# Comparison of PERS Tier III & TRS Tier II

# Pension Benefits

# vs

# Defined Contribution Investment Account

LEGEND

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

1 = The % of Payroll being deposited into the employee's DC account

2 = The assumed earnings % (Total Rate of Return) on the DC account

3 = Real Rate of Return after deducting a 3.5% interest assumption

4 = Employee's Annual Salary at the year they terminate from the system. The annual salary increase is based on the actuarial assumptions used by Mercer. An 0.5% annual productivity increase is applied annually and a 1.5% merit increase is applied for the first five years.

5 = Equals the salary shown in column 4 adjusted for the change in the Anchorage CPI from the year of termination to today

6 = The ending DC plan balance. It is the sum of annual DC plan contributions and the investment earnings. Investment earnings are calculated by multiplying the assumed investment return assumption by the beginning period balance and 1/2 of the current period's plan contributions.

7 = The beginning annuity on the DC Plan is estimated by assuming an annuity purchased on a person of the attained age at retirement, based on the ending balance in the DC plan account. The beginning annuity is discounted by the weighted average investment return anticipated over the expected life of the member. The weighted average rate is a blend of the expected rates over the remaining years of life expectancy - pre 60, 60-65, post 60, as necessary.

8 = This is the annuity adjusted to 2004 dollars by multiplying (7) by the change in Anchorage CPI from termination year to today

9 = This is the annuity expressed as a percentage of the member's final year of salary. So if the % shown is 55%, then a member is getting 55% of his normal working salary through this annuity

10 = This is the comparitive annuity benefit provided in PERS III or TRS II. The benefit is calculated by the appropriate system formulas. If member elects early retirement, the benefit formula is reduced by a factor of .0067 for each month that retirement precedes age 60.

**% X years of service X salary**

| | | |
|---|---|---|
| PERS | Pol/Fire | High 3 consecutive years<br>2% for first 10 years<br>2.5% for all years after 10 |
| | All other | Average of high 5 consecutive years<br>2% for first 10 years<br>2.25% for the next 10 years<br>2.50% for every year after |
| TRS | | Avg of high 3 contract salaries<br>2% for the first 20 years<br>2.5% there after |

PERS

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | High Five | $55,397 |
| Age at Retirement | 55 | Salary | $ 39,128 | | |
| Years of Service: | 10 | Inflation | 3.50% | | |

25 Yrs Old - 10 Yrs Service
Early Retire

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $59,825 | $22,060 | $70,361 | $4,006 | $2,940 | 6.70% | $6,625 | 60.47% |
| | 5.50% | 2.00% | $59,825 | $22,060 | $73,809 | $4,674 | $3,430 | 7.81% | $6,625 | 70.55% |
| | 6.00% | 2.50% | $59,825 | $22,060 | $75,604 | $5,040 | $3,698 | 8.42% | $6,625 | 76.07% |
| | 6.50% | 3.00% | $59,825 | $22,060 | $77,449 | $5,427 | $3,982 | 9.07% | $6,625 | 81.91% |
| | 7.00% | 3.50% | $59,825 | $22,060 | $79,344 | $5,837 | $4,283 | 9.76% | $6,625 | 88.10% |
| | 7.50% | 4.00% | $59,825 | $22,060 | $81,292 | $6,271 | $4,601 | 10.48% | $6,625 | 94.65% |
| | 8.25% | 4.75% | $59,825 | $22,060 | $84,314 | $6,969 | $5,113 | 11.65% | $6,625 | 105.18% |
| | 8.75% | 5.25% | $59,825 | $22,060 | $86,398 | $7,466 | $5,478 | 12.48% | $6,625 | 112.69% |
| 12.50% | 4.50% | 1.00% | $59,825 | $22,060 | $76,480 | $4,355 | $3,195 | 7.28% | $6,625 | 65.73% |
| | 5.50% | 2.00% | $59,825 | $22,060 | $80,227 | $5,081 | $3,728 | 8.49% | $6,625 | 76.69% |
| | 6.00% | 2.50% | $59,825 | $22,060 | $82,179 | $5,478 | $4,019 | 9.16% | $6,625 | 82.68% |
| | 6.50% | 3.00% | $59,825 | $22,060 | $84,184 | $5,899 | $4,328 | 9.86% | $6,625 | 89.04% |
| | 7.00% | 3.50% | $59,825 | $22,060 | $86,244 | $6,345 | $4,655 | 10.61% | $6,625 | 95.77% |
| | 7.50% | 4.00% | $59,825 | $22,060 | $88,361 | $6,817 | $5,002 | 11.39% | $6,625 | 102.89% |
| | 8.25% | 4.75% | $59,825 | $22,060 | $91,646 | $7,575 | $5,558 | 12.66% | $6,625 | 114.33% |
| | 8.75% | 5.25% | $59,825 | $22,060 | $93,911 | $8,116 | $5,955 | 13.57% | $6,625 | 122.49% |
| 13.00% | 4.50% | 1.00% | $59,825 | $22,060 | $79,539 | $4,529 | $3,323 | 7.57% | $6,625 | 68.36% |
| | 5.50% | 2.00% | $59,825 | $22,060 | $83,436 | $5,284 | $3,877 | 8.83% | $6,625 | 79.76% |
| | 6.00% | 2.50% | $59,825 | $22,060 | $85,466 | $5,697 | $4,180 | 9.52% | $6,625 | 85.99% |
| | 6.50% | 3.00% | $59,825 | $22,060 | $87,551 | $6,135 | $4,501 | 10.25% | $6,625 | 92.60% |
| | 7.00% | 3.50% | $59,825 | $22,060 | $89,694 | $6,599 | $4,842 | 11.03% | $6,625 | 99.60% |
| | 7.50% | 4.00% | $59,825 | $22,060 | $91,895 | $7,089 | $5,202 | 11.85% | $6,625 | 107.00% |
| | 8.25% | 4.75% | $59,825 | $22,060 | $95,312 | $7,878 | $5,780 | 13.17% | $6,625 | 118.90% |
| | 8.75% | 5.25% | $59,825 | $22,060 | $97,668 | $8,440 | $6,193 | 14.11% | $6,625 | 127.39% |
| 14.00% | 4.50% | 1.00% | $59,825 | $22,060 | $85,657 | $4,877 | $3,579 | 8.15% | $6,625 | 73.61% |
| | 5.50% | 2.00% | $59,825 | $22,060 | $89,854 | $5,691 | $4,175 | 9.51% | $6,625 | 85.89% |
| | 6.00% | 2.50% | $59,825 | $22,060 | $92,040 | $6,135 | $4,502 | 10.26% | $6,625 | 92.60% |
| | 6.50% | 3.00% | $59,825 | $22,060 | $94,286 | $6,607 | $4,848 | 11.04% | $6,625 | 99.72% |
| | 7.00% | 3.50% | $59,825 | $22,060 | $96,593 | $7,106 | $5,214 | 11.88% | $6,625 | 107.26% |
| | 7.50% | 4.00% | $59,825 | $22,060 | $98,964 | $7,635 | $5,602 | 12.76% | $6,625 | 115.23% |
| | 8.25% | 4.75% | $59,825 | $22,060 | $102,643 | $8,484 | $6,225 | 14.18% | $6,625 | 128.05% |
| | 8.75% | 5.25% | $59,825 | $22,060 | $105,181 | $9,089 | $6,669 | 15.19% | $6,625 | 137.19% |
| 14.50% | 4.50% | 1.00% | $59,825 | $22,060 | $88,716 | $5,052 | $3,706 | 8.44% | $6,625 | 76.24% |
| | 5.50% | 2.00% | $59,825 | $22,060 | $93,063 | $5,894 | $4,325 | 9.85% | $6,625 | 88.96% |
| | 6.00% | 2.50% | $59,825 | $22,060 | $95,327 | $6,355 | $4,663 | 10.62% | $6,625 | 95.91% |
| | 6.50% | 3.00% | $59,825 | $22,060 | $97,653 | $6,843 | $5,021 | 11.44% | $6,625 | 103.28% |
| | 7.00% | 3.50% | $59,825 | $22,060 | $100,043 | $7,360 | $5,400 | 12.30% | $6,625 | 111.09% |
| | 7.50% | 4.00% | $59,825 | $22,060 | $102,499 | $7,907 | $5,802 | 13.22% | $6,625 | 119.35% |
| | 8.25% | 4.75% | $59,825 | $22,060 | $106,309 | $8,787 | $6,447 | 14.69% | $6,625 | 132.62% |
| | 8.75% | 5.25% | $59,825 | $22,060 | $108,937 | $9,414 | $6,907 | 15.74% | $6,625 | 142.09% |

**PERS**

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | High Five | $82,001 |
| Age at Retirement | 55 | Salary | $ 39,128 | | |
| Years of Service: | 20 | Inflation | 3.50% | | |

**25 Yrs Old - 20 Yrs Service**
**Early Retire**

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $88,556 | $32,655 | $215,681 | $12,281 | $6,388 | 13.87% | $20,841 | 58.93% |
| | 5.50% | 2.00% | $88,556 | $32,655 | $237,775 | $15,059 | $7,833 | 17.00% | $20,841 | 72.26% |
| | 6.00% | 2.50% | $88,556 | $32,655 | $249,849 | $16,655 | $8,663 | 18.81% | $20,841 | 79.92% |
| | 6.50% | 3.00% | $88,556 | $32,655 | $262,666 | $18,406 | $9,574 | 20.78% | $20,841 | 88.32% |
| | 7.00% | 3.50% | $88,556 | $32,655 | $276,276 | $20,326 | $10,572 | 22.95% | $20,841 | 97.53% |
| | 7.50% | 4.00% | $88,556 | $32,655 | $290,729 | $22,428 | $11,666 | 25.33% | $20,841 | 107.62% |
| | 8.25% | 4.75% | $88,556 | $32,655 | $314,111 | $25,962 | $13,504 | 29.32% | $20,841 | 124.58% |
| | 8.75% | 5.25% | $88,556 | $32,655 | $330,920 | $28,597 | $14,875 | 32.29% | $20,841 | 137.22% |
| 12.50% | 4.50% | 1.00% | $88,556 | $32,655 | $234,436 | $13,349 | $6,943 | 15.07% | $20,841 | 64.05% |
| | 5.50% | 2.00% | $88,556 | $32,655 | $258,452 | $16,368 | $8,514 | 18.48% | $20,841 | 78.54% |
| | 6.00% | 2.50% | $88,556 | $32,655 | $271,575 | $18,103 | $9,417 | 20.44% | $20,841 | 86.87% |
| | 6.50% | 3.00% | $88,556 | $32,655 | $285,507 | $20,007 | $10,407 | 22.59% | $20,841 | 96.00% |
| | 7.00% | 3.50% | $88,556 | $32,655 | $300,300 | $22,093 | $11,492 | 24.95% | $20,841 | 106.01% |
| | 7.50% | 4.00% | $88,556 | $32,655 | $316,009 | $24,379 | $12,681 | 27.53% | $20,841 | 116.98% |
| | 8.25% | 4.75% | $88,556 | $32,655 | $341,425 | $28,220 | $14,679 | 31.87% | $20,841 | 135.41% |
| | 8.75% | 5.25% | $88,556 | $32,655 | $359,696 | $31,084 | $16,168 | 35.10% | $20,841 | 149.15% |
| 13.00% | 4.50% | 1.00% | $88,556 | $32,655 | $243,814 | $13,883 | $7,221 | 15.68% | $20,841 | 66.61% |
| | 5.50% | 2.00% | $88,556 | $32,655 | $268,790 | $17,023 | $8,855 | 19.22% | $20,841 | 81.68% |
| | 6.00% | 2.50% | $88,556 | $32,655 | $282,438 | $18,827 | $9,793 | 21.26% | $20,841 | 90.34% |
| | 6.50% | 3.00% | $88,556 | $32,655 | $296,927 | $20,807 | $10,823 | 23.50% | $20,841 | 99.84% |
| | 7.00% | 3.50% | $88,556 | $32,655 | $312,312 | $22,977 | $11,951 | 25.95% | $20,841 | 110.25% |
| | 7.50% | 4.00% | $88,556 | $32,655 | $328,650 | $25,354 | $13,188 | 28.63% | $20,841 | 121.66% |
| | 8.25% | 4.75% | $88,556 | $32,655 | $355,082 | $29,349 | $15,266 | 33.14% | $20,841 | 140.83% |
| | 8.75% | 5.25% | $88,556 | $32,655 | $374,084 | $32,327 | $16,815 | 36.51% | $20,841 | 155.12% |
| 14.00% | 4.50% | 1.00% | $88,556 | $32,655 | $262,568 | $14,951 | $7,777 | 16.88% | $20,841 | 71.74% |
| | 5.50% | 2.00% | $88,556 | $32,655 | $289,466 | $18,332 | $9,536 | 20.70% | $20,841 | 87.97% |
| | 6.00% | 2.50% | $88,556 | $32,655 | $304,164 | $20,276 | $10,547 | 22.90% | $20,841 | 97.29% |
| | 6.50% | 3.00% | $88,556 | $32,655 | $319,768 | $22,407 | $11,655 | 25.30% | $20,841 | 107.52% |
| | 7.00% | 3.50% | $88,556 | $32,655 | $336,336 | $24,744 | $12,871 | 27.94% | $20,841 | 118.73% |
| | 7.50% | 4.00% | $88,556 | $32,655 | $353,931 | $27,304 | $14,202 | 30.83% | $20,841 | 131.01% |
| | 8.25% | 4.75% | $88,556 | $32,655 | $382,396 | $31,606 | $16,440 | 35.69% | $20,841 | 151.66% |
| | 8.75% | 5.25% | $88,556 | $32,655 | $402,859 | $34,814 | $18,109 | 39.31% | $20,841 | 167.05% |
| 14.50% | 4.50% | 1.00% | $88,556 | $32,655 | $271,946 | $15,485 | $8,054 | 17.49% | $20,841 | 74.30% |
| | 5.50% | 2.00% | $88,556 | $32,655 | $299,804 | $18,987 | $9,876 | 21.44% | $20,841 | 91.11% |
| | 6.00% | 2.50% | $88,556 | $32,655 | $315,027 | $21,000 | $10,923 | 23.71% | $20,841 | 100.76% |
| | 6.50% | 3.00% | $88,556 | $32,655 | $331,188 | $23,208 | $12,072 | 26.21% | $20,841 | 111.36% |
| | 7.00% | 3.50% | $88,556 | $32,655 | $348,348 | $25,628 | $13,330 | 28.94% | $20,841 | 122.97% |
| | 7.50% | 4.00% | $88,556 | $32,655 | $366,571 | $28,279 | $14,710 | 31.93% | $20,841 | 135.69% |
| | 8.25% | 4.75% | $88,556 | $32,655 | $396,053 | $32,735 | $17,027 | 36.97% | $20,841 | 157.07% |
| | 8.75% | 5.25% | $88,556 | $32,655 | $417,247 | $36,057 | $18,755 | 40.72% | $20,841 | 173.02% |

PERS

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | High Five | $121,381 |
| Age at Retirement | 55 | Salary | $ 39,128 | | |
| Years of Service: | 30 | Inflation | 3.50% | | |

**25 Yrs Old - 30 Yrs Service**
**Normal Retire at 55**

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr. | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $131,084 | $48,337 | $492,463 | $28,041 | $10,340 | 21.39% | $82,296 | 34.07% |
| | 5.50% | 2.00% | $131,084 | $48,337 | $571,497 | $36,194 | $13,347 | 27.61% | $82,296 | 43.98% |
| | 6.00% | 2.50% | $131,084 | $48,337 | $616,860 | $41,120 | $15,163 | 31.37% | $82,296 | 49.97% |
| | 6.50% | 3.00% | $131,084 | $48,337 | $666,669 | $46,716 | $17,226 | 35.64% | $82,296 | 56.77% |
| | 7.00% | 3.50% | $131,084 | $48,337 | $721,391 | $53,073 | $19,570 | 40.49% | $82,296 | 64.49% |
| | 7.50% | 4.00% | $131,084 | $48,337 | $781,542 | $60,293 | $22,233 | 46.00% | $82,296 | 73.26% |
| | 8.25% | 4.75% | $131,084 | $48,337 | $883,216 | $73,001 | $26,919 | 55.69% | $82,296 | 88.71% |
| | 8.75% | 5.25% | $131,084 | $48,337 | $959,576 | $82,924 | $30,578 | 63.26% | $82,296 | 100.76% |
| 12.50% | 4.50% | 1.00% | $131,084 | $48,337 | $535,286 | $30,479 | $11,239 | 23.25% | $82,296 | 37.04% |
| | 5.50% | 2.00% | $131,084 | $48,337 | $621,192 | $39,341 | $14,507 | 30.01% | $82,296 | 47.80% |
| | 6.00% | 2.50% | $131,084 | $48,337 | $670,500 | $44,696 | $16,482 | 34.10% | $82,296 | 54.31% |
| | 6.50% | 3.00% | $131,084 | $48,337 | $724,641 | $50,778 | $18,724 | 38.74% | $82,296 | 61.70% |
| | 7.00% | 3.50% | $131,084 | $48,337 | $784,121 | $57,688 | $21,272 | 44.01% | $82,296 | 70.10% |
| | 7.50% | 4.00% | $131,084 | $48,337 | $849,502 | $65,535 | $24,166 | 49.99% | $82,296 | 79.63% |
| | 8.25% | 4.75% | $131,084 | $48,337 | $960,017 | $79,349 | $29,260 | 60.53% | $82,296 | 96.42% |
| | 8.75% | 5.25% | $131,084 | $48,337 | $1,043,017 | $90,135 | $33,237 | 68.76% | $82,296 | 109.53% |
| 13.00% | 4.50% | 1.00% | $131,084 | $48,337 | $556,697 | $31,698 | $11,689 | 24.18% | $82,296 | 38.52% |
| | 5.50% | 2.00% | $131,084 | $48,337 | $646,040 | $40,915 | $15,087 | 31.21% | $82,296 | 49.72% |
| | 6.00% | 2.50% | $131,084 | $48,337 | $697,320 | $46,484 | $17,141 | 35.46% | $82,296 | 56.48% |
| | 6.50% | 3.00% | $131,084 | $48,337 | $753,626 | $52,809 | $19,473 | 40.29% | $82,296 | 64.17% |
| | 7.00% | 3.50% | $131,084 | $48,337 | $815,486 | $59,995 | $22,123 | 45.77% | $82,296 | 72.90% |
| | 7.50% | 4.00% | $131,084 | $48,337 | $883,483 | $68,157 | $25,133 | 51.99% | $82,296 | 82.82% |
| | 8.25% | 4.75% | $131,084 | $48,337 | $998,418 | $82,523 | $30,430 | 62.95% | $82,296 | 100.28% |
| | 8.75% | 5.25% | $131,084 | $48,337 | $1,084,738 | $93,740 | $34,567 | 71.51% | $82,296 | 113.91% |
| 14.00% | 4.50% | 1.00% | $131,084 | $48,337 | $599,520 | $34,137 | $12,588 | 26.04% | $82,296 | 41.48% |
| | 5.50% | 2.00% | $131,084 | $48,337 | $695,735 | $44,062 | $16,248 | 33.61% | $82,296 | 53.54% |
| | 6.00% | 2.50% | $131,084 | $48,337 | $750,960 | $50,059 | $18,459 | 38.19% | $82,296 | 60.83% |
| | 6.50% | 3.00% | $131,084 | $48,337 | $811,597 | $56,872 | $20,971 | 43.39% | $82,296 | 69.11% |
| | 7.00% | 3.50% | $131,084 | $48,337 | $878,215 | $64,610 | $23,825 | 49.29% | $82,296 | 78.51% |
| | 7.50% | 4.00% | $131,084 | $48,337 | $951,443 | $73,400 | $27,066 | 55.99% | $82,296 | 89.19% |
| | 8.25% | 4.75% | $131,084 | $48,337 | $1,075,219 | $88,871 | $32,771 | 67.80% | $82,296 | 107.99% |
| | 8.75% | 5.25% | $131,084 | $48,337 | $1,168,180 | $100,951 | $37,225 | 77.01% | $82,296 | 122.67% |
| 14.50% | 4.50% | 1.00% | $131,084 | $48,337 | $620,931 | $35,356 | $13,037 | 26.97% | $82,296 | 42.96% |
| | 5.50% | 2.00% | $131,084 | $48,337 | $720,583 | $45,636 | $16,828 | 34.81% | $82,296 | 55.45% |
| | 6.00% | 2.50% | $131,084 | $48,337 | $777,780 | $51,847 | $19,119 | 39.55% | $82,296 | 63.00% |
| | 6.50% | 3.00% | $131,084 | $48,337 | $840,583 | $58,903 | $21,720 | 44.94% | $82,296 | 71.57% |
| | 7.00% | 3.50% | $131,084 | $48,337 | $909,580 | $66,918 | $24,676 | 51.05% | $82,296 | 81.31% |
| | 7.50% | 4.00% | $131,084 | $48,337 | $985,423 | $76,021 | $28,033 | 57.99% | $82,296 | 92.38% |
| | 8.25% | 4.75% | $131,084 | $48,337 | $1,113,620 | $92,045 | $33,941 | 70.22% | $82,296 | 111.85% |
| | 8.75% | 5.25% | $131,084 | $48,337 | $1,209,900 | $104,556 | $38,555 | 79.76% | $82,296 | 127.05% |

PERS

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 30 | Life Exp: | 23.8 | High Five | $91,840 |
| Age at Retirement | 55 | Salary | $ 43,823 | | |
| Years of Service: | 20 | Inflation | 3.50% | | |

30 Yrs Old - 20 Yrs Service
Early Retire

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $99,182 | $43,437 | $241,561 | $13,754 | $7,154 | 13.87% | $23,341 | 58.93% |
| | 5.50% | 2.00% | $99,182 | $43,437 | $266,306 | $16,866 | $8,773 | 17.00% | $23,341 | 72.26% |
| | 6.00% | 2.50% | $99,182 | $43,437 | $279,828 | $18,653 | $9,703 | 18.81% | $23,341 | 79.92% |
| | 6.50% | 3.00% | $99,182 | $43,437 | $294,184 | $20,615 | $10,723 | 20.78% | $23,341 | 88.32% |
| | 7.00% | 3.50% | $99,182 | $43,437 | $309,426 | $22,764 | $11,841 | 22.95% | $23,341 | 97.53% |
| | 7.50% | 4.00% | $99,182 | $43,437 | $325,613 | $25,120 | $13,066 | 25.33% | $23,341 | 107.62% |
| | 8.25% | 4.75% | $99,182 | $43,437 | $351,801 | $29,078 | $15,125 | 29.32% | $23,341 | 124.58% |
| | 8.75% | 5.25% | $99,182 | $43,437 | $370,627 | $32,029 | $16,660 | 32.29% | $23,341 | 137.22% |
| 12.50% | 4.50% | 1.00% | $99,182 | $43,437 | $262,566 | $14,951 | $7,777 | 15.07% | $23,341 | 64.05% |
| | 5.50% | 2.00% | $99,182 | $43,437 | $289,463 | $18,332 | $9,536 | 18.48% | $23,341 | 78.54% |
| | 6.00% | 2.50% | $99,182 | $43,437 | $304,161 | $20,276 | $10,546 | 20.44% | $23,341 | 86.87% |
| | 6.50% | 3.00% | $99,182 | $43,437 | $319,765 | $22,407 | $11,655 | 22.59% | $23,341 | 96.00% |
| | 7.00% | 3.50% | $99,182 | $43,437 | $336,333 | $24,744 | $12,871 | 24.95% | $23,341 | 106.01% |
| | 7.50% | 4.00% | $99,182 | $43,437 | $353,928 | $27,304 | $14,202 | 27.53% | $23,341 | 116.98% |
| | 8.25% | 4.75% | $99,182 | $43,437 | $382,392 | $31,606 | $16,440 | 31.87% | $23,341 | 135.41% |
| | 8.75% | 5.25% | $99,182 | $43,437 | $402,856 | $34,814 | $18,109 | 35.10% | $23,341 | 149.15% |
| 13.00% | 4.50% | 1.00% | $99,182 | $43,437 | $273,069 | $15,549 | $8,088 | 15.68% | $23,341 | 66.61% |
| | 5.50% | 2.00% | $99,182 | $43,437 | $301,042 | $19,066 | $9,917 | 19.22% | $23,341 | 81.68% |
| | 6.00% | 2.50% | $99,182 | $43,437 | $316,328 | $21,087 | $10,968 | 21.26% | $23,341 | 90.34% |
| | 6.50% | 3.00% | $99,182 | $43,437 | $332,555 | $23,303 | $12,121 | 23.50% | $23,341 | 99.84% |
| | 7.00% | 3.50% | $99,182 | $43,437 | $349,786 | $25,734 | $13,386 | 25.95% | $23,341 | 110.25% |
| | 7.50% | 4.00% | $99,182 | $43,437 | $368,085 | $28,396 | $14,770 | 28.63% | $23,341 | 121.66% |
| | 8.25% | 4.75% | $99,182 | $43,437 | $397,688 | $32,870 | $17,098 | 33.14% | $23,341 | 140.83% |
| | 8.75% | 5.25% | $99,182 | $43,437 | $418,970 | $36,206 | $18,833 | 36.51% | $23,341 | 155.12% |
| 14.00% | 4.50% | 1.00% | $99,182 | $43,437 | $294,074 | $16,745 | $8,710 | 16.88% | $23,341 | 71.74% |
| | 5.50% | 2.00% | $99,182 | $43,437 | $324,199 | $20,532 | $10,680 | 20.70% | $23,341 | 87.97% |
| | 6.00% | 2.50% | $99,182 | $43,437 | $340,661 | $22,709 | $11,812 | 22.90% | $23,341 | 97.29% |
| | 6.50% | 3.00% | $99,182 | $43,437 | $358,137 | $25,096 | $13,054 | 25.30% | $23,341 | 107.52% |
| | 7.00% | 3.50% | $99,182 | $43,437 | $376,693 | $27,713 | $14,415 | 27.94% | $23,341 | 118.73% |
| | 7.50% | 4.00% | $99,182 | $43,437 | $396,399 | $30,580 | $15,907 | 30.83% | $23,341 | 131.02% |
| | 8.25% | 4.75% | $99,182 | $43,437 | $428,280 | $35,399 | $18,413 | 35.69% | $23,341 | 151.66% |
| | 8.75% | 5.25% | $99,182 | $43,437 | $451,199 | $38,991 | $20,282 | 39.31% | $23,341 | 167.05% |
| 14.50% | 4.50% | 1.00% | $99,182 | $43,437 | $304,577 | $17,343 | $9,021 | 17.49% | $23,341 | 74.30% |
| | 5.50% | 2.00% | $99,182 | $43,437 | $335,777 | $21,266 | $11,061 | 21.44% | $23,341 | 91.11% |
| | 6.00% | 2.50% | $99,182 | $43,437 | $352,827 | $23,520 | $12,234 | 23.71% | $23,341 | 100.77% |
| | 6.50% | 3.00% | $99,182 | $43,437 | $370,927 | $25,992 | $13,520 | 26.21% | $23,341 | 111.36% |
| | 7.00% | 3.50% | $99,182 | $43,437 | $390,146 | $28,703 | $14,930 | 28.94% | $23,341 | 122.97% |
| | 7.50% | 4.00% | $99,182 | $43,437 | $410,556 | $31,673 | $16,475 | 31.93% | $23,341 | 135.70% |
| | 8.25% | 4.75% | $99,182 | $43,437 | $443,575 | $36,663 | $19,071 | 36.97% | $23,341 | 157.08% |
| | 8.75% | 5.25% | $99,182 | $43,437 | $467,313 | $40,384 | $21,006 | 40.72% | $23,341 | 173.02% |

