contributions provision, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check.

## 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 TRS 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 under age 60 if the recipient has been receiving benefits for at least eight years.

Ad hoc PRPAs, up to a maximum of $4 \%$, may be granted to eligible recipients who were first hired before July 1, 1990 (Tier 1) if the CPI increases and the funded 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. The following benefit recipients are eligible:
a. members who were first hired under the TRS before July 1, 1990 (Tier 1) and their survivors;
b. members who were first hired under the TRS after June 30, 1990 (Tier 2) and their survivors if they are at least age 65; and
c. all disabled members.

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

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

## APPENDIX

State of Alaska Teachers' Retirement System
Schedule A-Employers' Allocation of Net OPEB Liability as of $6 / 30 / 2016$

| Employer Number | Employer Name | FY2016 <br> Present Value of Future Contributions | Employer Proportion | $\begin{gathered} \text { Total } \\ \text { OPBE } \\ \text { Liability } \end{gathered}$ | Plan Fiduciary Net Position | $\begin{gathered} \text { Net } \\ \text { OPB } \\ \text { Liability } \end{gathered}$ | $\begin{array}{r} \text { Total } \\ \text { Deferred } \\ \text { Outilows } \end{array}$ | $\begin{array}{r} \text { Total } \\ \text { Deferred } \\ \text { Inflows } \end{array}$ | Net Position as \% of Total Liability | Covered Payroll |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 701 | ANCHORAGE SD | 118,847,000 | 15.72127\% | 445,347,951 | 396,738,878 | 48,609,073 |  |  |  |  |  |
| 704 | CORDOVA CITY SD | 806,000 | 0.10662\% | 3,020,274 | 2,690,615 | ${ }^{329,658}$ | : | - |  |  |  |
| 705 | CRAIG CITY SD | 978,000 | 0.12937\% | 3,664,798 | 3,264,791 | 400,007 |  |  |  |  |  |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | 34,690,000 | 4.58885\% | 129,991,673 | 115,803,274 | 14,188,400 |  |  |  |  |  |
| 707 | HAINES BOROUGH SD | 690,000 | 0.09127\% | 2,585,594 | 2,303,380 | 282,214 | - | - |  |  |  |
| 708 | HOONAH CITY SD | 370,000 | 0.04894\% | 1,386,478 | 1,235,146 | 151,332 | - | - |  |  |  |
| 709 | HYDABURG CITY SD | 198,000 | 0.02619\% | $\begin{array}{r}741,953 \\ \hline\end{array}$ | -660,970 | 80,983 | : | - |  |  |  |
| 710 712 | JUNEAU BOROUGH SD | 12,510,000 | 1.65484\% | $46,877,943$ $1,637.543$ | $41,761,284$ $1,458,807$ | 5,116,658 | - | $:$ |  |  |  |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | 6,322,000 | 0.83628\% | 23,690,036 | 21,104,304 | 2,585,733 |  |  |  |  |  |
| 717 | KLAWOCK CITY SD | 522,000 | 0.06905\% | 1,956,058 | 1,742,557 | 213,501 | - | - |  |  |  |
| 718 | KODIAK ISLAND BOROUGH SD | 5,930,000 | 0.78443\% | 22,221,119 | 19,795,717 | 2,425,402 | - |  |  |  |  |
| 719 | NENANA CITY SD | 956,000 | 0.12646\% | 3,582,359 | 3,191,350 | 391,009 |  | - |  |  |  |
| 720 | NOME CITY SD | 2,096,000 | 0.27726\% | 7,854,210 | 6,996,935 | 857,275 | - | - |  |  |  |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | 43,268,000 | 5.72356\% | 162,135,478 | 144,438,629 | 17,696,849 | - | - |  |  |  |
| 723 | PELICAN CITY SD | 24,000 | 0.00317\% | 89,934 | ${ }_{4}^{80,118}$ | 9,816 | - | - |  |  |  |
| 724 | PETERSBURG CITY SD | 1,363,000 | 0.18030\% | 5,107,485 | 4,550,010 | 557,474 | - |  |  |  |  |
| 727 | SITKA BOROUGH SD | 3,925,000 | 0.51921\% | 14,707,908 | 13,102,561 | 1,605,346 |  |  |  |  |  |
| 728 | SKAGWAY CITY SD UNALASKA | 374,000 | 0.04947\% | 1,401,467 | 1,248,499 | ${ }^{152,968}$ | - | - |  |  |  |
| 729 730 | UNALASKA CITY SD VALDEZ CITY SD | $1,302,000$ $2,035,000$ | 0.17223\% $0.26919 \%$ | 4,878,903 $7,625,629$ | 4,346,378 $6,793,302$ | 532,525 832,326 | $:$ | $:$ |  |  |  |
| 730 731 | WALDEZ CITY SD | $2,035,000$ 789,000 | 0.26919\% 0 | 7,625,629 $2,956,570$ | 6,793,302 $2,633,865$ | 832,326 322,705 | $:$ | - |  |  |  |
