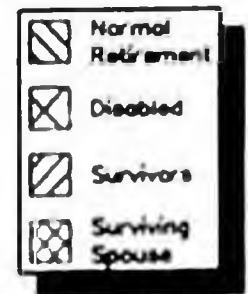
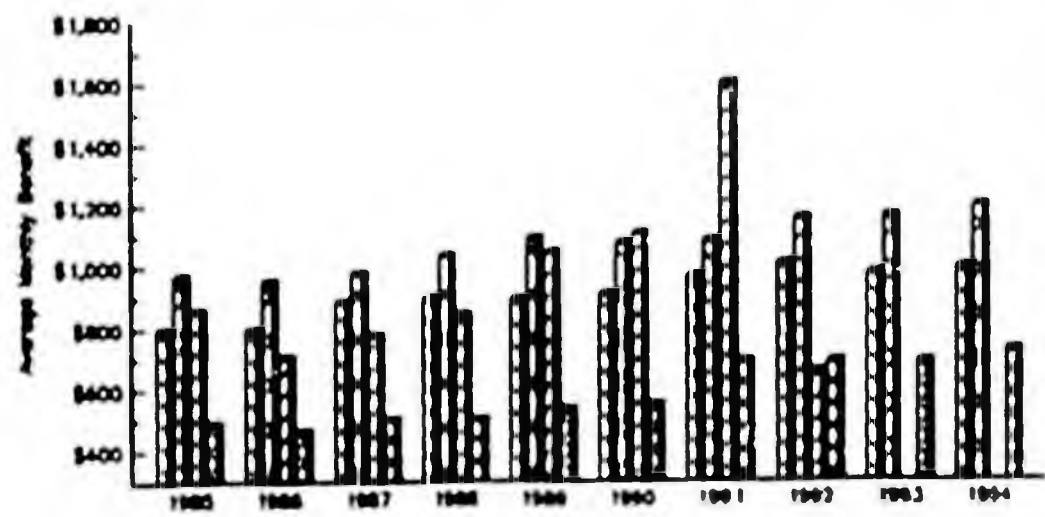
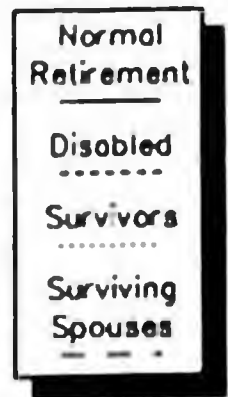
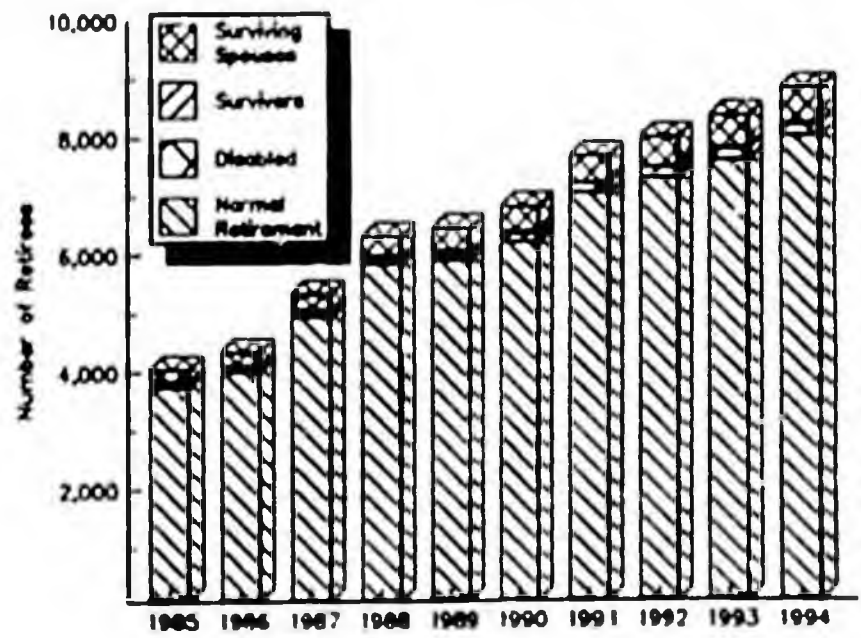
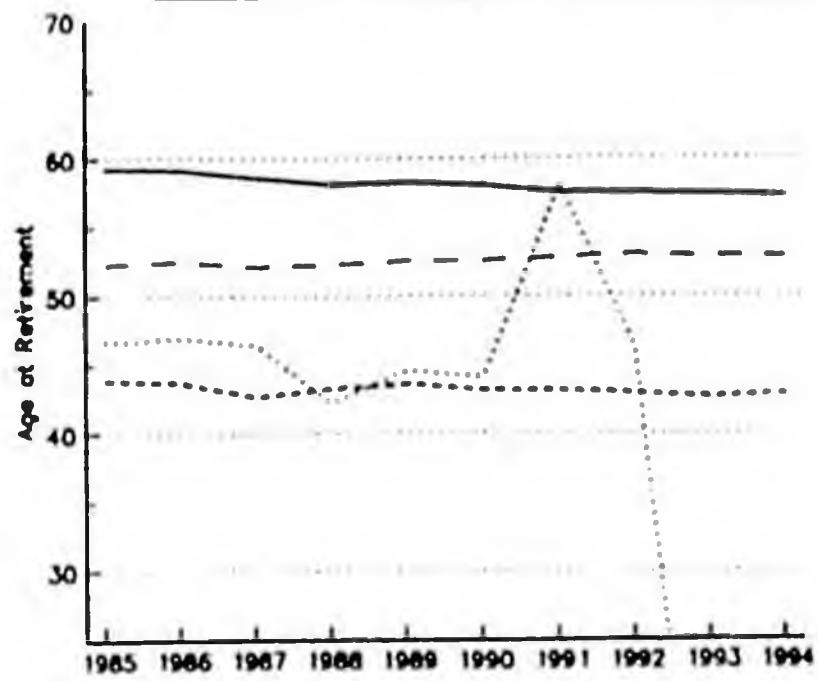


ALASKA LEGISLATURE

1525

HOUSE and SENATE FINANCE COMMITTEE FILES, 1995-1996

# State of Alaska - PERS "Other" Retirees



## 2.2(i) Distribution of Annual Benefits for Police and Fire Benefit Recipients

----- Annual Benefit By Age -----					-- Annual Benefit By Years Since Retirement --				
Age Groups	Number of People	Total Annual Benefit	Average Annual Benefit	Years Since Retirement	Number of People	Total Annual Benefit	Average Annual Benefit		
0-19	0	\$	\$	0	71	\$ 1,889,480	\$ 26,612		
20-24	0	0	0	1	48	1,148,551	23,928		
25-29	0	0	0	2	35	738,764	21,108		
30-34	3	65,574	21,858	3	102	2,480,338	24,317		
35-39	13	226,044	17,388	4	62	1,582,317	25,521		
40-44	33	800,578	24,260	0-4	318	7,839,450	24,652		
45-49	128	3,907,767	30,529	5-9	282	8,052,884	28,556		
50-54	195	5,266,549	27,008	10-14	113	2,871,814	25,414		
55-59	180	4,477,723	24,876	15-19	73	1,460,973	20,013		
60-64	116	3,025,726	26,084	20-24	13	217,578	16,737		
65-69	84	1,802,459	21,458	25-29	0	0	0		
70-74	32	640,872	20,027	30-34	1	43,828	43,828		
75-79	13	239,899	18,454	35-39	0	0	0		
80-	1	11,316	11,317	40-	0	0	0		
<b>Total</b>	<b>920</b>	<b>\$20,485,527</b>	<b>\$ 25,608</b>	<b>Total</b>	<b>800</b>	<b>\$20,485,527</b>	<b>\$ 25,608</b>		

### Years Since Retirement by Age

Age	Years Since Retirement										Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-	Total	
0-19	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	3	0	0	0	0	0	0	0	0	3	
35-39	7	5	1	0	0	0	0	0	0	13	
40-44	23	7	1	1	1	0	0	0	0	33	
45-49	78	41	4	4	1	0	0	0	0	128	
50-54	113	73	4	2	3	0	0	0	0	195	
55-59	66	16	22	4	2	0	0	0	0	180	
60-64	23	46	35	11	0	0	0	0	0	116	
65-69	5	19	33	27	0	0	0	0	0	84	
70-74	0	4	8	17	3	0	0	0	0	32	
75-79	0	1	4	7	1	0	0	0	0	13	
80-	0	0	1	0	2	0	0	0	0	3	
<b>Total</b>	<b>318</b>	<b>267</b>	<b>113</b>	<b>73</b>	<b>13</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>800</b>	

**2.2(m) Schedule of Retired Members by Type of Retirant  
and Option Selected - "Police/Fire" - June 30, 1994**

Amount of Monthly Benefit	Number of Retirees	Type of Retirement			Option Selected #			
		1	2	3	Opt. 1	Opt. 2	Opt. 3	Opt. 4
\$ 1 - \$ 300	12	11	1	0	4	5	2	1
301 - 600	45	33	5	7	28	11	3	3
601 - 900	58	54	3	1	36	10	5	7
901 - 1200	55	46	6	3	35	5	8	7
1201 - 1500	60	44	5	11	36	7	8	9
1501 - 1800	75	56	4	15	39	28	6	2
1801 - 2100	87	76	5	6	42	28	10	7
2101 - 2400	76	68	1	7	28	29	12	7
2401 - 2700	91	88	1	2	40	27	10	14
2701 - 3000	78	75	0	3	30	31	6	11
over 3000	<u>163</u>	<u>152</u>	<u>4</u>	<u>7</u>	<u>61</u>	<u>64</u>	<u>20</u>	<u>18</u>
Totals	800	703	35	62	379	245	90	86

Type of Retirement

- 1 - Normal retirement
- 2 - Survivor payment
- 3 - Disability retirement

- Option 1 - Whole Life Annuity
- Option 2 - 75% Joint and Survivor Annuity
- Option 3 - 50% Joint and Survivor Annuity
- Option 4 - 66 $\frac{2}{3}$ % Joint and Survivor Annuity

## 2.2(n) Distribution of Annual Benefits for "Other" Benefit Recipients

----- Annual Benefit By Age -----				-- Annual Benefit By Years Since Retirement --			
Age Groups	Number of People	Total Annual Benefit	Average Annual Benefit	Years Since Retirement	Number of People	Total Annual Benefit	Average Annual Benefit
0-19	0	\$ 0	\$ 0	0	567	\$ 7,584,088	\$ 13,376
20-24	0	0	0	1	488	5,525,379	11,322
25-29	1	1,669	1,669	2	448	4,828,281	10,777
30-34	9	110,315	12,257	3	879	11,376,779	12,943
35-39	26	277,527	10,674	4	637	7,047,424	11,063
40-44	70	777,000	11,100	0- 4	3,019	36,361,951	12,044
45-49	81	1,082,169	13,360	5- 9	2,962	36,948,351	12,474
50-54	876	8,985,382	10,257	10-14	1,577	17,252,760	10,940
55-59	1,755	21,894,798	12,476	15-19	1,066	10,944,547	10,267
60-64	1,842	24,417,416	13,256	20-24	202	1,879,460	9,304
65-69	1,695	19,099,414	11,268	25-29	14	165,361	11,812
70-74	1,305	14,649,743	11,226	30-34	3	51,357	17,119
75-79	699	7,626,659	10,911	35-39	0	0	0
80+	484	4,681,694	9,673	40+	0	0	0
Total	8,843	\$ 103,603,787	\$ 11,716	Total	8,843	\$ 103,603,787	\$ 11,716

### Years Since Retirement By Age

Age	----- Years Since Retirement -----									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0-19	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
25-29	1	0	0	0	0	0	0	0	0	1
30-34	6	3	0	0	0	0	0	0	0	9
35-39	75	8	3	0	0	0	0	0	0	26
40-44	7	23	6	3	1	0	0	0	0	70
45-49	40	28	10	3	0	0	0	0	0	81
50-54	739	98	25	12	2	0	0	0	0	876
55-59	1,070	637	30	15	2	1	0	0	0	1,755
60-64	623	940	254	20	4	1	0	0	0	1,842
65-69	376	676	501	138	4	0	0	0	0	1,695
70-74	91	432	407	367	8	0	0	0	0	1,305
75-79	16	92	252	310	29	0	0	0	0	699
80+	5	24	89	198	152	12	3	0	0	484
Total	3,019	2,962	1,577	1,066	202	14	3	0	0	8,843