TRS

Age at Hire: 25
Age at Retirement: 55
Years of Service: 10

Life Exp: 23.8
Salary $ 35,284 ASD Teacher BA Step 1
Inflation 3.50%

Three High $ 51,899

25 Yrs Old - 10 Yrs Service
Early Retire

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing TRS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $53,948 | $19,893 | $63,449 | $3,613 | $2,651 | 6.70% | $6,207 | 58.20% |
| | 5.50% | 2.00% | $53,948 | $19,893 | $66,558 | $4,215 | $3,093 | 7.81% | $6,207 | 67.91% |
| | 6.00% | 2.50% | $53,948 | $19,893 | $68,177 | $4,545 | $3,335 | 8.42% | $6,207 | 73.22% |
| | 6.50% | 3.00% | $53,948 | $19,893 | $69,840 | $4,894 | $3,591 | 9.07% | $6,207 | 78.84% |
| | 7.00% | 3.50% | $53,948 | $19,893 | $71,549 | $5,264 | $3,862 | 9.76% | $6,207 | 84.80% |
| | 7.50% | 4.00% | $53,948 | $19,893 | $73,306 | $5,655 | $4,149 | 10.48% | $6,207 | 91.11% |
| | 8.25% | 4.75% | $53,948 | $19,893 | $76,031 | $6,284 | $4,611 | 11.65% | $6,207 | 101.24% |
| | 8.75% | 5.25% | $53,948 | $19,893 | $77,910 | $6,733 | $4,940 | 12.48% | $6,207 | 108.47% |
| 12.50% | 4.50% | 1.00% | $53,948 | $19,893 | $68,966 | $3,927 | $2,881 | 7.28% | $6,207 | 63.26% |
| | 5.50% | 2.00% | $53,948 | $19,893 | $72,345 | $4,582 | $3,362 | 8.49% | $6,207 | 73.81% |
| | 6.00% | 2.50% | $53,948 | $19,893 | $74,105 | $4,940 | $3,625 | 9.16% | $6,207 | 79.58% |
| | 6.50% | 3.00% | $53,948 | $19,893 | $75,913 | $5,320 | $3,903 | 9.86% | $6,207 | 85.70% |
| | 7.00% | 3.50% | $53,948 | $19,893 | $77,771 | $5,722 | $4,198 | 10.61% | $6,207 | 92.18% |
| | 7.50% | 4.00% | $53,948 | $19,893 | $79,680 | $6,147 | $4,510 | 11.39% | $6,207 | 99.03% |
| | 8.25% | 4.75% | $53,948 | $19,893 | $82,642 | $6,831 | $5,012 | 12.66% | $6,207 | 110.05% |
| | 8.75% | 5.25% | $53,948 | $19,893 | $84,685 | $7,318 | $5,370 | 13.57% | $6,207 | 117.90% |
| 13.00% | 4.50% | 1.00% | $53,948 | $19,893 | $71,725 | $4,084 | $2,997 | 7.57% | $6,207 | 65.79% |
| | 5.50% | 2.00% | $53,948 | $19,893 | $75,239 | $4,765 | $3,496 | 8.83% | $6,207 | 76.77% |
| | 6.00% | 2.50% | $53,948 | $19,893 | $77,069 | $5,137 | $3,770 | 9.52% | $6,207 | 82.77% |
| | 6.50% | 3.00% | $53,948 | $19,893 | $78,950 | $5,532 | $4,059 | 10.25% | $6,207 | 89.13% |
| | 7.00% | 3.50% | $53,948 | $19,893 | $80,882 | $5,950 | $4,366 | 11.03% | $6,207 | 95.86% |
| | 7.50% | 4.00% | $53,948 | $19,893 | $82,867 | $6,393 | $4,691 | 11.85% | $6,207 | 102.99% |
| | 8.25% | 4.75% | $53,948 | $19,893 | $85,948 | $7,104 | $5,212 | 13.17% | $6,207 | 114.45% |
| | 8.75% | 5.25% | $53,948 | $19,893 | $88,073 | $7,611 | $5,584 | 14.11% | $6,207 | 122.62% |
| 14.00% | 4.50% | 1.00% | $53,948 | $19,893 | $77,242 | $4,398 | $3,227 | 8.15% | $6,207 | 70.86% |
| | 5.50% | 2.00% | $53,948 | $19,893 | $81,027 | $5,132 | $3,765 | 9.51% | $6,207 | 82.67% |
| | 6.00% | 2.50% | $53,948 | $19,893 | $82,998 | $5,533 | $4,059 | 10.26% | $6,207 | 89.13% |
| | 6.50% | 3.00% | $53,948 | $19,893 | $85,023 | $5,958 | $4,371 | 11.04% | $6,207 | 95.98% |
| | 7.00% | 3.50% | $53,948 | $19,893 | $87,104 | $6,408 | $4,702 | 11.88% | $6,207 | 103.24% |
| | 7.50% | 4.00% | $53,948 | $19,893 | $89,242 | $6,885 | $5,051 | 12.76% | $6,207 | 110.91% |
| | 8.25% | 4.75% | $53,948 | $19,893 | $92,560 | $7,650 | $5,613 | 14.18% | $6,207 | 123.25% |
| | 8.75% | 5.25% | $53,948 | $19,893 | $94,848 | $8,196 | $6,014 | 15.19% | $6,207 | 132.05% |
| 14.50% | 4.50% | 1.00% | $53,948 | $19,893 | $80,001 | $4,555 | $3,342 | 8.44% | $6,207 | 73.39% |
| | 5.50% | 2.00% | $53,948 | $19,893 | $83,921 | $5,315 | $3,900 | 9.85% | $6,207 | 85.62% |
| | 6.00% | 2.50% | $53,948 | $19,893 | $85,962 | $5,730 | $4,204 | 10.62% | $6,207 | 92.32% |
| | 6.50% | 3.00% | $53,948 | $19,893 | $88,059 | $6,171 | $4,528 | 11.44% | $6,207 | 99.41% |
| | 7.00% | 3.50% | $53,948 | $19,893 | $90,215 | $6,637 | $4,870 | 12.30% | $6,207 | 106.93% |
| | 7.50% | 4.00% | $53,948 | $19,893 | $92,429 | $7,131 | $5,232 | 13.22% | $6,207 | 114.88% |
| | 8.25% | 4.75% | $53,948 | $19,893 | $95,865 | $7,924 | $5,814 | 14.69% | $6,207 | 127.65% |
| | 8.75% | 5.25% | $53,948 | $19,893 | $98,235 | $8,489 | $6,229 | 15.74% | $6,207 | 136.76% |

**TRS**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | | Three High | $ 63,144 | 25 Yrs Old 15 Yrs Service |
| Age at Retirement | 55 | Salary | $ 35,284 | ASD Teacher BA Step 1 | | | Early Retire |
| Years of Service: | 15 | Inflation | 3.50% | | | | |

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing TRS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yrs | PV 2004 | | Term Yrs | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $65,636 | $24,203 | $118,031 | $6,721 | $4,152 | 10.24% | $11,328 | 59.33% |
| | 5.50% | 2.00% | $65,636 | $24,203 | $126,902 | $8,037 | $4,965 | 12.24% | $11,328 | 70.95% |
| | 6.00% | 2.50% | $65,636 | $24,203 | $131,633 | $8,775 | $5,421 | 13.37% | $11,328 | 77.46% |
| | 6.50% | 3.00% | $65,636 | $24,203 | $136,573 | $9,570 | $5,912 | 14.58% | $11,328 | 84.48% |
| | 7.00% | 3.50% | $65,636 | $24,203 | $141,733 | $10,427 | $6,442 | 15.89% | $11,328 | 92.05% |
| | 7.50% | 4.00% | $65,636 | $24,203 | $147,121 | $11,350 | $7,012 | 17.29% | $11,328 | 100.19% |
| | 8.25% | 4.75% | $65,636 | $24,203 | $155,657 | $12,866 | $7,948 | 19.60% | $11,328 | 113.57% |
| | 8.75% | 5.25% | $65,636 | $24,203 | $161,665 | $13,971 | $8,631 | 21.29% | $11,328 | 123.33% |
| 12.50% | 4.50% | 1.00% | $65,636 | $24,203 | $178,295 | $7,305 | $4,513 | 11.13% | $11,328 | 64.49% |
| | 5.50% | 2.00% | $65,636 | $24,203 | $137,937 | $8,736 | $5,397 | 13.31% | $11,328 | 77.12% |
| | 6.00% | 2.50% | $65,636 | $24,203 | $143,079 | $9,538 | $5,892 | 14.53% | $11,328 | 84.20% |
| | 6.50% | 3.00% | $65,636 | $24,203 | $148,449 | $10,402 | $6,426 | 15.85% | $11,328 | 91.83% |
| | 7.00% | 3.50% | $65,636 | $24,203 | $154,057 | $11,334 | $7,002 | 17.27% | $11,328 | 100.05% |
| | 7.50% | 4.00% | $65,636 | $24,203 | $159,915 | $12,337 | $7,621 | 18.80% | $11,328 | 108.91% |
| | 8.25% | 4.75% | $65,636 | $24,203 | $169,192 | $13,994 | $8,639 | 21.31% | $11,328 | 123.45% |
| | 8.75% | 5.25% | $65,636 | $24,203 | $175,722 | $15,185 | $9,381 | 23.14% | $11,328 | 134.05% |
| 13.00% | 4.50% | 1.00% | $65,636 | $24,203 | $133,427 | $7,597 | $4,693 | 11.57% | $11,328 | 67.07% |
| | 5.50% | 2.00% | $65,636 | $24,203 | $143,454 | $9,085 | $5,613 | 13.84% | $11,328 | 80.20% |
| | 6.00% | 2.50% | $65,636 | $24,203 | $148,802 | $9,919 | $6,128 | 15.11% | $11,328 | 87.56% |
| | 6.50% | 3.00% | $65,636 | $24,203 | $154,387 | $10,819 | $6,683 | 16.48% | $11,328 | 95.50% |
| | 7.00% | 3.50% | $65,636 | $24,203 | $160,220 | $11,787 | $7,282 | 17.96% | $11,328 | 104.06% |
| | 7.50% | 4.00% | $65,636 | $24,203 | $166,311 | $12,830 | $7,926 | 19.55% | $11,328 | 113.26% |
| | 8.25% | 4.75% | $65,636 | $24,203 | $175,960 | $14,544 | $8,985 | 22.10% | $11,328 | 128.39% |
| | 8.75% | 5.25% | $65,636 | $24,203 | $182,751 | $15,793 | $9,757 | 24.06% | $11,328 | 139.41% |
| 14.00% | 4.50% | 1.00% | $65,636 | $24,203 | $143,690 | $8,182 | $5,055 | 12.47% | $11,328 | 72.23% |
| | 5.50% | 2.00% | $65,636 | $24,203 | $154,489 | $9,784 | $6,044 | 14.91% | $11,328 | 86.37% |
| | 6.00% | 2.50% | $65,636 | $24,203 | $160,249 | $10,682 | $6,599 | 16.28% | $11,328 | 94.30% |
| | 6.50% | 3.00% | $65,636 | $24,203 | $166,263 | $11,651 | $7,198 | 17.75% | $11,328 | 102.85% |
| | 7.00% | 3.50% | $65,636 | $24,203 | $172,544 | $12,694 | $7,842 | 19.34% | $11,328 | 112.06% |
| | 7.50% | 4.00% | $65,636 | $24,203 | $179,104 | $13,817 | $8,536 | 21.05% | $11,328 | 121.97% |
| | 8.25% | 4.75% | $65,636 | $24,203 | $189,495 | $15,662 | $9,676 | 23.86% | $11,328 | 138.26% |
| | 8.75% | 5.25% | $65,636 | $24,203 | $196,809 | $17,008 | $10,507 | 25.91% | $11,328 | 150.14% |
| 14.50% | 4.50% | 1.00% | $65,636 | $24,203 | $148,822 | $8,474 | $5,235 | 12.91% | $11,328 | 74.81% |
| | 5.50% | 2.00% | $65,636 | $24,203 | $160,006 | $10,134 | $6,260 | 15.44% | $11,328 | 89.46% |
| | 6.00% | 2.50% | $65,636 | $24,203 | $165,972 | $11,064 | $6,835 | 16.86% | $11,328 | 97.67% |
| | 6.50% | 3.00% | $65,636 | $24,203 | $172,201 | $12,067 | $7,455 | 18.38% | $11,328 | 106.52% |
| | 7.00% | 3.50% | $65,636 | $24,203 | $178,707 | $13,147 | $8,122 | 20.03% | $11,328 | 116.06% |
| | 7.50% | 4.00% | $65,636 | $24,203 | $185,501 | $14,311 | $8,841 | 21.80% | $11,328 | 126.33% |
| | 8.25% | 4.75% | $65,636 | $24,203 | $196,263 | $16,222 | $10,022 | 24.71% | $11,328 | 143.20% |
| | 8.75% | 5.25% | $65,636 | $24,203 | $203,838 | $17,615 | $10,882 | 26.84% | $11,328 | 155.50% |

TRS

Age at Hire: 25
Age at Retirement: 55
Years of Service: 20

Life Exp: 23.8
Salary $ 35,284
Inflation 3.50%

Three High $ 76,824

**25 Yrs Old - 10 Yrs Service**
**Early Retire**

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing TRS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $79,856 | $29,447 | $194,492 | $11,074 | $5,760 | 13.87% | $18,376 | 60.26% |
| | 5.50% | 2.00% | $79,856 | $29,447 | $214,416 | $13,579 | $7,063 | 17.00% | $18,376 | 73.90% |
| | 6.00% | 2.50% | $79,856 | $29,447 | $225,303 | $15,019 | $7,812 | 18.81% | $18,376 | 81.73% |
| | 6.50% | 3.00% | $79,856 | $29,447 | $236,861 | $16,598 | $8,633 | 20.78% | $18,376 | 90.32% |
| | 7.00% | 3.50% | $79,856 | $29,447 | $249,134 | $18,329 | $9,534 | 22.95% | $18,376 | 99.74% |
| | 7.50% | 4.00% | $79,856 | $29,447 | $262,167 | $20,225 | $10,520 | 25.33% | $18,376 | 110.06% |
| | 8.25% | 4.75% | $79,856 | $29,447 | $283,252 | $23,412 | $12,178 | 29.32% | $18,376 | 127.40% |
| | 8.75% | 5.25% | $79,856 | $29,447 | $298,410 | $25,788 | $13,414 | 32.[illegible] | $18,376 | 140.33% |
| 12.50% | 4.50% | 1.00% | $79,856 | $29,447 | $211,405 | $12,037 | $6,261 | 15.07% | $18,376 | 65.51% |
| | 5.50% | 2.00% | $79,856 | $29,447 | $233,061 | $14,760 | $7,678 | 18.48% | $18,376 | 80.32% |
| | 6.00% | 2.50% | $79,856 | $29,447 | $244,895 | $16,325 | $8,491 | 20.44% | $18,376 | 88.84% |
| | 6.50% | 3.00% | $79,856 | $29,447 | $257,458 | $18,041 | $9,384 | 22.59% | $18,376 | 98.18% |
| | 7.00% | 3.50% | $79,856 | $29,447 | $270,798 | $19,923 | $10,363 | 24.95% | $18,376 | 108.41% |
| | 7.50% | 4.00% | $79,856 | $29,447 | $284,964 | $21,984 | $11,435 | 27.53% | $18,376 | 119.63% |
| | 8.25% | 4.75% | $79,856 | $29,447 | $307,883 | $25,448 | $13,237 | 31.87% | $18,376 | 138.48% |
| | 8.75% | 5.25% | $79,856 | $29,447 | $324,359 | $28,030 | $14,580 | 35.10% | $18,376 | 152.53% |
| 13.00% | 4.50% | 1.00% | $79,856 | $29,447 | $219,861 | $12,519 | $6,512 | 15.68% | $18,376 | 68.13% |
| | 5.50% | 2.00% | $79,856 | $29,447 | $242,383 | $15,351 | $7,985 | 19.22% | $18,376 | 83.54% |
| | 6.00% | 2.50% | $79,856 | $29,447 | $254,691 | $16,978 | $8,831 | 21.26% | $18,376 | 92.39% |
| | 6.50% | 3.00% | $79,856 | $29,447 | $267,756 | $18,763 | $9,760 | 23.50% | $18,376 | 102.10% |
| | 7.00% | 3.50% | $79,856 | $29,447 | $281,630 | $20,719 | $10,777 | 25.95% | $18,376 | 112.75% |
| | 7.50% | 4.00% | $79,856 | $29,447 | $296,363 | $22,863 | $11,892 | 28.63% | $18,376 | 124.42% |
| | 8.25% | 4.75% | $79,856 | $29,447 | $320,198 | $26,465 | $13,766 | 33.14% | $18,376 | 144.02% |
| | 8.75% | 5.25% | $79,856 | $29,447 | $337,333 | $29,151 | $15,163 | 36.51% | $18,376 | 158.64% |
| 14.00% | 4.50% | 1.00% | $79,856 | $29,447 | $236,773 | $13,482 | $7,013 | 16.88% | $18,376 | 73.37% |
| | 5.50% | 2.00% | $79,856 | $29,447 | $261,028 | $16,531 | $8,599 | 20.70% | $18,376 | 89.96% |
| | 6.00% | 2.50% | $79,856 | $29,447 | $274,282 | $18,284 | $9,510 | 22.90% | $18,376 | 99.50% |
| | 6.50% | 3.00% | $79,856 | $29,447 | $288,353 | $20,206 | $10,510 | 25.30% | $18,376 | 109.96% |
| | 7.00% | 3.50% | $79,856 | $29,447 | $303,293 | $22,313 | $11,606 | 27.94% | $18,376 | 121.42% |
| | 7.50% | 4.00% | $79,856 | $29,447 | $319,160 | $24,622 | $12,807 | 30.83% | $18,376 | 133.99% |
| | 8.25% | 4.75% | $79,856 | $29,447 | $344,828 | $28,501 | $14,825 | 35.69% | $18,376 | 155.10% |
| | 8.75% | 5.25% | $79,856 | $29,447 | $363,282 | $31,394 | $16,330 | 39.31% | $18,376 | 170.84% |
| 14.50% | 4.50% | 1.00% | $79,856 | $29,447 | $245,229 | $13,963 | $7,263 | 17.49% | $18,376 | 75.99% |
| | 5.50% | 2.00% | $79,856 | $29,447 | $270,351 | $17,122 | $8,906 | 21.44% | $18,376 | 93.17% |
| | 6.00% | 2.50% | $79,856 | $29,447 | $284,078 | $18,937 | $9,850 | 23.71% | $18,376 | 103.05% |
| | 6.50% | 3.00% | $79,856 | $29,447 | $298,651 | $20,928 | $10,886 | 26.21% | $18,376 | 113.88% |
| | 7.00% | 3.50% | $79,856 | $29,447 | $314,125 | $23,110 | $12,021 | 28.94% | $18,376 | 125.76% |
| | 7.50% | 4.00% | $79,856 | $29,447 | $330,558 | $25,501 | $13,265 | 31.93% | $18,376 | 138.77% |
| | 8.25% | 4.75% | $79,856 | $29,447 | $357,144 | $29,519 | $15,355 | 36.97% | $18,376 | 160.64% |
| | 8.75% | 5.25% | $79,856 | $29,447 | $376,256 | $32,515 | $16,913 | 40.72% | $18,376 | 176.94% |

TRS

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 30 | Life Exp: | 23.8 | Three High | $ 117,461 |
| Age at Retirement | 50 | Salary | $ 53,948 | TRS Average Salary | |
| Years of Service: | 20 | Inflation | 3.50% | | |

30 Yrs Old - 20 Yrs Service
Normal Retire at 50

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing TRS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $122,097 | $53,473 | $297,372 | $16,932 | $8,807 | 13.87% | $28,097 | 60.26% |
| | 5.50% | 2.00% | $122,097 | $53,473 | $327,834 | $20,762 | $10,800 | 17.00% | $28,097 | 73.90% |
| | 6.00% | 2.50% | $122,097 | $53,473 | $344,481 | $22,963 | $11,944 | 18.81% | $28,097 | 81.73% |
| | 6.50% | 3.00% | $122,097 | $53,473 | $362,153 | $25,377 | $13,200 | 20.78% | $28,097 | 90.32% |
| | 7.00% | 3.50% | $122,097 | $53,473 | $380,917 | $28,024 | $14,577 | 22.95% | $28,097 | 99.74% |
| | 7.50% | 4.00% | $122,097 | $53,473 | $400,844 | $30,923 | $16,085 | 25.33% | $28,097 | 110.06% |
| | 8.25% | 4.75% | $122,097 | $53,473 | $433,082 | $35,796 | $18,619 | 29.32% | $28,097 | 127.40% |
| | 8.75% | 5.25% | $122,097 | $53,473 | $456,258 | $39,429 | $20,509 | 32.29% | $28,097 | 140.33% |
| 12.50% | 4.50% | 1.00% | $122,097 | $53,473 | $323,230 | $18,405 | $9,573 | 15.07% | $28,097 | 65.51% |
| | 5.50% | 2.00% | $122,097 | $53,473 | $356,342 | $22,568 | $11,739 | 18.48% | $28,097 | 80.32% |
| | 6.00% | 2.50% | $122,097 | $53,473 | $374,436 | $24,960 | $12,983 | 20.44% | $28,097 | 88.84% |
| | 6.50% | 3.00% | $122,097 | $53,473 | $393,644 | $27,584 | $14,348 | 22.59% | $28,097 | 98.18% |
| | 7.00% | 3.50% | $122,097 | $53,473 | $414,040 | $30,461 | $15,844 | 24.95% | $28,097 | 108.41% |
| | 7.50% | 4.00% | $122,097 | $53,473 | $435,700 | $33,612 | $17,484 | 27.53% | $28,097 | 119.63% |
| | 8.25% | 4.75% | $122,097 | $53,473 | $470,742 | $38,908 | $20,238 | 31.87% | $28,097 | 138.48% |
| | 8.75% | 5.25% | $122,097 | $53,473 | $495,933 | $42,857 | $22,292 | 35.10% | $28,097 | 152.53% |
| 13.00% | 4.50% | 1.00% | $122,097 | $53,473 | $336,160 | $19,141 | $9,956 | 15.68% | $28,097 | 68.13% |
| | 5.50% | 2.00% | $122,097 | $53,473 | $370,595 | $23,471 | $12,208 | 19.22% | $28,097 | 83.54% |
| | 6.00% | 2.50% | $122,097 | $53,473 | $389,413 | $25,958 | $13,502 | 21.26% | $28,097 | 92.39% |
| | 6.50% | 3.00% | $122,097 | $53,473 | $409,390 | $28,688 | $14,922 | 23.50% | $28,097 | 102.10% |
| | 7.00% | 3.50% | $122,097 | $53,473 | $430,602 | $31,679 | $16,478 | 25.95% | $28,097 | 112.75% |
| | 7.50% | 4.00% | $122,097 | $53,473 | $453,128 | $34,957 | $18,183 | 28.63% | $28,097 | 124.42% |
| | 8.25% | 4.75% | $122,097 | $53,473 | $489,571 | $40,465 | $21,048 | 33.14% | $28,097 | 144.02% |
| | 8.75% | 5.25% | $122,097 | $53,473 | $515,770 | $44,572 | $23,184 | 36.51% | $28,097 | 158.64% |
| 14.00% | 4.50% | 1.00% | $122,097 | $53,473 | $362,018 | $20,613 | $10,722 | 16.88% | $28,097 | 73.37% |
| | 5.50% | 2.00% | $122,097 | $53,473 | $399,103 | $25,276 | $13,147 | 20.70% | $28,097 | 89.96% |
| | 6.00% | 2.50% | $122,097 | $53,473 | $419,368 | $27,955 | $14,541 | 22.90% | $28,097 | 99.50% |
| | 6.50% | 3.00% | $122,097 | $53,473 | $440,882 | $30,894 | $16,070 | 25.30% | $28,097 | 109.96% |
| | 7.00% | 3.50% | $122,097 | $53,473 | $463,725 | $34,116 | $17,746 | 27.94% | $28,097 | 121.42% |
| | 7.50% | 4.00% | $122,097 | $53,473 | $487,984 | $37,646 | $19,582 | 30.83% | $28,097 | 133.99% |
| | 8.25% | 4.75% | $122,097 | $53,473 | $527,231 | $43,577 | $22,667 | 35.69% | $28,097 | 155.10% |
| | 8.75% | 5.25% | $122,097 | $53,473 | $555,445 | $48,000 | $24,968 | 39.31% | $28,097 | 170.84% |
| 14.50% | 4.50% | 1.00% | $122,097 | $53,473 | $374,947 | $21,350 | $11,105 | 17.49% | $28,097 | 75.99% |
| | 5.50% | 2.00% | $122,097 | $53,473 | $413,356 | $26,179 | $13,617 | 21.44% | $28,097 | 93.17% |
| | 6.00% | 2.50% | $122,097 | $53,473 | $434,345 | $28,954 | $15,060 | 23.71% | $28,097 | 103.05% |
| | 6.50% | 3.00% | $122,097 | $53,473 | $456,627 | $31,998 | $16,644 | 26.21% | $28,097 | 113.88% |
| | 7.00% | 3.50% | $122,097 | $53,473 | $480,287 | $35,335 | $18,379 | 28.94% | $28,097 | 125.76% |
| | 7.50% | 4.00% | $122,097 | $53,473 | $505,412 | $38,990 | $20,281 | 31.93% | $28,097 | 138.77% |
| | 8.25% | 4.75% | $122,097 | $53,473 | $546,060 | $45,134 | $23,477 | 36.97% | $28,097 | 160.64% |
| | 8.75% | 5.25% | $122,097 | $53,473 | $575,282 | $49,714 | $25,859 | 40.72% | $28,097 | 176.94% |