| 732 | YAKUTAT SD | 260,000 | 0.03439\% | 974,282 | 867,940 | 106,341 | - | - |  |  |  |
| ${ }_{733}$ | UNIVERSITY OF ALASKA | 16,112,000 | 2.13132\% | 60,375,493 | 53,785,597 | 6,589,896 | - | - |  |  |  |
| 735 | GALENA CITY SD | 2,307,000 | 0.30517\% | 8,644,877 | 7,701,302 | ${ }^{943,576}$ | - |  |  |  |  |
| ${ }_{737} 73$ | NORTH SLOPE BOROUGH SD | 6,817,000 | 0.90176\% | 25,544,919 | 22,756,729 | 2,788,190 | - |  |  |  |  |
| 737 742 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) BRISTOL BAY BOROUGH SD | 5,643,000 | 0.74647\% $0.04405 \%$ | $21,145,662$ $1,247,830$ | $18,837,644$ $1,111,631$ | $2,308,018$ 136,199 | - | $\div$ |  |  |  |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | 238,000 | 0.03148\% | -891,843 | 794,499 | 97,343 | - |  |  |  |  |
| 744 | DILLINGHAM CITY SD | 1,622,000 | 0.21456\% | 6,078,019 | 5,414,613 | 663,407 |  |  |  |  |  |
| 746 | KENAI PENINSULA BOROUGH SD | 23,219,000 | 3.07145\% | 87,007,111 | 77,510,413 | 9,496,698 | - |  |  |  |  |
| 748 | SAINT MARY'S SD | 450,000 | 0.05953\% | 1,686,257 | 1,502,204 | 184,052 | - | - |  |  |  |
| 751 | NORTHWEST ARCTIC BOROUGH SD | 6,212,000 | 0.82173\% | 23,277,840 | 20,737,098 | 2,540,742 |  |  |  |  |  |
| ${ }_{752}$ | BERING STRAIT SD | 6,322,000 | 0.83628\%\% | ${ }^{23,699,036}$ | 21,104,304 | 2,585,733 | : | $:$ |  |  |  |
| 753 754 | LOWER YUKON SD LOWER KUSKOKWIM SD | $6,045,000$ $11,667,000$ | 0.79964\% | 22,652,051 $43,719,021$ | 20,179,613 $38,947,155$ | 2,472,438 $4,771,867$ | : | $:$ |  |  |  |
| 755 | KUSPUK SD | $1,667,000$ $1,424,00$ | 0.18837\% | $43,739,026$ 5,361 | - ${ }_{4,753,643}$ | - ${ }_{582,724}$ | $:$ | $:$ |  |  |  |
| 756 | SOUTHWEST REGION SD | 2,006,000 | 0.26536\% | 7,516,959 | 6,696,494 | 820,465 |  | - |  |  |  |
| 757 | LAKE AND PENINSULA BOROUGH SD | 1,628,000 | 0.21535\% | 6,100,503 | 5,434,642 | 665,861 | - | - |  |  |  |
| ${ }_{758} 7$ | ALEUTIAN REGION SD | 131,000 | 0.01733\% | 490,888 | 437,308 | 53,580 | - | - |  |  |  |
| 759 | PRIBILIOF SD | 202,000 | 0.02672\% | 756,942 | 674,323 | 82,619 | - | - |  |  |  |
| 761 | IDITAROD AREA SD | 982,000 | 0.12990\% | 3,679,787 | $3,278,144$ 748765 | 401,643 917399 | - | - |  |  |  |
| 762 763 | YUKON / KOYUKUK SD YUKON FLATS SD | $2,243,000$ 970,000 | $0.29671 \%$ $0.12831 \%$ | 8,405,054 $3,634,821$ | $7,487,655$ $3,238,085$ | 917,399 396,735 | : | $:$ |  |  |  |
| 764 | denali borough sd | 866,000 | 0.11456\% | 3,245,108 | 2,890,909 | 354,199 | - |  |  |  |  |
| 765 | DELTA/GREELY SD | 1,764,000 | 0.23334\% | 6,610,127 | 5,888,642 | 721,486 |  | - |  |  |  |
| 766 | ALASKA GATEWAY SD | 1,240,000 | 0.16403\% | 4,646,575 | 4,139,408 | 507,167 | - | - |  |  |  |
| 767 | COPPER RIVER SD | ${ }^{960,000}$ | 0.12699\% | 3,597,348 | 3,204,703 | 392,645 | - |  |  |  |  |
| 768 | CHATHAM SD | 538,000 | 0.07117\% | 2,016,014 | 1,795,969 | 220,045 | - | - |  |  |  |
| 769 | SOUTHEAST ISLAND SD | 824,000 | 0.10900\% | 3,087,724 | 2,750,703 | 337,001 | - |  |  |  |  |
| 770 771 | ANNETTE ISLAND SD CHUGACH | $1,174,000$ 650,000 | 0.15530\% $0.08598 \%$ | 4,399,257 $2,435,704$ | $3,999,085$ $2,169,851$ | 480,172 265,854 | - | $:$ |  |  |  |
| 775 | TANANA SD | 158,000 | 0.02090\% | 592,064 | 527,441 | 64,623 | - | - |  |  |  |
| 777 | KASHUNAMIUT SD | 871,000 | 0.11522\% | 3,263,844 | 2,907,600 | 356,244 |  |  |  |  |  |
| 778 | YUPIIT SD | 1,493,000 | 0.19750\% | 5,594,626 | 4,983,981 | 610,645 | - | - |  |  |  |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | 399,000 | 0.05278\% | 1,495,148 | 1,331,955 | 163,193 | , | - |  |  |  |
| 780 | ALEUTIANS EAST BOROUGH SD | 979,000 | 0.12950\% | 3,668,546 | 3,268,129 | 400,416 | - | - |  |  |  |
| Subtotal |  | 347,181,000 | 45.92566\% | 1,300,969,707 | 1,158,970,780 | 141,998,927 | - | - |  |  |  |
| Nonemployer: <br> 999 | STATE OF ALASKA | 408,782,000 | 54.07434\% | 1,531,803,293 | 1,364,609,220 | 167,194,073 | - | - |  |  |  |
| Total |  | 755,963,000 | 100.00000\% | 2,832,773,000 | 2,523,580,000 | 309,193,000 | - | - | 89.09\% | 473,734,000 | 65.27\% |