**2.2(o) Schedule of Retired Members by Type of Retirant  
and Option Selected - "Others" - June 30, 1994**

Amount of Monthly Benefit	Number of Retirees	<u>Type of Retirement</u>			<u>Option Selected #</u>			
		1	2	3	<u>Opt. 1</u>	<u>Opt. 2</u>	<u>Opt. 3</u>	<u>Opt. 4</u>
\$ 1 - \$ 300	1,057	895	150	12	716	159	140	42
301 - 600	2,397	2,162	193	42	1,604	397	268	128
601 - 900	1,753	1,620	114	19	1,087	332	172	162
901 - 1200	1,173	1,071	71	31	749	195	137	92
1201 - 1500	797	723	39	35	512	147	75	63
1501 - 1800	498	454	17	27	298	86	62	52
1801 - 2100	372	345	13	14	202	79	49	42
2101 - 2400	261	244	10	7	141	58	30	32
2401 - 2700	193	182	5	6	107	42	25	19
2701 - 3000	119	109	7	3	52	44	14	9
over 3000	<u>223</u>	<u>215</u>	<u>4</u>	<u>4</u>	<u>105</u>	<u>60</u>	<u>35</u>	<u>23</u>
Totals	8,843	8,020	623	200	5,573	1,599	1,007	664

Type of Retirement

- 1 - Normal retirement
- 2 - Survivor payment
- 3 - Disability retirement

- Option 1 - Whole Life Annuity
- Option 2 - 75% Joint and Survivor Annuity
- Option 3 - 50% Joint and Survivor Annuity
- Option 4 - 66<sup>2</sup>/<sub>3</sub>% Joint and Survivor Annuity

**2.2(p) Schedule of Retirants and Beneficiaries Added to and Removed from Rolls - Police/Fire**

Year Ended	Added to Rolls		Removed from Rolls		Rolls - End of Year		Percent Increase in Annual Allowances	Average Annual Allowance
	No.*	Annual Allowances*	No.*	Annual Allowances*	No.	Annual Allowances		
June 30, 1994	77	\$ 2,428,767	4	\$ 119,939	800	\$ 20,486,527	12.7%	\$ 25,608
June 30, 1993	39	982,991	11	212,565	727	18,177,698	4.4%	25,004
June 30, 1992	35	1,202,004	8	195,248	699	17,407,272	6.1%	24,903
June 30, 1991	129	3,408,774	4	95,704	672	16,400,516	25.3%	24,406
June 30, 1990	38	907,997	3	71,784	547	13,087,446	6.8%	23,926
June 30, 1989	128	2,686,748	3	74,724	512	12,251,233	27.1%	23,928
June 30, 1988	72	1,991,318	0	0	387	9,639,209	26.0%	24,908
June 30, 1987	96	3,054,160	82	1,720,032	315	7,647,891	21.1%	24,279
June 30, 1986	36	949,954	2	40,482	301	6,313,763	16.8%	20,976
June 30, 1985	77	1,966,581	1	18,093	267	5,404,291	56.4%	20,241

\* Numbers are estimated, and include other internal transfers.

2.2(q) Schedule of Retirants and Beneficiaries Added to and Removed from Rolls - "Others"

Year Ended	Added to Rolls		Removed from Rolls		Rolls - End of Year		Percent Increase in Annual Allowances	Average Annual Allowance
	No.*	Annual Allowances*	No. *	Annual Allowances*	No.	Annual Allowances		
June 30, 1994	567	\$ 7,584,088	100	\$ 225,631	8,843	\$ 103,603,787	7.6%	\$ 11,716
June 30, 1993	464	5,408,670	93	4,057,669	8,376	96,245,330	1.4%	11,491
June 30, 1992	435	8,520,963	116	1,323,560	8,005	94,894,329	8.2%	11,854
June 30, 1991	876	15,277,842	8	85,072	7,686	87,696,926	21.0%	11,410
June 30, 1990	457	5,776,756	94	986,060	6,818	72,504,156	7.1%	10,634
June 30, 1989	352	3,651,450	212	2,225,364	6,455	67,713,460	2.2%	10,490
June 30, 1988	1,014	11,532,405	35	361,515	6,315	66,287,374	20.3%	10,497
June 30, 1987	1,011	14,821,733	31	288,827	5,336	55,116,484	35.8%	10,329
June 30, 1986	416	3,718,750	110	1,029,270	4,356	40,583,578	7.1%	9,317
June 30, 1985	484	7,490,537	102	869,652	4,050	37,894,098	21.2%	9,357

\* Numbers are estimated, and include other internal transfers.

## 2.3 Actuarial Basis

The demographic assumptions used in this valuation were adopted at the Fall 1991 PERS Board Meeting. Economic assumptions were adopted as a result of a presentation to the Board in October 1994. The funding method used in this valuation was adopted June 30, 1985. The five-year smoothing method used to determine valuation assets was changed effective June 30, 1994.

### Valuation of Liabilities

- A. **Actuarial Method - Projected Unit Credit (no change).** Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued liability is amortized over a rolling 25 years. Any funded surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An Accrued Liability is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The Unfunded Liability at the valuation date is the excess of the Accrued Liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the Past Service Cost.

The Normal Cost is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

- B. **Actuarial Assumptions -**

1. **Investment Return** 8.00% per year, compounded annually, net of expenses.

- |                |                    |  |        |      |        |      |        |      |        |      |                |      |
|----------------|--------------------|--|--------|------|--------|------|--------|------|--------|------|----------------|------|
| 2.             | Salary Scale       | <p>Inflation - 4.0% per year<br/>         Productivity - 0.5% per year<br/>         Merit (first 5 years of employment) - 1.0% per year</p>  |        |      |        |      |        |      |        |      |                |      |
| 3.             | Total Inflation    | <p>Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 4% annually.</p>  |        |      |        |      |        |      |        |      |                |      |
| 4.             | Health Cost Trend  | <table border="0"> <tr> <td style="padding-right: 20px;">FY95 -</td> <td>9.5%</td> </tr> <tr> <td>FY96 -</td> <td>8.5%</td> </tr> <tr> <td>FY97 -</td> <td>7.5%</td> </tr> <tr> <td>FY98 -</td> <td>6.5%</td> </tr> <tr> <td>FY99 &amp; later -</td> <td>5.5%</td> </tr> </table>  | FY95 - | 9.5% | FY96 - | 8.5% | FY97 - | 7.5% | FY98 - | 6.5% | FY99 & later - | 5.5% |
| FY95 -         | 9.5%               |  |        |      |        |      |        |      |        |      |                |      |
| FY96 -         | 8.5%               |  |        |      |        |      |        |      |        |      |                |      |
| FY97 -         | 7.5%               |  |        |      |        |      |        |      |        |      |                |      |
| FY98 -         | 6.5%               |  |        |      |        |      |        |      |        |      |                |      |
| FY99 & later - | 5.5%               |  |        |      |        |      |        |      |        |      |                |      |
| 5.             | Mortality          | <p>1984 Unisex Pension Mortality Table, set forward one year for male and police/fire members, and set backward four years for female members. Deaths are assumed to be occupational 85% of the time for Police/Fire, 35% for "Others".</p>  |        |      |        |      |        |      |        |      |                |      |
| 6.             | Turnover           | <p>Based upon the 1986-90 actual total turnover experience. (See Table 1).</p>   |        |      |        |      |        |      |        |      |                |      |
| 7.             | Disability         | <p>Incidence rates, based upon the 1986-90 actual experience, in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security. Disabilities are assumed to be occupational 85% of the time for Police/Fire, 35% for "Others".</p> |        |      |        |      |        |      |        |      |                |      |
| 8.             | Retirement Age     | <p>Retirement rates based upon the 1986-90 actual experience in accordance with Table 3.</p>   |        |      |        |      |        |      |        |      |                |      |
| 9.             | Spouse's Age       | <p>Wives are assumed to be four years younger than husbands.</p>   |        |      |        |      |        |      |        |      |                |      |
| 10.            | Dependent Children | <p>Benefits to dependent children have been valued assuming members who are not single have one dependent child.</p>   |        |      |        |      |        |      |        |      |                |      |

- |                          |   |              |             |         |             |             |             |
|--------------------------|---|--------------|-------------|---------|-------------|-------------|-------------|
| 11. Contribution Refunds | 100% of those terminating after age 35 with five or more years of service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.   |              |             |         |             |             |             |
| 12. C.O.L.A.             | Of those benefit recipients who are eligible for the C.O.L.A., 71% are assumed to remain in Alaska and receive the C.O.L.A.   |              |             |         |             |             |             |
| 13. New Entrants         | Growth projections are made for the active PERS population under three scenarios:<br><br><table border="0" style="margin-left: 40px;"> <tr> <td>Pessimistic:</td> <td>1% per year</td> </tr> <tr> <td>Median:</td> <td>3% per year</td> </tr> <tr> <td>Optimistic:</td> <td>5% per year</td> </tr> </table> | Pessimistic: | 1% per year | Median: | 3% per year | Optimistic: | 5% per year |
| Pessimistic:             | 1% per year   |              |             |         |             |             |             |
| Median:                  | 3% per year   |              |             |         |             |             |             |
| Optimistic:              | 5% per year   |              |             |         |             |             |             |
| 14. Expenses             | Expenses are covered in the investment return assumption.   |              |             |         |             |             |             |

### Valuation of Assets

Effective June 30, 1994, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. All assets are valued at market value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements provided by KPMG Peat Marwick. Valuation assets cannot be outside a range of 80% to 120% of the market value of assets.

### Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) are assumed such that the total rate for all retirees equals the present premium rate assumption. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY96, the pre-65 monthly premium is \$458.17 and the post-65 premium is \$174.54, based on an assumed total blended premium of \$350.50. For FY96, the actual blended premium is \$350.50. The FY96 blended premium was provided by the State of Alaska Division of Retirement and Benefits.

**Table 1**  
**Alaska PERS**  
**Total Turnover Assumptions**

Select Rates of Turnover  
During the First 10 Years  
of Employment

Ultimate Rates of Turnover  
After the First 10 Years  
of Employment

**Police and Fire:**

<u>Year of Employment</u>	<u>----- Age at Hire -----</u>			<u>Age</u>	<u>Rate</u>
	<u>20-29</u>	<u>30-39</u>	<u>40+</u>		
1	.22	.18	.10	20-39	.03
2	.19	.13	.10	40+	.01
3	.13	.12	.10		
4	.12	.12	.10		
5	.10	.10	.10		
6	.08	.08	.08		
7	.07	.07	.07		
8	.06	.06	.06		
9	.05	.05	.05		
10	.04	.04	.04		

**Others:**

<u>Year of Employment</u>	<u>----- Age at Hire -----</u>		<u>Age</u>	<u>Rate</u>
	<u>20-29</u>	<u>30+</u>		
1	.30	.23	20-29	.065
2	.23	.18	30-34	.060
3	.20	.14	35-44	.055
4	.16	.13	45+	.050
5	.16	.13		
6	.14	.13		
7	.12	.12		
8	.11	.11		
9	.09	.09		
10	.08	.08		

**Table 2**  
**Alaska PERS**  
**Disability Rates**  
**Annual Rates Per 1,000 Employees**

<u>Age</u>	<u>Police &amp; Fire Rate</u>	<u>"Other" Member Rate</u>
20	.85	.14
21	.87	.14
22	.90	.14
23	.94	.15
24	.98	.15
25	1.03	.15
26	1.08	.15
27	1.13	.15
28	1.19	.16
29	1.25	.16
30	1.31	.16
31	1.37	.17
32	1.43	.17
33	1.44	.25
34	1.48	.34
35	1.55	.44
36	1.65	.53
37	1.78	.64
38	1.94	.75
39	2.13	.87
40	2.35	.99
41	2.60	1.12
42	2.88	1.25
43	3.19	1.39
44	3.53	1.53
45	3.90	1.68
46	4.30	1.84
47	4.73	2.00
48	5.19	2.17
49	5.68	2.34
50	6.20	2.52
51	6.75	2.70
52	7.33	2.89
53	7.94	3.08
54	8.58	3.29
55	9.25	3.49
56	9.95	3.70
57	10.68	3.92
58	11.44	4.14
59	12.23	4.37
60	13.05	4.61
61	13.90	4.84
62	14.78	5.09
63	15.69	5.34
64	16.63	5.60

Table 3

Alaska PERS  
Retirement Rates

<u>Age</u>	<u>Police &amp; Fire Rate</u>	<u>"Other" Member Rate</u>
50	.25	.11
51	.14	.08
52	.14	.08
53	.15	.08
54	.15	.08
55	.30	.19
56	.25	.16
57	.21	.13
58	.21	.12
59	.20	.11
60	.20	.17
61	.40	.14
62	1.00	.21
63	1.00	.22
64	1.00	.22
65	1.00	.31
66	1.00	.61
67 & Up	1.00	1.00

For ages less than 50, employees are assumed to retire two years after the earliest age they are eligible to retire.