Pol/Fire

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | High Three | $ 72,680 |
| Age at Retirement | 55 | Salary | $ 49,412 | | |
| Years of Service: | 10 | Inflation | 3.50% | | |

25 Yrs Old - 10 Yrs Service
Early Retire

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $75,549 | $27,859 | $88,854 | $5,059 | $3,712 | 6.70% | $8,693 | 58.20% |
| | 5.50% | 2.00% | $75,549 | $27,859 | $93,208 | $5,903 | $4,331 | 7.81% | $8,693 | 67.91% |
| | 6.00% | 2.50% | $75,549 | $27,859 | $95,475 | $6,364 | $4,670 | 8.42% | $8,693 | 73.22% |
| | 6.50% | 3.00% | $75,549 | $27,859 | $97,805 | $6,854 | $5,029 | 9.07% | $8,693 | 78.84% |
| | 7.00% | 3.50% | $75,549 | $27,859 | $100,198 | $7,372 | $5,409 | 9.76% | $8,693 | 84.80% |
| | 7.50% | 4.00% | $75,549 | $27,859 | $102,658 | $7,920 | $5,811 | 10.48% | $8,693 | 91.11% |
| | 8.25% | 4.75% | $75,549 | $27,859 | $106,475 | $8,800 | $6,457 | 11.65% | $8,693 | 101.24% |
| | 8.75% | 5.25% | $75,549 | $27,859 | $109,106 | $9,429 | $6,918 | 12.48% | $8,693 | 108.47% |
| 12.50% | 4.50% | 1.00% | $111,831 | $41,237 | $296,053 | $16,857 | $8,768 | 15.07% | $25,734 | 65.51% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $326,380 | $20,670 | $10,752 | 18.48% | $25,734 | 80.32% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $342,953 | $22,861 | $11,891 | 20.44% | $25,734 | 88.84% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $360,546 | $25,265 | $13,142 | 22.59% | $25,734 | 98.18% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $379,227 | $27,900 | $14,512 | 24.95% | $25,734 | 108.41% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $399,066 | $30,786 | $16,014 | 27.53% | $25,734 | 119.63% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $431,161 | $35,637 | $18,537 | 31.87% | $25,734 | 138.48% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $454,235 | $39,254 | $20,418 | 35.10% | $25,734 | 152.53% |
| 13.00% | 4.50% | 1.00% | $75,549 | $27,859 | $100,444 | $5,719 | $4,196 | 7.57% | $8,693 | 65.79% |
| | 5.50% | 2.00% | $75,549 | $27,859 | $105,366 | $6,673 | $4,896 | 8.83% | $8,693 | 76.77% |
| | 6.00% | 2.50% | $75,549 | $27,859 | $107,929 | $7,195 | $5,279 | 9.52% | $8,693 | 82.77% |
| | 6.50% | 3.00% | $75,549 | $27,859 | $110,562 | $7,748 | $5,685 | 10.25% | $8,693 | 89.13% |
| | 7.00% | 3.50% | $75,549 | $27,859 | $113,268 | $8,333 | $6,114 | 11.03% | $8,693 | 95.86% |
| | 7.50% | 4.00% | $75,549 | $27,859 | $116,048 | $8,953 | $6,569 | 11.85% | $8,693 | 102.99% |
| | 8.25% | 4.75% | $75,549 | $27,859 | $120,363 | $9,948 | $7,299 | 13.17% | $8,693 | 114.45% |
| | 8.75% | 5.25% | $75,549 | $27,859 | $123,338 | $10,659 | $7,820 | 14.11% | $8,693 | 122.62% |
| 14.00% | 4.50% | 1.00% | $75,549 | $27,859 | $108,170 | $6,159 | $4,519 | 8.15% | $8,693 | 70.86% |
| | 5.50% | 2.00% | $75,549 | $27,859 | $113,471 | $7,186 | $5,273 | 9.51% | $8,693 | 82.67% |
| | 6.00% | 2.50% | $75,549 | $27,859 | $116,231 | $7,748 | $5,685 | 10.26% | $8,693 | 89.13% |
| | 6.50% | 3.00% | $75,549 | $27,859 | $119,067 | $8,343 | $6,122 | 11.04% | $8,693 | 95.98% |
| | 7.00% | 3.50% | $75,549 | $27,859 | $121,981 | $8,974 | $6,585 | 11.88% | $8,693 | 103.24% |
| | 7.50% | 4.00% | $75,549 | $27,859 | $124,975 | $9,641 | $7,074 | 12.76% | $8,693 | 110.91% |
| | 8.25% | 4.75% | $75,549 | $27,859 | $129,621 | $10,714 | $7,861 | 14.18% | $8,693 | 123.25% |
| | 8.75% | 5.25% | $75,549 | $27,859 | $132,825 | $11,478 | $8,422 | 15.19% | $8,693 | 132.05% |
| 14.50% | 4.50% | 1.00% | $75,549 | $27,859 | $112,034 | $6,379 | $4,681 | 8.44% | $8,693 | 73.39% |
| | 5.50% | 2.00% | $75,549 | $27,859 | $117,523 | $7,443 | $5,461 | 9.85% | $8,693 | 85.62% |
| | 6.00% | 2.50% | $75,549 | $27,859 | $120,382 | $8,025 | $5,888 | 10.62% | $8,693 | 92.32% |
| | 6.50% | 3.00% | $75,549 | $27,859 | $123,319 | $8,641 | $6,340 | 11.44% | $8,693 | 99.41% |
| | 7.00% | 3.50% | $75,549 | $27,859 | $126,337 | $9,295 | $6,820 | 12.30% | $8,693 | 106.93% |
| | 7.50% | 4.00% | $75,549 | $27,859 | $129,438 | $9,986 | $7,327 | 13.22% | $8,693 | 114.88% |
| | 8.25% | 4.75% | $75,549 | $27,859 | $134,250 | $11,096 | $8,142 | 14.69% | $8,693 | 127.65% |
| | 8.75% | 5.25% | $75,549 | $27,859 | $137,569 | $11,883 | $8,723 | 15.74% | $8,693 | 136.76% |

Pol/Fire

Age at Hire: 25
Age at Retirement 50
Years of Service: 20

Life Exp: 23.8
Salary $ 49,412
Inflation 3.50%

High Three $ 107,585

25 Yrs Old - 20 Yrs Service
Normal Retire 45

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $111,831 | $41,237 | $272,369 | $15,509 | $8,067 | 13.87% | $48,413 | 32.03% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $300,270 | $19,017 | $9,892 | 17.00% | $48,413 | 39.28% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $315,517 | $21,032 | $10,940 | 18.81% | $48,413 | 43.44% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $331,703 | $23,244 | $12,090 | 20.78% | $48,413 | 48.01% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $348,889 | $25,668 | $13,351 | 22.95% | $48,413 | 53.02% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $367,141 | $28,323 | $14,733 | 25.33% | $48,413 | 58.50% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $396,669 | $32,786 | $17,054 | 29.32% | $48,413 | 67.72% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $417,896 | $36,113 | $18,785 | 32.29% | $48,413 | 74.59% |
| 12.50% | 4.50% | 1.00% | $111,831 | $41,237 | $296,053 | $16,857 | $8,768 | 15.07% | $48,413 | 34.82% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $326,380 | $20,670 | $10,752 | 18.48% | $48,413 | 42.70% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $342,953 | $22,861 | $11,891 | 20.44% | $48,413 | 47.22% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $360,546 | $25,265 | $13,142 | 22.59% | $48,413 | 52.19% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $379,227 | $27,900 | $14,512 | 24.95% | $48,413 | 57.63% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $399,066 | $30,786 | $16,014 | 27.53% | $48,413 | 63.59% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $431,161 | $35,637 | $18,537 | 31.87% | $48,413 | 73.61% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $454,235 | $39,254 | $20,418 | 35.10% | $48,413 | 81.08% |
| 13.00% | 4.50% | 1.00% | $111,831 | $41,237 | $307,895 | $17,532 | $9,119 | 15.68% | $48,413 | 36.21% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $339,435 | $21,497 | $11,182 | 19.22% | $48,413 | 44.40% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $356,671 | $23,776 | $12,367 | 21.26% | $48,413 | 49.11% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $374,968 | $26,275 | $13,667 | 23.50% | $48,413 | 54.27% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $394,396 | $29,016 | $15,093 | 25.95% | $48,413 | 59.93% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $415,029 | $32,018 | $16,654 | 28.63% | $48,413 | 66.13% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $448,408 | $37,062 | $19,278 | 33.14% | $48,413 | 76.55% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $472,404 | $40,824 | $21,235 | 36.51% | $48,413 | 84.32% |
| 14.00% | 4.50% | 1.00% | $111,831 | $41,237 | $331,579 | $18,880 | $9,821 | 16.88% | $48,413 | 39.00% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $365,546 | $23,151 | $12,042 | 20.70% | $48,413 | 47.82% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $384,107 | $25,605 | $13,318 | 22.90% | $48,413 | 52.89% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $403,812 | $28,297 | $14,719 | 25.30% | $48,413 | 58.45% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $424,735 | $31,248 | $16,254 | 27.94% | $48,413 | 64.54% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $446,954 | $34,481 | $17,935 | 30.83% | $48,413 | 71.22% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $482,901 | $39,913 | $20,761 | 35.69% | $48,413 | 82.44% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $508,743 | $43,964 | $22,868 | 39.31% | $48,413 | 90.81% |
| 14.50% | 4.50% | 1.00% | $111,831 | $41,237 | $343,421 | $19,554 | $10,171 | 17.49% | $48,413 | 40.39% |
| | 5.50% | 2.00% | $111,831 | $41,237 | $378,601 | $23,978 | $12,472 | 21.44% | $48,413 | 49.53% |
| | 6.00% | 2.50% | $111,831 | $41,237 | $397,625 | $26,519 | $13,794 | 23.71% | $48,413 | 54.78% |
| | 6.50% | 3.00% | $111,831 | $41,237 | $418,234 | $29,307 | $15,244 | 26.21% | $48,413 | 60.54% |
| | 7.00% | 3.50% | $111,831 | $41,237 | $439,504 | $32,364 | $16,834 | 28.94% | $48,413 | 66.85% |
| | 7.50% | 4.00% | $111,831 | $41,237 | $462,917 | $35,712 | $18,576 | 31.93% | $48,413 | 73.77% |
| | 8.25% | 4.75% | $111,831 | $41,237 | $500,147 | $41,339 | $21,503 | 36.97% | $48,413 | 85.39% |
| | 8.75% | 5.25% | $111,831 | $41,237 | $526,912 | $45,534 | $23,685 | 40.72% | $48,413 | 94.05% |

**Pol/Fire**

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 25 | Life Exp: | 23.8 | High Three | $ 130,893 |
| Age at Retirement | 50 | Salary | $ 49,412 | | |
| Years of Service: | 25 | Inflation | 3.50% | | |

**25 Yrs Old - 25 Yrs Service**
**Normal Retire 50**

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $136,059 | $50,172 | $420,188 | $23,926 | $10,478 | 17.58% | $75,264 | 31.79% |
| | 5.50% | 2.00% | $136,059 | $50,172 | $475,179 | $30,094 | $13,180 | 22.12% | $75,264 | 39.98% |
| | 6.00% | 2.50% | $136,059 | $50,172 | $505,973 | $33,728 | $14,772 | 24.79% | $75,264 | 44.81% |
| | 6.50% | 3.00% | $136,059 | $50,172 | $539,216 | $37,785 | $16,548 | 27.77% | $75,264 | 50.20% |
| | 7.00% | 3.50% | $136,059 | $50,172 | $575,115 | $42,311 | $18,530 | 31.10% | $75,264 | 56.22% |
| | 7.50% | 4.00% | $136,059 | $50,172 | $613,896 | $47,359 | $20,741 | 34.81% | $75,264 | 62.92% |
| | 8.25% | 4.75% | $136,059 | $50,172 | $678,010 | $56,040 | $24,543 | 41.19% | $75,264 | 74.46% |
| | 8.75% | 5.25% | $136,059 | $50,172 | $725,109 | $62,662 | $27,443 | 46.05% | $75,264 | 83.26% |
| 12.50% | 4.50% | 1.00% | $136,059 | $50,172 | $456,726 | $26,006 | $11,390 | 19.11% | $75,264 | 34.55% |
| | 5.50% | 2.00% | $136,059 | $50,172 | $516,499 | $32,711 | $14,326 | 24.04% | $75,264 | 43.46% |
| | 6.00% | 2.50% | $136,059 | $50,172 | $549,971 | $36,661 | $16,056 | 26.95% | $75,264 | 48.71% |
| | 6.50% | 3.00% | $136,059 | $50,172 | $586,104 | $41,071 | $17,987 | 30.19% | $75,264 | 54.57% |
| | 7.00% | 3.50% | $136,059 | $50,172 | $625,125 | $45,990 | $20,142 | 33.80% | $75,264 | 61.11% |
| | 7.50% | 4.00% | $136,059 | $50,172 | $667,278 | $51,478 | $22,545 | 37.83% | $75,264 | 68.40% |
| | 8.25% | 4.75% | $136,059 | $50,172 | $736,967 | $60,913 | $26,677 | 44.77% | $75,264 | 80.93% |
| | 8.75% | 5.25% | $136,059 | $50,172 | $788,162 | $68,111 | $29,830 | 50.06% | $75,264 | 90.50% |
| 13.00% | 4.50% | 1.00% | $136,059 | $50,172 | $474,995 | $27,046 | $11,845 | 19.88% | $75,264 | 35.94% |
| | 5.50% | 2.00% | $136,059 | $50,172 | $537,158 | $34,019 | $14,899 | 25.00% | $75,264 | 45.20% |
| | 6.00% | 2.50% | $136,059 | $50,172 | $571,969 | $38,128 | $16,698 | 28.02% | $75,264 | 50.66% |
| | 6.50% | 3.00% | $136,059 | $50,172 | $609,549 | $42,713 | $18,707 | 31.39% | $75,264 | 56.75% |
| | 7.00% | 3.50% | $136,059 | $50,172 | $650,130 | $47,830 | $20,947 | 35.15% | $75,264 | 63.55% |
| | 7.50% | 4.00% | $136,059 | $50,172 | $693,970 | $53,537 | $23,447 | 39.35% | $75,264 | 71.13% |
| | 8.25% | 4.75% | $136,059 | $50,172 | $766,446 | $63,349 | $27,744 | 46.56% | $75,264 | 84.17% |
| | 8.75% | 5.25% | $136,059 | $50,172 | $819,688 | $70,835 | $31,023 | 52.06% | $75,264 | 94.12% |
| 14.00% | 4.50% | 1.00% | $136,059 | $50,172 | $511,533 | $29,127 | $12,756 | 21.4[illegible] | $75,264 | 38.70% |
| | 5.50% | 2.00% | $136,059 | $50,172 | $578,478 | $36,636 | $16,045 | 26.9[illegible] | $75,264 | 48.68% |
| | 6.00% | 2.50% | $136,059 | $50,172 | $615,967 | $41,061 | $17,983 | 30.18% | $75,264 | 54.56% |
| | 6.50% | 3.00% | $136,059 | $50,172 | $656,437 | $45,999 | $20,146 | 33.81% | $75,264 | 61.12% |
| | 7.00% | 3.50% | $136,059 | $50,172 | $700,141 | $51,509 | $22,559 | 37.86% | $75,264 | 68.44% |
| | 7.50% | 4.00% | $136,059 | $50,172 | $747,352 | $57,655 | $25,250 | 42.37% | $75,264 | 76.60% |
| | 8.25% | 4.75% | $136,059 | $50,172 | $825,403 | $68,222 | $29,879 | 50.14% | $75,264 | 90.64% |
| | 8.75% | 5.25% | $136,059 | $50,172 | $882,741 | $76,284 | $33,409 | 56.07% | $75,264 | 101.36% |
| 14.50% | 4.50% | 1.00% | $136,059 | $50,172 | $539,802 | $30,167 | $13,212 | 22.17% | $75,264 | 40.08% |
| | 5.50% | 2.00% | $136,059 | $50,172 | $599,138 | $37,945 | $16,618 | 27.89% | $75,264 | 50.42% |
| | 6.00% | 2.50% | $136,059 | $50,172 | $637,966 | $42,527 | $18,625 | 31.26% | $75,264 | 56.50% |
| | 6.50% | 3.00% | $136,059 | $50,172 | $679,881 | $47,642 | $20,865 | 35.02% | $75,264 | 63.30% |
| | 7.00% | 3.50% | $136,059 | $50,172 | $725,146 | $53,349 | $23,364 | 39.21% | $75,264 | 70.88% |
| | 7.50% | 4.00% | $136,059 | $50,172 | $774,043 | $59,714 | $26,152 | 43.89% | $75,264 | 79.34% |
| | 8.25% | 4.75% | $136,059 | $50,172 | $854,882 | $70,659 | $30,946 | 51.93% | $75,264 | 93.88% |
| | 8.75% | 5.25% | $136,059 | $50,172 | $914,268 | $79,009 | $34,602 | 58.07% | $75,264 | 104.98% |

Pol/Fire

| | | | | | |
|---|---|---|---|---|---|
| Age at Hire: | 30 | Life Exp: | 23.8 | High Three | $ 131,154 |
| Age at Retirement | 50 | Salary | $ 60,237 | | |
| Years of Service: | 20 | Inflation | 3.50% | | |

30 Yrs Old - 20 Yrs Service
Normal Retire 50

| Contribution Level | Total Return | Real Return | Final Salary | | Account Balance at Termination | Beginning Annuity | | Annuity as % of Final Salary | Existing PERS Pension Benefit | DC vs DB |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Term Yr | PV 2004 | | Term Yr | PV 2004 | | | |
| 11.50% | 4.50% | 1.00% | $136,330 | $59,707 | $332,038 | $18,906 | $9,834 | 13.87% | $61,349 | 30.82% |
| | 5.50% | 2.00% | $136,330 | $59,707 | $366,052 | $23,183 | $12,059 | 17.00% | $61,349 | 37.79% |
| | 6.00% | 2.50% | $136,330 | $59,707 | $384,639 | $25,640 | $13,337 | 18.81% | $61,349 | 41.79% |
| | 6.50% | 3.00% | $136,330 | $59,707 | $404,371 | $28,336 | $14,739 | 20.78% | $61,349 | 46.19% |
| | 7.00% | 3.50% | $136,330 | $59,707 | $425,322 | $31,291 | $16,276 | 22.95% | $61,349 | 51.00% |
| | 7.50% | 4.00% | $136,330 | $59,707 | $447,573 | $34,528 | $17,960 | 25.33% | $61,349 | 56.28% |
| | 8.25% | 4.75% | $136,330 | $59,707 | $483,569 | $39,969 | $20,790 | 29.32% | $61,349 | 65.15% |
| | 8.75% | 5.25% | $136,330 | $59,707 | $509,447 | $44,025 | $22,900 | 32.29% | $61,349 | 71.76% |
| 12.50% | 4.50% | 1.00% | $136,330 | $59,707 | $360,911 | $20,550 | $10,689 | 15.07% | $61,349 | 33.50% |
| | 5.50% | 2.00% | $136,330 | $59,707 | $397,882 | $25,199 | $13,107 | 18.48% | $61,349 | 41.07% |
| | 6.00% | 2.50% | $136,330 | $59,707 | $418,086 | $27,870 | $14,497 | 20.44% | $61,349 | 45.43% |
| | 6.50% | 3.00% | $136,330 | $59,707 | $439,534 | $30,800 | $16,021 | 22.59% | $61,349 | 50.20% |
| | 7.00% | 3.50% | $136,330 | $59,707 | $462,307 | $34,012 | $17,691 | 24.95% | $61,349 | 55.44% |
| | 7.50% | 4.00% | $136,330 | $59,707 | $486,492 | $37,531 | $19,522 | 27.53% | $61,349 | 61.18% |
| | 8.25% | 4.75% | $136,330 | $59,707 | $525,618 | $43,444 | $22,598 | 31.87% | $61,349 | 70.81% |
| | 8.75% | 5.25% | $136,330 | $59,707 | $553,747 | $47,853 | $24,891 | 35.10% | $61,349 | 78.00% |
| 13.00% | 4.50% | 1.00% | $136,330 | $59,707 | $375,947 | $21,372 | $11,117 | 15.68% | $61,349 | 34.84% |
| | 5.50% | 2.00% | $136,330 | $59,707 | $413,798 | $26,207 | $13,632 | 19.22% | $61,349 | 42.72% |
| | 6.00% | 2.50% | $136,330 | $59,707 | $434,809 | $28,985 | $15,076 | 21.26% | $61,349 | 47.25% |
| | 6.50% | 3.00% | $136,330 | $59,707 | $457,115 | $32,032 | $16,662 | 23.50% | $61,349 | 52.21% |
| | 7.00% | 3.50% | $136,330 | $59,707 | $480,799 | $35,372 | $18,399 | 25.95% | $61,349 | 57.66% |
| | 7.50% | 4.00% | $136,330 | $59,707 | $505,952 | $39,032 | $20,303 | 28.63% | $61,349 | 63.62% |
| | 8.25% | 4.75% | $136,330 | $59,707 | $546,643 | $45,182 | $23,502 | 33.14% | $61,349 | 73.65% |
| | 8.75% | 5.25% | $136,330 | $59,707 | $575,896 | $49,767 | $25,887 | 36.51% | $61,349 | 81.12% |
| 14.00% | 4.50% | 1.00% | $136,330 | $59,707 | $404,220 | $23,016 | $11,972 | 16.88% | $61,349 | 37.52% |
| | 5.50% | 2.00% | $136,330 | $59,707 | $445,628 | $28,223 | $14,680 | 20.70% | $61,349 | 46.00% |
| | 6.00% | 2.50% | $136,330 | $59,707 | $468,256 | $31,214 | $16,236 | 22.90% | $61,349 | 50.88% |
| | 6.50% | 3.00% | $136,330 | $59,707 | $492,273 | $34,496 | $17,943 | 25.30% | $61,349 | 56.23% |
| | 7.00% | 3.50% | $136,330 | $59,707 | $517,734 | $38,093 | $19,814 | 27.94% | $61,349 | 62.09% |
| | 7.50% | 4.00% | $136,330 | $59,707 | $544,971 | $42,034 | $21,864 | 30.83% | $61,349 | 68.52% |
| | 8.25% | 4.75% | $136,330 | $59,707 | $598,693 | $48,658 | $25,309 | 35.69% | $61,349 | 79.31% |
| | 8.75% | 5.25% | $136,330 | $59,707 | $620,196 | $53,596 | $27,878 | 39.31% | $61,349 | 87.36% |
| 14.50% | 4.50% | 1.00% | $136,330 | $59,707 | $418,657 | $23,838 | $12,400 | 17.49% | $61,349 | 38.86% |
| | 5.50% | 2.00% | $136,330 | $59,707 | $461,544 | $29,231 | $15,204 | 21.44% | $61,349 | 47.65% |
| | 6.00% | 2.50% | $136,330 | $59,707 | $484,979 | $32,329 | $16,816 | 23.71% | $61,349 | 52.70% |
| | 6.50% | 3.00% | $136,330 | $59,707 | $509,859 | $35,728 | $18,584 | 26.21% | $61,349 | 58.24% |
| | 7.00% | 3.50% | $136,330 | $59,707 | $536,276 | $39,454 | $20,522 | 28.94% | $61,349 | 64.31% |
| | 7.50% | 4.00% | $136,330 | $59,707 | $564,331 | $43,536 | $22,645 | 31.93% | $61,349 | 70.96% |
| | 8.25% | 4.75% | $136,330 | $59,707 | $609,717 | $50,395 | $26,213 | 36.97% | $61,349 | 82.15% |
| | 8.75% | 5.25% | $136,330 | $59,707 | $642,346 | $55,510 | $28,874 | 40.72% | $61,349 | 90.48% |