## State of Alaska Teachers' Retirement System Schedule A-Employers' Allocation of Net OPEB Liability as of $6 / 30 / 2016$



State of Alaska Teachers' Retirement System
Schedule B-Employers' Allocation of Net OPEB Liability as of 6/30/2017

*Same as FY 16 for certain employers who have zero present value of future contributions. All other employers are allocated the remaining $99.99683 \%$ based on present value of tuture contributions.

State of Alaska Teachers' Retirement System
Schedule B-Employers' Allocation of Net OPEB Liability as of $6 / 30 / 2017$

*Same as FY16 for certain employers who have zero present value of future contributions. All

| Employer Number | Employer Name |
| :---: | :---: |
| 701 | ANCHORAGE SD |
| 704 | CORDOVA CITY SD |
| 705 | CRAIG CITY SD |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD |
| 707 | HAINES BOROUGH SD |
| 708 | HOONAH CITY SD |
| 709 | HYDABURG CITY SD |
| 710 | JUNEAU BOROUGH SD |
| 712 | KAKE CITY SD |
| 714 | KETCHIKAN GATEWAY BOROUGH SD |
| 717 | KLAWOCK CITY SD |
| 718 | KODIAK ISLAND BOROUGH SD |
| 719 | NENANA CITY SD |
| 720 | NOME CITY SD |
| 722 | MATANUSKA-SUSITNA BOROUGH SD |
| 723 | PELICAN CITY SD |
| 724 | PETERSBURG CITY SD |
| 727 | SITKA BOROUGH SD |
| 728 | SKAGWAY CITY SD |
| 729 | UNALASKA CITY SD |
| 730 | VALDEZ CITY SD |
| ${ }^{731}$ | WRANGELL PUBLIC SD |
| 732 | YakUTAT SD |
| 733 | UNIVERSITY OF ALASKA |
| 735 | GALENA CITY SD |
| 736 | NORTH SLOPE BOROUGH SD |
| 737 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) |
| 742 | BRISTOL BAY BOROUGH SD |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER |
| 744 | DILLINGHAM CITY SD |
| 746 | KENAI PENINSULA BOROUGH SD |
| 748 | SAINT MARY'S SD |
| 751 | NORTHWEST ARCTIC BOROUGH SD |
| 752 | BERING STRAIT SD |
| 753 | LOWER YUKON SD |
| 754 | LOWER KUSKOKWIM SD |
| 755 | KUSPUK SD |
| 756 | SOUTHWEST REGION SD |
| 757 | LAKE AND PENINSULA BOROUGH SD |
| 758 | ALEUTIAN REGION SD |
| 759 | PRIBILIOF SD |
| 761 | IdItarod Area sd |
| 762 | YUKON / KOYUKUK SD |
| 763 | YUKON FLATS SD |
| 764 | denali borough sd |
| 765 | DELTA/GREELY SD |
| 766 | ALASKA GATEWAY SD |
| 767 | COPPER RIVER SD |
| 768 | CHATHAM SD |
| 769 | SOUTHEAST ISLAND SD |
| 770 | ANNETTE ISLAND SD |
| 771 | CHUGACH SD |
| 775 | TANANA SD |
| 777 | KASHUNAMIUT SD |
| 778 | YUPIIT SD |
| 779 | SPECIAL EDUCATION SERVICE AGENCY |
| 780 | ALEUTIANS EAST BOROUGH SD |
| Subtotal |  |
| Nonemployer: 999 | STATE OF ALASKA |

*Same as FY 16 for certain employers who have zero present value of future contributions. All other employers are allocated the remaining $99.99688 \%$ based on present value of tuture contributions.

State of Alaska Teachers' Retirement System
Schedule $C$ - Employers' Allocation of OPEB Amounts as of $6 / 30 / 2017$

| Employer Number | Employer Name |
| :---: | :---: |
| 701 | ANCHORAGE SD |
| 704 | CORDOVA CITY SD |
| 705 | CRAIG CITY SD |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD |
| 707 | HAINES BOROUGH SD |
| 708 | HOONAH CITY SD |
| 709 | HYDABURG CITY SD |
| 710 | Juneau borough sd |
| 712 | KAKE CITY SD |
| 714 | KETCHIKAN GATEWAY BOROUGH SD |
| 717 | KLAWOCK CITY SD |
| 718 | KODIAK ISLAND BOROUGH SD |
| 719 | NENANA CITY SD |
| 720 | NOME CITY SD |
| 722 723 | MATANUSKA-SUSITNA BOROUGH SD PELICAN CITY SD |
| 724 | PETERSBURG CITY SD |
| 727 | SITKA BOROUGH SD |
| 728 | SKAGWAY CITY SD |
| 729 | UNALASKA CITY SD |
| 730 | VALDEZ CITY SD |
| 731 | WRANGELL PUBLIC SD |
| 732 | YAKUTAT SD |
| ${ }_{735} 7$ | UNIVERSITY OF ALASKA |
| 735 | GALENA CITY SD |
| 736 | NORTH SLOPE BOROUGH SD |
| 737 742 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) BRISTOL BAY BOROUGH SD |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER |
| 744 | DILLINGHAM CITY SD |
| 746 | KENAI PENINSULA BOROUGH SD |
| 748 | SAINT MARY'S SD |
| 751 | NORTHWEST ARCTIC BOROUGH SD |
| 752 | BERING STRAIT SD |
| 753 | LOWER YUKON SD |
| 754 | LOWER KUSKOKWIM SD |
| 755 | KUSPUK SD |
| 756 | SOUTHWEST REGION SD |
| 757 | LAKE AND PENINSULA BOROUGH SD |
| 758 | ALEUTIAN REGION SD |
| 759 | PRIBILOF SD |
| 761 | IDITAROD AREA SD |
| 762 | YUKON / KOYUKUK SD |
| 763 | YUKON FLATS SD |
| 764 | denali borough sd |
| 765 | DELTA/GREELY SD |
| 766 | ALASKA GATEWAY SD |
| 767 | COPPER RIVER SD |
| 768 | CHATHAM SD |
| 769 | SOUTHEAST ISLAND SD |
| 770 | ANNETTE ISLAND SD |
| 771 | CHUGACH SD |
| 775 | TANANA SD |
| 777 | KASHUNAMIUT SD |
| 778 | YUPIIT SD |
| 779 | SPECIAL EDUCATION SERVICE AGENCY |
| 780 | ALEUTIANS EAST BOROUGH SD |
| Subtotal |  |
| Nonemployer: ${ }_{999}$ |  |
| 999 | STATE OF ALASKA |
| Total |  |

*Same as FY 16 for certain employers who have zero present value of future contributions. All s