## **Section 3**

### **Other Historical Information**

3.1 shows the analysis of financial experience.

3.2(a) shows the summary of accrued and unfunded accrued liabilities for Police and Fire members.

3.2(b) shows the summary of accrued and unfunded accrued liabilities for "Other" members.

3.3 shows the solvency test.

3.4(a) shows the statement of actuarial present value of accumulated plan benefits for Police and Fire members.

3.4(b) shows the statement of actuarial present value of accumulated plan benefits for "Other" members.

### 3.1 Analysis of Financial Experience

<b>Change in Contribution Rate                      Due to Gains and Losses in Accrued Liabilities                      During the Last Five Fiscal Years Resulting From                      Differences Between Assumed Experience and Actual Experience</b>					
Type of Gain or Loss	Change in Contribution Rate During Fiscal Year				
	94	93	92	91	90
(1) Health Experience	.41%	0%	0%	-3.17%	-1.42%
(2) Salary Experience	-.55%	-.21%	-.56%	.26%	-.07%
(3) Investment Experience	.37%	-1.41%	-.16%	.48%	-.67%
(4) Demographic Experience	.36%	.74%	1.58%	2.02%	.68%
(5) Miscellaneous	0%	0%	0%	0%	.86%
(6) Gain (or Loss) During Year From Experience. (1)+(2)+(3)+(4)+(5)	.59%	-.88%	.86%	-.41%	-.62%
<b>Non-recurring Items</b>					
(7) Asset Valuation Method	-.56%	0%	-.88%	0%	0%
(8) Assumption Changes	-.71%	0%	0%	.55%	0%
(9) Plan Changes	0%	0%	0%	0%	0%
Composite Gain (or Loss) During Year, (6)+(7)+(8)+(9)	-.68%	-.88%	-.02%	.14%	-.62%

### 3.2(a) Summary of Accrued and Unfunded Accrued Liabilities - "Police/Fire"

Valuation Date	Aggregate Accrued Liability ('000's)	Valuation Assets ('000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) ('000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 1994 <sup>(1)</sup>	\$ 732,988	\$ 694,773	94.8%	\$ 38,215	\$ 128,456	29.7%
June 30, 1993	639,439	610,149	95.4%	29,290	124,025	23.6%
June 30, 1992 <sup>(2)</sup>	592,518	540,087	91.2%	52,431	122,762	42.7%
June 30, 1991 <sup>(3)</sup>	523,326	461,103	88.1%	62,223	120,240	51.7%
June 30, 1990	422,275	410,615	97.2%	11,660	105,135	11.1%
June 30, 1989 <sup>(4)</sup>	402,021	368,325	91.6%	33,696	104,000	32.4%
June 30, 1988	324,634	301,780	93.0%	22,854	102,265	22.3%
June 30, 1987	283,535	282,530	99.6%	1,005	100,839	1.0%
June 30, 1986	249,673	254,643	102.0%	0	101,537	0%
June 30, 1985 <sup>(4)</sup>	213,967*	201,164*	93.9%	12,803	92,381	13.9%

\* Estimated.  
<sup>(1)</sup> Change in Asset Valuation Method.  
<sup>(2)</sup> Change of Assumptions.  
<sup>(3)</sup> Change in Funding Method.

### 3.2(b) Summary of Accrued and Unfunded Accrued Liabilities - "Other"

Valuation Date	Aggregate Liability ('000's)	Valuation Assets ('000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) ('000's)	Annual Active Member Payroll ('000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 1994 <sup>(1)</sup>	\$ 3,887,194	\$ 3,684,532	94.8%	\$ 202,662	\$ 1,048,541	19.3%
June 30, 1993	3,486,322	3,326,627	95.4%	159,695	1,011,864	15.8%
June 30, 1992 <sup>(2)</sup>	3,148,364	2,869,772	91.2%	278,592	961,054	29.0%
June 30, 1991 <sup>(2)</sup>	2,815,819	2,481,018	88.1%	334,801	907,567	36.9%
June 30, 1990	2,331,243	2,266,871	97.2%	64,372	846,935	7.6%
June 30, 1989 <sup>(2)</sup>	2,161,247	1,980,098	91.6%	181,149	808,835	22.4%
June 30, 1988	1,921,949	1,786,648	93.0%	135,301	806,100	16.8%
June 30, 1987	1,621,470	1,615,723	99.6%	5,747	790,463	.7%
June 30, 1986	1,306,937	1,332,956	102.0%	0	788,555	0%
June 30, 1985 <sup>(3)</sup>	1,114,997*	1,046,982*	93.9%	68,015	738,198	9.2%

\* Estimated.  
<sup>(1)</sup> Change in Asset Valuation Method.  
<sup>(2)</sup> Change of Assumptions.  
<sup>(3)</sup> Change in Funding Method.

### 3.3 Solvency Test

Valuation Date	Aggregate Accrued Liability For:			Valuation Assets ('000's)	Portion of Accrued Liabilities Covered by Assets		
	(1) Active Member Contributions ('000's)	(2) Inactive Members ('000's)	(3) Active Members (Employer-Financed Portion) ('000's)		(1)	(2)	(3)
June 30, 1994 <sup>(1)(2)</sup>	\$ 615,925	\$ 2,233,349	\$ 1,770,908	4,379,305	100%	100%	86.4%
June 30, 1993	551,753	1,921,967	1,652,041	3,936,776	100%	100%	88.6%
June 30, 1992 <sup>(1)</sup>	484,590	1,783,020	1,473,272	3,409,859	100%	100%	77.5%
June 30, 1991 <sup>(2)</sup>	422,656	1,621,590	1,294,899	2,942,121	100%	100%	69.3%
June 30, 1990	380,680	1,285,515	1,087,323	2,677,486	100%	100%	93.0%
June 30, 1989 <sup>(1)</sup>	329,966	1,217,648	1,015,654	2,348,423	100%	100%	78.8%
June 30, 1988	305,483	1,030,048	911,052	2,088,428	100%	100%	82.6%
June 30, 1987	216,504	820,853	867,648	1,898,253	100%	100%	99.2%
June 30, 1986	210,115*	493,724	852,771*	1,587,599	100%	100%	100.0%
June 30, 1985 <sup>(2)(3)</sup>	169,433	466,222	693,574*	1,248,146	100%	100%	88.3%

\* Estimated.  
<sup>(1)</sup> Change in Asset Valuation Method.  
<sup>(2)</sup> Change of Assumptions.  
<sup>(3)</sup> Change in Funding Method.

### 3.4(a) Statement of Actuarial Present Value of Accumulated Plan Benefits - "Police/Fire"

Actuarial Present Value of Accumulated Plan Benefits  
at June 30, 1994 (000's)

---

Retired participants and beneficiaries of deceased participants	\$ 292,115
Terminated participants with deferred benefits	16,951
Active participants - Vested	316,547
Active participants - Non-vested	36,666
Total Actuarial Present Value of Accumulated Plan Benefits	\$ 662,279

#### Notes to the Statement of Accumulated Plan Benefits.

1. The actuarial present value of accumulated plan benefits presented in this statement was determined using the following assumptions:
  - a. Future salary was not considered.
  - b. Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
  - c. Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability, and investment return.
2. Accumulated employee contributions with interest total \$93,465(000).
3. As with many of the comparative plan financial relationships otherwise available, an examination, over periods of time, of the relationship between the *value of accumulated plan benefits* and the *value of plan assets* may give an indication of the progress being made toward the funding of plan benefits. However, in the context of a "going concern" environment, a point in time comparison of these two values should not be construed to be indicative of the expected ability of the plan to pay future benefits when due. Furthermore, that comparison is not valid for assessing a plan termination situation. Consideration of inflation in the assumed return on plan assets while ignoring inflation's effect on future benefit levels produces a significant understatement of the value of accumulated plan benefits when applying going concern concepts. The accumulated plan benefit value presented in this statement should not be confused with information presented elsewhere regarding funding requirements.

**3.4(a) Statement of Actuarial Present Value  
of Accumulated Plan Benefits - "Police/Fire" (continued)**

4. The change in the Present Value of Accumulated Plan Benefits during the prior fiscal year is as follows:

A.	Actuarial Present Value of Accumulated Plan Benefits at June 30, 1993, (000's)	\$	572,095
B.	Increase (Decrease) Attributable to:		
	i. Additional Benefits Accumulated, including Actuarial Experience		64,803
	ii. Increase due to Decrease in the Discount Period		48,974
	iii. Estimated Benefits Paid to Participants		(24,790)
	iv. Material System Changes		0
	v. Change in Assumptions		<u>1,197</u>
C.	Actuarial Present Value of Accumulated Plan Benefits at June 30, 1994 (000's)	\$	662,279

### 3.4(b) Statement of Actuarial Present Value of Accumulated Plan Benefits - "Others"

Actuarial Present Value of Accumulated Plan Benefits  
at June 30, 1994 ('000's)

---

Retired participants and beneficiaries of deceased participants	\$ 1,433,216
Terminated participants with deferred benefits	491,067
Active participants - Vested	1,400,735
Active participants - Non-vested	37,391
Total Actuarial Present Value of Accumulated Plan Benefits	\$ 3,362,409

#### Notes to the Statement of Accumulated Plan Benefits.

1. The actuarial present value of accumulated plan benefits presented in this statement was determined using the following assumptions:
  - a. Future salary was not considered.
  - b. Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
  - c. Regular valuation assumptions were used as to mortality, withdrawal, retirement ages, disability, and investment return.
2. Accumulated employee contributions with interest total \$522,460(000).
3. As with many of the comparative plan financial relationships otherwise available, an examination, over periods of time, of the relationship between the *value of accumulated plan benefits* and the *value of plan assets* may give an indication of the progress being made toward the funding of plan benefits. However, in the context of a "going concern" environment, a point in time comparison of these two values *should not be construed to be indicative of the expected ability of the plan to pay future benefits when due*. Furthermore, *that comparison is not valid for assessing a plan termination situation*. Consideration of inflation in the assumed return on plan assets while ignoring inflation's effect on future benefit levels *produces a significant understatement of the value of accumulated plan benefits* when applying going concern concepts. *The accumulated plan benefit value presented in this statement should not be confused with information presented elsewhere regarding funding requirements.*

**3.4(b) Statement of Actuarial Present Value  
of Accumulated Plan Benefits - "Others" (continued)**

4. The change in the Present Value of Accumulated Plan Benefits during the prior fiscal year is as follows:

A.	Actuarial Present Value of Accumulated Plan Benefits at June 30, 1993, (000's)	\$ 3,076,456
B.	Increase (Decrease) Attributable to:	
i.	Additional Benefits Accumulated, including Actuarial Experience	149,713
ii.	Increase due to Decrease in the Discount Period	272,948
iii.	Estimated Benefits Paid to Participants	(142,707)
iv.	Material System Changes	0
v.	Change in Assumptions	<u>5,999</u>
C.	Actuarial Present Value of Accumulated Plan Benefits at June 30, 1994 (000's)	\$ 3,362,409



Official Business

# Alaska State Senate

## Senate Finance Committee

Mail Stop 3000  
State Capitol  
Juneau, Alaska 99801-0300

- SB 148 -

### - AN ACT RELATING TO A DEFINED CONTRIBUTION RETIREMENT PLAN FOR STATE EMPLOYEES -

SB 148 is a defined-contribution retirement plan with similarities to the University of Alaska's Optional Retirement Plan established in 1989. This legislation would create a TIER III retirement system applicable to all new state employees hired on or after January 1, 1996.