# Comparison of the States Normal Retirement by Age/Service

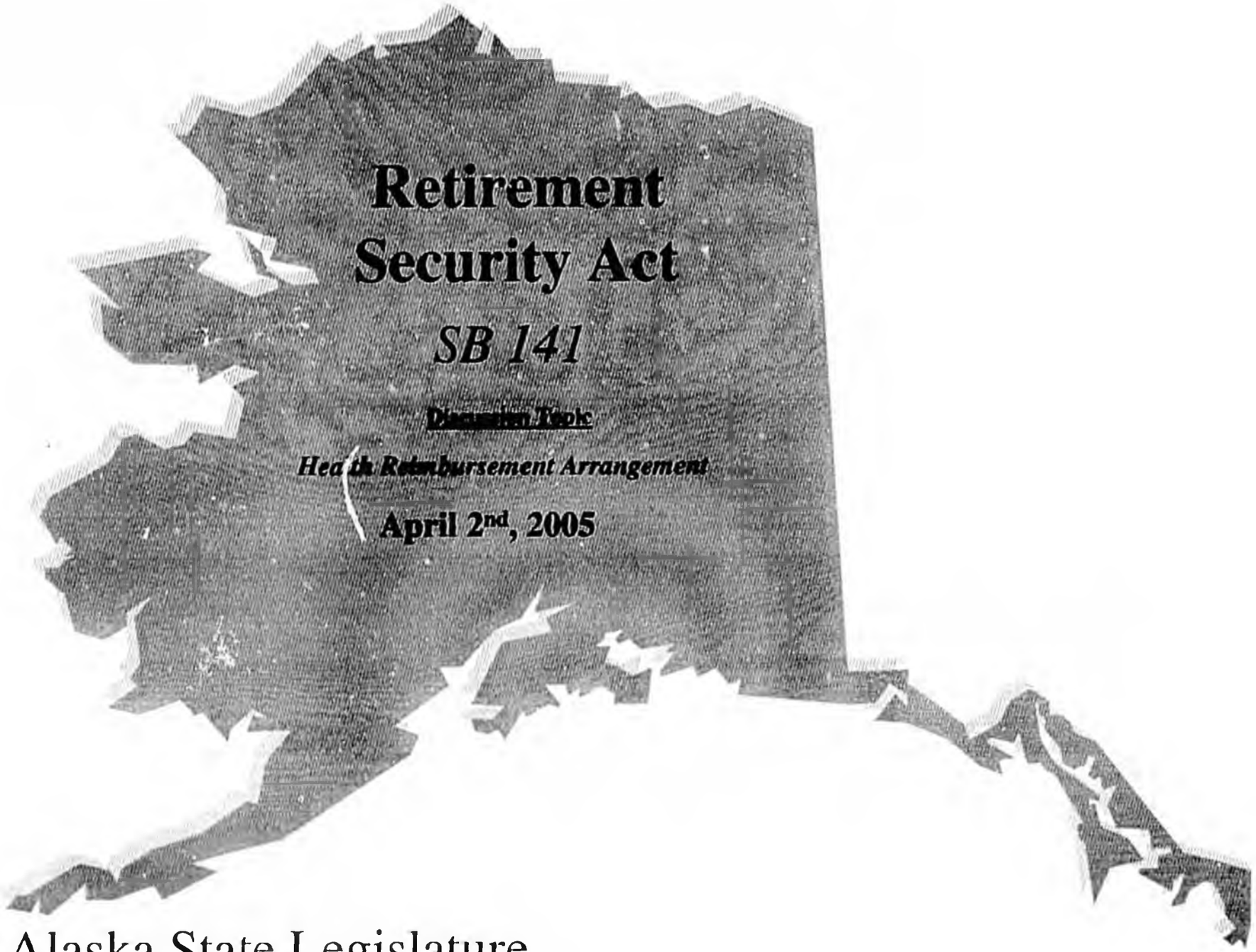
**A = Any** **Rule: Age+Service = Number**

| State | Teachers | | | | Other* | | | |
|---|---|---|---|---|---|---|---|---|
| Georgia | 60/10 | | A/30 | | 65/10 | | A/30 | |
| Indiana | 65/10 | 60/15 | 55/30 | | 65/10 | 60/15 | | Rule 85 |
| Massachusetts | 65/10 | | A/20 | | 65/10 | | A/20 | |
| Colorado | | | | | 65/5 | 50/30 | | Rule 80 |
| Idaho | | | | | 65/5 | 60/5 | | |
| Missouri | 60/5 | | A/30 | Rule 80 | 65/5 | 60/15 | | Rule 80 |
| Nebraska | 65/5 | | A/35 | Rule 85 | 65/5 | | | |
| Nevada | | | | | 65/5 | 60/10 | A/30 | |
| New Mexico | 65/5 | 60/15 | A/25 | | 65/5 | 60/20 | A/25 | |
| North Carolina | | | | | 65/5 | 60/25 | A/30 | |
| South Carolina | | | | | 65/5 | | A/28 | |
| Virginia | | | | | 65/5 | 50/30 | | |
| Washington | 65/A | | | | 65/5 | | | |
| Utah | | | | | 65/4 | | A/30 | |
| North Dakota | 65/A | | | Rule 85 | 65/3 | | | Rule 85 |
| South Dakota | | | | | 65/3 | | | Rule 85 |
| Maryland | 65/2 | 62/5 | A/30 | | 65/2 | 62/5 | A/30 | |
| Minnesota | 65/3 | 62/30 | | | 65/1 | | | |
| Arizona | | | | | 65/A | 62/10 | | Rule 80 |
| Iowa | | | | | 65/A | 62/20 | | Rule 88 |
| Kansas | | | | | 65/A | 62/10 | | Rule 85 |
| Kentucky | 55/5 | | 60/27 | | 65/A | | A/27 | |
| Montana | 60/5 | | A/25 | | 65/A | 60/5 | A/30 | |
| Vermont | 62/A | | A/30 | | 65/A | | A/30 | |
| Wisconsin | | | | | 65/A | | | |
| Hawaii | | | | | 62/10 | 55/30 | | |
| Maine | | | | | 62/10 | 62/5 | 60/5 | |
| Oklahoma | 62/5 | | | Rule 90 | 62/8 | | | Rule 90 |
| Florida | | | | | 62/6 | | A/30 | |
| Delaware | | | | | 62/5 | 60/15 | A/30 | |
| New York | 62/5 | 55/30 | | | 62/5 | 55/30 | | |
| Alabama | 60/10 | | A/25 | | 60/10 | | A/25 | |
| Louisiana | 65/20 | 55/25 | A/30 | | 60/10 | 55/25 | A/30 | |
| Michigan | | | | | 60/10 | | 55/30 | |
| New Jersey | 60/10 | | A/25 | | 60/10 | | | |
| Rhode Island | | | | | 60/10 | | A/28 | |
| Illinois | 62/5 | 60/10 | 55/35 | | 60/8 | | | Rule 85 |
| Alaska | 60/8 | | A/20 | | 60/5 | | A/30 | |
| California | 55/5 | 50/30 | | | 60/5 | 50/5 | 55/5 | |
| Ohio | 60/5 | 55/25 | A/30 | | 60/5 | 55/25 | A/30 | |
| Oregon | | | | | 60/5 | | | |
| Tennessee | | | | | 60/5 | | A/30 | |
| Texas | 65/5 | | | Ruie 80 | 60/5 | | | Rule 80 |
| West Virginia | 60/5 | 55/30 | A/35 | | 60/5 | | | Rule 80 |
| Mississippi | | | | | 60/4 | | A/25 | |
| Wyoming | | | | | 60/4 | | | Rule 85 |
| Pennsylvania | 62/1 | 60/30 | A/35 | | 60/3 | | A/35 | |
| New Hampshire | | | | | 60/A | | | |
| Connecticut | 60/20 | | A/35 | | 55/10 | | A/25 | |
| Arkansas | 60/5 | | A/28 | | | | | |

*** Other may include teachers and public safety personnel in some states**

NASRA Public Fund Survey Data
Compiled by Senate Finance Committee

March 31, 2005



# Retirement Security Act

## *SB 141*

**Discussion Topic**

***Health Reimbursement Arrangement***

**April 2nd, 2005**

Alaska State Legislature

*Senate Finance Committee*

# What is a Health Reimbursement Arrangement?

- Reimburses employees for qualified medical expenses during retirement years
- Intended as a supplement for medical expenses or a bridge between "early" retirement and Medicare
- Employer paid group (or pooled) fund
- Funds accumulate over working lifetime of employee
- Tax-free to employer and employee
- Employer-determined flexible plan design (*contributions, covered expenses, termination provisions*)

# Alaska plan-specific design

- Employer contributes 1% of the average employer group compensation -- maximum $500
- Annual payment on behalf of each active employee into group fund
- Contributions recorded to individual account balances (also tracked by employer)
- Fund managed by Alaska Retirement Management Board (ARMB)
- Interest credited annually to individual accounts, rate determined by ARMB

# Alaska plan-specific design continued

- Total Reimbursements limited to member's individual account balance until exhausted
- Terminated employees forfeit rights to individual account
  - Individual account reinstated if person returns to work within 5 years
  - Account balance restored as of date of termination (accrues no additional interest)
- Employer may use surplus funds held in the trust for future credit to individual employee accounts

# Who is eligible for reimbursements?

- Members of the DC plan who meet the age and/or service requirements for medical benefits under AS 14.25.480 or AS 39.35.880
  - 25 years of service for peace officers/firefighters; 30 years of service all others; OR
  - age 65 and have at least 10 years of service
- Surviving spouse of an eligible member
- Dependent children of an eligible member if both the member and surviving spouse have died

# Benefits payable

- Monthly premiums for a major medical plan (participation in State's retiree medical plan is not required)
- Qualified medical expenses under 26 U.S.C 213(d) of
  - an eligible member, member's spouse and dependent children
  - a surviving spouse of a qualified member and the member's dependent children if dependent on the surviving spouse

# Projected individual account balances

- HRA is a retention tool as it clearly favors longevity

| Interest: | 8.25% | Projected HRA Account Balances | | | | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year | Years of Service | SB 141 1%, $500 cap | 1% no cap | 1.5% no cap | 2.0% no cap | 2.5% no cap | 3.5% no cap |
| 2016 | 10 | $6,549 | $6,611 | $9,917 | $13,223 | $16,528 | $23,140 |
| 2021 | 15 | $12,804 | $13,535 | $20,303 | $27,071 | $33,838 | $47,374 |
| 2026 | 20 | $22,102 | $24,631 | $36,946 | $49,261 | $61,577 | $86,207 |
| 2031 | 25 | $39,407 | $42,100 | $63,150 | $84,200 | $105,250 | $147,350 |
| 2036 | 30 | $56,465 | $69,256 | $103,884 | $138,513 | $173,141 | $242,397 |

| Interest: | 6.00% | Projected HRA Account Balances | | | | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year | Years of Service | SB 141 1%, $500 cap | 1% no cap | 1.5% no cap | 2.0% no cap | 2.5% no cap | 3.5% no cap |
| 2016 | 10 | $5,867 | $5,928 | $8,893 | $11,857 | $14,821 | $20,749 |
| 2021 | 15 | $10,755 | $11,446 | $17,169 | $22,893 | $28,616 | $40,062 |
| 2026 | 20 | $17,296 | $19,592 | $29,387 | $39,183 | $48,979 | $68,571 |
| 2031 | 25 | $26,048 | $31,418 | $47,127 | $62,835 | $78,544 | $109,962 |
| 2036 | 30 | $37,762 | $48,370 | $72,555 | $96,741 | $120,926 | $169,296 |

Other assumptions: FY 2006, beginning salary $35,000
Salary inflation 5.5% first 5 years; 4% thereafter
Projected Anchorage CPI (1.8017% to 4.8859%)

# Spend down scenarios

**HRA Contributions:**
**SB 141 = 1%, $500 cap**

- Example 1: age 65, 30 yrs service, 10% contribution

**Beginning balance from table on Slide 7**

| Age | Years Retired | Beginning Annual Balance | Annual Health Premium | Annual Deductibles | Annual Interest Credited | Year End Balance |
|---|---|---|---|---|---|---|
| 65 | 0 | **$ 56,465** | $ 2,014 | $ 500 | $ 2,158 | $ 56,109 |
| 66 | 1 | $ 56,109 | $ 2,115 | $ 500 | $ 2,140 | $ 55,633 |
| 67 | 2 | $ 55,633 | $ 2,221 | $ 500 | $ 2,116 | $ 55,029 |
| 68 | 3 | $ 55,029 | $ 2,332 | $ 500 | $ 2,088 | $ 54,285 |
| 69 | 4 | $ 54,285 | $ 2,449 | $ 500 | $ 2,053 | $ 53,389 |
| 70 | 5 | $ 53,389 | $ 2,571 | $ 500 | $ 2,013 | $ 52,331 |
| 71 | 6 | $ 52,331 | $ 2,700 | $ 500 | $ 1,965 | $ 51,097 |
| 72 | 7 | $ 51,097 | $ 2,835 | $ 500 | $ 1,910 | $ 49,673 |
| 73 | 8 | $ 49,673 | $ 2,976 | $ 500 | $ 1,848 | $ 48,044 |
| 74 | 9 | $ 48,044 | $ 3,125 | $ 500 | $ 1,777 | $ 46,196 |
| 75 | 10 | $ 46,196 | $ 3,281 | $ 500 | $ 1,697 | $ 44,111 |
| 76 | 11 | $ 44,111 | $ 3,445 | $ 500 | $ 1,607 | $ 41,772 |
| 77 | 12 | $ 41,772 | $ 3,618 | $ 500 | $ 1,506 | $ 39,161 |
| 78 | 13 | $ 39,161 | $ 3,799 | $ 500 | $ 1,394 | $ 36,257 |
| 79 | 14 | $ 36,257 | $ 3,989 | $ 500 | $ 1,271 | $ 33,039 |
| 80 | 15 | $ 33,039 | $ 4,188 | $ 500 | $ 1,134 | $ 29,485 |
| 81 | 16 | $ 29,485 | $ 4,397 | $ 500 | $ 984 | $ 25,571 |
| 82 | 17 | $ 25,571 | $ 4,617 | $ 500 | $ 818 | $ 21,272 |
| 83 | 18 | $ 21,272 | $ 4,848 | $ 500 | $ 637 | $ 16,561 |
| 84 | 19 | $ 16,561 | $ 5,090 | $ 500 | $ 439 | $ 11,409 |
| 85 | 20 | $ 11,409 | $ 5,345 | $ 500 | $ 223 | $ 5,787 |
| [redacted] | 21 | $ 5,787 | $ 5,612 | $ 500 | $ (13) | $ (338) |

* Life expectancy:
Males=16.3 yrs
Females = 17.9 yrs

*Source: National Vital Statistices Reports, Vol.51, No. 3, December 19,2002, p. 29. The tables used are for all races based on year 2000 data.

# Spend down scenarios

HRA Contributions: 20%, no cap

- Example 2: age 65, 20 yrs service, 20% contribution

Beginning balance from table on Slide 7

| Age | Years Retired | Beginning Annual Balance | Annual Health Premium | Annual Deductibles | Annual Interest Credited | Year End Balance |
|---|---|---|---|---|---|---|
| 65 | 0 | $ 49,261 | $ 4,029 | $ 500 | $ 1,789 | $ 46,522 |
| 66 | 1 | $ 46,522 | $ 4,230 | $ 500 | $ 1,672 | $ 43,463 |
| 67 | 2 | $ 43,463 | $ 4,442 | $ 500 | $ 1,541 | $ 40,062 |
| 68 | 3 | $ 40,062 | $ 4,664 | $ 500 | $ 1,396 | $ 36,294 |
| 69 | 4 | $ 36,294 | $ 4,897 | $ 500 | $ 1,236 | $ 32,132 |
| 70 | 5 | $ 32,132 | $ 5,142 | $ 500 | $ 1,060 | $ 27,550 |
| 71 | 6 | $ 27,550 | $ 5,399 | $ 500 | $ 866 | $ 22,517 |
| 72 | 7 | $ 22,517 | $ 5,669 | $ 500 | $ 654 | $ 17,001 |
| 73 | 8 | $ 17,001 | $ 5,953 | $ 500 | $ 422 | $ 10,971 |
| 74 | 9 | $ 10,971 | $ 6,250 | $ 500 | $ 169 | $ 4,389 |
| 75 | 10 | $ 4,389 | $ 6,563 | $ 500 | $ (107) | $ (2,780) |

* Life expectancy:

Males=16.3 yrs

Females = 17.9 yrs

*Source: National Vital Statistices Reports, Vol.51, No. 3, December 19,2002, p. 29. The tables used are for all races based on year 2000 data.

**HRA Contributions: 1.5%, no cap**

# Spend down scenarios

- Example 3: age 65, 30 yrs service, 10% contribution

**Beginning balance from table on Slide 7**

| Age | Years Retired | Beginning Annual Balance | Annual Health Premium | Annual Deductibles/ Expenses | Annual Interest Credited | Year End Balance |
|---|---|---|---|---|---|---|
| 65 | 0 | $103,884 | $ 2,014 | $ 3,000 | $ 3,955 | $ 102,825 |
| 66 | 1 | $ 102,825 | $ 2,115 | $ 3,000 | $ 3,908 | $ 101,618 |
| 67 | 2 | $ 101,618 | $ 2,221 | $ 3,000 | $ 3,856 | $ 100,253 |
| 68 | 3 | $ 100,253 | $ 2,332 | $ 3,000 | $ 3,797 | $ 98,718 |
| 69 | 4 | $ 98,718 | $ 2,449 | $ 3,000 | $ 3,731 | $ 97,000 |
| 70 | 5 | $ 97,000 | $ 2,571 | $ 3,000 | $ 3,657 | $ 95,086 |
| 71 | 6 | $ 95,086 | $ 2,700 | $ 3,000 | $ 3,575 | $ 92,962 |
| 72 | 7 | $ 92,962 | $ 2,835 | $ 3,000 | $ 3,485 | $ 90,612 |
| 73 | 8 | $ 90,612 | $ 2,976 | $ 3,000 | $ 3,385 | $ 88,021 |
| 74 | 9 | $ 88,021 | $ 3,125 | $ 3,000 | $ 3,276 | $ 85,172 |
| 75 | 10 | $ 85,172 | $ 3,281 | $ 3,000 | $ 3,156 | $ 82,046 |
| 76 | 11 | $ 82,046 | $ 3,445 | $ 3,000 | $ 3,024 | $ 78,625 |
| 77 | 12 | $ 78,625 | $ 3,618 | $ 3,000 | $ 2,880 | $ 74,888 |
| 78 | 13 | $ 74,888 | $ 3,799 | $ 3,000 | $ 2,724 | $ 70,813 |
| 79 | 14 | $ 70,813 | $ 3,989 | $ 3,000 | $ 2,553 | $ 66,377 |
| 80 | 15 | $ 66,377 | $ 4,188 | $ 3,000 | $ 2,368 | $ 61,557 |
| 81 | 16 | $ 61,557 | $ 4,397 | $ 3,000 | $ 2,166 | $ 56,326 |
| 82 | 17 | $ 56,326 | $ 4,617 | $ 3,000 | $ 1,948 | $ 50,657 |
| 83 | 18 | $ 50,657 | $ 4,848 | $ 3,000 | $ 1,712 | $ 44,521 |
| 84 | 19 | $ 44,521 | $ 5,090 | $ 3,000 | $ 1,457 | $ 37,888 |
| 85 | 20 | $ 37,888 | $ 5,345 | $ 3,000 | $ 1,182 | $ 30,724 |
| 86 | 21 | $ 30,724 | $ 5,612 | $ 3,000 | $ 884 | $ 22,997 |
| 87 | 22 | $ 22,997 | $ 5,893 | $ 3,000 | $ 564 | $ 14,668 |
| 88 | 23 | $ 14,668 | $ 6,188 | $ 3,000 | $ 219 | $ 5,700 |
| [redacted] | 24 | $ 5,700 | $ 6,497 | $ 3,000 | $ (152) | $ (3,949) |

* Life expectancy:
Males=16.3 yrs
Females = 17.9 yrs

*Source: National Vital Statistices Reports, Vol.51, No. 3, December 19,2002, p. 29. The tables used are for all races based on year 2000 data.

# Spend down scenarios

**HRA Contributions: 3.5%, no cap**

- Example 4: age 55, 30 yrs service, pays full premiums

**Beginning balance from table on Slide 7**

| Age | Years Retired | Beginning Annual Balance | Annual Health Premium | Annual Deductibles | Annual Interest Credited | Year End Balance |
|---|---|---|---|---|---|---|
| 55 | 0 | **$242,397** | $20,145 | $ 500 | $ 8,870 | $ 230,622 |
| 56 | 1 | $ 230,622 | $ 21,152 | $ 500 | $ 8,359 | $ 217,329 |
| 57 | 2 | $ 217,329 | $ 22,210 | $ 500 | $ 7,785 | $ 202,404 |
| 58 | 3 | $ 202,404 | $ 23,320 | $ 500 | $ 7,143 | $ 185,727 |
| 59 | 4 | $ 185,727 | $ 24,486 | $ 500 | $ 130 | $ 167,171 |
| 60 | 5 | $ 167,171 | $ 25,710 | $ 500 | $ ,638 | $ 146,599 |
| 61 | 6 | $ 146,599 | $ 26,996 | $ 500 | $ 4,764 | $ 123,867 |
| 62 | 7 | $ 123,867 | $ 28,346 | $ 500 | $ 3,801 | $ 98,822 |
| 63 | 8 | $ 98,822 | $ 29,763 | $ 500 | $ 2,742 | $ 71,302 |
| 64 | 9 | $ 71,302 | $ 31,251 | $ 500 | $ 1,582 | $ 41,133 |
| 65 | 10 | $ 41,133 | $ 32,814 | $ 500 | $ 313 | $ 8,132 |
| [redacted] | 11 | $ 8,132 | $ 34,454 | $ 500 | $ (1,073) | $ (27,896) |

* Life expectancy:
Males=16.3 yrs
Females = 17.9 yrs

*Source: National Vital Statistices Reports, Vol.51, No. 3, December 19,2002, p. 29. The tables used are for all races based on year 2000 data.