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\text { arred Inflows of Resources }}{\text { Difference }}$ |  |  | $\begin{array}{cr} & \text { OPEB Expense Recognized } \\ \text { Proportionate } & \text { Net Amortization of }\end{array}$ |  |  |
| Between |  |  |  |  |  |
| Projected and Actual | Changes in Proportion | Total | Share of | Deferred Amounts from |  |
| Investment | Between Employer | Deferred | Plan | Differences Between Employer |  |
| Earnings | Contributions | Inflows | Expense | Contributions | Total |
| $(12,513,050)$ | (2,320,861) | (17,852,041) | 2,721,533 | $(1,657,758)$ | 1,063,774 |
| $(88,316)$ | $(1,406)$ | (111,024) | 19,208 | $(1,004)$ | 18,204 |
| $(105,199)$ | $(9,396)$ | (139,969) | 22,880 | (6,711) | 16,169 |
| (3,498,990) | $(926,746)$ | $(5,269,688)$ | 761,015 | (661,962) | 99,053 |
| $(77,659)$ | (8,914) | (105,304) | 16,891 | $(6,367)$ | 10,523 |
| (50,014) |  | $(62,078)$ | 10,878 | 7,815 | 18,693 |
| $(30,494)$ | - | $(37,849)$ | 6,632 | 10,730 | 17,363 |
| (1,366,000) | (138,884) | (1,834,361) | 297,099 | $(99,203)$ | 197,896 |
| $(50,753)$ | $(3,924)$ | $(6,919)$ | 11,039 | (2,803) | 8,235 |
| (676,669) | $(90,456)$ | $(930,337)$ | 147, 173 | $(64,612)$ | 82,561 |
| (56,873) | $(4,060)$ | $(7,651)$ | 12,370 | $(2,900)$ | 9,469 |
| $(654,089)$ | $(80,357)$ | (892,211) | 142,261 | $(57,398)$ | 84,863 |
| (101,822) | $(15,141)$ | (141,523) | 22,146 | $(10,815)$ | 11,331 |
| $(206,388)$ | $(75,908)$ | $(332,077)$ | 44,888 | $(54,220)$ | $(9,332)$ |
| $(4,624,310)$ | (667,529) | $(6,407,216)$ | 1,005,767 | $(476,806)$ | 528,961 |
| $(3,138)$ | (213) | $(4,108)$ | 683 | (152) | 531 |
| (160,278) |  | (198,936) | 34,860 | 2,764 | 37,623 |
| (425,226) | $(45,991)$ | (573,781) | 92,485 | (32,851) | 59,634 |
| $(44,211)$ |  | (54,874) | 9,616 | 1,694 | 11,309 |
| (126,407) | $(46,746)$ | (203,643) | 27,493 | $(33,390)$ | $(5,897)$ |
| (226,752) |  | $(281,445)$ | 49,318 | 7,605 | 56,923 |
| (89,371) | (7,472) | (118,399) | 19,438 | $(5,337)$ | 14,101 |
| $(25,851)$ | $(6,322)$ | $(38,408)$ | 5,623 | (4,515) | 1,107 |
| $(1,587,899)$ | $(404,608)$ | $(2,375,506)$ | 345,361 | $(289,006)$ | 56,355 |
| (257,879) | $(8,510)$ | (328,589) | 56,088 | $(6,079)$ | 50,009 |
| (646,703) | $(313,165)$ | $(1,115,851)$ | 140,655 | (223,689) | (83,034) |
| $(662,952)$ | (122,069) | (944,924) | 144,189 | $(87,192)$ | 56,997 |
| (30,599) | $(20,055)$ | $(58,035)$ | 6,655 | $(14,325)$ | (7,670) |
| (34,926) |  | $(43,350)$ | 7,596 | 7,150 | 14,746 |
| (166,925) | $(65,008)$ | $(272,195)$ | 36,305 | $(46,434)$ | (10,129) |
| (2,337,162) | $(683,959)$ | (3,584,841) | 508,322 | (488,542) | 19,781 |
| (53,813) |  | $(66,792)$ | 11,704 | 4,452 | 16,156 |
| (665,168) | $(160,805)$ | (986,410) | 144,671 | (114,861) | 29,810 |
| (779,086) | (98,021) | (990,549) | 156,388 | (70,015) | 86,383 |
| (579,279) | (285,587) | $(1,004,586)$ | 125,991 | (203,990) | (78,000) |
| $(1,274,202)$ | $(193,833)$ | (1,775,370) | 277, 133 | (138,452) | 138,681 |
| (141,918) | (60,078) | (236,227) | 30,867 | (42,913) | (12,047) |
| (200,901) | (83,109) | ${ }^{(332,467)}$ | 43,695 | $(59,364)$ | (15,669) |
| (161,333) | $(75,399)$ | $(275,645)$ | 35,089 | (53,857) | (18,767) |
| (15,616) | (923) | (20,306) | 3,396 4773 | (659) | 2,737 1,591 |
| (21,947) | $(4,456)$ | $(31,696)$ | 4,773 | $(3,183)$ | 1,591 |
| (66,369) | (104,824) | (187,201) | 14,435 | (74,874) | (60,439) |
| (203,539) | (124,824) | (377,456) | 44,269 | (89,160) | ${ }^{(44,891)}$ |
| $\begin{gathered} (93,275) \\ (10859) \end{gathered}$ | $(44,888)$ | (160,661) | 20,287 23,546 | $(32,063)$ 8.531 | $(11,776)$ 32,076 |
| (193,620) | $(24,353)$ | (264,675) | 42,112 | $(17,395)$ | ${ }^{24,716}$ |
| (119,232) | $(50,905)$ | $(198,896)$ | 25,932 | (36,361) | $(10,428)$ |
| (91,587) | $(38,683)$ | (152,361) | 19,920 | $(27,631)$ | (7,711) |
| (64,681) | $(3,298)$ $(49071)$ | (83,579) | 14,068 16,386 | $(2,356)$ $(35,050)$ | 11,712 $(18,665)$ |
| ( ${ }_{(102,561)}$ | ${ }_{(81,673)}^{(49,071)}$ | ${ }_{(1208,971)}^{(142)}$ | 16,386 22,307 | $(35,050)$ $(58,338)$ | ${ }_{(36,6651)}$ |
| $(70,062)$ | $(4,573)$ | $(91,534)$ | 15,238 | $(3,266)$ | 11,972 |
| $(21,209)$ |  | $(26,324)$ | 4,613 | 3,222 | 7,835 |
| $(91,798)$ | $(29,518)$ | (143,458) | 19,966 | (21,084) | $(1,119)$ |
| $(110,580)$ | $(133,664)$ | (270,916) | 24,051 | $(95,474)$ | $(71,424)$ |
| $(40,940)$ $(106,254)$ | $\left(\begin{array}{l}(14,704) \\ (21,722)\end{array}\right.$ | ${ }_{(153,604)}^{(65,518)}$ | 8,904 23,110 | ${ }_{(110,503)}^{(16)}$ | $\stackrel{(1,598)}{7,594}$ |
|  |  |  |  |  |  |
| (36,319,471) | $(7,756,610)$ | $(52,836,287)$ | 7,899,323 | $(5,486,473)$ | 2,412,850 |
| (62,528,529) | - | (77,610,323) | 13,599,677 | 5,486,473 | 19,086,150 |
| (98,848,000) | (7,756,610) | (130,446,610) | 21,499,000 | (0) | 21,499,000 |