Under SB 148, the employer contribution is based on 7.5% of the employee's compensation; the employee's contribution rate is also set at 7.5% of compensation. From the date of the contribution forward, the principal and earnings of those contributions are invested and separately accounted for in the name of the employee. Because this is a defined-contribution plan, there is no potential for unfunded liability to the state. The state's Pension Investment Board would choose the companies to manage the money, but allow the allocation choice among these companies to be self-directed by the employee. The Alaska State Pension Investment Board also would oversee the administration and operation of the plan and be responsible to assure IRS compliance.

The bill allows a political subdivision, REAA, University of Alaska, school districts or public organizations to include their new employees in the defined-contribution retirement plan. As of June 30, 1994, there were 155 employers in the PERS system; TRS employers numbered 61.

The advantages of a defined-contribution plan over a defined-benefit plan include:

Removes the question about whether the retirement pool is of sufficient size to cover all retirement benefits. This is because each employee's contributions and earnings belong 100% to that employee and cannot be short-funded nor used to pay the benefits of another employee;

The employer and employee know the full cost and receive full value of the retirement contributions made on the employee's behalf;

The retirement accounts are portable;

Employees gain more control over the investment of their retirement funds if the plan offers investment options. (The state's deferred-compensation plan is an example of this.)

Employer costs are readily predictable, do not require long-term actuarial calculations, and are paid at the time benefits are earned, preventing the possibility of a long-term accrued liability.

Individual members of a defined contribution plan can tailor an investment package according to individual preferences.

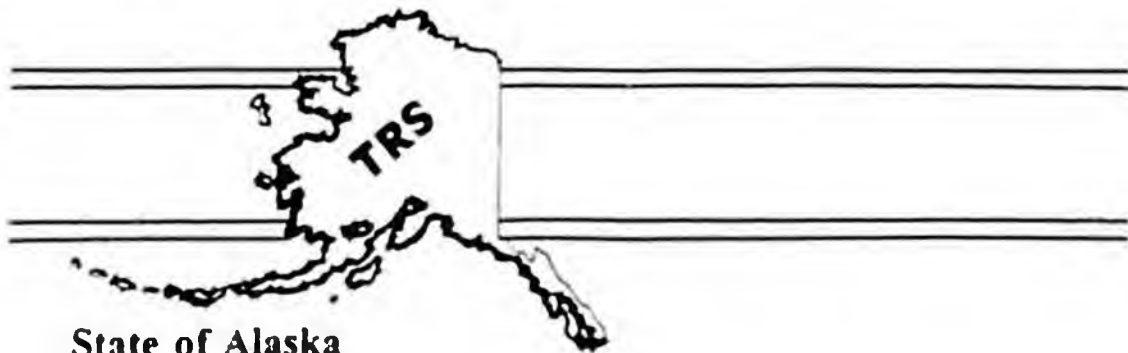
To contrast the plan in SB 148 with the status quo, summarized below are a few points about the existing PERS and TRS plans:

The state's PERS and TRS retirement plans are defined-benefit systems which specify the level of future benefits payable to an employee; the contributions of the employer and employee are pooled and retirement payments to a retiree are drawn from the pool. There is no necessary relationship between the amount contributed on a person's behalf and that person's eventual benefits.

As of June 30, 1994, the PERS system was underfunded by \$240,870,000 or 94.8% funded; TRS was underfunded by \$288,452,000 or 89.5% funded. This represents a total state unfunded liability of \$529,322,000. These numbers are periodically actuarially adjusted to reflect certain mortality assumptions, future rates of inflation, actual experience and anticipated experience, expenses, changes in statutory provisions, changes in actuarial assumptions or methods, etc.

FY96 PERS average employer contributions are 12.82% of an employee's compensation; (FY97 is anticipated at 12.14%). The employee rate is set in statute (AS 39.35.150) at 6.75%. (The exception is the peace officers and fireman employee contribution rate currently set at 7.5%; FY96 employer contribution is 15.22%.)

FY96 and FY97 TRS employer contributions are 12.48% and 14.96%, respectively, and are "smoothed" to 12.00% of an employee's compensation for both FY96 and FY97; the employee rate is set in statute (AS 14.25.050) at 8.65%.



**State of Alaska**

**Teachers' Retirement System**

**Actuarial Valuation Report**

**as of June 30, 1994**

**Prepared by:**

William M. Mercer, Incorporated  
One Union Square, Suite 3200  
600 University Street  
Seattle, WA 98101-3137

March 14, 1995

State of Alaska  
Teachers' Retirement Board  
Department of Administration  
Division of Retirement & Benefits  
P.O. Box 110203  
Juneau, AK 99811-0203

Dear Members of the Board:

#### Actuarial Certification

The actuarial valuation required for the State of Alaska Teachers' Retirement System has been prepared as of June 30, 1994 by William M. Mercer, Incorporated. The purposes of the report include:

- (1) a review of experience under the Plan for the year ended June 30, 1994;
- (2) a determination of the appropriate contribution rate for each employer in the System;
- (3) the provision of reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the System's staff and financial information provided by the audited report from KPMG Peat Marwick, to determine a sound value for the System liability. This data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of experience studies presented to the Board in October 1991 and October 1994.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY95 and a 25-year rolling amortization of the unfunded accrued liability. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of assets to liabilities decreased from 93.1% to 89.6% during the year, primarily due to a change in economic actuarial assumptions. Over the years, progress has been made toward achieving the funding objectives of the System.

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Teachers' Retirement Board

March 14, 1995

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There were no significant changes in the demographic actuarial assumptions or actuarial methods used in the determination of system liabilities this year. However, there was a change in the economic actuarial assumptions and asset valuation method. The assumptions and methods, when applied in combination, fairly represent past and anticipated future experience of the System.

The total inflation assumption was changed from 5% to 4% annually. This in turn affected the economic assumptions, including investment return, salary scale, and health cost trend. The following table shows the prior and new economic assumptions:

	Prior Assumption	New Assumption 6/30/94
Inflation	5.0%	4.0%
Investment Return	9.0%	8.0%
Salary Scale:		
Inflation	5.0%	4.0%
Productivity	0.5%	0.5%
Merit (first 5 years)	1.0%	1.0%
Health Cost Trend:		
FY95	9.5%	9.5%
FY96	8.5%	8.5%
FY97	7.5%	7.5%
FY98	7.5%	6.5%
FY99 & later	7.5%	5.5%

The method for calculating valuation assets was changed. The new asset valuation method smooths the difference between expected investment return and actual return during a given year. The method spreads the results over five years by recognizing 20% of the investment gain or loss in each of the current and preceding four years. By spreading the asset gain or loss, only the investment return is smoothed, producing a less volatile result, leading to overall contributions which are easier to budget and at the same time remain appropriate to properly fund the system.

Teachers' Retirement Board

March 14, 1995

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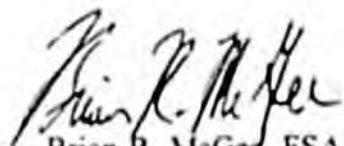
Future contribution requirements may differ from those determined in the valuation because of:

- (1) differences between actual experience and anticipated experience based on the assumptions;
- (2) changes in actuarial assumptions or methods;
- (3) changes in statutory provisions; or
- (4) differences between the contribution rates determined by the valuation and those adopted by the Board.

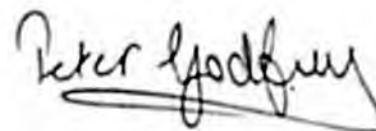
The undersigned are members of the American Academy of Actuaries and are fully qualified to provide actuarial services to the State of Alaska.

We believe that this report conforms with the requirements of the Alaska statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,



Brian R. McGee, FSA  
Managing Director



Peter L. Godfrey, FIA  
Principal

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## Highlights

This report has been prepared by William M. Mercer, Incorporated to:

- (1) present the results of a valuation of the Alaska Teachers' Retirement System as of June 30, 1994;
- (2) review experience under the plan for the year ended June 30, 1994;
- (3) determine the appropriate contribution rate for each employer in the System;
- (4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 1994 Fiscal Year, the current annual costs, and reporting and disclosure information.

Section 2 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

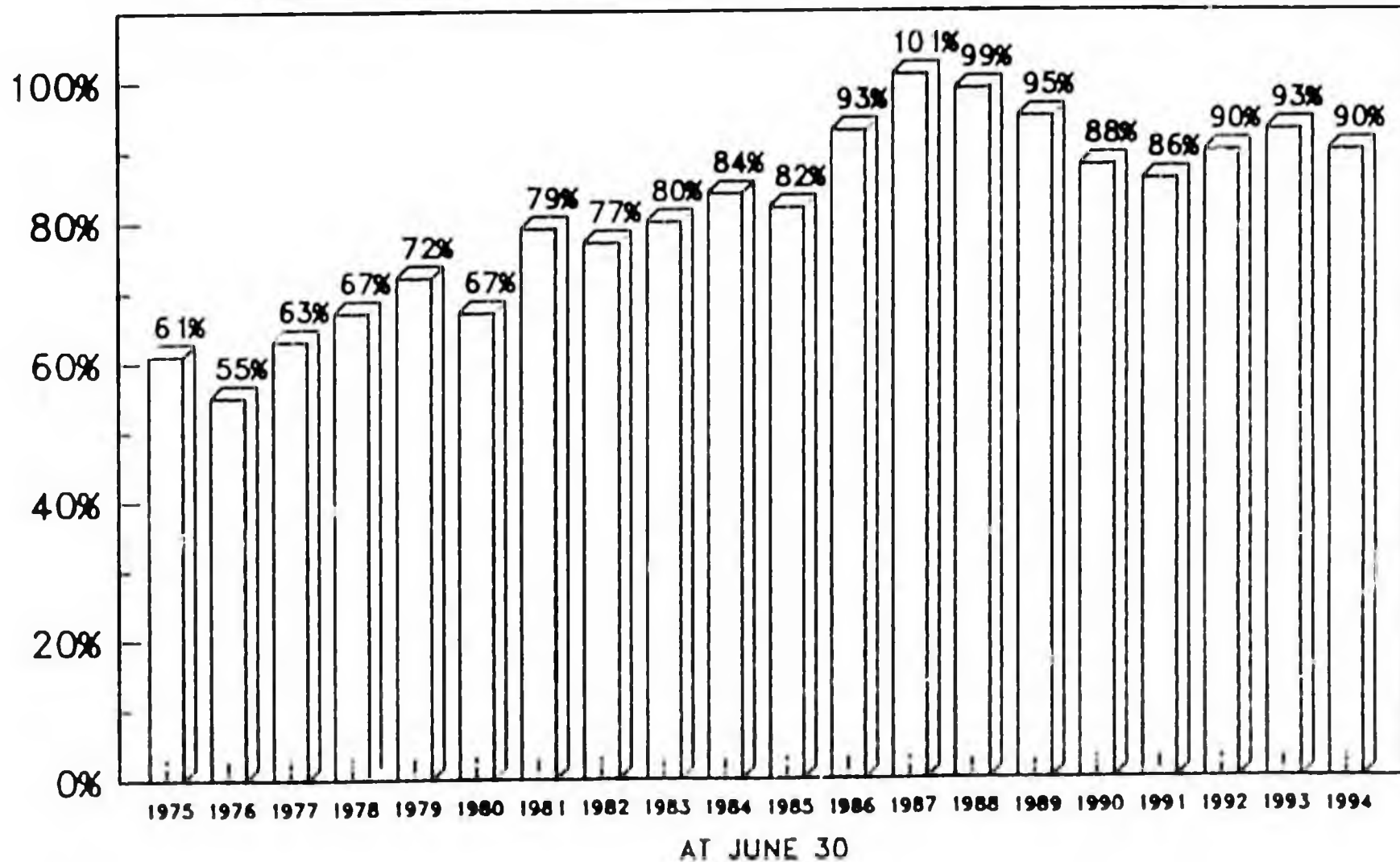
Section 3 contains additional exhibits showing historical information on system experience, unfunded liabilities, and the value of accumulated benefits.

The principle results are as follows:

	<u>1993</u>	<u>1994</u>
Funding Status as of June 30:		
(a) Valuation Assets*	\$ 2,261,082	\$ 2,472,957
(b) Accrued Liability*		
i) Non-Medical Benefits	2,016,852	2,281,178
ii) Total Benefits (including medical)	2,429,456	2,761,409
(c) Funding Ratio, (a) / (b)		
i) Non-Medical Benefits	112.1%	108.4%
ii) Total Benefits (including medical)	93.1%	89.6%

\* In thousands.