# Spend down scenarios

**HRA Contributions: 3.5%, no cap**

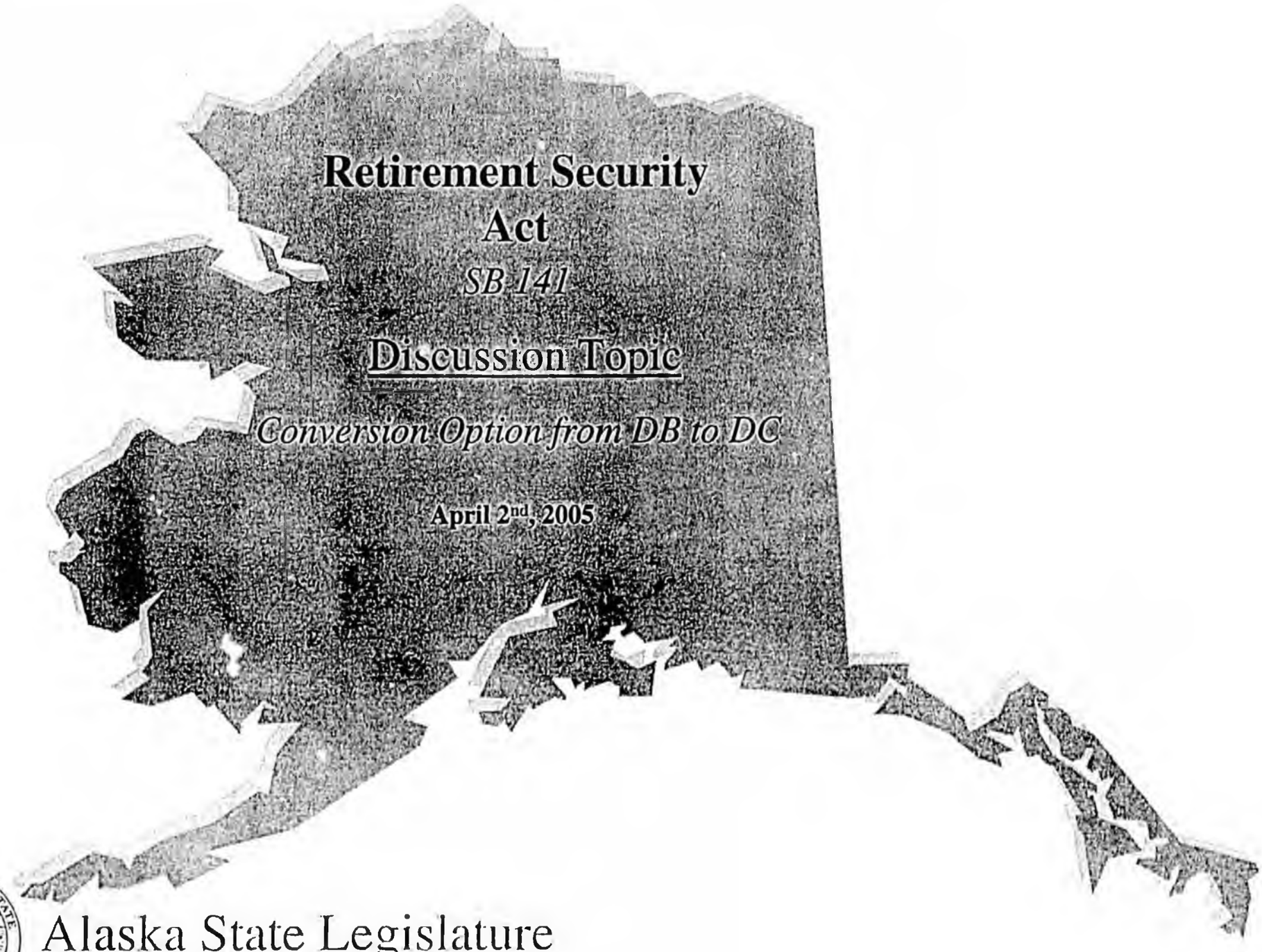
- Example 4: age 55, 30 yrs service, pays full premiums

**Beginning balance from table on Slide 7**

| Age | Years Retired | Beginning Annual Balance | Annual Health Premium | Annual Deductibles | Annual Interest Credited | Year End Balance |
|---|---|---|---|---|---|---|
| 55 | 0 | **$242,397** | $20,145 | $ 500 | $ 8,870 | $ 230,622 |
| 56 | 1 | $ 230,622 | $ 21,152 | $ 500 | $ 8,359 | $ 217,329 |
| 57 | 2 | $ 217,329 | $ 22,210 | $ 500 | $ 7,785 | $ 202,404 |
| 58 | 3 | $ 202,404 | $ 23,320 | $ 500 | $ 7,143 | $ 185,727 |
| 59 | 4 | $ 185,727 | $ 24,486 | $ 500 | $ 6,430 | $ 167,171 |
| 60 | 5 | $ 167,171 | $ 25,710 | $ 500 | $ 5,638 | $ 146,599 |
| 61 | 6 | $ 146,599 | $ 26,996 | $ 500 | $ 4,764 | $ 123,867 |
| 62 | 7 | $ 123,867 | $ 28,346 | $ 500 | $ 3,801 | $ 98,822 |
| 63 | 8 | $ 98,822 | $ 29,763 | $ 500 | $ 2,742 | $ 71,302 |
| 64 | 9 | $ 71,302 | $ 31,251 | $ 500 | $ 1,582 | $ 41,133 |
| 65 | 10 | $ 41,133 | $ 3,281 | $ 500 | $ 1,494 | $ 38,845 |
| 66 | 11 | $ 38,845 | $ 3,445 | $ 500 | $ 1,396 | $ 36,296 |
| 67 | 12 | $ 36,296 | $ 3,618 | $ 500 | $ 1,287 | $ 33,465 |
| 68 | 13 | $ 33,465 | $ 3,799 | $ 500 | $ 1,167 | $ 30,333 |
| 69 | 14 | $ 30,333 | $ 3,989 | $ 500 | $ 1,034 | $ 26,879 |
| 70 | 15 | $ 26,879 | $ 4,188 | $ 500 | $ 888 | $ 23,078 |
| 71 | 16 | $ 23,078 | $ 4,397 | $ 500 | $ 727 | $ 18,908 |
| 72 | 17 | $ 18,908 | $ 4,617 | $ 500 | $ 552 | $ 14,343 |
| 73 | 18 | $ 14,343 | $ 4,848 | $ 500 | $ 360 | $ 9,354 |
| 74 | 19 | $ 9,354 | $ 5,090 | $ 500 | $ 151 | $ 3,914 |
| [redacted] | 20 | $ 3,914 | $ 5,345 | $ 500 | $ (77) | $ (2,008) |

* Life expectancy:
Males=16.3 yrs
Females = 17.9 yrs

*Source: National Vital Statistices Reports, Vol.51, No. 3, December 19,2002, p. 29. The tables used are for all races based on year 2000 data.



# Retirement Security Act

*SB 141*

## Discussion Topic

*Conversion Option from DB to DC*

**April 2nd, 2005**

Alaska State Legislature

*Senate Finance Committee*

# Discussion: Conversion Option from Defined Benefit plan to Defined Contribution plan

# Eligibility for members to convert from the DB plan to the DC plan

- An employer must first choose to allow their DB plan employees to transfer into the DC plan.
- Only unvested members of the DB plan will be eligible to transfer into the DC Plan
  - PERS members with less than 10 years of service
  - TRS members with less than 8 years of service
- Participation in the defined contribution retirement plan is in lieu of participation in the defined benefits plan.
- There is no option to return to the DB plan if you opt into the DC plan.

# Mechanics of Conversion

- Present value of the *member* contribution account balance held in DB trust will be transferred to a new account.
- A 100% matching employer contribution will be made on behalf of the employee to the new account; however, this must be *new* money.
- Service credit earned under the DB plan will be credited for purposes of vesting in medical benefits.

# Potential Cost to Employers

| Service Years | | | | | |
|---|---|---|---|---|---|
| **PERS** | | **Tier 1** | **Tier 2** | **Tier 3** | **Total System** |
| < 5 | $ | 9,910,842 | 18,931,859 | 101,423,157 | 130,265,858 |
| 5 to < 10 | | 55,804,740 | 128,224,601 | 96,023,581 | 280,052,923 |
| 10 to < 15 | | 79,577,922 | 216,672,102 | 99,905 | 296,349,928 |
| 15 to < 20 | | 166,029,809 | 119,618,440 | 0 | 285,648,249 |
| 20 to < 25 | | 246,455,352 | 1,033,437 | 0 | 247,488,789 |
| 25 and > | | 141,721,266 | 123,906 | 0 | 141,845,172 |
| **Totals** | $ | **699,499,932** | **484,604,344** | **197,546,643** | **1,381,650,918** |
| | | | | | |
| **TRS** | | **Tier 1** | **Tier 2** | | |
| < 8 | $ | 9,622,483 | 92,841,386 | | 102,463,869 |
| 8 to < 10 | | 11,597,202 | 41,796,620 | | 53,393,822 |
| 10 to < 15 | | 35,530,960 | 106,276,667 | | 141,807,626 |
| 15 to < 20 | | 136,923,592 | 6,547,816 | | 143,471,408 |
| 20 and > | | 221,422,095 | 0 | | 221,422,095 |
| **Totals** | $ | **415,096,333** | **247,462,488** | | **662,558,821** |
| | | | | | |
| **Grand Total By Tier** | $ | **1,114,596,264** | **732,066,832** | **197,546,643** | **2,044,209,739** |
| | | | | | 0 |
| | | | | **Limit Conversion Option to:** | **290,288,124** |

# Example of retirement lifetime benefits under DB plan

- PERS "Other" member, Tier III
- Beginning salary $35,000
- Member Contribution rate = 6.75%
- Semi-annual interest = 4.25%

- Works 30 years
- Normal Retirement at age 60
- Male Life Expectancy = 23.8 years

| | | | |
|---|---|---|---|
| 30 Years of Member Contributions and Interest | $ | 209,269 | 11.48% |
| Average Highest Consecutive 5 years | $ | 68,750 | |
| Benefit Formula = (2% x 10 yrs) + (2.25% x 10 yrs) + (2.5% x 10 yrs) | | 67.5% | |
| Annual Benefit | $ | 46,406.25 | |
| Annual Benefit x Life Expectancy = | $ | 1,104,469 | |
| Lifetime Medical Premiums | $ | 394,514 | |
| Total Employer Benefits Payments | $ | 1,823,408 | 88.52% |

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# Memo

**Date:** April 1, 2005

**To:** Anselm Staack
Chief Financial Officer
Alaska Division of Retirement & Benefits

**From:** Sam. Raia and Mike Schoeberl
Deloitte Consulting LLP

**Subject:** S.B. 141 - New PERS and TRS Operating Costs; Asset and Liability Commingle Issues

In your e-mail to us dated March 17, 2005, you requested that we review S.B. 141 and respond to five questions which you posed pertaining to the new defined contribution plans which are to be established under that proposed legislation. The provisions of S.B. 141 serve to create new defined contribution retirement plans and related medical programs for eligible employees hired on and after July 1, 2005, and to limit participation in the State's defined benefit Public Employees' Retirement System ("PERS") and Teachers' Retirement System ("TRS") to those covered employees who were hired prior to that date. The Bill also serves to create a PERS/TRS Retiree Health Reimbursement Arrangement Plan to allow medical care expenses to be reimbursed from individual saving accounts established for qualified members.

The new defined contribution plans created by S.B. 141 are intended to cover employees of Alaskan public school districts and the State of Alaska (together with employees of other specified entities who are included along with these employers), respectively, who are hired on or after the effective date of the Bill. Each of the defined contribution plans provides for mandatory employee contributions equal to 8 percent, and employer contributions equal to 3.5 percent, of the teacher's or member's compensation earned during the July 1-June 30 fiscal period. The Bill further provides for employer contributions of 3.75 percent of such compensation for the same period to be paid to the State's Group Health and Life Benefits Fund, a separate account within the State's general fund, so as to provide retiree major medical insurance for participants covered by the defined contribution plans. Finally, the Bill requires employer contributions to the PERS/TRS Retiree Health Reimbursement Arrangement Plan equal to the lesser of one percent of the employee's average annual compensation or $500.

Our statements may be relied upon the State as consulting advice but should not be construed in any fashion as legal advice. We will respond to your questions in the order presented

## 1. May the PERS and TRS Assets be used to Fund Start-Up Costs in Establishing the New Defined Contribution Plans?

No. The PERS and TRS plan assets should not be applied toward start-up costs of the new defined contribution arrangement ("DC Plans"). Both PERS and TRS have been qualified under Code



4/2/05

Section 401(a). One of the requirements of that section clearly mandates that under the Plans' trust instruments, it must be "impossible, at any time prior to the satisfaction of all liabilities with respect to employees and their beneficiaries under the trust, for any part of the corpus or income to be (within the taxable year or thereafter) used for, or diverted to, purposes other than for the exclusive benefit [of an employer's] employees or their beneficiaries..." (Code Section 401(a)(2)). The use of PERS or TRS assets to pay the DC Plans' expenses would not be for the exclusive benefit of PERS and TRS participants and therefore would jeopardize the Plans' tax-qualified status. Loss of tax qualification would cause the contributions to the Plans and earnings thereon to become taxable to the participants.

## 2. May the DC Plans Borrow from PERS and TRS in order to Operate the Plans and be Repaid from Fees Assessed the Members in the New Plans?

It is unlikely. Code Section 503(a)(1)(B) provides that a governmental plan will not remain exempt from taxation if it engages in a prohibited transaction. The term "prohibited transaction" is defined to include any transaction in which a qualified employees' trust lends any part of its income or corpus to the creator of the organization (or an affiliate of the creator) without

- the receipt of adequate security
- a reasonable rate of interest

The Treasury Regulations define "adequate security" to mean something in addition to and supportive of the promise to pay. The pledged security must be susceptible of being sold, foreclosed upon, or otherwise disposed of in the case of a default of repayment of the loan. The value and liquidity of the security must be such that it may be reasonably anticipated that loss of principal or interest will not result from the loan (Treas. Regs. Section 1.503(b)-1(b)(1)).

Revenue Ruling 85-114 offered guidance regarding the steps that a governmental plan must take to perfect its *security interest* so as to comply with Code Sections 503(e) and 503(f). That Ruling described a loan which was made to its governmental creator. The loan was evidenced by a promissory note reflecting a reasonable rate of interest and was secured by a deed of trust on real property owned by the government. However, the deed of trust was not recorded and state law provided that the validity of such unrecorded deeds is severely restricted. The IRS held that the loan did not satisfy the conditions of either Section 503(e) or Section 503(f).

Revenue Ruling 81-145 provided elucidation on the requirement that a *reasonable rate of interest* be paid in order to avert a prohibited transaction under Code Section 503(b)(1). That Ruling described a situation where the borrower failed to pay any of the annual interest due on its loan for a period of two years and the plan trustees failed to demand payment. The IRS concluded that the effect of the trustees' failure to demand payment of the interest was to create a non-interest bearing loan in the amount of the unpaid interest, which resulted in a prohibited transaction engaged in by the plan.

Since it is unlikely that the trustees of the DC Plans would possess appropriate assets susceptible of liquidation and sufficient to secure their borrowings from the outset, it is questionable whether the requirement of adequate security contained in Code Section 503(b)(1) could be satisfied. As a practical matter, it is doubtful if such loans would be perceived in a favorable light by affected members. An alternative governmental funding source would clearly be preferable.

### 3. Should the Medical Plan Covering the DC Plans' Retirees Operate Separately from the Retiree Health Fund and the DC Plans themselves?

Yes. The Retiree Health Fund is intended to serve as a separate account pursuant to Code Section 401(h) for the reimbursement of medical expenses of retired employees, their spouses, and their dependents. As a condition for maintaining the qualification of the 401(h) accounts under PERS and TRS, respectively, it must be impossible, pursuant to Code Section 401(h)(4), for any part of the PERS or TRS Retiree Health Fund separate accounts to be "used for, or diverted to, any purpose other than the providing of such benefits" under each of the Plans. If any assets of the Retiree Health Funds are diverted to the DC Plans' participants, the qualification of PERS and TRS could be jeopardized.

The retiree medical plan for the DC Plans should likewise operate separately from the DC Plans themselves. If separate accounts are established within the DC Plans for the provision of such benefits pursuant to Code Section 401(h), the Plans would be required to ensure that retiree medical benefits at all times remain subordinate to the retirement benefits provided by the Plans. To comply with this rule, the Plans' administrator would have to monitor the cumulative contributions to ensure that the aggregate contributions for medical benefits never exceeded 25% of each Plan's aggregate contributions (Treas. Regs. Section 1.401-14(c)(1)). If the Section 401(h) requirements are not satisfied, the qualification of the DC Plans themselves would be jeopardized.

### 4. Should the Medical Accounting for the PERS/TRS ("DB Plans") Medical Coverages be Integrated with the Medical Accounting for the DC Plans' Participants' Medical Coverages?

In the following discussion, we use the definitions set forth below:

*Medical Accounting*—We are using accounting in the "recordkeeping" sense, as opposed to financial accounting (i.e., GASB). A plan is defined as having "separate medical accounting" if its assets, revenue, earnings and expenses are tracked separately from other plans and there is no ability to transfer funds directly or through a pooling mechanism.

*Fund*—The term refers to the account or trust that holds assets of the plan (or plans). Revenue is received into and payments are made from the "fund" for the operation of the plan(s).

We have researched what we believe to be the applicable Regulations and have formed our response based on this review, in conjunction with our understanding of the anticipated operation of the DC Plans' retiree programs and the above definitions. Please note that we are offering advice as your employee benefits consultant and our statements should not be construed as legal advice. Ultimately, the decision regarding the appropriate accounting procedures must be made by the State of Alaska and reviewed and approved by your auditors.

The applicable guidance for the existing Retiree Health Fund is found in Treasury Regulations Section 1.401-14, which relates to the provision of healthcare benefits (Code Section 401(h)) in a Code Section 401(a) plan. Based on our review of the Regulations and our understanding of your plans, we made the following observations:

- The Regulations require that "a separate account must be maintained with respect to contributions to fund such benefits". While the separate account is required for "recordkeeping purposes only" and "the funds in the medical benefits account need not be separately invested" from funds set aside for retirement purposes (Treas. Reg. Section 1.401-14(c)(2)), the Regulations would clearly compel that the medical accounting (as defined above) for the 401(h) benefits be separated both from the accounting for the retirement benefits within a plan and the accounting for other 401(h) arrangements outside the plan.

- It must be impossible, "at any time prior to the satisfaction of all liabilities under the plan to provide [health] benefits" for any assets of a section 401(h) account "to be . . . used for, or diverted to, any purposes other than the providing of such benefits" (Code Section 401(h)(4)). Hence, assets in the PERS and TRS accounts may not be used to make up shortfalls under any other plan, including the medical plan for DC Plans' participants.

Based on our response to Question 3 above, commingling of DC medical accounting (as defined above) with the DB Plans' Retiree Health Fund accounting would not appear to be permissible since Code Section 401(h) requires the retiree benefits provided under those plans to be separately accounted for. Furthermore the inclusion of the DC separate accounts within the Retiree Health Fund (as defined above), while not impossible in principle, would increase the risk of inadvertent diversions of assets from one plan to another, as further explained below. These two points lead us to conclude that the "medical accounting" for the DC Plans' participants can not be integrated with the DB Plans' Retiree Health Fund accounting, and that it may be advisable to maintain a separate fund for the DC plans to avoid possible errors in the use of the DB Plans' assets.

The following discussion highlights some of the critical points of future DC Plans' retirees' medical operation, which will further clarify the need to maintain and track separate accounts.

We believe that the medical benefit program for the DC Plans' retirees may not be self-sufficient and would therefore require a supplementary funding source, at least during the program's early years. In the future, when members become eligible for the program, the State will need to determine the appropriate premium rate to charge the initial retirees for their healthcare coverage. However, determining the appropriate premium rates will be problematic during the first few years of operation. The premium established will need to be high enough to adequately fund the future DC Plans' retiree medical cost, yet low enough to avoid the anti-selection concerns that would result from higher premium rates. In other words, if the premium rates are too high, only the sickest retirees will enroll, driving the premium rates even higher.

Furthermore, during the early years of operation, there will likely be small numbers of enrolled members, which will add to the volatility of the program making it difficult to maintain stable premium rates during that period. Therefore, the program may need an infusion of funds from another

source to make the premiums low enough and stable enough to attract an appropriate population segment. As a sufficient number of retirees enter the program, there is greater likelihood that the premium could stabilize and become easier to predict. However, the program may need to be continually supplemented to guarantee that it is able to attract a sufficient number of lower cost members and avoid an anti-selection spiral. One critical question relates to the funding source that will allow these premium rates to stabilize, since it is clear that the funds cannot come from the DB Plans' Retiree Health Fund.

From a rating perspective, it may be appropriate to use the DB Plans' retiree program experience to set the initial premium rates for the DC retirees' program. If over time, however, there is a significant discrepancy in the experience of the two groups, the DC program's premiums will prove either insufficient or excessive. Either of those eventualities will require future corrective action.

Because of the difficulty of establishing premium rates and the possible necessary supplementation of program costs, it will be critical to appropriately track the DC and DB programs' experience separately. In addition, it may be critical to avoid the appearance of the DB programs supplementing the DC retiree premiums, since that may cause disputes. Ultimately, creating separate funds will reduce the possibility of the diversion of funds or the appearance of such diversion. These advantages would have to be weighed against the possible administrative complications and the possible loss of investment opportunities by separating the accounts into separate funds. We believe the State of Alaska should examine the following if it chooses to keep the separate accounts in the same fund:

- Review the adequacy of its accounting system to determine if the revenues and costs of the programs can be appropriately tracked and separated
- Discuss the proposed accounting arrangements with the State's auditor
- Develop a strategy for supplementing the initial DC rates, in the event that program experience is higher than a premium level acceptable to retirees might fund
- Develop an acceptable methodology for determining the allocation of investment income between the retiree accounts
- Appropriately define the plan terms such that they do not permit the transfer of funds between the DC plans and the DB plans

## 5. May Start-Up Costs be Loaned From the Existing Health Fund to Establish the New Medical Arrangement or is Another Funding Source Preferable?

In evaluating whether or not start-up costs may be borrowed from the Retiree Health Fund of PERS/TRS, a similar analysis as that provided in our response to Question 2 would be appropriate. Since the separate Code Section 401(h) account is required for recordkeeping purposes alone, and since the Regulations do not mandate the separation of investments from the funds set aside for retirement purposes (Treas. Reg. Section 1.401-14(c)(2)), it would appear that amounts attributable to the Retiree Health Fund could be loaned to the creator of the organization without incurring a prohibited transaction if adequate security is obtained and a reasonable rate of interest charged. For

the reasons expressed in our response to Question 2, however, it would appear doubtful that adequate security could be provided by the new DC Plans if amounts were loaned directly to those Plans. Whether the State of Alaska itself should effect the borrowing and the manner in which the requisite security would be provided by the State should be carefully assessed from both the State's statutory and public relations standpoints.

In evaluating whether or not start-up costs may be borrowed from the Group Health and Life Benefits Fund, retirement plan qualification issues would not be presented. However, there may be equally compelling State statutory and public relations reasons for likewise avoiding this avenue as well.

If you require elaboration on any of the above responses, please do not hesitate to contact us.

cc: Melanie Millhorn
Pat Pechacek

| Employer # | Employer Name | FY 04 | FY05 7/1/04 - 12/31/04 |
|---|---|---|---|
| 101 | STATE OF ALASKA | 1576 | 912 |
| 102 | SOUTHWEST REGION SD | 23 | 17 |
| 103 | ANNETTE ISLAND SD | 11 | 7 |
| 104 | BERING STRAIT SD | 27 | 19 |
| 105 | CHATHAM SD | 5 | 3 |
| 106 | ALASKA MUNICIPAL LEAGUE | 0 | 0 |
| 107 | CITY OF VALDEZ | 11 | 5 |
| 108 | JUNEAU BOROUGH SD | 49 | 43 |
| 109 | MATANUSKA-SUSITNA BOROUGH | 56 | 27 |
| 110 | MATANUSKA-SUSITNA BOROUGH SD | 63 | 47 |
| 111 | ANCHORAGE SD | 417 | 326 |
| 112 | COPPER RIVER SD | 15 | 11 |
| 113 | UNIVERSITY OF ALASKA | 420 | 273 |
| 114 | CITY OF HAINES | 0 | 0 |
| 115 | CITY OF KENAI | 6 | 7 |
| 116 | FAIRBANKS NORTH STAR BOROUGH | 42 | 17 |
| 117 | FAIRBANKS NORTH STAR BOROUGH SD | 104 | 111 |
| 118 | DENALI BOROUGH SD | 12 | 4 |
| 119 | UNIVERSITY OF AK GEOPHYSICAL INSTITUTE | 0 | 0 |
| 120 | CITY AND BOROUGH OF SITKA | 17 | 11 |
| 121 | CHUGACH SD | 5 | 4 |
| 122 | KETCHIKAN GATEWAY BOROUGH | 19 | 10 |
| 123 | CITY OF SOLDOTNA | 5 | 0 |
| 124 | IDITAROD AREA SD | 6 | 1 |
| 125 | KUSPUK SD | 5 | 7 |
| 126 | CITY AND BOROUGH OF JUNEAU | 45 | 26 |
| 127 | ALASKA STATE BUILDING AUTHORITY | 0 | 0 |
| 128 | CITY OF KODIAK | 10 | 8 |
| 129 | CITY OF FAIRBANKS | 8 | 4 |
| 130 | FAIRBANKS MUNICIPAL UTILITY SYSTEM | 0 | 0 |
| 131 | CITY OF WASILLA | 19 | 9 |
| 132 | CITY OF SKAGWAY | 11 | 4 |
| 133 | SITKA BOROUGH SD | 7 | 10 |
| 134 | CITY OF PALMER | 19 | 3 |
| 135 | CITY OF WRANGELL | 3 | 2 |
| 136 | CITY OF BETHEL | 31 | 14 |
| 137 | VALDEZ CITY SD | 6 | 2 |
| 138 | HOONAH CITY SD | 13 | 4 |
| 139 | CITY OF NOME | 16 | 10 |
| 140 | CITY OF KOTZEBUE | 13 | 6 |
| 141 | GALENA CITY SD | 16 | 25 |
| 142 | KING COVE SD | 0 | 0 |
| 143 | CITY OF PETERSBURG | 10 | 5 |
| 144 | BRISTOL BAY BOROUGH | 4 | 7 |
| 145 | NORTH SLOPE BOROUGH | 68 | 45 |
| 146 | WRANGELL PUBLIC SD | 6 | 6 |
| 147 | ALASKA UNORGANIZED BOROUGH SCHOOLS | 0 | 0 |
| 148 | CITY OF CORDOVA | 9 | 2 |
| 149 | NOME CITY SD | 21 | 11 |
| 150 | TERMINATED EMPLOYERS | 0 | 0 |
| 151 | CITY OF KING COVE | 3 | 5 |
| 152 | ALASKA HOUSING FINANCE CORPORATION | 19 | 7 |
| 153 | LOWER YUKON SD | 2 | 7 |
| 154 | NORTHWEST ARCTIC BOROUGH SD | 36 | 45 |
| 155 | SOUTHEAST ISLAND SD | 11 | 11 |

Info Provided By R.E.