| Employer Number | Employer Name | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | Thereatter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 701 | ANCHORAGE SD | $(6,941,828)$ | $(4,653,689)$ | $(3,128,262)$ | $(3,128,262)$ | - |  |
| 704 | CORDOVA CITY SD | $(38,299)$ | $(28,567)$ | $(22,079)$ | $(22,079)$ | - | - |
| 705 | CRAIG CITY SD | (51, 135) | $(36,234)$ | $(26,300)$ | $(26,300)$ | - | - |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | (2,139,532) | $(1,380,661)$ | (874,748) | (874,748) | - | - |
| 707 | HAINES BOROUGH SD | $(39,161)$ | $(27,313)$ | $(19,415)$ | $(19,415)$ | - | - |
| 708 | HOONAH CITY SD | $(13,305)$ | $(12,824)$ | $(12,504)$ | $(12,504)$ | - | - |
| 709 | HYDABURG CITY SD | $(2,147)$ | $(5,433)$ | $(7,623)$ | $(7,623)$ |  | - |
| 710 | JUNEAU BOROUGH SD | $(676,044)$ | $(475,318)$ | $(341,500)$ | $(341,500)$ | - | - |
| 712 | KAKE CITY SD | $(24,235)$ | $(17,307)$ | $(12,688)$ | $(12,688)$ | - | - |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | $(350,359)$ | $(241,644)$ | $(169,167)$ | $(169,167)$ | $\checkmark$ | - |
| 717 | KLAWOCK CITY SD | $(26,917)$ | $(19,298)$ | $(14,218)$ | $(14,218)$ | - | - |
| 718 | KODIAK ISLAND BOROUGH SD | (333,610) | $(231,557)$ | $(163,522)$ | $(163,522)$ | - | - |
| 719 | NENANA CITY SD | $(53,813)$ | $(36,799)$ | $(25,456)$ | $(25,456)$ | - | - |
| 720 | NOME CITY SD | $(141,375)$ | $(87,508)$ | $(51,597)$ | $(51,597)$ | - | - |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | $(2,429,582)$ | $(1,665,479)$ | $(1,156,077)$ | $(1,156,077)$ | - | - |
| 723 | PELICAN CITY SD | $(1,477)$ | $(1,062)$ | (785) | (785) | - | - |
| 724 | PETERSBURG CITY SD | $(64,919)$ | $(50,009)$ | $(40,069)$ | $(40,069)$ | - | - |
| 727 | SITKA BOROUGH SD | $(212,417)$ | $(148,751)$ | $(106,307)$ | $(106,307)$ | - | - |
| 728 | SKAGWAY CITY SD | $(16,976)$ | $(13,422)$ | $(11,053)$ | $(11,053)$ | - | - |
| 729 | UNALASKA CITY SD | $(86,770)$ | $(53,669)$ | $(31,602)$ | $(31,602)$ | - | - |
| 730 | VALDEZ CITY SD | $(88,149)$ | $(69,272)$ | $(56,688)$ | $(56,688)$ | - | - |
| 731 | WRANGELL PUBLIC SD | $(43,077)$ | $(30,637)$ | $(22,343)$ | $(22,343)$ | - | - |
| 732 | YAKUTAT SD | $(15,432)$ | $(10,050)$ | $(6,463)$ | $(6,463)$ | - | - |
| 733 | UNIVERSITY OF ALASKA | (959,551) | $(622,005)$ | $(396,975)$ | $(396,975)$ | - | - |
| 735 | GALENA CITY SD | (114,977) | $(84,673)$ | (64,470) | $(64,470)$ | - | - |
| 736 | NORTH SLOPE BOROUGH SD | $(496,782)$ | $(295,718)$ | (161,676) | (161,676) | - | - |
| 737 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) | $(367,147)$ | $(246,301)$ | $(165,738)$ | $(165,738)$ | - | - |
| 742 | BRISTOL BAY BOROUGH SD | $(27,247)$ | $(15,489)$ | $(7,650)$ | $(7,650)$ | - | - |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | $(7,599)$ | $(8,278)$ | $(8,731)$ | $(8,731)$ | - | - |
| 744 | DILLINGHAM CITY SD | $(116,924)$ | $(71,808)$ | $(41,731)$ | $(41,731)$ | - | - |
| 746 | KENAI PENINSULA BOROUGH SD | $(1,475,490)$ | $(940,770)$ | $(584,291)$ | $(584,291)$ | - | - |
| 748 | SAINT MARY'S SD | $(18,272)$ | $(15,381)$ | $(13,453)$ | $(13,453)$ | - | - |
| 751 | NORTHWEST ARCTIC BOROUGH SD | (395,751) | $(258,076)$ | $(166,292)$ | $(166,292)$ | - | - |
| 752 | BERING STRAIT SD | $(373,674)$ | $(257,332)$ | (179,772) | $(179,772)$ | - | - |
| 753 | LOWER YUKON SD | $(448,611)$ | $(266,336)$ | $(144,820)$ | $(144,820)$ | - | - |
| 754 | LOWER KUSKOKWIM SD | $(676,528)$ | $(461,741)$ | ( 318,550 ) | $(318,550)$ | - | - |
| 755 | KUSPUK SD | (102,843) | $(62,425)$ | $(35,479)$ | $(35,479)$ | - | - |
| 756 | SOUTHWEST REGION SD | $(144,201)$ | $(87,816)$ | $(50,225)$ | $(50,225)$ | - | - |
| 757 | LAKE AND PENINSULA BOROUGH SD | $(121,985)$ | $(72,994)$ | $(40,333)$ | $(40,333)$ | - | - |
| 758 | ALEUTIAN REGION SD | $(7,254)$ | $(5,244)$ | $(3,904)$ | $(3,904)$ | - | - |
| 759 | PRIBILOF SD | $(12,450)$ | $(8,272)$ | $(5,487)$ | $(5,487)$ | - | - |
| 761 | IDITAROD AREA SD | (102,901) | $(51,116)$ | $(16,592)$ | $(16,592)$ | - | - |
| 762 | YUKON / KOYUKUK SD | (175,112) | $(100,575)$ | $(50,885)$ | $(50,885)$ | - | - |
| 763 | YUKON FLATS SD | $(71,451)$ | $(42,572)$ | $(23,319)$ | $(23,319)$ | - | - |
| 764 | DENALI BOROUGH SD | $(37,185)$ | $(31,113)$ | $(27,065)$ | $(27,065)$ | - | - |
| 765 | DELTA/GREELY SD | $(99,158)$ | $(68,706)$ | $(48,405)$ | $(48,405)$ | - | - |
| 766 | ALASKA GATEWAY SD | $(86,711)$ | $(52,569)$ | $(29,808)$ | $(29,808)$ | - | - |
| 767 | COPPER RIVER SD | $(66,307)$ | $(40,261)$ | $(22,897)$ | $(22,897)$ | - | - |
| 768 | CHATHAM SD | $(29,669)$ | $(21,570)$ | $(16,170)$ | $(16,170)$ | - | - |
| 769 | SOUTHEAST ISLAND SD | $(66,864)$ | $(38,046)$ | $(18,834)$ | $(18,834)$ | - | - |
| 770 | ANNETTE ISLAND SD | $(101,647)$ | $(56,043)$ | $(25,640)$ | $(25,640)$ | - | - |
| 771 | CHUGACH SD | $(32,852)$ | $(23,650)$ | $(17,516)$ | $(17,516)$ | - | - |
| 775 | TANANA SD | $(5,734)$ | $(5,475)$ | $(5,302)$ | $(5,302)$ | - | - |
| 777 | KASHUNAMIUT SD | $(59,849)$ | $(37,710)$ | $(22,950)$ | $(22,950)$ | - | - |
| 778 | YUPIIT SD | $(142,171)$ | $(73,455)$ | $(27,645)$ | $(27,645)$ | - | - |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | $(27,791)$ | $(17,257)$ | $(10,235)$ | $(10,235)$ | - | - |
| 780 | ALEUTIANS EAST BOROUGH SD | $(60,385)$ | $(40,092)$ | $(26,563)$ | $(26,563)$ | - | - |
| Subtotal |  | $(20,823,631)$ | ( $13,777,373$ ) | $(9,079,868)$ | $(9,079,868)$ | - | - |
| Nonemployer: |  |  |  |  |  |  |  |
| 999 | STATE OF ALASKA | (20,918,369) | (17,746,627) | (15,632,132) | (15,632,132) | - | - |
| Total |  | $(41,742,000)$ | $(31,524,000)$ | $(24,712,000)$ | $(24,712,000)$ | - | - |