# STATE OF ALASKA TRS FUNDING RATIO HISTORY



Employer Contribution Rates  
for Fiscal Year:

	<u>1996</u>	<u>1997</u>
(a) Normal Cost Rate	9.06%	9.70%
(b) Past Service Rate	3.42%	5.26%
(c) Total Contribution Rate	12.48%	14.96%
(d) Actuarial Projection Rate	12.00%	12.00%

## Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio as of June 30, 1994 has decreased from 93.1% to 89.6%, a decrease of 3.5%. The total employer contribution rate has increased from 12.48% of payroll for FY96 to 14.96% for FY97, an increase of 2.48% of payroll. The reasons for the change in the funded status and contribution rate are explained below.

### (1) Retiree Medical Insurance

The following table summarizes the monthly premium per benefit recipient since retiree medical benefits have been provided under PERS and TRS

<u>Fiscal Year</u>	<u>Monthly Premium Per Retiree For Health Coverage</u>	<u>Annual Percentage Increase</u>	<u>Average Annual Increase Since 1978</u>
1977	\$ 34.75	..	..
1978	57.64	66%	..
1979	69.10	20%	20%
1980	64.70	-6%	6%
1981	96.34	49%	19%
1982	96.34	0%	14%
1983	115.61	20%	15%
1984	156.07	35%	18%
1985	191.85	23%	19%
1986	168.25	-12%	14%
1987	165.00	-2%	12%
1988	140.25	-15%	9%
1989	211.22	51%	13%
1990	252.83	20%	13%
1991	243.98	-4%	12%
1992	243.98	0%	11%
1993	226.90	-7%	10%
1994	309.72	37%	11%
1995	336.05	9%	11%
1996	350.50	4%	11%

As you can see from the above table, the monthly retiree medical premium increased during the year, to \$336.05. The premium for the 1996 fiscal year has increased to \$350.50, an increase of 4%. Since FY87, annual premium rate changes have ranged from 51% up to 15% down, but the average annual increase has been about 9%.

This year, in an attempt to better predict the long-term increase in medical premiums, the Board adopted a health cost trend assumption which varies by year, declining to an ultimate rate equal to inflation plus 1.5%, or 5.5% for FY99 and later. If the long-term assumption remains reasonable, short-term gains and losses from the annually-determined medical premium rate will offset each other over time.

To help avoid the volatility in the funding and solvency of the System from bringing large health-related gains and losses into the System every year, we have been using the health cost trend assumption to determine actuarial liabilities for retiree medical benefits. Due to the change in the health cost trend assumption this year, we made an adjustment back to the actual medical premium as the basis for going forward. The difference between the assumed rate and the actual rate will be tracked annually and reduced if the gap becomes too wide. Also, adjustments will be made again, if necessary, to the assumed medical premium rate every four to five years when a formal experience analysis is performed.

The effect of the adjustment back to actual premium this year was a small loss to the System which increased the employer contribution rate by .25%.

## (2) Investment Performance

The Asset Valuation Method has been changed this year. In the past, the system used an asset valuation method which multiplied the five-year average of the ratio of actuarial (generally market) to book value by the current book value to determine valuation assets. This number had to fall within the range of book and actuarial value.

One purpose of using asset valuation methods is to smooth investment returns. By using the full actuarial and book values in the valuation method, additional components of the change in the value of assets, including contributions, benefit payments, and expenses, are included in the smoothing technique. Since investment return is a direct result of actual money flows instead of artificially smoothed flows, this method will distort the investment return for the year.

The new asset valuation method only smooths the difference between expected investment return and actual return during a given year. The method spreads the results over five years by recognizing 20% of the investment gain or loss in each of the current and preceding four years. By spreading the asset gain or loss, only the investment return is smoothed, producing a less volatile result, leading to overall contributions which are easier to budget and at the same time remain appropriate to properly fund the system. The new methodology is more widely used and accepted than the prior method in both the public and private sectors because it directly addresses the objective of smoothing only investment returns, and it is allowable under ERISA.

In order to establish an appropriate basis for going forward, we measured the FY94 investment loss using the market value of assets at June 30, 1993. This resulted in an

increase in the Valuation Assets at June 30, 1994 of \$48,909,000 and a reduction in the employer contribution rate of 0.89%.

To protect the system from the unlikely event that valuation assets differ markedly from market value, a limitation that valuation assets must fall between 80% and 120% of market value is included with this asset valuation method. The new method will be phased in over the next five years.

The approximate rate of return in FY94 based on market value of system assets was 2.41%. The new asset valuation method produced a rate of return based on valuation assets of 7.68%, compared to the 9.00% investment return assumption. This produced a loss of approximately \$30,309,000 to the System from investment performance, which decreased the funding ratio by 1.1% and raised the employer contribution rate by 0.55% of total payroll.

### **(3) Salary Increases**

In recent years salary increases have been less than anticipated in the valuation assumptions. This was again true last year. Salary experience resulted in an actuarial gain which generated a reduction in the total employer contribution rate equal to .20% of total payroll.

### **(4) Employee Data**

Section 2.2 provides statistics on active and inactive participants. The number of active participants increased 0.3% from 9,459 at June 30, 1993 to 9,489 at June 30, 1994. This was less than the expected population increase scenario reviewed last year, and produced a loss to the System from fewer Tier 2 actives entering the System than expected. The average age of active participants increased from 43.06 to 43.32 and average credited service increased from 10.92 to 11.06 years.

The number of retirees and beneficiaries increased 6.2% from 3,891 to 4,134, and their average age increased from 62.47 to 62.73. There was a 13.0% increase in the number of vested terminated participants from 823 to 930. Their average age increased from 47.51 to 48.10.

The overall effect of these participant data changes was an actuarial loss to the System, resulting in an increase in the contribution rate equal to .47% of total payroll.

### **(5) Economic Assumption Changes**

Based on a study of the inflation component of economic assumptions presented to the Board in October 1994, the total inflation assumption was changed from 5% to 4% annually. This in turn affected the economic assumptions, including investment return.

salary scale, and health cost trend. The following table shows the prior and new economic assumptions:

	Prior Assumption	New Assumption 6/30/94
Inflation	5.0%	4.0%
Investment Return	9.0%	8.0%
Salary Scale:		
Inflation	5.0%	4.0%
Productivity	0.5%	0.5%
Merit (first 5 years)	1.0%	1.0%
Health Cost Trend:		
FY95	9.5%	9.5%
FY96	8.5%	8.5%
FY97	7.5%	7.5%
FY98	7.5%	6.5%
FY99 & later	7.5%	5.5%

The overall effect of the assumption changes was to decrease the funding ratio by 3.8% and raise the employer contribution rate by 2.30% of total payroll.

#### (6) Actuarial Projections

At the Fall 1991 Board Meetings, the TRS Board approved the use of an enhanced actuarial projection system in the valuation report this year. The same actuarial cost method is used, but the enhanced system projects population growth patterns and their associated liabilities 25 years into the future. By also projecting plan assets, this report in effect produces an actuarial valuation for each of the next 25 years. Section 1.6, Actuarial Projections, contains the results of this analysis.

This type of information can be especially useful to two-tiered systems, such as TRS. All of the projected new entrants will be covered under the cost savings provisions of the second tier, so that the ultimate effect of the second tier on plan liabilities can be anticipated. As you can see in Section 1.6, based on the actuarial assumptions and cost method, future contribution rates are expected to decline, and then level out in 15 to 20 years.

Provided the Board adopts a long-term strategy consistent with the nature of the System, sound actuarial principles would support leveling out this contribution pattern to anticipate the second tier provisions coming into effect. In this way, a more stable contribution pattern could be adopted to help the employers better budget retirement expenses. This enhanced projection technique would be used annually so that a continuous tracking of the

contribution rate to the requirements could be made. Appropriate adjustments to the rate would still be proposed annually, but they should be much smaller than those seen in the past.

We recommend that the employer contribution rate adopted for FY97 remain 12.00% under this approach

This rate includes a degree of conservatism for the following reasons:

- (a) Actuarial valuations are based on several assumptions, and the projection technique adds more. Actual system experience will vary from that assumed, so a degree of margin is appropriate when adopting a longer term rate.
- (b) Sound actuarial principles also suggest that retirement systems should fund employees' benefits while they are working. By leveling out the two-tier phenomenon, intergenerational inequities could occur. Since current contribution requirements are higher, the level rate is set higher than it theoretically needs to be, to allocate proportionately more of the cost to current generations and thus reduce the inequities.

## Summary

The following table summarizes the sources of change in the total employer contribution rate:

Last year's total employer contribution rate .....	12.48%
Change due to:	
Retiree medical insurance .....	0.25%
Investment performance .....	0.55%
Salary increases .....	(0.20%)
Demographic experience .....	0.47%
Economic Assumption Changes .....	2.30%
Asset Valuation Method Change .....	(0.89%)
Total employer contribution rate this year .....	14.96%
Effect of enhanced Actuarial Projection system .....	(2.96%)
Proposed employer contribution rate .....	12.00%

## **Section 1**

### **Valuation Results**

This section sets forth the results of the actuarial valuation.

Section 1.1(a) shows the distribution of the assets as of June 30, 1994.

Section 1.1(b) shows the transactions of the plan's fund during FY94.

Section 1.1(c) develops the expected valuation assets and investment return as of June 30, 1994.

Section 1.1(d) develops the actual valuation assets as of June 30, 1994.

Section 1.2 shows the actuarial present values as of June 30, 1994.

Section 1.3 calculates the total contribution rate for FY97.

Section 1.4 calculates the actuarial gain or loss for FY94.

Section 1.5 provides disclosure information required by G.A.S.B. Statement No. 5.

Section 1.6 contains the financial projections.

**1.1(a) Statement of Net Assets as of June 30, 1994 (in thousands)**

	<u>Book Value</u>	<u>Actuarial Value</u>
Cash and Cash Equivalents	\$ 449	\$ 449
United States Government Bonds	450,631	487,181
Other United States Government Securities	22,392	22,856
Corporate Bonds	428,871	436,999
Commercial Paper	69,640	69,617
Other Dollar Dominated Securities	83,824	79,909
United States Common Stocks	859,198	923,925
International Stocks	188,873	209,148
Emerging Markets Stocks	20,700	21,255
Real Estate Equities	93,501	69,397
Mortgages (net of reserves)	3,733	3,733
Net Accrued Receivables	<u>27,250</u>	<u>27,250</u>
Total Assets	\$ 2,249,062	\$ 2,351,719

## 1.1(b) Changes in Net Assets During Fiscal Year 1994 (in thousands)

(1)	Net Assets, June 30, 1993, (market value)		\$ 2,306,503
(2)	Additions:		
	(a) Employee Contributions	\$ 47,904	
	(b) Employer Contributions	60,490	
	(c) Contributions for Retirement Incentive Program -		
	Employee Contributions	0	
	Employer Contributions	0	
	(d) Interest and Dividend Income	118,155	
	(e) Realized Gain/(Loss)	64,314	
	(f) Unrealized Gain (Loss) on Investments	(119,208)	
	(g) Other	<u>(30)</u>	171,625
(3)	Deductions:		
	(a) Medical Benefits	\$ 15,725	
	(b) Retirement Benefits	100,767	
	(c) Refunds of Contributions	2,258	
	(d) Administrative Expenses	<u>7,659</u>	<u>126,409</u>
(4)	Net Assets, June 30, 1994, (market value)		\$ 2,351,719

Approximate Market Value Investment Return  
Rate During the Year, Net of Administrative Expenses

2.41%

**1.1(c) Development of Expected Valuation Assets  
as of June 30, 1994 (in thousands)**

(1)	June 30, 1993 Market Value. (Item (1) from 1.1(b))	\$ 2,306,503
(2)	Total Contributions for FY94, (Item (2a) + (2b) + (2c) from 1.1(b))	108,394
(3)	Total Benefit Payments for FY94, (Item (3a) + (3b) + (3c) from 1.1(b))	118,750
(4)	Expected Investment Return, Net of Expenses, for the period 7/1/93 through 6/30/94 $((1) - .5 \times ((2) - (3))) \times 9.0\%$	207,119
(5)	Actual Investment Return, Net of Expenses, for the period 7/1/93 through 6/30/94 (Item (2d) + (2e) + (2f) + (2g) + (3d) from 1.1(b))	55,572
(6)	Total Investment Gain/(Loss) (5) - (4)	(151,547)
(7)	Expected Valuation Assets, (1) + (2) - (3) + (4)	2,503,266

**1.1(d) Development of Valuation Assets as of June 30, 1994  
(in thousands)**

	A	B	C
	Total Investment Gain/(Loss)	Gain/(Loss) Recognized in Prior Fiscal Years	Gain/(Loss) Recognized this Fiscal Year <u>(Δ + 5)</u>
(1) Fiscal Year ending June 30, 1994	\$(151,547)	\$ 0	\$ (30,309)
(2) Total Gain/(Loss) Recognized this Fiscal Year			(30,309)
(3) Expected Valuation Assets, June 30, 1994, (Item (7) from 1.1(c))			\$ 2,503,266
(4) Valuation Assets at June 30, 1994, (2) - (3), but not outside a corridor of 80% to 120% of the market value of assets			\$ 2,472,957*
Approximate Valuation Assets Investment Return Rate During the Year, Net of Administrative Expenses			7.68%

- \* Reflects a change in the asset valuation method. See Item (2) in the Analysis of the Valuation on page 5 for a full description of the change.