Dept. of Admin. presentation 4-2-05

| Employer # | Employer Name | FY 04 | FY05 7/1/04 - 12/31/04 |
|---|---|---|---|
| 156 | PRIBILOF SD | 3 | 3 |
| 157 | LOWER KUSKOKWIM SD | 70 | 76 |
| 158 | KODIAK ISLAND BOROUGH SD | 33 | 24 |
| 159 | YUKON FLATS SD | 29 | 6 |
| 160 | YUKON / KOYUKUK SD | 9 | 20 |
| 161 | NORTH SLOPE BOROUGH SD | 27 | 10 |
| 162 | ALEUTIAN REGION SD | 2 | 2 |
| 163 | CORDOVA COMMUNITY MEDICAL CENTER | 16 | 11 |
| 164 | LAKE AND PENINSULA BOROUGH SD | 20 | 22 |
| 165 | SITKA COMMUNITY HOSPITAL | 18 | 16 |
| 166 | TANANA SD | 3 | 1 |
| 167 | SOUTHEAST REGIONAL RESOURCE CENTER | 13 | 13 |
| 168 | HYDABURG CITY SD | 0 | 0 |
| 169 | CITY OF TANANA | 0 | 0 |
| 170 | NORTH PACIFIC FISHERY MGMT COUNCIL | 0 | 0 |
| 171 | CITY OF BARROW | 3 | 1 |
| 172 | CITY OF SAINT PAUL | 11 | 3 |
| 173 | MUNICIPALITY OF ANCHORAGE | 211 | 154 |
| 174 | KODIAK ISLAND BOROUGH | 2 | 3 |
| 175 | NOME JOINT UTILITY SYSTEM | 2 | 0 |
| 176 | CITY OF SAND POINT | 3 | 2 |
| 177 | KETCHIKAN GATEWAY BOROUGH SD | 31 | 34 |
| 178 | CITY OF DILLINGHAM | 13 | 7 |
| 179 | CITY OF UNALASKA | 28 | 15 |
| 180 | KENAI PENINSULA BOROUGH | 20 | 13 |
| 181 | CITY OF KETCHIKAN | 17 | 6 |
| 182 | CITY OF SEWARD | 7 | 4 |
| 183 | CITY OF FORT YUKON | 9 | 4 |
| 164 | BRISTOL BAY BOROUGH SD | 3 | 5 |
| 185 | CORDOVA CITY SD | 11 | 4 |
| 186 | CITY OF CRAIG | 2 | 4 |
| 187 | PETERSBURG MEDICAL CENTER | 10 | 5 |
| 188 | SAND POINT SD | 0 | 0 |
| 189 | HAINES BOROUGH | 22 | 7 |
| 190 | KENAI PENINSULA BOROUGH SD | 71 | 61 |
| 191 | CITY OF NORTH POLE | 8 | 3 |
| 192 | CITY OF GALENA | 4 | 4 |
| 193 | CITY OF NENANA | 1 | 0 |
| 194 | HAINES BOROUGH | 0 | 0 |
| 195 | YUPIIT SD | 20 | 5 |
| 196 | NENANA CITY SD | 23 | 9 |
| 197 | CITY OF UNALAKLEET | 0 | 0 |
| 198 | CITY OF SAXMAN | 3 | 0 |
| 199 | CITY OF HOONAH | 1 | 0 |
| 200 | CITY OF PELICAN | 3 | 0 |
| 201 | CITY OF KAKE | 0 | 0 |
| 202 | CITY OF WHITTIER | 5 | 2 |
| 203 | ANCHORAGE PARKING AUTHORITY | 4 | 7 |
| 204 | CRAIG CITY SD | 14 | 11 |
| 205 | DILLINGHAM CITY SD | 16 | 13 |
| 206 | CITY OF THORNE BAY | 1 | 2 |
| 207 | CITY OF SCAMMON BAY | 0 | 0 |
| 208 | CITY OF AKUTAN | 0 | 0 |
| 209 | UNALASKA CITY SD | 6 | 7 |
| 210 | CITY OF STEBBINS | 0 | 0 |

INFO PROVIDED BY RCA

4-2-05

| Employer # | Employer Name | FY 04 | FY05 7/1/04 - 12/31/04 |
|---|---|---|---|
| 211 | KASHUNAMIUT SD | 6 | 1 |
| 212 | SEWARD GENERAL HOSPITAL | 0 | 0 |
| 213 | CITY OF WAINWRIGHT | 0 | 0 |
| 214 | CITY OF SAINT MARY'S | 2 | 0 |
| 215 | CITY OF HOMER | 8 | 3 |
| 216 | CITY OF RUBY | 1 | 0 |
| 217 | CITY OF EMMONAK | 0 | 0 |
| 218 | SPECIAL EDUCATION SERVICE AGENCY | 0 | 0 |
| 219 | BARTLETT REGIONAL HOSPITAL | 57 | 35 |
| 220 | NORTHWEST ARCTIC BOROUGH | 4 | 0 |
| 221 | SAINT MARY'S SD | 3 | 1 |
| 222 | CITY OF SELAWIK | 2 | 0 |
| 223 | BRISTOL BAY RHA | 12 | 5 |
| 224 | COPPER RIVER BASIN RHA | 1 | 0 |
| 225 | SKAGWAY CITY SD | 0 | 1 |
| 226 | CITY OF HOOPER BAY | 0 | 0 |
| 227 | CITY OF KLAWOCK | 8 | 4 |
| 228 | PETERSBURG CITY SD | 2 | 2 |
| 229 | BRISTOL BAY CRSA | 0 | 0 |
| 230 | ALEUTIANS EAST BOROUGH | 2 | 2 |
| 231 | CITY OF KIVALINA | 0 | 0 |
| 232 | BERING STRAITS CRSA | 0 | 1 |
| 233 | CITY OF SHISHMAREF | 0 | 0 |
| 234 | ADAK REGION SD | 0 | 0 |
| 235 | CITY OF HUSLIA | 0 | 0 |
| 236 | CITY OF MOUNTAIN VILLAGE | 0 | 0 |
| 237 | CITY OF KALTAG | 0 | 0 |
| 238 | CITY OF KOYUK | 0 | 0 |
| 239 | CITY OF LOWER KALSKAG | 0 | 0 |
| 240 | HAINES BOROUGH SD | 6 | 5 |
| 241 | CITY OF NOORVIK | 3 | 5 |
| 242 | CITY OF ELIM | 0 | 0 |
| 243 | CITY OF ATKA | 0 | 0 |
| 244 | ALEUTIANS EAST BOROUGH SD | 13 | 9 |
| 245 | ALEUTIANS WEST CRSA | 0 | 0 |
| 246 | DELTA/GREELY SD | 14 | 4 |
| 247 | LAKE AND PENINSULA BOROUGH | 1 | 0 |
| 248 | CITY AND BOROUGH OF YAKUTAT | 4 | 1 |
| 249 | CITY OF UNALAKLEET | 0 | 0 |
| 250 | DIOMEDE JOINT UTILITIES | 0 | 0 |
| 251 | KLAWOCK CITY SD | 5 | 1 |
| 252 | CITY OF OLD HARBOR | 0 | 0 |
| 253 | CITY OF GRAYLING | 0 | 0 |
| 254 | CITY OF MEKORYUK | 1 | 0 |
| 255 | ALASKA GATEWAY SD | 13 | 6 |
| 256 | CITY OF SAINT GEORGE | 0 | 0 |
| 257 | PELICAN CITY SD | 0 | 1 |
| 258 | DENALI BOROUGH | 1 | 1 |
| 259 | CITY OF ALLAKAKET | 0 | 0 |
| 260 | CITY OF KACHEMAK | 0 | 0 |
| 261 | CITY OF NUIQSUT | 0 | 0 |
| 262 | COOK INLET HOUSING AUTHORITY | 10 | 7 |
| 263 | INTERIOR RHA | 2 | 1 |
| 264 | YAKUTAT SD | 3 | 3 |
| 265 | KAKE CITY SD | 0 | 1 |

INFO PROVIDED BY R-B

4-2-05

| Employer # | Employer Name | FY 04 | FY05 7/1/04 - 12/31/04 |
|---|---|---|---|
| 266 | CITY OF QUINHAGAK | 1 | 0 |
| 267 | ALEUTIAN HOUSING AUTHORITY | 7 | 1 |
| 268 | CITY OF MARSHALL (AKA FORTUNA LEDGE) | 0 | 0 |
| 269 | ANCHORAGE TELEPHONE UTILITY | 0 | 0 |
| 270 | BERING STRAITS RHA | 8 | 2 |
| 271 | CITY OF EGEGIK | 0 | 0 |
| 272 | CITY OF POINT HOPE | 0 | 0 |
| 273 | CITY OF ANAKTUVUK PASS | 0 | 0 |
| 274 | CENALIULRIIT CRSA | 0 | 0 |
| 275 | ILISAGVIK COLLEGE | 16 | 8 |
| 276 | NORTH PACIFIC RIM HA | 1 | 3 |
| 277 | CITY OF KAKE | 2 | 0 |
| 278 | SAXMAN SEAPORT | 0 | 0 |
| 279 | TLINGIT-HAIDA RHA | 8 | 0 |
| 280 | CITY OF TOKSOOK BAY | 0 | 0 |
| 281 | BARANOF ISLAND HA | 0 | 1 |
| 282 | CITY OF DELTA JUNCTION | 0 | 0 |
| 283 | CITY OF ANDERSON | 0 | 0 |
| 284 | INTER-ISLAND FERRY AUTHORITY | 3 | 0 |
| 285 | CITY OF HOOPER BAY | 1 | 0 |
| 286 | CITY OF SELDOVIA | 0 | 0 |
| 287 | CITY OF KOYUK | 0 | 0 |
| 288 | NORTHWEST INUPIAT HOUSING AUTHORITY | 3 | 1 |
| 289 | CITY OF ANGOON | 0 | 0 |
| 290 | CITY OF UPPER KALSKAG | 0 | 0 |
| 291 | CITY OF SHAKTOOLIK | 0 | 0 |
| 292 | CITY OF EEK | 0 | 0 |
| 294 | CITY OF MOUNTAIN VILLAGE | 0 | 1 |
| 293 | TAGIUGMIULLU NUNAMIULLU HOUSING AUTHORIT | 0 | 6 |
| | | | |
| 701 | ANCHORAGE SD | 288 | 289 |
| 702 | SELAWIK SD | 0 | 0 |
| 703 | SELAWIK CITY SD | 0 | 0 |
| 704 | CORDOVA CITY SD | 4 | 10 |
| 705 | CRAIG CITY SD | 7 | 2 |
| 706 | FAIRBANKS NORTH STAR BOROUGH SD | 77 | 96 |
| 707 | HAINES BOROUGH SD | 2 | 3 |
| 708 | HOONAH CITY SD | 0 | 1 |
| 709 | HYDABURG CITY SD | 2 | 6 |
| 710 | JUNEAU BOROUGH SD | 53 | 39 |
| 712 | KAKE CITY SD | 2 | 2 |
| 713 | NATIONAL EDUCATION ASSOCIATION OF AK | 0 | 0 |
| 714 | KETCHIKAN GATEWAY BOROUGH SD | 18 | 9 |
| 716 | KING COVE SD | 0 | 0 |
| 717 | KLAWOCK CITY SD | 2 | 3 |
| 718 | KODIAK ISLAND BOROUGH SD | 27 | 24 |
| 719 | NENANA CITY SD | 4 | 6 |
| 720 | NOME CITY SD | 10 | 6 |
| 722 | MATANUSKA-SUSITNA BOROUGH SD | 78 | 130 |
| 723 | PELICAN CITY SD | 0 | 0 |
| 724 | PETERSBURG CITY SD | 4 | 7 |
| 727 | SITKA BOROUGH SD | 13 | 10 |
| 728 | SKAGWAY CITY SD | 2 | 4 |
| 729 | UNALASKA CITY SD | 4 | 3 |
| 730 | VALDEZ CITY SD | 7 | 6 |

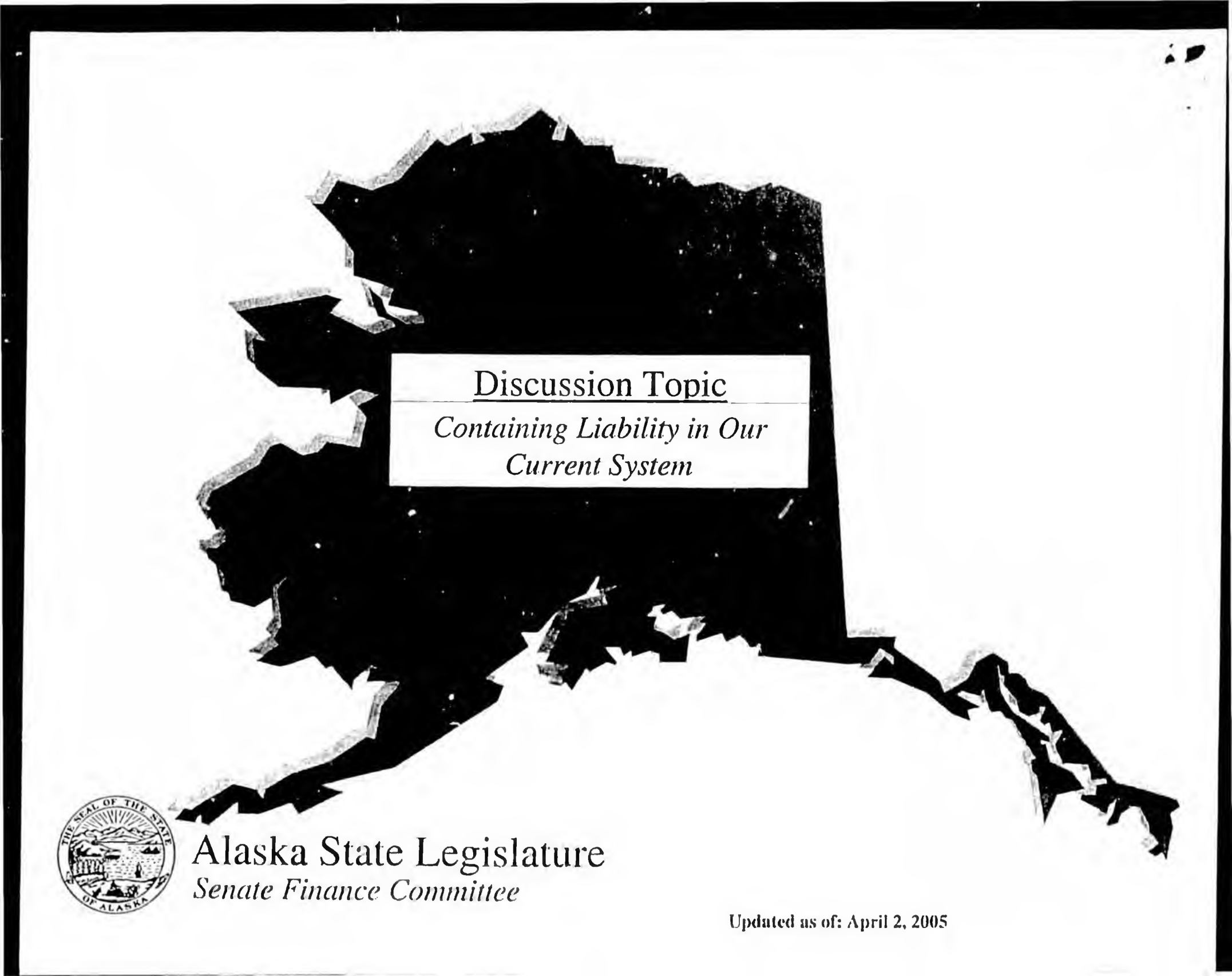
INTO PROVIDED BY R&B

4-2-05

| Employer # | Employer Name | FY 04 | FY05 7/1/04 - 12/31/04 |
|---|---|---|---|
| 731 | WRANGELL PUBLIC SD | 1 | 1 |
| 732 | YAKUTAT SD | 2 | 2 |
| 733 | UNIVERSITY OF ALASKA | 67 | 32 |
| 734 | NORTHWEST REGION RESOURCE CENTER | 0 | 0 |
| 735 | GALENA CITY SD | 9 | 6 |
| 736 | NORTH SLOPE BOROUGH SD | 32 | 41 |
| 737 | ALASKA DEPARTMENT OF EDUCATION | 7 | 7 |
| 738 | SOUTH CENTRAL REGION RESOURCE CENTER | 0 | 0 |
| 739 | NORTHERN REGION RESOURCE CENTER | 0 | 0 |
| 740 | SOUTHWEST REGION RESOURCE CENTER | 0 | 0 |
| 741 | UNIVERSITY OF AK GEOPHYSICAL INSTITUTE | 0 | 0 |
| 742 | BRISTOL BAY BOROUGH SD | 8 | 3 |
| 743 | SOUTHEAST REGIONAL RESOURCE CENTER | 5 | 3 |
| 744 | DILLINGHAM CITY SD | 8 | 9 |
| 746 | KENAI PENINSULA BOROUGH SD | 41 | 53 |
| 748 | SAINT MARY'S SD | 8 | 7 |
| 749 | STATE OPERATED SCHOOLS | 0 | 0 |
| 751 | NORTHWEST ARCTIC BOROUGH SD | 53 | 43 |
| 752 | BERING STRAIT SD | 63 | 52 |
| 753 | LOWER YUKON SD | 40 | 31 |
| 754 | LOWER KUSKOKWIM SD | 75 | 58 |
| 755 | KUSPUK SD | 9 | 12 |
| 756 | SOUTHWEST REGION SD | 10 | 25 |
| 757 | LAKE AND PENINSULA BOROUGH SD | 18 | 12 |
| 758 | ALEUTIAN REGION SD | 4 | 3 |
| 759 | PRIBILOF SD | 5 | 1 |
| 760 | ADAK REGION SD | 0 | 0 |
| 761 | IDITAROD AREA SD | 17 | 11 |
| 762 | YUKON / KOYUKUK SD | 19 | 24 |
| 763 | YUKON FLATS SD | 11 | 9 |
| 764 | DENALI BOROUGH SD | 11 | 8 |
| 765 | DELTA/GREELY SD | 21 | 14 |
| 766 | ALASKA GATEWAY SD | 6 | 5 |
| 767 | COPPER RIVER SD | 5 | 7 |
| 768 | CHATHAM SD | 9 | 5 |
| 769 | SOUTHEAST ISLAND SD | 8 | 7 |
| 770 | ANNETTE ISLAND SD | 11 | 5 |
| 771 | CHUGACH SD | 3 | 4 |
| 772 | ALASKA STATE LEGISLATURE | 0 | 0 |
| 773 | WESTERN REGION RESOURCE CENTER | 0 | 0 |
| 774 | SAND POINT SD | 0 | 0 |
| 775 | TANANA SD | 2 | 3 |
| 776 | ALASKA ASSOCIATION OF SCHOOL BOARDS | 0 | 0 |
| 777 | KASHUNAMIUT SD | 10 | 5 |
| 778 | YUPIIT SD | 16 | 13 |
| 779 | SPECIAL EDUCATION SERVICE AGENCY | 0 | 2 |
| 780 | ALEUTIANS EAST BOROUGH SD | 13 | 9 |

INFO PROVIDED BY R-C

4-7-05



# Discussion Topic

*Containing Liability in Our Current System*

Alaska State Legislature

*Senate Finance Committee*

**Updated as of: April 2, 2005**

# *Refunded Accounts*

## Refunded Accounts By System

| | | |
|---|---|---|
| PERS | Tier 1 | |
| | >5 | 5,251 |
| | 3-5 | 5,292 |
| | <3 | 31,179 |
| | Tier 2 | 14,999 |
| | Tier 3 | 7,667 |
| Total | | 64,388 |
| TRS | Tier 1 | |
| | >8 | 388 |
| | 6-8 | 369 |
| | <6 | 10,008 |
| | Tier 2 | 2,534 |
| Total | | 13,299 |
| **PERS/TRS Total** | | 77,687 |

All these members refunded their contributions when they left state service.

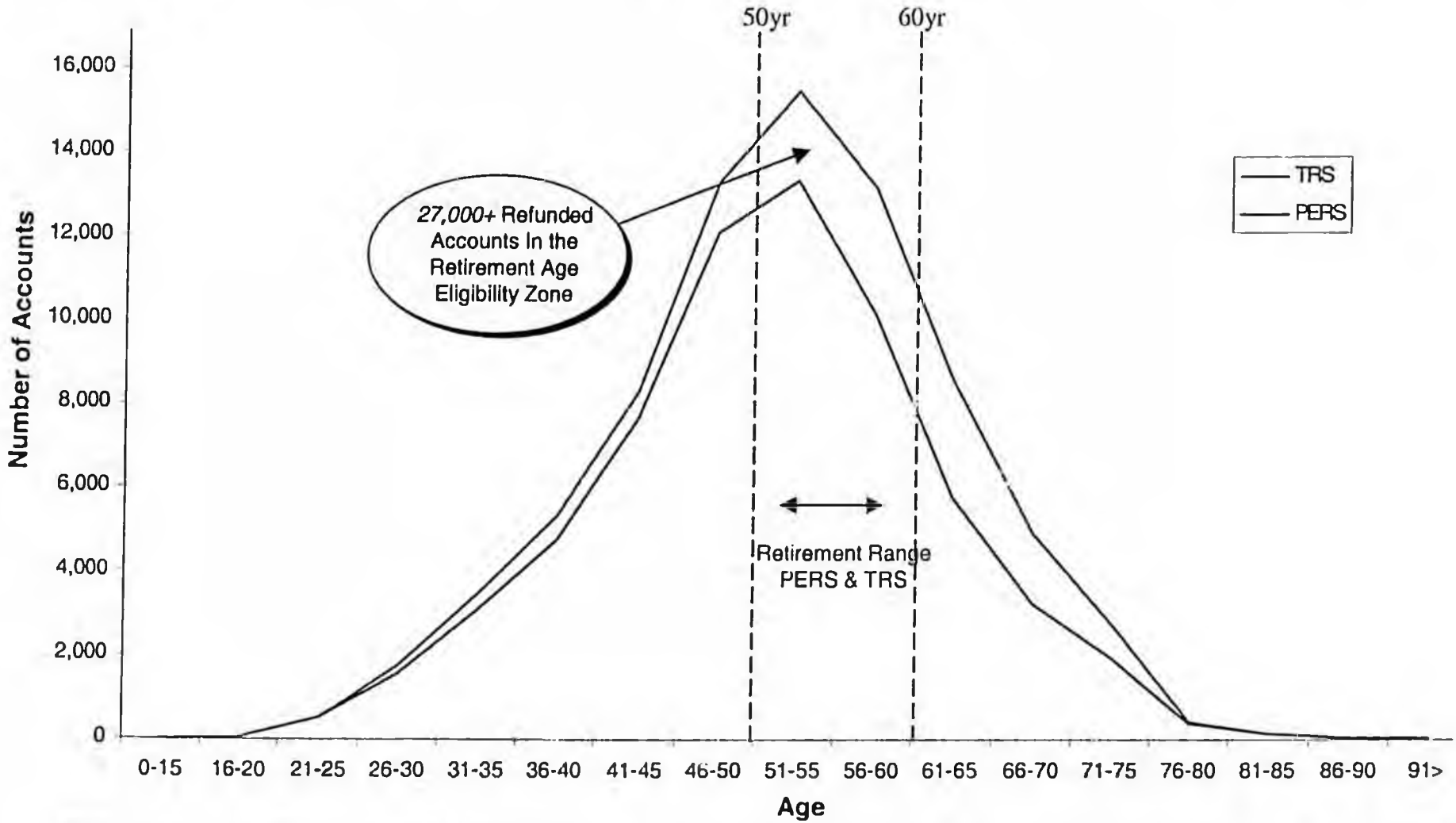
However, they can come back, set up their indebtedness, pay off the indebtedness, serve until vested and then get a benefit from the system.

5,639 members are already vested.

They can be retired, pay their indebtness, leave immediately and have 100% system paid medical at retirement.

Refunded Accounts Represent a Looming Liability for the System

## Age Distribution of PERS & TRS Refunded Accounts




Refunded Accounts Represent a Looming Liability for the System

## Fix Proposed in SB 141 (Sec 111 pg 90)

- AS 14.25.062 and AS 39.35.350
- The change would repeal the provision for letting people repay there indebtedness to the state – effective June 30, 2010
- This provides for a 5 year window for members to reinstate their accounts and begin paying the indebtedness

# *Benefit Enhancing Legislation*

## Benefit enhancing legislation added *$37.7 Million* to our *unfunded liability* in 2001 alone

### Passed in 2001, HB 242

Enhanced medical benefits to existing employees by providing full system paid medical to retired members over age 60 and all members who retire with at least 25 years of service (TRS & Police/Fire) and 30 years of service (PERS) regardless of hire date.