All amounts are determined without rounding. Rounded amounts are displayed.

| Employer Number | Employer Name | FY2017 | FY2016 |
| :---: | :---: | :---: | :---: |
| 701 | ANCHORAGE SD | 8,536,948.34 | 9,390,455.88 |
| 704 | CORDOVA CITY SD | 72,503.04 | 76,719.15 |
| 705 | CRAIG CITY SD | 80,457.49 | 83,356.08 |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | 2,506,962.81 | 2,833,767.11 |
| 707 | HAINES BOROUGH SD | 42,927.20 | 37,680.41 |
| 708 | HOONAH CITY SD | 25,823.41 | 35,568.55 |
| 709 | HYDABURG CITY SD | 18,777.26 | 13,272.28 |
| 710 | JUNEAU BOROUGH SD | 938,386.70 | 1,060,309.11 |
| 712 | KAKE CITY SD | 25,612.76 | 27,012.77 |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | 478,833.35 | 512,430.09 |
| 717 | KLAWOCK CITY SD | 42,492.77 | 44,174.96 |
| 718 | KODIAK ISLAND BOROUGH SD | 400,948.36 | 430,087.20 |
| 719 | NENANA CITY SD | 71,349.90 | 84,095.81 |
| 720 | NOME CITY SD | 131,827.79 | 143,838.34 |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | 3,213,834.58 | 3,527,989.61 |
| 723 | PELICAN CITY SD | 399.70 | 60.58 |
| 724 | PETERSBURG CITY SD | 101,791.13 | 138,134.07 |
| 727 | SITKA BOROUGH SD | 299,953.03 | 329,293.30 |
| 728 | SKAGWAY CITY SD | 29,507.87 | 28,182.26 |
| 729 | UNALASKA CITY SD | 87,770.63 | 99,753.78 |
| 730 | VALDEZ CITY SD | 196,518.84 | 204,610.20 |
| 731 | WRANGELL PUBLIC SD | 52,107.73 | 61,365.07 |
| 732 | YAKUTAT SD | 20,937.29 | 39,024.54 |
| 733 | UNIVERSITY OF ALASKA | 1,316,037.61 | 1,564,983.74 |
| 735 | GALENA CITY SD | 185,142.64 | 200,704.37 |
| 736 | NORTH SLOPE BOROUGH SD | 385,942.70 | 426,523.59 |
| 737 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) | 186,644.01 | 508,146.47 |
| 742 | BRISTOL BAY BOROUGH SD | 13,554.98 | 14,734.81 |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | 13,761.61 | 14,238.75 |
| 744 | DILLINGHAM CITY SD | 70,474.55 | 90,935.91 |
| 746 | KENAI PENINSULA BOROUGH SD | 1,582,725.87 | 1,787,401.89 |
| 748 | SAINT MARY'S SD | 39,516.62 | 37,120.45 |
| 751 | NORTHWEST ARCTIC BOROUGH SD | 346,420.11 | 365,789.78 |
| 752 | BERING STRAIT SD | 343,515.40 | 308,060.77 |
| 753 | LOWER YUKON SD | 311,949.85 | 317,284.65 |
| 754 | LOWER KUSKOKWIM SD | 764,186.50 | 794,139.17 |
| 755 | KUSPUK SD | 70,074.24 | 77,619.20 |
| 756 | SOUTHWEST REGION SD | 98,499.57 | 111,726.06 |
| 757 | LAKE AND PENINSULA BOROUGH SD | 71,245.87 | 61,520.31 |
| 758 | ALEUTIAN REGION SD | 6,953.26 | 6,454.78 |
| 759 | PRIBILIOF SD | 11,675.14 | 11,496.88 |
| 761 | IDITAROD AREA SD | 30,505.31 | 18,871.35 |
| 762 | YUKON / KOYUKUK SD | 116,313.22 | 122,681.35 |
| 763 | YUKON FLATS SD | 50,735.07 | 52,068.06 |
| 764 | DENALI BOROUGH SD | 62,403.36 | 66,862.90 |
| 765 | DELTA/GREELY SD | 121,244.96 | 123,849.38 |
| 766 | ALASKA GATEWAY SD | 75,979.21 | 99,219.27 |
| 767 | COPPER RIVER SD | 62,150.31 | 83,535.63 |
| 768 | CHATHAM SD | 27,821.82 | 37,909.73 |
| 769 | SOUTHEAST ISLAND SD | 35,589.83 | 53,908.52 |
| 770 | ANNETTE ISLAND SD | 44,328.83 | 55,578.86 |
| 771 | CHUGACH SD | 55,922.48 | 59,123.20 |
| 775 | TANANA SD | 11,180.82 | 10,116.95 |
| 777 | KASHUNAMIUT SD | 40,851.87 | 33,412.18 |
| 778 | YUPIIT SD | 62,542.30 | 54,090.32 |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | 19,896.79 | 24,494.09 |
| 780 | ALEUTIANS EAST BOROUGH SD | 56,693.27 | 60,014.98 |
| Subtotal |  | 24,069,151.96 | 26,855,799.50 |
| Nonemployer: |  |  |  |
| 999 | STATE OF ALASKA | - | 39,242,930.16 |
| Total |  | 24,069,151.96 | 66,098,729.66 |