## 1.2 Actuarial Present Values as of June 30, 1994 (in thousands)

	<u>Normal Cost</u>	<u>Accrued Liabilities</u>
<u>Active Members</u>		
Retirement Benefits	\$ 60,092	\$ 1,009,893
Termination Benefits	3,119	36,098
Disability Benefits	1,432	35,071
Death Benefits	1,366	22,866
Return of Contributions	3,485	18,636
Medical Benefits	18,448	252,239
Indebtedness	<u>0</u>	<u>(32,900)</u>
Subtotal	\$ 87,942	\$ 1,341,903
<u>Inactive Members</u>		
Not Vested	\$ 0	\$ 12,870
Vested Terminations		
- Retirement Benefits	0	118,392
- Medical Benefits	0	47,884
Retirees & Beneficiaries		
- Retirement Benefits	0	1,060,252
- Medical Benefits	<u>0</u>	<u>180,108</u>
Subtotal	\$ 0	\$ 1,419,506
<u>Totals</u>	\$ 87,942	\$ 2,761,409

### 1.3 Development of Total Employer Contribution Rate - FY97 (in thousands)

#### Normal Cost Rate

(1)	Total Normal Cost	\$ 87,942
(2)	Total Salaries	476,098
(3)	Normal Cost Rate, (1) / (2)	18.47%
(4)	Average Member Contribution Rate	8.77%
(5)	Employer Normal Cost Rate, (3) - (4)	9.70%

#### Past Service Rate

(1)	Accrued Liability	\$ 2,761,409
(2)	Valuation Assets	2,472,957
(3)	Total Unfunded Liability, (1) - (2)	288,452
(4)	Amortization Factor (25 year)	11,528758
(5)	Past Service Cost, (3) / (4)	25,020
(6)	Total Salaries	476,098
(7)	Past Service Rate, (5) / (6)	5.26%

#### Total Employer Contribution Rate

14.96%

#### 1.4 Development of Actuarial Gain/(Loss) for FY94 (in thousands)

(1) Unfunded Liability, June 30, 1993	\$ 168,374
(2) Normal Cost for FY94	82,107
(3) Interest on (1) and (2) at 9%	22,543
(4) Employee Contributions for FY94	47,904
(5) Employer Contributions for FY94	60,490
(6) Interest on (4) and (5) at 9% for one-half year	4,878
(7) Increase/(Decrease) due to assumption changes	103,791
(8) Increase/(Decrease) due to asset valuation method change	(48,909)
(9) Expected Unfunded Liability, June 30, 1994, (1) + (2) + (3) - (4) - (5) - (6) + (7) + (8)	214,634
(10) Actual Unfunded Liability, June 30, 1994	288,452
(11) Actuarial Gain/(Loss) for the Year, (9) - (10)	\$ (73,818)

# 1.5 Disclosure for G.A.S.B. Statement No. 5

## State of Alaska - T.R.S.

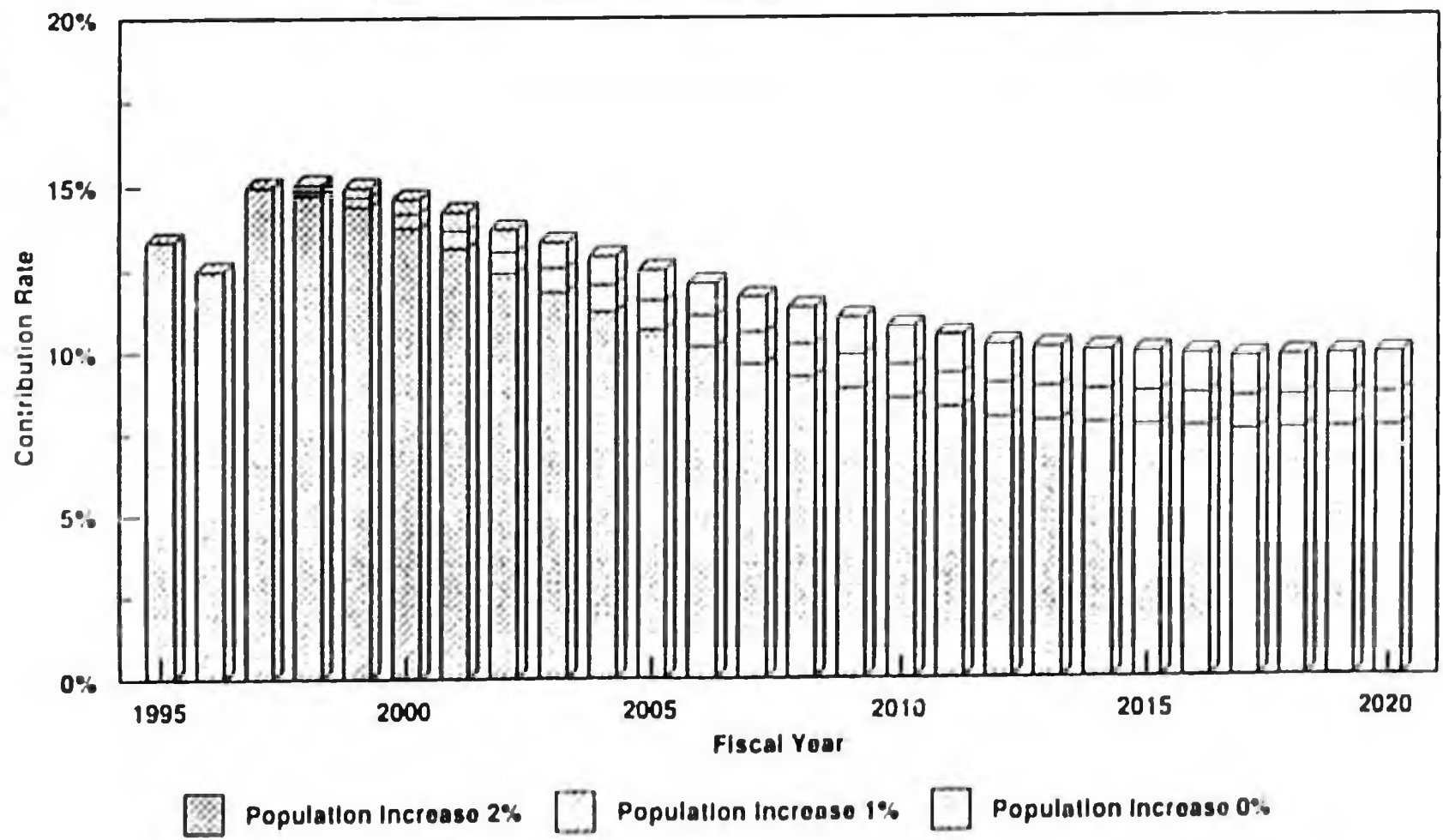
### Disclosure for G.A.S.B. Statement 5 ('000 Omitted)

#### Totals For All Employers

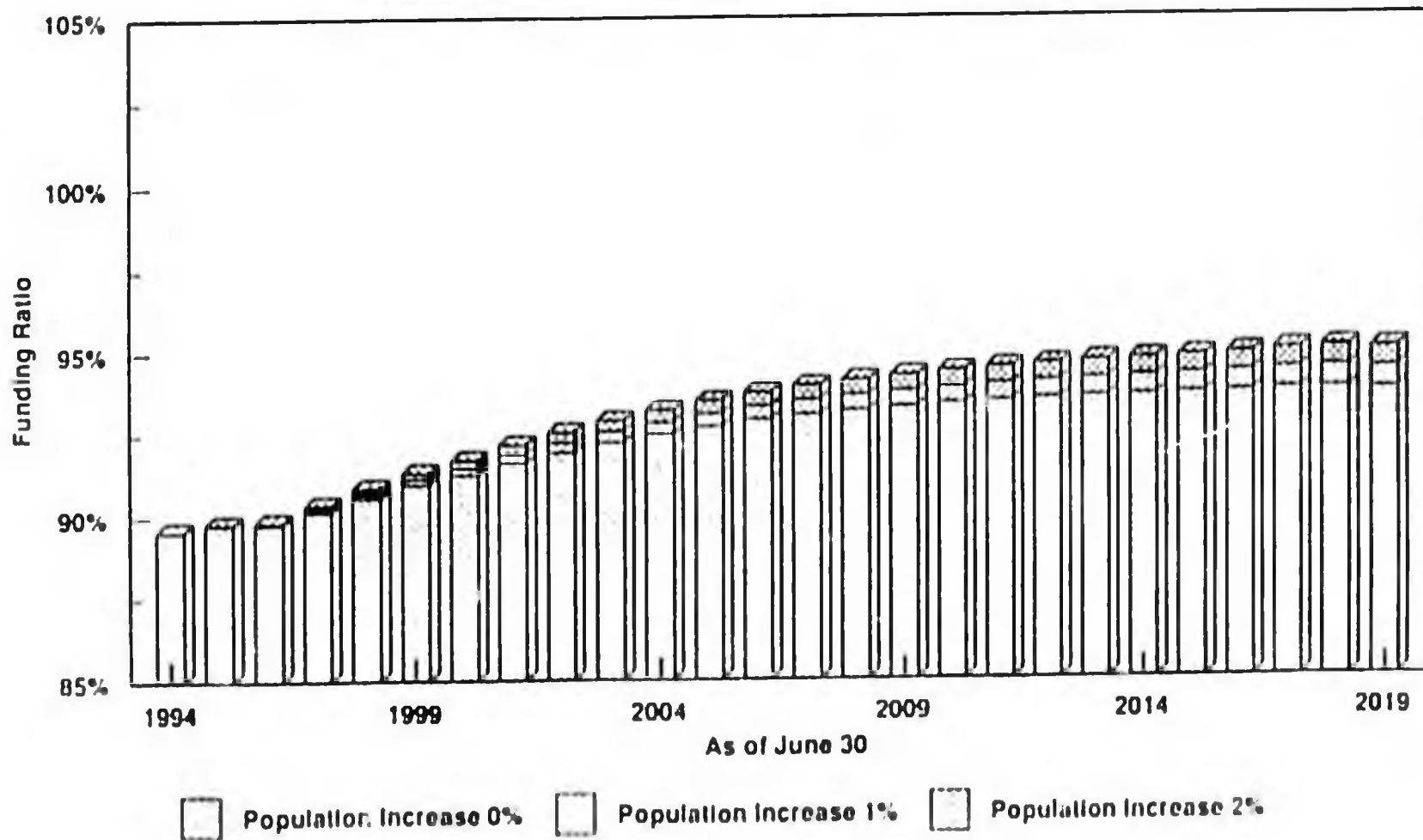
Valuation Date	Projected Benefit Obligation				
	Current Retirees & Terminated	Current Employees Contributions With Int	Current Employees Employer Financed Vested	Current Employees Employer Financed Non-Vested	Total
June 30, 1987	\$ 578,468	\$ 210,493	\$ 353,326	\$ 68,622	\$ 1,210,909
June 30, 1988	688,090	228,217	381,726	49,826	1,347,859
June 30, 1989	779,296	253,436	436,431	88,480	1,557,643
June 30, 1990	940,475	269,491	587,835	97,229	1,895,030
June 30, 1991	1,056,455	293,136	598,527	127,289	2,075,405
June 30, 1992	1,110,981	341,204	655,821	123,740	2,231,746
June 30, 1993	1,223,220	370,667	746,208	89,361	2,429,456
June 30, 1994	1,419,406	398,990	870,309	72,604	2,761,409