- When it passed, the bill increased our system liabilities by **$23.7 Million**
- Using today's health cost trends, that number has grown to **$37.7 Million**

---

## This Session, there are several new bills that if passed would enrich benefits for existing employees and increase our unfunded liability:

**HB 6** – Allowing Fish & wildlife enforcement officers to calm credit as peace officers

**HB 40** – Allowing retired peace officers medical benefits after 20 years instead of 25

**SB 21** – Adding child or vulnerable adult protection workers to the police/fire employee class

## We Need Better Fiscal Analysis Before Enacting Legislation Affecting Benefits

## Fix Proposed

- Establish enhanced Fiscal Note reporting procedures for any legislation introduced that affects existing benefits

- Fiscal impact would have to be based on an actuarial analysis of the impact on future cash flows and liability to the system

# *Post Pension Retirement Adjustments*

## Current Retirement Pension Adjustments

1. COLA – The greater of 10% or $50 increase in base benefit amount paid to retirees living in Alaska

2. Post Pension Retirement Adjustment (PRPA) *AS39.45.475*

   - Automatic – annual increase given to eligible retirees based a percentage of the year to year change in Anchorage CPI - 50% pre-65, 75% post-65

   - Discretionary ("Ad Hoc") - **Tier 1 members only.** Awarded *"when the administrator determines that the cost of living has increased and that the financial condition of the retirement fund permits"*

| | | | |
|---|---|---|---|
| **Ad Hoc** | July 1st of every year. Members must meet eligibility requirements as of July 1st. | Must be a Tier I PERS or TRS member. (Appx 24,500) Must be a change in the Consumer Price Index (CPI) from date of retirement to date of PRPA issuance. | 3 Step calculation:<br>1) Determine the % difference in the current CPI% less the CPI% at retirement. Multiply the base benefit by this percentage.<br>2) Determine the 4% compounded rate for each month the member has been on retirement. Multiply the base benefit times this percentage. Subtract any prior PRPAs received.<br>3) The Ad Hoc amount granted is the lesser of the results of steps 1 and 2. |
| **Automatic** | July 1st of every year. Members must meet eligibility requirements as of July 1st. | 1) Must be age 60, or<br>2) have been receiving retirement benefits for 5 yrs (PERS), 8 yrs (TRS), or<br>3) be receiving disability benefits. | If member meets minimum age or service eligibility, receives 50% of the % change in CPI applied to the base benefit plus any prior PRPAs granted. Disability recipients and members who are age 65 receive 75% of the % of change in CPI. |

AdHoc PRPA's Have a Huge Effect on Future Liabilities

## Ad hoc and Automatic PRPA Example

| Change in CPI | Ad Hoc PRPA % Granted* | Auto PRPA % Granted | PRPA Date | Tier I Retiree Retired 1/1/97 Age 50 Age | Base Benefit | Ad Hoc PRPA Amt | Auto PRPA Amount | PRPA Type Paid |
|---|---|---|---|---|---|---|---|---|
| 3.163% | 3.000% | 1.581% | 7/1/1997 | 50 | $ 2,248.86 | NE | NE | Ad hoc |
| 1.045% | 4.000% | 0.522% | 7/1/1998 | 51 | $ 2,248.86 | $ 15.60 | NE | Ad hoc |
| 1.103% | 4.000% | 0.551% | 7/1/1999 | 52 | $ 2,248.86 | $ 25.00 | NE | Ad hoc |
| 0.954% | 4.000% | 0.477% | 7/1/2000 | 53 | $ 2,248.86 | $ 21.86 | NE | Ad hoc |
| 2.837% | 4.000% | 1.418% | 7/1/2001 | 54 | $ 2,248.86 | $ 65.58 | NE | Ad hoc |
| 3.022% | 3.000% | 1.511% | 7/1/2002 | 55 | $ 2,248.86 | $ 71.82 | $ 37.00 | Ad hoc |
| 1.849% | None | 0.924% | 7/1/2003 | 56 | $ 2,248.86 | $ - | $ 22.63 | Auto |
| 3.193% | None | 1.596% | 7/1/2004 | 57 | $ 2,248.86 | $ - | $ 39.08 | Auto |
| | | | | **Total PRPA Granted:** | | | | **$261.57** |

| Tier II Retiree Retired 1/1/97 Age 55 Age | Base Benefit | Auto PRPA Amt | PRPA % Granted |
|---|---|---|---|
| 55 | $ 2,248.86 | NE | NE |
| 56 | $ 2,248.86 | NE | NE |
| 57 | $ 2,248.86 | NE | NE |
| 58 | $ 2,248.86 | NE | NE |
| 59 | $ 2,248.86 | NE | NE |
| 60 | $ 2,248.86 | $ 37.00 | 1.645% |
| 61 | $ 2,248.86 | $ 22.63 | 1.006% |
| 62 | $ 2,248.86 | $ 39.08 | 1.738% |
| **Total PRPA Granted** | | **$ 98.71** | **$98.71** |

*Note: The 4% is the maximum any member can receive. No ad hoc PRPA granted can cause the total accrued PRPAs to exceed the total change in CPI from the member's retirement date to the date the PRPA was granted.

NE = Non Eligiable

| PRPA Awarding History | | | | | |
|---|---|---|---|---|---|
| PRPA Date | Monthly Benefit Increase PERS | TRS | Total | Total 12 Month Cash Increase | Resulting Actuarial Loss |
| 1995 | Paid in '97 | Paid in '97 | NA | [redacted] | |
| 1996 | Paid in '97 | Paid in '97 | NA | | |
| 1997 | $ 2,289,639 | $ 2,877,374 | $ 5,167,013 | | |
| 1998 | $ 171,502 | $ 149,500 | $ 321,002 | $ 3,852,024 | $ 57,158,000 |
| 1999 | $ 163,715 | $ 147,366 | $ 311,081 | $ 3,732,972 | $ 11,765,000 |
| 2000 | $ 158,034 | $ 133,226 | $ 291,260 | $ 3,495,120 | $ 17,905,000 |
| 2001 | $ 508,787 | $ 445,192 | $ 953,979 | $ 11,447,748 | $ 17,123,000 |
| 2002 | $ 585,443 | $ 502,968 | $ 1,088,411 | $ 13,060,932 | $ 39,561,000 |

AdHoc PRPA's Have a Huge Effect on Future Liabilities

## Fix Proposed

- AS 39.35.475 – Include language that defines what is meant by "the financial condition of the retirement fund".

- Proposal is to set a minimum funding ratio of 110%

## Examples of Refunded Accounts

| Age at Retment | TIER | Current Status | Benefit Status | Last Employer | Total Service | Date of Last Contribution | Date of Refund | Rehire Date | Date Refund Pd | Retirement Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 1 | Retired | Active | State of AK | 4.066 | 1/18/1979 | 10/16/1980 | | 2/28/2001 | 7/1/2001 | conditional service benefit |
| 60 | 2 | Retired | Active | State of AK | 3.058 | 7/21/1989 | 8/14/1989 | 5/10/2002 | 8/13/2003 | 10/1/2004 | |
| 58 | 1 | Retired | Active | State of AK | 7.342 | 9/17/1985 | 3/23/1992 | 7/6/1999 | 4/24/2003 | 5/1/2003 | |
| 56 | 1 | Retired | Active | State of AK | 5.222 | 1/18/1979 | 1/18/1979 | 2/24/2003 | 8/15/2003 | 4/1/2004 | |
| 53 | 1 | Retired | Active | State of AK | 7.857 | 7/21/1989 | 6/5/1989 | 7/13/1999 | 7/16/2003 | 7/1/2003 | |
| 54 | 1 | Retired | Active | State of AK | 10.156 | 1/17/1996 | 5/31/1996 | 12/30/1995 | 4/30/2003 | 7/1/2003 | |
| 55 | 1 | Retired | Active | State of AK | 14.836 | 8/19/1992 | 6/17/1992 | 7/16/2001 | 3/25/2003 | 8/1/2003 | |
| 60 | 1 | Retired | Active | State of AK | 5.370 | 4/30/1971 | 11/15/1971 | 6/26/2002 | 7/31/2002 | 8/1/2002 | worked less than 1 month |
| 60 | 1 | Retired | Active | State of AK | 2.113 | 6/18/1980 | 10/29/1980 | 8/6/2001 | 6/17/2002 | 1/1/2003 | |
| 65 | 1 | Retired | Active | State of AK | 2.912 | 8/11/1982 | 7/14/1982 | 2/15/2002 | 4/20/2004 | 5/1/2004 | |
| 53 | 1 | Rtn to Work | Stopped | State of AK | 6.389 | 2/15/1979 | 5/14/1980 | 1/17/2002 | 3/29/2002 | 9/1/2002 | |
| 64 | 2 | Retired | Active | State of AK | 5.411 | 7/29/1991 | 7/29/1991 | 11/11/1999 | 12/31/2002 | 9/1/2003 | |
| 60 | 1 | Retired | Active | State of AK | 6.238 | 5/2/1989 | 9/10/1985 | | 9/13/2004 | 7/1/2004 | conditional |
| 57 | 1 | Retired | Active | State of AK | 4.277 | 9/13/1982 | 8/31/1982 | | 7/16/2004 | 7/1/2004 | conditional |
| 52 | 1 | Retired | Active | State of AK | 5.570 | 11/13/1985 | 1/6/1992 | 5/1/2001 | 7/25/2001 | 5/1/2003 | |
| 50 | 1 | Retired | Active | State of AK | 2.095 | 7/14/1982 | 1/19/1983 | 12/26/2000 | 1/31/2001 | 7/1/2003 | |
| 52 | 1 | Retired | Active | State of AK | 5.614 | 2/24/1987 | 2/24/1987 | 5/6/2003 | 8/21/2003 | 9/1/2003 | worked 3 months |
| 51 | 1 | Retired | Active | State of AK | 1.671 | 4/7/1981 | 4/7/1981 | 2/22/2001 | 8/26/2002 | 8/1/2002 | 5 leg sessions |
| 50 | 1 | Retired | Active | State of AK | 8.290 | 11/15/1988 | 10/24/1988 | 12/28/1999 | 12/28/1999 | 4/1/2000 | worked 1 day |
| 58 | 1 | Retired | Active | State of AK | 5.052 | 5/14/1975 | 5/14/1975 | 5/3/2004 | 7/30/2004 | 9/1/2004 | worked 3 months |
| 58 | 1 | Retired | Active | State of AK | 8.315 | 7/9/1980 | 1/25/1985 | 12/7/2000 | 1/8/2001 | 2/1/2001 | worked 1 week |
| 58 | 1 | Retired | Active | State of AK | 6.058 | 7/13/1983 | 6/15/1983 | 6/2/2000 | 5/27/2004 | 6/1/2004 | |
| 59 | 1 | Retired | Active | State of AK | 10.090 | 6/6/1988 | 1/22/2003 | 10/22/2003 | 12/12/2003 | 1/1/2004 | worked 1 day |
| 61 | 1 | Retired | Active | State of AK | 5.356 | No data | 1/13/1975 | 6/26/2003 | 1/12/2004 | 2/1/2004 | |
| 64 | 2 | Retired | Active | State of AK | 5.595 | 10/27/1992 | 12/21/1992 | 2/4/2000 | 10/31/2001 | 2/1/2002 | |
| 57 | 1 | Retired | Active | State of AK | 5.088 | 10/12/1982 | 10/12/1982 | 10/2/2003 | 6/30/2004 | 9/1/2004 | |
| 53 | 1 | Retired | Active | State of AK | 9.048 | 5/14/1980 | 5/14/1980 | 1/30/2002 | 2/28/2002 | 3/1/2002 | worked less then 1 month |
| 55 | 1 | Retired | Active | State of AK | 8.748 | 3/6/1984 | 2/28/1984 | 5/19/2000 | 8/30/2002 | 9/1/2004 | worked 6 months |
| 55 | 1 | Retired | Active | State of AK | 11.797 | 1/16/1986 | 10/7/1986 | 10/20/2003 | 3/25/2004 | 6/1/2004 | |
| 53 | 1 | Retired | Active | State of AK | 4.633 | 6/13/1984 | 6/12/1984 | 1/4/2000 | 4/30/2001 | 6/1/2001 | |
| 53 | 1 | Retired | Active | State of AK | 7.142 | 6/4/1981 | 6/4/1981 | 10/4/1999 | 3/12/2003 | 9/1/2003 | |
| 50 | 1 | Retired | Active | State of AK | 9.177 | 1/27/1997 | 7/22/1998 | 9/5/2000 | 4/10/2001 | 9/1/2002 | |
| 73 | 1 | Retired | Active | State of AK | 17.329 | No data | 4/10/1969 | 5/17/2004 | 6/28/2004 | 7/1/2004 | worked less then 1 month |
| 66 | 1 | Retired | Active | State of AK | 7.030 | 3/20/1975 | 3/20/1975 | 11/15/2001 | 4/17/2003 | 6/1/2003 | |
| 60 | 1 | Retired | Active | State of AK | 5.055 | 4/22/1976 | 4/22/1976 | 1/28/2003 | 2/27/2003 | 6/1/2003 | worked less then 6 months |
| 55 | 1 | Retired | Active | State of AK | 10.090 | 5/14/1980 | 2/13/1975 | 8/1/2000 | 8/31/2000 | 10/1/2000 | worked less then 1 month |
| 57 | 1 | Retired | Active | State of AK | 5.019 | 8/18/1987 | 7/7/1987 | 2/4/2003 | 7/20/2004 | 9/1/2004 | |
| 56 | 1 | Retired | Active | State of AK | 2.973 | 3/20/1975 | 10/11/1975 | 8/26/2002 | 7/29/2003 | 6/1/2004 | |
| 59 | 1 | Retired | Active | State of AK | 7.107 | 8/17/1987 | 8/17/1987 | 4/15/2002 | 9/11/2002 | 11/1/2004 | worked 7 months |
| 59 | 1 | Retired | Active | State of AK | 5.532 | 11/22/1975 | 12/21/1975 | 2/28/2000 | 1/31/2002 | 3/1/2002 | |
| 59 | 1 | Retired | Active | State of AK | 20.704 | 10/13/1986 | 1/28/1976 | 1/31/2001 | 7/29/2004 | 8/1/2004 | |

4/2/05

| Age at Retirement | TIER | Current Status | Benefit Status | Last Employer | Total Service | Date of Last Contribution | Date of Refund | Rehire Date | Date Refund Pd | Retirement Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 2 | Retired | Active | State of AK | 10.586 | 3/25/1997 | 4/15/1997 | 12/20/1999 | 3/25/2003 | 6/1/2004 | |
| 55 | 1 | Retired | Active | State of AK | 5.011 | 3/30/1973 | 7/14/1973 | 11/16/1999 | 8/29/2002 | 11/1/2003 | |
| 57 | 1 | Retired | Active | State of AK | 8.855 | 5/12/1988 | 4/11/1988 | 4/2/2001 | 7/15/2003 | 9/1/2004 | |
| 56 | 1 | Retired | Active | State of AK | 6.386 | 4/30/1983 | 5/17/1983 | 4/24/2002 | 11/27/2002 | 12/1/2003 | |
| 55 | 1 | Retired | Active | State of AK | 9.304 | 6/11/1985 | 5/21/1985 | 11/13/2000 | 2/14/2003 | 6/1/2004 | |
| 55 | 2 | Retired | Active | State of AK | 5.687 | 2/22/1995 | 4/30/1995 | 9/27/1999 | 2/27/2003 | 3/1/2003 | |
| 51 | 1 | Retired | Active | State of AK | 5.468 | 4/11/1979 | 4/11/1979 | 5/4/2000 | 8/21/2000 | 2/1/2002 | worked less then 1 month |
| 68 | 1 | Retired | Active | State of AK | 1.792 | 3/19/1980 | 11/26/1980 | 4/20/2001 | 5/31/2001 | 6/1/2001 | worked less then 1 month |
| 57 | 1 | Retired | Active | State of AK | 7.205 | 10/31/1972 | 2/22/1973 | 8/19/2002 | 9/30/2002 | 7/1/2004 | |
| 50 | 1 | Retired | Active | State of AK | 5.381 | 2/18/1981 | 3/24/1981 | 10/14/1999 | 1/14/2003 | 2/1/2003 | |
| 50 | 1 | Retired | Active | State of AK | 8.312 | 8/9/1983 | 3/26/1985 | 10/25/1999 | 12/6/1999 | 3/1/2003 | |
| 50 | 1 | Retired | Active | State of AK | 5.630 | 7/14/1981 | 7/14/1981 | 5/1/2002 | 10/31/2002 | 11/1/2003 | |
| 50 | 1 | Retired | Active | State of AK | 6.521 | 1/12/1982 | 1/12/1982 | 1/6/2003 | 10/24/2003 | 11/1/2004 | |
| 57 | 1 | Retired | Active | State of AK | 5.130 | 8/23/1994 | 9/7/1994 | 7/1/1999 | 11/18/1999 | 9/1/2000 | |
| 52 | 1 | Retired | Active | State of AK | 6.482 | 8/11/1982 | 7/27/1982 | 4/26/2000 | 7/12/2000 | 12/1/2000 | worked 6 months |
| 55 | 1 | Retired | Active | Juneau SD | 8.036 | 11/28/1979 | 2/14/1980 | 10/19/1999 | 6/24/2003 | 3/1/2004 | |
| 57 | 1 | Retired | Active | Juneau SD | 5.008 | 10/21/1981 | 9/15/1981 | 11/12/2002 | 1/27/2004 | 10/1/2004 | |
| 50 | 1 | Retired | Active | Juneau SD | 7.860 | 2/21/1984 | 1/31/1984 | 8/24/1999 | 4/30/2003 | 5/1/2003 | |
| 57 | 1 | Retired | Active | ASD | 1.908 | 1/25/1979 | 1/31/1979 | 8/26/2002 | 12/22/2003 | 7/1/2004 | |
| 55 | 1 | Retired | Active | ASD | 4.357 | 12/7/1987 | 11/30/1987 | | 7/26/2000 | 9/1/2000 | conditional |
| 58 | 1 | Retired | Active | ASD | 5.045 | 7/24/1975 | 8/2/1975 | 8/28/2002 | 10/3/2002 | 12/1/2003 | |
| 58 | 2 | Retired | Active | ASD | 3.084 | 11/25/1997 | 11/30/1998 | 8/28/2000 | 4/10/2001 | 7/1/2002 | |
| 71 | 1 | Retired | Active | ASD | 2.141 | 12/18/1984 | 12/4/1984 | 2/6/2001 | 1/17/2003 | 2/1/2003 | worked 4 months termed |
| 56 | 1 | Retired | Active | ASD | 11.419 | 10/12/1982 | 11/19/1982 | 10/27/1999 | 2/28/2003 | 6/1/2003 | |
| 57 | 1 | Retired | Active | ASD | 2.336 | 7/26/1978 | 11/30/1978 | 8/31/2000 | 4/30/2002 | 7/1/2003 | |
| 52 | 1 | Retired | Active | ASD | 5.253 | 2/23/1982 | 4/19/1983 | 10/11/2000 | 6/22/2004 | 7/1/2004 | |
| 61 | 1 | Retired | Active | ASD | 7.973 | / / | 4/18/1972 | 4/24/2001 | 6/13/2001 | 7/1/2001 | worked 1 month |
| 61 | 1 | Retired | Active | U of A | 2.147 | 8/13/1980 | 8/13/1980 | 2/11/2002 | 12/11/2002 | 8/1/2004 | |
| 59 | 1 | Retired | Active | U of A | 2.093 | 7/16/1984 | 6/12/1984 | 1/27/2003 | 3/28/2003 | 6/1/2003 | worked 5 months |
| 50 | 1 | Retired | Active | U of A | 4.214 | 10/22/1980 | 11/6/1980 | | 9/9/2003 | 9/1/2003 | conditional |
| 50 | 1 | Retired | Active | U of A | 5.129 | 5/29/1990 | 3/28/1995 | | 4/30/2003 | 6/1/2003 | conditional |
| 57 | 1 | Retired | Active | U of A | 7.948 | 8/13/1980 | 8/6/1980 | 10/1/2001 | 1/30/2003 | 2/1/2003 | |
| 52 | 1 | Retired | Active | U of A | 5.959 | 1/26/1980 | 4/30/1980 | 7/7/1999 | 4/29/2004 | 7/1/2004 | |
| 51 | 1 | Retired | Active | U of A | 5.427 | 2/12/1990 | 11/30/1989 | 7/31/2000 | 10/29/2002 | 7/1/2004 | |
| 55 | 1 | Rtn to Work | Stopped | U of A | 6.784 | 7/30/1980 | 8/27/1980 | 11/12/2001 | 10/30/2003 | 11/1/2003 | |
| 52 | 1 | Retired | Active | FNSBSD | 7.123 | 2/22/1988 | 4/10/1990 | 11/4/2002 | 10/30/2003 | 11/1/2003 | |
| 50 | 1 | Retired | Active | FNSBSD | 2.138 | 9/30/1986 | 11/3/1986 | 8/19/2002 | 8/28/2002 | 6/1/2003 | |
| 70 | 1 | Retired | Active | FNSBSD | 9.679 | 7/28/1981 | 7/19/1978 | 7/23/2002 | 9/30/2002 | 10/1/2002 | worked 1 day |
| 61 | 1 | Retired | Active | FNSBSD | 6.055 | 9/13/1974 | 11/16/1974 | 4/10/2000 | 5/15/2003 | 6/1/2003 | |
| 50 | 1 | Retired | Active | FNSBSD | 5.253 | 5/31/1974 | 1/13/1975 | 11/27/2000 | 12/21/2000 | 7/1/2003 | |
| 62 | 1 | Retired | Active | KGB | 12.967 | 11/10/1981 | 12/1/1981 | 2/8/2000 | 6/30/2004 | 10/1/2004 | |
| 62 | 1 | Retired | Active | CBJ | 8.986 | 4/19/1983 | 4/27/1977 | 2/28/2000 | 12/18/2002 | 2/1/2003 | |
| 54 | 1 | Retired | Active | CBJ | 9.959 | 10/20/1976 | 10/20/1976 | 12/8/2000 | 1/31/2001 | 3/1/2002 | worked almost 3 months |
| 56 | 1 | Retired | Active | C/O Wasilla | 13.038 | 10/28/1993 | 6/29/1987 | 5/24/1999 | 4/26/2000 | 7/1/2003 | worked 14 months |

| Age at Retment | TIER | Current Status | Benefit Status | Last Employer | Total Service | Date of Last Contribution | Date of Refund | Rehire Date | Date Refund Pd | Retirement Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 1 | Retired | Active | Sitka Boro | 2.860 | 6/22/1932 | 3/6/1984 | Conditional | 3/30/2001 | 7/1/2001 | conditional |
| 55 | 1 | Retired | Active | C/O Palmer | 9.413 | 6/11/1981 | 6/23/1981 | 1/20/2000 | 10/30/2000 | 10/1/2004 | |
| 58 | 1 | Retired | Active | NSB | 10.383 | 3/2/1982 | 3/10/1982 | 10/3/2003 | 7/12/2004 | 7/1/2004 | worked 3 months |
| 56 | 1 | Retired | Active | Yukon Flats SD | 3.056 | 12/21/1977 | 1/1/1977 | Conditional | 12/1/2000 | 12/1/2000 | conditional |
| 57 | 1 | Retired | Active | SERRC | 5.127 | 12/15/1977 | 12/8/1977 | 11/13/2000 | 6/25/2001 | 7/1/2004 | |
| 61 | 1 | Retired | Active | SERRC | 4.038 | 9/21/1974 | 11/16/1974 | 4/27/2001 | 8/31/2001 | 2/1/2004 | conditional |
| 58 | 1 | Retired | Active | SERRC | 6.677 | 2/22/1983 | 2/22/1983 | 10/1/2000 | 12/18/2002 | 10/1/2003 | |
| 58 | 1 | Retired | Active | MOA | 5.060 | 10/4/1975 | 10/4/1975 | 5/15/2001 | 8/28/2001 | 2/1/2004 | |
| 56 | 1 | Retired | Active | MOA | 5.370 | 6/11/1980 | 6/4/1980 | 8/12/2002 | 3/28/2003 | 4/1/2004 | |
| 56 | 1 | Retired | Active | MOA | 5.948 | 5/29/1984 | 5/15/1984 | Active in TRS | 3/25/2004 | 7/1/2004 | active in TRS |
| 63 | 1 | Retired | Active | MOA | 6.940 | 5/3/1971 | 7/19/1971 | 7/19/1999 | 11/19/1999 | 11/1/2001 | |
| 61 | 1 | Retired | Active | MOA | 16.375 | 5/14/1980 | 9/15/1981 | 9/29/2003 | 11/21/2003 | 1/1/2004 | worked 2 months |
| 60 | 1 | Retired | Active | MOA | 5.022 | 8/31/1978 | 8/31/1978 | 5/20/2003 | 11/21/2003 | 10/1/2004 | |
| 55 | 1 | Retired | Active | MOA | 5.145 | 9/15/1981 | 9/15/1981 | 8/19/2002 | 4/24/2003 | 8/1/2004 | |
| 51 | 1 | Retired | Active | MOA | 5.148 | 4/10/1980 | 4/30/1980 | 5/15/2003 | 6/18/2003 | 7/1/2003 | worked 1 day |
| 56 | 1 | Retired | Active | MOA | 10.258 | 11/12/1980 | 11/12/1980 | 10/20/2003 | 12/17/2003 | 2/1/2004 | worked 3 months |
| 62 | 1 | Retired | Active | MOA | 7.326 | 2/28/1990 | 2/22/1991 | 9/17/2001 | 9/13/2004 | 10/1/2004 | |
| 64 | 1 | Retired | Active | MOA | 5.307 | No Data | 4/11/1968 | 8/16/2001 | 4/30/2002 | 5/1/2004 | |
| 60 | 1 | Retired | Active | MOA | 9.485 | 4/12/1973 | 9/23/1976 | 8/27/2001 | 3/29/2002 | 10/1/2003 | |
| 57 | 1 | Retired | Active | MOA | 5.315 | 3/17/1978 | 10/25/1978 | 10/1/2001 | 7/30/2002 | 10/1/2002 | 11 months |
| 57 | 1 | Retired | Active | MOA | 5.468 | 2/27/1973 | 4/24/1973 | 12/8/1999 | 7/10/2000 | 10/1/2003 | 11 months |
| 56 | 1 | Retired | Active | MOA | 5.067 | 8/11/1976 | 8/11/1976 | 9/16/2002 | 3/27/2003 | 1/1/2004 | |
| 53 | 1 | Retired | Active | MOA | 6.207 | 6/30/1980 | 6/12/1980 | 11/19/2001 | 5/21/2002 | 12/1/2003 | 6 months |
| 55 | 1 | Retired | Active | Kodiak Boro | 3.197 | 3/4/1991 | 3/18/1981 | 9/28/1999 | 6/30/2000 | 6/1/2001 | 8 months |
| 55 | 1 | Retired | Active | C/O Cordova | 11.310 | 8/11/1982 | 7/6/1982 | 12/1/2001 | 9/19/2003 | 1/1/2004 | |
| 55 | 1 | Retired | Active | KPBSD | 5.559 | 10/12/1992 | 9/28/1992 | Active in TRS | 12/31/2002 | 3/1/2003 | conditional |
| 53 | 1 | Retired | Active | Nenana SD | 16.403 | 6/11/1990 | 10/8/1990 | 8/7/2003 | 11/7/2003 | 11/1/2003 | worked 1 month, 8 days |
| 57 | 1 | Retired | Active | Bartlett Hosp | 6.430 | 9/26/1988 | 8/22/1988 | 12/4/2001 | 8/26/2002 | 4/1/2004 | |
| 55 | 1 | Retired | Active | Bartlett Hosp | 5.348 | 2/21/1984 | 7/22/1986 | 5/22/2000 | 4/29/2004 | 5/1/2004 | |
| 57 | 1 | Retired | Active | Bartlett Hosp | 5.759 | 6/22/1974 | 4/28/1976 | 5/9/2004 | 6/29/2004 | 8/1/2004 | |
| 56 | 1 | Retired | Active | C/O Klawock | 5.060 | 4/26/1995 | 5/13/1997 | 11/18/2002 | 6/18/2003 | 11/1/2003 | |

# Alaska State Senate
## Senate Finance Committee

Official Business

Mail Stop 3100
State Capitol
Juneau, Alaska 99801-1182

### SENATE BILL 141
### SPONSOR STATEMENT

For almost two years, the legislature has heard of the looming crisis in the State's retirement systems. The systems are underfunded by $5 billion. Employer contribution rates have been raised by five percent per year for the past two years, and greater increases are required unless something is done soon. In the first sixty days of this legislative session, members of the Senate have worked diligently to understand and evaluate the problems in the retirement system in order to propose a solution to those problems. Senate Bill 141 offers a two-prong approach: (1) create a defined contribution retirement plan for the long-term solution to employer cost management; and (2) implement management changes to the existing system so we can begin to address the $5 billion deficit situation there.