State of Alaska Teachers' Retirement System Schedule E-Contribution History - Historical

|  |  | FY2015 | FY2014 | FY2013 | FY2012 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Total | Total Plan Contributions | $364,292,000$ | $139,936,000$ | $141,125,000$ | $113,411,000$ |
|  |  |  |  |  |  |
| Total | FY2011 | FY2010 | FY2009 | FY2008 |  |

## State of Alaska Teachers' Retirement System

| Employer Number | Employer Name | Present Value of Future State Assistance Contributions | Employer Proportion |
| :---: | :---: | :---: | :---: |
| 701 | ANCHORAGE SD | 207,992,000.00 | 35.09809\% |
| 704 | CORDOVA CITY SD | 1,465,000.00 | 0.24721\% |
| 705 | CRAIG CITY SD | 1,750,000.00 | 0.29531\% |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | 58,156,000.00 | 9.81367\% |
| 707 | HAINES BOROUGH SD | 1,292,000.00 | 0.21802\% |
| 708 | HOONAH CITY SD | 827,000.00 | 0.13955\% |
| 709 | HYDABURG CITY SD | 504,000.00 | 0.08505\% |
| 710 | JUNEAU BOROUGH SD | 22,702,000.00 | 3.83090\% |
| 712 | KAKE CITY SD | 846,000.00 | 0.14276\% |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | 11,254,000.00 | 1.89908\% |
| 717 | KLAWOCK CITY SD | 939,000.00 | 0.15845\% |
| 718 | KODIAK ISLAND BOROUGH SD | 10,872,000.00 | 1.83462\% |
| 719 | NENANA CITY SD | 1,697,000.00 | 0.28836\% |
| 720 | NOME CITY SD | 3,433,000.00 | 0.57931\% |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | 76,865,000.00 | 12.97076\% |
| 723 | PELICAN CITY SD |  | 0.00000\% |
| 724 | PETERSBURG CITY SD | 2,667,000.00 | 0.45005\% |
| 727 | SITKA BOROUGH SD | 7,062,000.00 | 1.19169\% |
| 728 | SKAGWAY CITY SD | 738,000.00 | 0.12454\% |
| 729 | UNALASKA CITY SD | 2,098,000.00 | 0.35403\% |
| 730 | VALDEZ CITY SD | 3,769,000.00 | 0.63601\% |
| 731 | WRANGELL PUBLIC SD | 1,485,000.00 | 0.25059\% |
| 732 | YAKUTAT SD | 426,000.00 | 0.07189\% |
| 733 | UNIVERSITY OF ALASKA | 26,395,000.00 | 4.45409\% |
| 735 | GALENA CITY SD | 4,281,000.00 | 0.72241\% |
| 736 | NORTH SLOPE BOROUGH SD | 10,747,000.00 | 1.81353\% |
| 737 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) |  | 0.00000\% |
| 742 | BRISTOL BAY BOROUG SD | 509,000.00 | 0.08589\% |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | 577,000.00 | 0.09737\% |
| 744 | DIILINGHAM CITY SD | 2,780,000.00 | 0.46912\% |
| 746 | KENAI PENINSULA BOROUGH SD | 38,843,000.00 | 6.55465\% |
| 748 | SAINT MARY'S SD | 897,000.00 | 0.15137\% |
| 751 | NORTHWEST ARCTIC BOROUGH SD | 11,053,000.00 | 1.86516\% |
| 752 | BERING STRAIT SD | 11,952,000.00 | 2.01687\% |
| 753 | LOWER YUKON SD | 9,628,000.00 | 1.62470\% |
| 754 | LOWER KUSKOKWIM SD | 21,179,000.00 | 3.57390\% |
| 755 | KUSPUK SD | 2,361,000.00 | 0.39841\% |
| 756 | SOUTHWEST REGION SD | 3,339,000.00 | 0.56345\% |
| 757 | LAKE AND PENINSULA BOROUGH SD | 2,682,000.00 | 0.45258\% |
| 758 | ALEUTIAN REGION SD | 256,000.00 | 0.04320\% |
| 759 | PRIBILOF SD | 362,000.00 | 0.06109\% |
| 761 | IDITAROD AREA SD | 1,100,000.00 | 0.18562\% |
| 762 | YUKON / KOYUKUK SD | 3,391,000.00 | 0.57222\% |
| 763 | YUKON FLATS SD | 1,545,000.00 | 0.26071\% |
| 764 | DENALI BOROUGH SD | 1,800,000.00 | 0.30375\% |
| 765 | DELTA/GREELY SD | 3,219,000.00 | 0.54320\% |
| 766 | ALASKA GATEWAY SD | 1,983,000.00 | 0.33463\% |
| 767 | COPPER RIVER SD | 1,519,000.00 | 0.25633\% |
| 768 | CHATHAM SD | 1,077,000.00 | 0.18174\% |
| 769 | SOUTHEAST ISLAND SD | 1,251,000.00 | 0.21110\% |
| 770 | ANNETTE ISLAND SD | 1,706,000.00 | 0.28788\% |
| 771 | CHUGACH SD | 1,166,000.00 | 0.19676\% |
| 775 | TANANA SD | 354,000.00 | 0.05974\% |
| 777 | KASHUNAMIUT SD | 1,528,000.00 | 0.25785\% |
| 778 | YUPIIT SD | 1,837,000.00 | 0.30999\% |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | 680,000.00 | 0.11475\% |
| 780 | ALEUTIANS EAST BOROUGH SD | 1,766,000.00 | 0.29801\% |
| Total |  | 592,602,000.00 | 100.00000\% |