Valuation Date	Valuation Assets			Market Value Assets		
	Net Assets Available For Benefits	Unfunded PBO	Assets as Percent of PBO	Net Assets Available For Benefits	Unfunded PBO	Assets as Percent of PBO
June 30, 1987	\$ 1,225,009	\$ (14,100)	101%	\$ 1,303,464	\$ (92,555)	108%
June 30, 1988	1,331,905	15,954	99%	1,356,575	(8,716)	101%
June 30, 1989	1,480,389	77,254	95%	1,545,877	11,766	99%
June 30, 1990	1,662,242	232,788	85%	1,706,346	188,684	90%
June 30, 1991	1,779,579	295,826	86%	1,824,663	250,742	88%
June 30, 1992	2,001,864	229,882	90%	2,031,938	199,808	91%
June 30, 1993	2,261,082	168,374	93%	2,306,503	122,953	95%
June 30, 1994	2,472,957	288,452	90%	2,351,719	409,690	85%

# State of Alaska TRS Projected Contribution Rates



# State of Alaska TRS Projected Funding Ratios



# 1.6 Actuarial Projections (continued)

Table 1

State of Alaska IRS  
Financial Projections ('000 omitted)

As of June 30	Investment Return 8.00%		Valuation Amounts on July 1		Surplus*		Total		Flow Amounts During following 12 Months:		Annual Population Increase 0.00%		Ending	
	Total Assets	Accrued Liability	Funding Ratio	Total Assets	Accrued Liability	Surplus (Deficit)	Salaries	Employer Contribs	Employee Contribs	Total Contribs	Total Benefit Payments	Ret. Contribs	Investment Earnings	Asset Value
1994	2,472,957	2,761,409	89.62	2,761,409	2,761,409	(298,452)	476,098	64,794	42,205	106,500	145,156	(38,656)	196,290	2,630,591
1995	2,630,591	2,931,668	89.75	2,931,668	2,931,668	(300,677)	486,395	61,340	43,070	104,429	154,106	(59,677)	208,440	2,789,176
1996	2,789,176	3,107,937	89.81	3,107,937	3,107,937	(318,542)	496,931	70,011	43,883	118,894	167,865	(68,971)	221,191	2,961,594
1997	2,961,594	3,285,207	90.13	3,285,207	3,285,207	(323,613)	506,107	76,828	44,635	121,643	183,331	(61,868)	234,653	3,134,172
1998	3,134,179	3,460,579	90.63	3,460,579	3,460,579	(326,400)	515,287	82,938	45,411	123,183	199,360	(76,198)	247,686	3,307,648
1999	3,307,648	3,633,780	91.02	3,633,780	3,633,780	(328,112)	525,044	89,603	46,289	123,800	217,446	(93,644)	260,708	3,472,150
2000	3,472,150	3,805,154	91.31	3,805,154	3,805,154	(328,424)	534,634	97,116	47,245	124,381	231,891	(109,510)	273,438	3,636,557
2001	3,636,557	3,976,923	91.63	3,976,923	3,976,923	(328,266)	544,222	105,011	48,199	124,190	252,251	(128,121)	285,808	3,794,344
2002	3,794,344	4,127,589	91.92	4,127,589	4,127,589	(328,245)	553,810	112,811	49,151	124,086	271,608	(146,921)	297,671	3,945,094
2003	3,945,094	4,277,830	92.23	4,277,830	4,277,830	(327,736)	562,986	120,463	50,100	124,331	290,812	(166,081)	308,964	4,087,977
2004	4,087,977	4,429,501	92.53	4,429,501	4,429,501	(327,324)	572,086	127,800	51,274	125,054	309,265	(184,211)	319,670	4,233,436
2005	4,233,436	4,585,635	92.78	4,585,635	4,585,635	(326,199)	580,621	135,187	52,671	126,058	328,106	(202,048)	329,793	4,381,131
2006	4,381,131	4,748,441	92.99	4,748,441	4,748,441	(324,260)	616,016	143,643	54,065	126,810	346,607	(219,797)	339,303	4,529,687
2007	4,529,687	4,918,308	93.13	4,918,308	4,918,308	(321,621)	633,631	152,246	55,519	128,119	363,706	(235,564)	348,232	4,683,334
2008	4,683,334	5,098,798	93.23	5,098,798	5,098,798	(321,644)	650,746	161,011	56,974	129,078	379,336	(249,660)	356,672	4,839,144
2009	4,839,144	5,277,654	93.33	5,277,654	5,277,654	(321,508)	667,081	170,246	58,733	131,579	394,397	(262,818)	364,699	4,991,027
2010	4,991,027	5,455,795	93.43	5,455,795	5,455,795	(321,267)	690,936	179,672	60,799	134,389	408,648	(276,309)	372,390	5,143,108
2011	5,143,108	5,634,316	93.53	5,634,316	5,634,316	(320,208)	714,011	189,111	62,864	136,817	421,707	(284,850)	379,815	5,295,073
2012	5,295,073	5,813,493	93.53	5,813,493	5,813,493	(318,420)	738,687	198,547	64,929	140,638	433,634	(292,998)	387,286	5,447,161
2013	5,447,161	6,002,776	93.61	6,002,776	6,002,776	(316,011)	762,342	207,911	66,996	144,641	444,622	(300,181)	394,376	5,598,308
2014	5,598,308	6,202,768	93.63	6,202,768	6,202,768	(312,681)	786,037	217,246	69,616	149,084	454,167	(306,083)	401,061	5,749,061
2015	5,749,061	6,413,342	93.73	6,413,342	6,413,342	(310,653)	818,350	227,511	72,193	154,485	462,778	(308,293)	409,359	5,899,853
2016	5,899,853	6,634,416	93.75	6,634,416	6,634,416	(308,343)	850,642	237,776	74,973	159,550	468,836	(309,280)	417,297	6,049,663
2017	6,049,663	6,865,171	93.83	6,865,171	6,865,171	(305,307)	882,776	248,011	77,749	165,779	477,101	(311,323)	425,056	6,199,398
2018	6,199,398	7,105,944	93.85	7,105,944	7,105,944	(301,348)	914,887	258,246	80,527	172,019	485,187	(313,568)	432,929	6,348,759
2019	6,348,759	7,356,219	93.78	7,356,219	7,356,219	(301,490)	946,999	268,476	83,353	178,327	494,266	(315,919)	440,344	6,498,106

\* Surpluses reduce employer contributions over 5 years  
\* Deficits increase employer contributions over 25 years

# 1.6 Actuarial Projections (continued)

Table 2  
State of Alaska IRS  
Financial Projections ('000 omitted)

As of June 30	Investment Return 8.00%		Annual Population Increase 1.00%										Ending Asset Value
	Total Assets	Accrued Funding Liability Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contri	Employee Contri	Total Contri	Total Benefit Payments	Net Contri	Investment Earnings		
1994	2,472,957	2,761,409	89.62	(268,452)	64,538	13.363	42,365	106,903	165,156	(16,253)	196,306	2,631,011	
1995	2,631,011	2,931,132	89.83	(300,121)	62,052	12.483	43,556	109,607	154,106	(48,499)	208,541	2,791,053	
1996	2,791,053	3,108,365	89.81	(317,332)	504,377	14.963	44,717	121,153	167,923	(46,721)	221,413	2,965,696	
1997	2,965,696	3,286,373	90.25	(320,677)	517,718	14.883	45,849	123,919	183,469	(59,550)	234,876	3,141,019	
1998	3,141,019	3,462,865	90.72	(321,845)	531,456	14.663	47,040	126,038	199,617	(73,579)	248,338	3,315,778	
1999	3,315,778	3,637,671	91.21	(321,892)	544,197	14.183	48,316	127,132	217,810	(90,678)	261,635	3,486,735	
2000	3,486,735	3,811,162	91.51	(324,427)	564,209	13.872	49,927	128,310	234,409	(104,100)	274,695	3,655,330	
2001	3,655,330	3,978,739	91.92	(323,409)	582,222	13.643	51,637	128,543	252,948	(124,405)	287,650	3,818,376	
2002	3,818,376	4,140,009	92.25	(323,634)	600,234	12.532	52,943	129,385	272,320	(142,933)	299,753	3,975,193	
2003	3,975,193	4,296,779	92.62	(319,586)	618,267	12.032	54,446	129,908	291,699	(163,790)	311,544	4,124,946	
2004	4,124,946	4,443,051	92.83	(318,105)	634,259	11.532	56,101	131,207	310,544	(179,337)	322,822	4,268,432	
2005	4,268,432	4,585,011	93.12	(316,589)	648,504	11.062	57,909	132,267	329,585	(194,318)	333,627	4,405,735	
2006	4,405,735	4,721,121	93.32	(315,385)	661,750	10.572	60,712	134,975	348,308	(213,363)	343,924	4,536,276	
2007	4,536,276	4,851,921	93.52	(314,643)	714,995	10.212	62,982	137,294	365,655	(228,341)	353,768	4,661,683	
2008	4,661,683	4,978,233	93.62	(314,550)	741,240	9.872	65,252	139,714	381,575	(241,861)	363,260	4,783,082	
2009	4,783,082	5,101,055	93.83	(312,973)	767,486	9.572	68,005	143,233	398,968	(253,753)	372,697	4,901,844	
2010	4,901,844	5,221,586	93.92	(312,742)	804,891	9.302	71,261	147,798	411,648	(263,850)	381,594	5,019,368	
2011	5,019,368	5,341,223	94.02	(321,833)	842,297	8.982	74,676	152,828	429,688	(273,260)	390,637	5,136,965	
2012	5,136,965	5,461,562	94.12	(321,597)	879,702	8.682	78,804	163,224	449,087	(283,061)	399,104	5,254,778	
2013	5,254,778	5,584,197	94.12	(321,419)	917,108	8.392	82,948	173,516	469,519	(292,083)	408,014	5,379,949	
2014	5,379,949	5,711,723	94.21	(321,754)	954,516	8.122	86,778	178,236	490,319	(299,083)	418,014	5,509,720	
2015	5,509,720	5,843,713	94.31	(324,012)	1,005,671	8.852	89,242	178,445	511,724	(299,279)	429,166	5,648,608	
2016	5,648,608	5,986,817	94.31	(344,278)	1,056,879	8.542	92,440	184,068	533,692	(298,614)	440,304	5,799,288	
2017	5,799,288	6,143,346	94.62	(344,278)	1,107,987	8.272	98,071	195,221	557,285	(290,643)	452,341	5,941,586	
2018	5,941,586	6,312,771	94.62	(343,183)	1,159,163	8.002	102,679	204,344	579,343	(290,981)	465,288	6,113,893	
2019	6,113,893	6,499,419	94.62	(343,523)	1,210,303	8.672	107,001	213,687	605,904	(292,218)	479,183	6,322,858	

\* Surpluses reduce employer contributions over 5 years  
 \* Deficits increase employer contributions over 25 years