In 2003, the Governor appointed a subcommittee of the PERS and TRS Boards that was charged with researching and evaluating the concept of a new retirement tier. This subcommittee worked throughout 2004, performing research and analyses of information gathered from employers statewide and studying nationwide trends in both the public and private sectors. In November of 2004, the subcommittee presented two tier alternatives to the PERS and TRS Boards suggesting that a recommendation be forwarded to the Governor and the Legislature.

Unfortunately, the Boards opted not to forward a recommendation. However, the work done by the subcommittee did not go in vain. The Senate leadership used the subcommittee's work, as well as its own research and analysis, to draft this legislation. SB 141 offers a holistic solution to our problem and allows Alaska to join other states in retirement system reform.

The true long-term solution, 30 to 50 years from now, will be accomplished by the change in the retirement plan for future government employees from the traditional pension plan to a defined contribution (DC) plan, commonly known in the private sector as a 401(k). Such a plan has three clear advantages: (1) cost predictability; (2) portability between employers; and (3) clarity. Hundreds of thousands of private sector employers and other state retirement systems offer their employees this type of plan. SB 141 combines the DC plan features with the tradition of offering insurability for all retirees and an IRS allowable vehicle for tax free savings accounts used to pay for out-of-pocket medical expenses during retirement years. As Alaska's older tier employees retire out of the defined benefits system, and the new DC plan employees are brought in to replace them, the existing structure will become more stable.

In the short-term, SB 141 implements the management changes needed to effectively address the $5 billion deficit. It creates a single board to replace the separate public employees' and teachers' retirement system boards and the pension investment board. The new board is the Alaska Retirement Management (ARM) Board. The Arm Board will be more experienced with financial and pension matters than the current boards require and will be charged with greater emphasis on its fiduciary role to balance the retirement system assets to system liabilities.

SB 141 seems voluminous. The concepts, however, are simple and few. Please take the time to read the "Senate Finance Committee White Paper: SB 141". This document is a succinct compilation of much of the research undertaken to date. It describes more fully the features contained in SB 141 and provides the understanding of the framework for the discussions to come.

The Senate Finance Committee is committed to addressing this problem this legislative session.

# Actuarial Valuation 101

The ultimate cost of any retirement system can be represented by the formula:

*System Costs = Assets - Liabilities*
*Where assets = Investment Returns + Plan Contributions*
*and Liabilities =Benefits to be Paid + Administrative Expenses*

Since none of these factors are known until the last benefit is paid, they must be measured and estimated by something called an **Actuarial Valuation**. The primary function of an **Actuarial Valuation** is to determine:

- The annual amount, the actuarially computed employer rate that must be paid into the plan in order to pay for current and all future benefit costs.

- This results in the computation of the plan's **Actuarial Funding Ratio**: the ratio of fund assets to liabilities for benefits accrued to date.

A pension plan whose assets equal its liabilities is funded at 100% and is considered *fully funded*; any shortfall of assets is an *unfunded liability*, and a plan with an unfunded liability is considered *underfunded*.

*Underfunded* does not mean that a plan is unable to pay the benefits for which it is presently obligated to pay or to meet it's current cash flow requirements. It simply means that in the unlikely event that all the plan's liabilities had to be settled today, it would be unable to meet them. Fortunately, a retirement system's obligations extend many years into the future so the plan has time to accrue the assets needed to ultimately meet all it's future obligations.

Calculating the employer rate and the Actuarial Funding Ratio involves many variable financial, economic, and demographic assumptions. Over the short-term, many of these assumptions will be incorrect to one degree or another. After all, the Actuarial Valuation is only a snapshot of an arrangement of complex, long-term financial and demographic projections, "based on the theoretical supposition that the plan's liabilities are subject to settlement on the date the valuation is done."

Because no one knows what the future holds, an actuary uses a mixture of professional judgment, past experience and future expectations to estimate possible future economic outcomes. Assumptions used in the **Actuarial Valuation** should be chosen in a way that ensures:

(1) the plan is funded in an orderly and stable way and
(2) that the plan's accumulated annual contributions and investment returns are adequate to provide participants with their promised benefit payouts by the end of the funding period – in the case of PERS and TRS, 25 years.

## Actuarial Valuation 101

The Alaska Division of Retirement & Benefits contracts with Mercer Human Resource Consulting to prepare annual Actuarial Valuations of the state's public retirement systems – PERS & TRS.

Mercer uses the following assumptions and actuarial methods in their annual valuation analysis:

Economic Assumptions
*Relate to the expected long-term financial experience of the plan*

- Annual Investment Return
- Post Retirement Health Premium Trend
- Total Inflation
- Annual Salary Increases

Demographic Assumptions
*Relate to the plan's populations and how they are expected to change over time*

- Mortality Rates
- Total Turnover Rate
- Disability Rate
- Retirement Rates
- Assumed Retirement Date if Before Age 50

Actuarial Assumptions
*In addition to the Demographic and Economic Assumptions stated above, the following additional assumptions are inputs in the actuarial analysis*

- Medical Benefit Valuation – A pre-65 and post-65 premium cost are computed, increased with a health inflation assumption and combined into a blended premium. This evaluation also is based on who is actually eligible for employer paid health care.
- Target Funding Ratio - *The ratio of Assets to Accrued Liabilities that the plan is targeting going forward – at 100% target ratio, the plan targets full funding after 25 years in the case of PERS and TRS.*
- COLA – % of retirees receiving
- Spouse's Age
- Dependent Children
- Contribution Refund Rates
- New entrants
- Post-Pension Retirement Adjustments
- Expenses
- Marital Status

Actuarial Methods

*The methods adopted by Mercer in determining the cost of a pension plan and for determining the annual contribution required to adequately provide for future benefits*

- Asset Valuation Method – Mercer currently uses an Asset Smoothing Method – *which recognizes 20% of assets gains & losses for the current and preceding four years*
- Actuarial Cost Method – Mercer currently uses a Projected Unit Credit (PUC) - *which produces an Accrued Liability, Unfunded Liability, a Normal Cost Rate and a Past Service Cost*
    - Accrued Liability – *the present value of benefits credited*
    - Unfunded Liability – *the excess of Accrued Liabilities over the Plan's total Assets*
    - Normal Cost – *is the present value of the benefits expected to be earned by active members during the current year*
    - Past Service Cost – *the annual payment required to pay off any Unfunded Liability over the stipulated amortization period*
- Amortization Schedule for Unfunded Liability and Future Gains & Losses – Mercer uses a 25-year fixed period level percentage of pay.

# Alaska State Legislature

## Senate Majority Web: www.akrepublicans.org

**Sponsor:** FINANCE
**Current Version:** SB 141
**Contact:** Miles Baker, 465-3873

**Fact Sheet for: Senate Bill 141**

**Short Title:** PUBLIC EMPLOYEE/TEACHER RETIREMENT

**Summary:**

- Establishes a Defined Contribution (DC) Plan, Retiree Medical Benefit and Health Reimbursement Arrangement for new employees.
- Sets annual employer contribution rates for existing Defined Benefits Plan at an amount at least equal to the actuarially computed normal cost rate.
- Streamlines retirement system management by replacing the PERS, TRS and ASPIB boards with a newly created 9-member Alaska Retirement Management Board (ARMB) consisting of the commissioners of administration and revenue, 7 governor-appointed trustees with credentials or recognized competence in fields related to pension systems (3 non-beneficiary public members, a finance officer of PERS and one of TRS, one PERS member, one TRS member.)
- Strengthens the ARMB's fiduciary role to balance system assets and liabilities; provides more employer representation; and makes the ARMB responsible for setting employer contribution rates and prescribing future interest rates for employees' contribution accounts.
- Transfers the quasi-judicial responsibility for hearing appeals and waivers to the Office of Administrative Hearings.

**Benefits:**

- Strengthens management and fiduciary oversight of the state's retirement systems.
- Constrains growth of the unfunded liability.
- Establishes a portable defined contribution plan for new employees that, over time, reduces the state's dependence on riskier and less predictable defined benefit plans.

**Background:**

- Alaska's public retirement system assets have not kept up with obligations because of factors including rising health care costs, shifting demographic trends, market performance, and underestimation of system liabilities. The result is $5 billion in underfunding. Last year, the Administration formed a work group to come up with solutions. This fall, after much research and analysis, the work group presented two alternatives to the PERS and TRS boards. The boards declined to forward a solution to the Legislature. Based on the recommendations of that work group, the Senate Finance Committee conducted its own analysis and is introducing the Retirement Security Act. Unlike a defined benefit plan in which employees are promised a benefit regardless of investment performance and system costs, a DC plan provides employees with a portable individual retirement account based on the contributions and earnings of employees and employers.

# SB 141 White Paper

## Senate Finance Committee

Alaska Public Employee's Retirement System and Teacher's Retirement System: Problems and Solutions for the Alaska Public Pension Plans

March 2005

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# Introduction

Nationwide there are significant funding problems with pension plans both in the public and private sector. Numerous solutions are being proposed and undertaken to resolve the underfunded status of pension systems in order to prevent their collapse.

Three primary factors have contributed to national funding problems: (1) ***declining interest rates***—plan liabilities are calculated as the present value of future plan obligations. The discount rate used in this calculation is linked to market yields on various fixed income securities. As interest rates have fallen, so have yields, resulting in higher plan liabilities. (2) ***Negative equity returns***—From the beginning of 2000 through the end of 2002, the U.S. stock market, as measured by the Wilshire 5000 Total Market Index, returned a cumulative –37%. Even after the market rebound of 2003, the Wilshire 5000 Index had a –17% cumulative return for the four previous years ending on December 31. Most pension plans hold 60% to 65% of their assets in stocks, so they have seen both their returns and their asset base shrink significantly. (3) ***Less-favorable demographics***—the aging of both pension plans and their beneficiaries translates into an increase in the cash obligations coming due within a relatively short span of time. For employees in their 20s, benefits may not be due for 35 years. In contrast, liabilities for those approaching retirement are more near-term. Near-term liabilities are discounted over a short time horizon and are, therefore, worth more in current dollars than those discounted over a long time horizon. Increasing near-term liabilities results in increasing total liabilities and lower funding ratios.[1]

For pension plans, a catastrophic event would be the inability to pay the benefits promised to participants. This is not the situation faced today. The degree to which a plan is underfunded—meaning that its assets are less than its projected benefit obligation—is the degree to which the plan falls short of its obligation to pay in the present all of its projected liabilities. Unless a plan is terminated, however, pension liabilities are not due today—an important fact to keep in mind when evaluating pension plan health. Participants should look to the long term in considering the health of pension plans.[2]

Even if the situation is not as bad as it first appears, there are legitimate concerns about the current level of pension plan funding. The most direct way for a plan sponsor to improve the funding level is to make new contributions. A healthy plan should expect its annual contributions to equal plan service costs, the amount of benefit payments accruing for the current year. Investment returns as well as annual contributions are expected to fund future benefit payments. On average, benefits paid rose (along with plan assets) in the 1979-1998 period. One would expect average contributions to increase proportionally—larger plans should make larger contributions to cover larger service costs. This did not occur. As a result, contributions as a percentage of assets or of benefits paid declined in the 1979-1998 period. If funding levels are to improve, a critical consideration is whether employers can afford to make higher contributions

[1] The Vanguard Group Investmend Counseling & Research/Analysis "Corporate Pension Funding" Kimberly A. Steckton, June 2004.
[2] Watson Wyatt-Insider, "The Changing Nature of Defined Benefits Plans" February 2005.
Watson Wyatt-Insider, "Pensions in Crisis" September 2003. Available On-Line http://www.watsonwyatt.com

than they have in the past ten years. The ratio of unfunded liabilities to assets is a good indicator of the potential impact on employers.

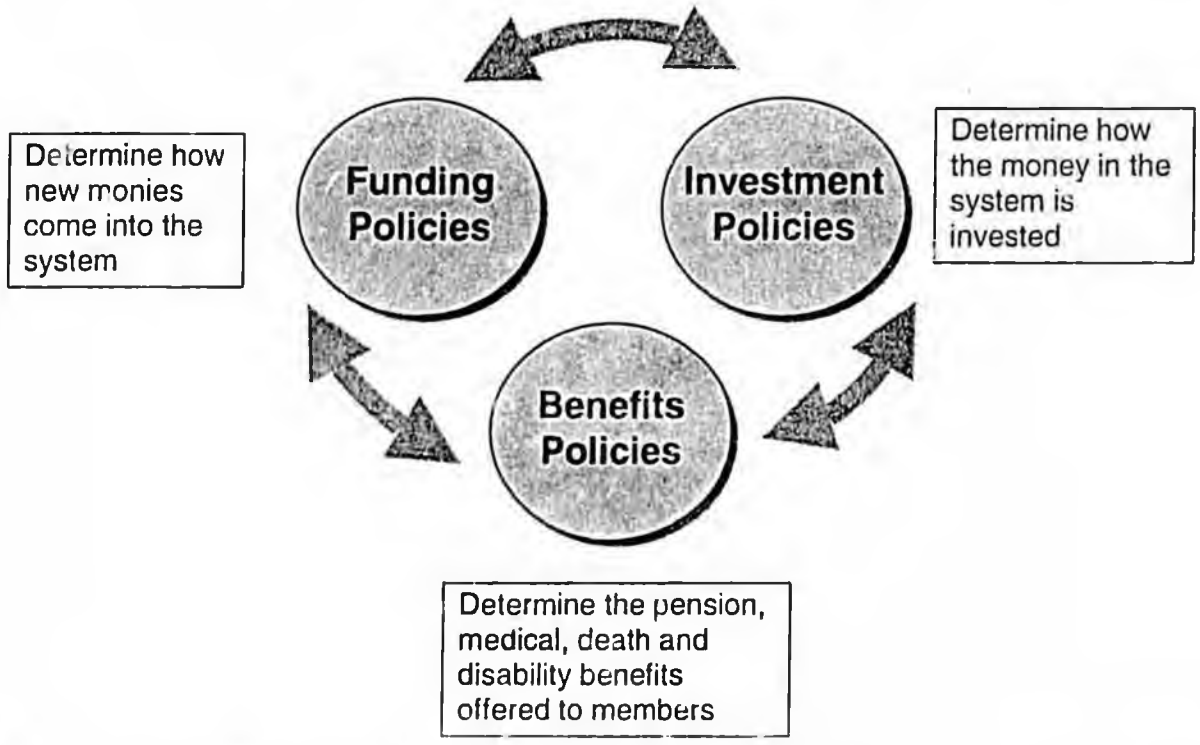
To forecast how long pension plans will take to reestablish healthy funding levels, it is necessary to make assumptions about the future. A long-term historical perspective suggests some reasonable expectations. One is that the extreme market conditions experienced in the 2000-2002 period are unlikely to be repeated soon.[3] Between 1926 and 2002, equity markets and interest rates declined together in only 15 of the 77 years. Before the 2000-2002 period, there was no three-year period during which both declined. If history is a guide, it seems likely that the economic and financial environment will be better for pension plans in the near future. Indeed, 2003 saw U.S. stocks on the upswing.

No one should be surprised if funding levels take some time to recover. If this happens, it will likely not be because of a deteriorating economy but because of the smoothing of asset returns permitted in both financial reporting and calculations of funding.[4] For example, financial accounting rules permit smoothing of asset values over a 5-year period. Thus, reported asset values in 2004 will reflect not only the higher equity returns of 1999 and 2003, but also the lower returns of 2000-2002. In other words, the dismal performance of the equity markets from 2000 through 2002 will drag down calculated asset levels in the future. Lower asset levels means lower funding levels. Thus, because of accounting rules, recovery from low funding levels could take some time.

[3] Manhattan Institute: Civic Report "Defusing the Pension Bomb: How to Curb Public Retirement Costs in NY State." E. J. McMahon and Peter Ferrara, November 2003. Available On-Line http://www.manhattan-institute.org/html/cr_40.htm

[4] Milliman USA: Multiemployer Review "Multiemployer Pension Plan Funding Problems." Spring 2003. Available On-Line http://www.milliman.com

## Funding Retirement Systems




The most recognized measure of a public retirement plan's health is its actuarial funding level—the ratio of assets to liabilities for benefits accrued to-date.[5] A pension plan whose assets equal its liabilities is funded at 100% and is considered fully funded; any shortfall of assets is an unfunded liability, and a plan with an unfunded liability is considered underfunded.

Underfunded normally does not mean that a plan is unable to pay the benefits for which it is presently obligated—in fact, substantially all underfunded public pension plans are able to meet their current obligations. Fully funded can mistakenly be interpreted to mean that no future contributions to the plan will be required. In fact, fully funded means that the actuarial valuation of assets on hand equal the plan's actuarial accrued liabilities, contributions and investment earnings still will be required to cover the benefit obligations as they accrue going forward.

All plans, underfunded and fully funded alike, that are open to newly hired workers, rely on future contributions and investment returns. A key difference between underfunded and fully funded plans is that underfunded plans require contributions both to finance benefits currently being accrued as well as to eliminate the shortfall between their assets and their accrued liabilities. Because fully funded plans have no such shortfall, they require contributions only to finance the benefits currently being accrued.

[5] NASRA Public Fund Survey Summary of Findings FY 2003
Keith Brainard, September 2004. Available On-Line http://www.publicfundsurvey.org/SurveyFindingsFY03.pdf

## Alaska Pension System Summary

The Alaska Public Employees' and Teachers' Retirement Systems (PERS/TRS) are Defined Benefit (DB) plans. The Division of Retirement and Benefits administers the plans with oversight provided by the PERS Board and TRS Board. The PERS Board is composed of five members—two board members are elected by the PERS membership, and three are governor appointed. The TRS Board is composed of five governor-appointed members-- one of whom must be a resident receiving retirement benefits under this chapter.

The Alaska State Pension Investment Board (ASPIB)—an organization that consists of eight trustees, carries out the investment functions of Alaska's retirement systems. ASPIB is made up of the Commissioner of the Department of Revenue, three trustees are appointed by the governor, and four trustees elected by the general memberships of PERS and the TRS.

Review of the boards for other state retirement systems finds wide variety in the composition, structure, and duties of boards of public retirement systems. While many such boards oversee one of several retirement systems (as in Alaska, where separate boards oversee PERS and TRS), there are boards that oversee several systems. Many of the boards also function as investment managers, although that is not clear in every case. Evidence, or the lack thereof, of the presence of additional boards that take on investment duties leads to the reasonable belief that many of the boards either do so, or have subcommittees or other organizations that advise them on such matters.

In a DB plan the benefit paid to an employee is based upon a formula set in law and is not determined by the account balance. Future benefit payments are not affected by plan funding methods or funding level of the plan, market gains or losses, or expenses. If a member decides to cash-out the employee account, the employee only receives the employee's contributions and fixed interest on the account. Employer contributions and actual investment earnings stay with the retirement system.

An actuarial valuation is performed each year to obtain a total accrued liability for the entire system. Actuarial valuations use assumptions to determine what the total cost will be over the life of the system. These assumptions reflect major variables that will affect the total system costs and the cost of any one individual. The overall objective of a pension fund is to accumulate sufficient funds to meet all expected future financial obligations to participants. An actuarial valuation determines the expected future obligation.

In a DB plan, the system does not know how long you will actually live, how many payments you will actually get after retirement, how much Cost Of Living Adjustment (COLA) you will actually be paid, how much your post retirement pension adjustments will be, or how much future health care costs will be. Assumptions are used to make a reasonable estimate of what the costs might be. The funding level is determined based on these assumptions.

The purpose of actuarial methods is to fund a member's retirement benefits over the member's working lifetime. The total expected liability for each member is broken down into two parts—the past service liability and future normal costs. The past service liability is the portion

attributable to prior service and is expected to have already been funded for. Future normal costs are the annual amounts expected to be earned in the future and to be paid for by future members and employer contributions. To the extent that system assets are less than the past service liability, the "unfunded liability" is amortized over 25 years and a past service rate is combined with normal cost rate in calculating employer contributions. Mercer's actuarial valuations of the systems are based on member and asset information provided by the Division of Retirement and Benefits and plan provisions as described in the Actuarial Valuation Reports. The actuarial methods and assumptions are also described in the Actuarial Valuation Reports.

The expected system liability is the value in today's dollars of all the expected future benefit payments to all of the system members. There is uncertainty as to both the amount and the timing of future benefit payments. Thus, determining system liabilities requires making assumptions regarding future events. In setting each assumption, appropriate consideration is given to historical observations as well as to expectations for the future. Professional standards require that each assumption represent Mercer's best estimate at the time of anticipated future experience. Therefore, it would not be appropriate to characterize any of the assumptions as "conservative" or "aggressive" but rather to characterize each assumption as Mercer's best estimate based on information available at the time. Several of the key actuarial assumptions are as follows: investment return, health cost trend, future inflation, mortality rates, future salary increases, and retirement/termination rates. While each assumption is the best estimate of future experience based on information available at a given point in time, changes can occur which lead to revisions in actuarial assumptions. Among others, such changes can include longevity increases, lowered expectations regarding future inflation, and increased expectations regarding future healthcare cost increases. Assumption changes cause increases or decreases in system liabilities, which are amortized over 25 years through past service rate.

The PERS and TRS Boards approve actuarial assumptions after recommendations by and discussion with the actuary. Formal assumption reviews are conducted every five years. The results of the most recent review of actuarial assumptions were presented to the Boards in October 2000. Detailed analysis of each assumption can be found in the Public Employees' Retirement System Analysis Study of Actuarial Assumptions and the Teachers' Retirement System Analysis Study of Actuarial Assumptions. In addition, an independent actuarial consulting firm performs periodic audits of actuary's assumptions and methods. Milliman, USA, performed the most recent audit with results presented to the Boards in October 2002.

The investment return assumption represents the average long-term rate of return expected to be realized on the system portfolio over the system's future lifetime. It is used to discount future benefit payments to the valuation date when calculating liabilities. Because it represents expected future earnings to provide for benefits, raising or lowering the return assumptions causes liabilities to move in the opposite direction. Lowering the return assumption to 7.25% would increase system liabilities; raising the discount rate to 9.25% would reduce system liabilities. The National Association of State Retirement Administrators survey of investment return assumptions as of June 30, 2003 produces a median rate of return assumption of 8%, with 39 funds using return assumptions of 8.25% or higher.

The annual investment return is comprised of three major components: the increase in overall productivity, the risk premium associated with each investment class, and inflation. The first two of these represent the "real" rate of return. Since 1996, the real rate of return implicit in the investment rate has been 4.25% for PERS.[6] The real rate of return expected on investments is a function of the time period over which results are measured and the types of investments chosen.

| Measurement Period | National CPI | Approximate Rate on Market Value of Assets |
|---|---|---|
| FY 99 | 2.2% | 10.3% |
| FY 98 | 1.6% | 12.8% |
| FY 97 | 2.3% | 17.9% |
| FY 96 | 3.0% | 13.6% |
| FY 95 | 2.8% | 15.3% |

Actuarial calculated contribution rates for PERS and TRS indicate the need for higher contributions in order to eventually achieve 100 percent funding ratios. In theory, higher funding ratios could also be achieved through increasing the level of investment earnings. However, higher levels of investment earnings can generally be achieved only by taking on higher levels of risk, which may mean both increasing year-to-year volatility and increasing the likelihood of failure to meet long-term investment objectives.

Both the funding and investment policies can be thought of as "adding assets to the plan." The remaining "lever" available towards improving the fiscal condition is the benefits policy. Over the long term, the systems' fiscal condition could be improved by providing lower benefits.

In the U.S., three legal rules govern the activities of pension plan administrators, who have the legal status of fiduciaries. The three rules are the exclusive purpose rule, the prudent man rule and the diversification rule. The first obligates fiduciaries to act in the best interest of the plan's participants and beneficiaries. The second rule requires the fiduciary to act with the same care, skill, prudence and diligence that a prudent person would take. The third rule requires the fiduciary to diversify the plan's investment by type, geographic area, maturity and industrial classification to minimize the risk of losses.

Experience in recent years, with the sharp drop in the stock market, suggests that the prudent man rule might need to be interpreted to require that underfunded plans more closely match asset and liability durations and that asset characteristics should be more closely aligned with the fixed dollar nature of pension liabilities.

[6] Alaska Division of Retirement and Benefits: Alaska Legislative Report, "Response to Questions from House State Affairs on the Public Employees' Retirement Systems and the Teachers' Retirement System." February 2005. Available On-Line: http://www.state.ak.us/local/akpages/ADMIN/drb/home.htm