State of Alaska Teachers' Retirement System
Schedule G-Supplemental Schedule of Special Funding Amounts by Employer as of 6/30/2017

|  |  | State |  |
| :---: | :---: | :---: | :---: |
|  |  | Proportionate | Proportionate |
|  |  | Share of Net | Share of |
|  |  | OPEB Liability | OPEB |
| Employer Number | ANCHORAGE SD Employer Name | Atribubloyer | Expense |
| 701 |  | 40,836,968.63 | 4,773,227.15 |
| 704 | CORDOVA CITY SD | 287,636.83 | 33,620.42 |
| 705 | CRAIG CITY SD | 343,593.48 | 40,160.91 |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | 11,418,298.53 | 1,334,627.28 |
| 707 | HAINES BOROUGH SD | 253,670.16 | 29,650.22 |
| 708 | HOONAH CITY SD | 162,372.46 | 18,978.90 |
| 709 | HYDABURG CITY SD | 98,954.92 | 11,566.34 |
| 710 | JUNEAU BOROUGH SD | 4,457,290.96 | 520,990.24 |
| 712 | KAKE CITY SD | 166,102.91 | 19,414.93 |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | 2,209,600.59 | 258,269.06 |
| 717 | KLAWOCK CITY SD | 184,362.44 | 21,549.20 |
| 718 | KODIAK ISLAND BOROUGH SD | 2,134,599.04 | 249,502.51 |
| 719 | NENANA CITY SD | 333,187.51 | 38,944.61 |
| 720 | NOME CITY SD | 674,032.24 | 78,784.23 |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | 15,091,607.34 | 1,763,981.81 |
| 723 | PELICAN CITY SD |  |  |
| 724 | PETERSBURG CITY SD | 523,636.46 | 61,205.22 |
| 727 | SITKA BOROUGH SD | 1,386,546.95 | 162,066.47 |
| 728 | SKAGWAY CITY SD | 144,898.28 | 16,936.43 |
| 729 | UNALASKA CITY SD | 411,919.50 | 48,147.19 |
| 730 | VALDEZ CITY SD | 740,002.19 | 86,495.12 |
| 731 | WRANGELL PUBLIC SD | 291,563.61 | 34,079.40 |
| 732 | YAKUTAT SD | 83,640.47 | 9,776.31 |
| 733 | UNIVERSITY OF ALASKA | 5,182,371.37 | 605,741.23 |
| 735 | GALENA CITY SD | 840,527.82 | 98,245.05 |
| 736 | NORTH SLOPE BOROUGH SD | 2,110,056.65 | 246,633.87 |
| 737 | STATE OF ALASKA (EMPLOYER AND NONEMPLOYER) | - |  |
| 742 | BRISTOL BAY BOROUGH SD | 99,936.62 | 11,681.09 |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | 113,287.68 | 13,241.62 |
| 744 | DILLINGHAM CITY SD | 545,822.79 | 63,798.47 |
| 746 | KENAI PENINSULA BOROUGH SD | 7,626,400.88 | 891,411.51 |
| 748 | SAINT MARY'S SD | 176,116.20 | 20,585.33 |
| 751 | NORTHWEST ARCTIC BOROUGH SD | 2,170,136.42 | 253,656.29 |
| 752 | BERING STRAIT SD | 2,346,645.30 | 274,287.52 |
| 753 | LOWER YUKON SD | 1,890,353.16 | 220,953.84 |
| 754 | LOWER KUSKOKWIM SD | 4,158,266.46 | 486,038.78 |
| 755 | KUSPUK SD | 463,556.69 | 54,182.80 |
| 756 | SOUTHWEST REGION SD | 655,576.36 | 76,627.01 |
| 757 | LAKE AND PENINSULA BOROUGH SD | 526,581.55 | 61,549.46 |
| 758 | ALEUTIAN REGION SD | 50,262.82 | 5,874.97 |
| 759 | PRIBILOF SD | 71,074.77 | 8,307.57 |
| 761 | IDITAROD AREA SD | 215,973.04 | 25,244.00 |
| 762 | YUKON / KOYUKUK SD | 665,785.99 | 77,820.36 |
| 763 | YUKON FLATS SD | 303,343.96 | 35,456.34 |
| 764 | DENALI BOROUGH SD | 353,410.44 | 41,308.36 |
| 765 | DELTA/GREELY SD | 632,015.66 | 73,873.12 |
| 766 | ALASKA GATEWAY SD | 389,340.50 | 45,508.05 |
| 767 | COPPER RIVER SD | 298,239.14 | 34,859.67 |
| 768 | CHATHAM SD | 211,457.24 | 24,716.17 |
| 769 | SOUTHEAST ISLAND SD | 245,620.25 | 28,709.31 |
| 770 | ANNETTE ISLAND SD | 334,954.56 | 39,151.15 |
| 771 | CHUGACH SD | 228,931.43 | 26,758.64 |
| 775 | TANANA SD | 69,504.05 | 8,123.98 |
| 777 | KASHUNAMIUT SD | 300,006.19 | 35,066.21 |
| 778 | YUPIIT SD | 360,674.98 | 42,157.48 |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | 133,510.61 | 15,605.38 |
| 780 | ALEUTIANS EAST BOROUGH SD | 346,734.91 | 40,528.09 |
| Total |  | 116,350,961.97 | 13,599,676.68 |