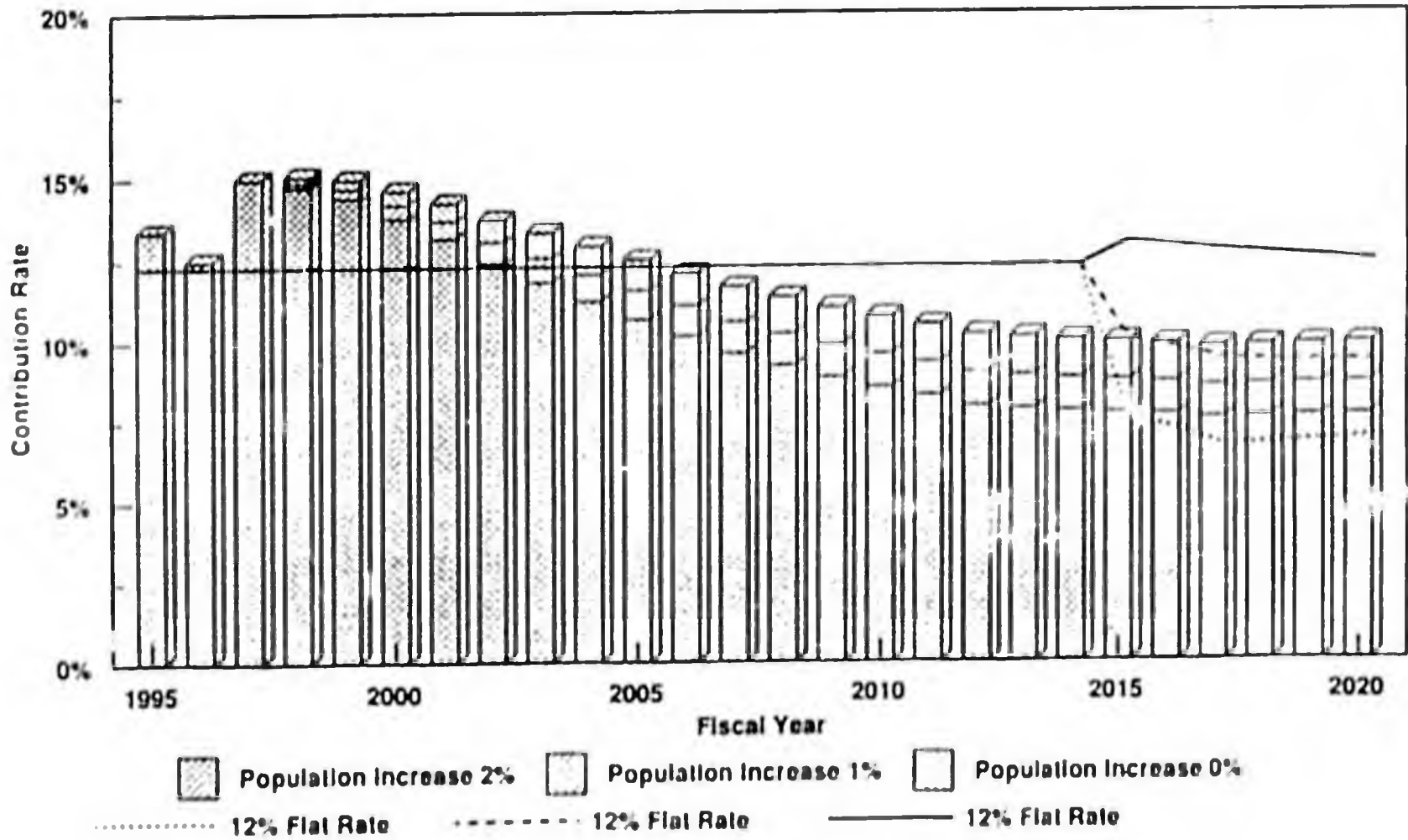
# 1.6 Actuarial Projections (continued)

Table 3  
State of Alaska IRS  
Financial Projections ('000 omitted)

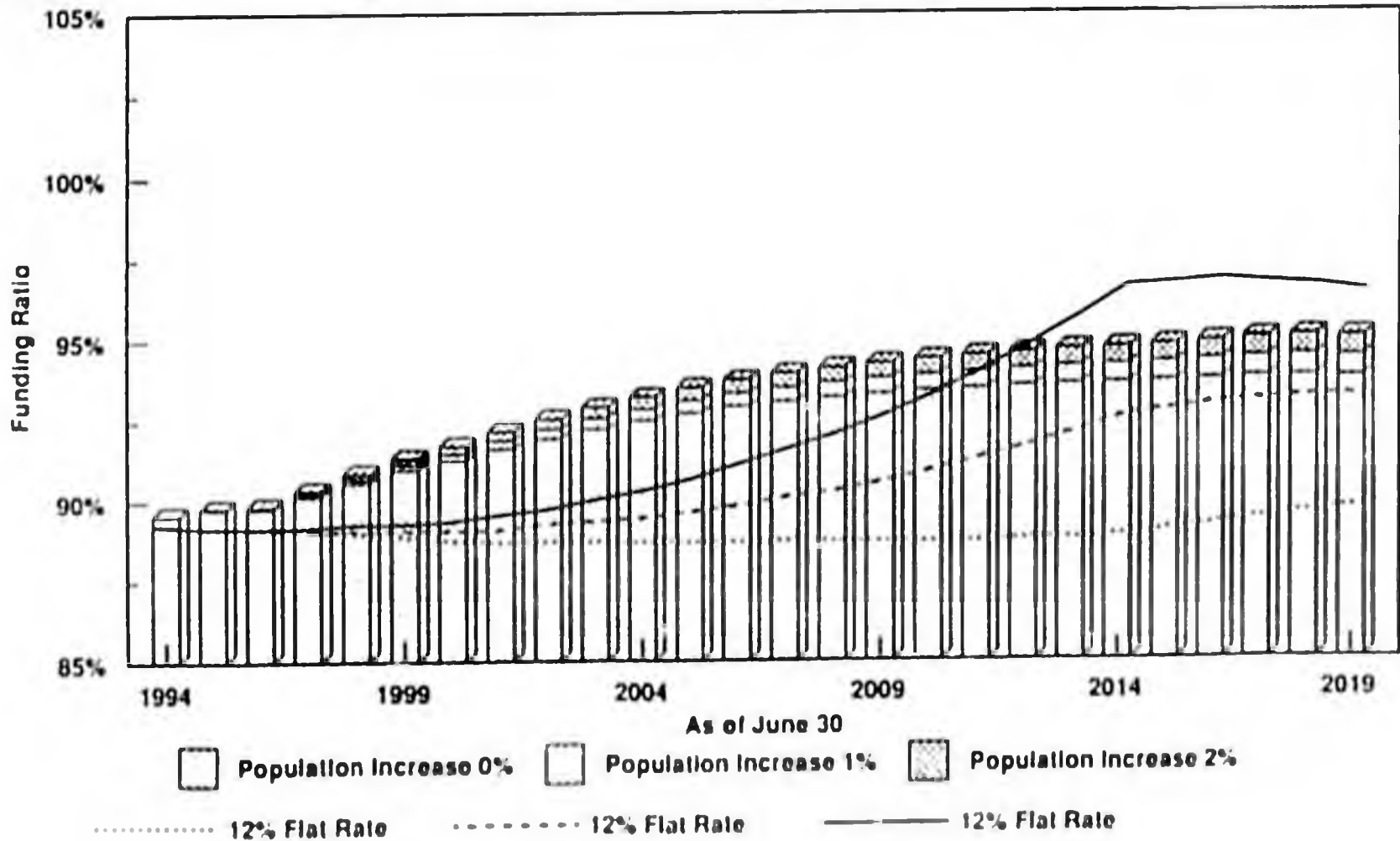
As of June 30	Investment Return 8.00%		Annual Population Increase 2.00%					Ending Asset Value			
	Total Assets	Valuation Amounts on July 1 Accrued Funding Liability Ratio	Total Salaries	Employer Rate	Employer Contribs	Employee Contribs	Total Contribs		Total Benefit Payments	Net Contribs	Investment Earnings
1994	2,472,957	89.83	476,093	13.36%	64,779	42,523	107,302	145,156	(37,853)	196,322	2,631,425
1995	2,631,425	89.83	493,641	12.48%	62,742	44,040	106,783	154,106	(47,323)	208,621	2,792,723
1996	2,792,723	89.83	511,946	14.96%	77,877	45,559	123,436	167,980	(44,544)	221,634	2,969,816
1997	2,969,816	90.33	529,509	14.72%	79,335	47,090	126,425	183,607	(57,182)	235,208	3,147,930
1998	3,147,930	90.83	548,060	14.38%	80,245	48,722	128,968	199,859	(70,891)	248,999	3,326,037
1999	3,326,037	91.33	568,144	13.77%	79,956	50,643	130,599	218,184	(87,581)	262,580	3,501,032
2000	3,501,032	91.73	589,394	13.15%	79,672	52,784	132,456	234,944	(102,486)	275,983	3,674,526
2001	3,674,526	92.12	618,643	12.60%	78,297	54,920	133,217	253,675	(120,458)	289,144	3,843,213
2002	3,843,213	92.52	643,893	11.81%	77,519	57,051	134,571	273,227	(138,706)	301,909	4,006,415
2003	4,006,415	92.92	669,143	11.21%	76,433	59,177	135,610	292,855	(157,264)	314,223	4,163,394
2004	4,163,394	93.32	694,393	10.63%	75,985	61,836	137,821	311,917	(174,096)	326,108	4,315,406
2005	4,315,406	93.72	719,643	10.14%	76,135	65,025	141,160	331,192	(190,012)	337,631	4,463,005
2006	4,463,005	94.12	744,893	9.60%	75,678	68,208	143,884	350,176	(206,292)	348,789	4,605,501
2007	4,605,501	94.52	769,143	9.21%	76,072	71,642	147,515	367,816	(220,301)	359,628	4,744,828
2008	4,744,828	94.92	793,393	8.85%	76,483	76,714	151,202	386,079	(232,877)	370,271	4,882,221
2009	4,882,221	95.32	817,643	8.54%	77,758	78,220	156,478	399,865	(243,387)	380,862	5,019,676
2010	5,019,676	95.72	841,893	8.27%	79,803	81,465	161,268	416,997	(251,729)	391,505	5,159,453
2011	5,159,453	96.12	866,143	7.94%	81,017	84,211	169,227	428,953	(259,726)	402,367	5,302,094
2012	5,302,094	96.52	890,393	7.65%	84,358	87,926	177,314	441,972	(264,839)	411,581	5,451,016
2013	5,451,016	96.92	914,643	7.77%	87,711	97,701	185,412	454,255	(268,842)	420,329	5,607,502
2014	5,607,502	97.32	938,893	7.70%	92,083	103,417	193,500	465,308	(269,809)	429,608	5,773,500
2015	5,773,500	97.72	963,143	7.63%	97,335	110,103	202,438	475,646	(268,278)	439,311	5,958,583
2016	5,958,583	98.12	987,393	7.57%	101,590	116,789	211,379	485,228	(265,350)	448,073	6,159,307
2017	6,159,307	98.52	1,011,643	7.56%	107,958	123,474	221,432	494,825	(263,393)	456,209	6,378,123
2018	6,378,123	98.92	1,035,893	7.59%	114,277	130,160	231,437	506,756	(262,319)	464,757	6,615,561
2019	6,615,561	99.32	1,060,143	7.64%	120,764	137,022	241,786	519,320	(261,734)	473,775	6,872,602

\* Surpluses reduce employer contributions over 5 years  
\* Deficits increase employer contributions over 25 years

# State of Alaska TRS Projected Contribution Rates



# State of Alaska TRS Projected Funding Ratios



# 1.6 Actuarial Projections (continued)

Table 4

State of Alaska IRS  
Financial Projections ('000 omitted)

As of June 30	Investment Return		Valuation Amounts on July 1		Total Salaries	Employer Ctb Rate	Amounts During following 12 Months		Annual Population Increase		Net Investment Contribs	Ending Asset Value	
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)			Employer Ctb Rate	Employee Contribs	Total Contribs	Total Benefit Payments			Net Investment Contribs
1994	2,472,957	2,761,409	89.6%	(288,452)	476,098	12.00%	57,750	42,205	99,955	145,156	(45,201)	194,029	2,623,784
1995	2,623,784	2,931,068	89.5%	(307,284)	486,395	12.00%	59,000	43,070	102,069	154,106	(52,037)	207,821	2,779,569
1996	2,779,569	3,107,937	89.4%	(328,368)	496,931	12.00%	60,182	43,883	104,065	167,865	(63,800)	219,813	2,935,582
1997	2,935,582	3,285,207	89.4%	(349,625)	506,107	12.00%	61,284	44,635	105,919	183,331	(77,412)	231,750	3,089,920
1998	3,089,920	3,460,579	89.3%	(370,659)	515,287	12.00%	62,420	45,411	107,831	199,380	(91,550)	243,532	3,241,902
1999	3,241,902	3,633,786	89.2%	(391,878)	525,046	12.00%	63,701	46,289	109,990	217,466	(107,456)	255,054	3,389,500
2000	3,389,500	3,805,154	89.1%	(415,654)	536,634	12.00%	65,091	47,245	112,337	233,891	(121,555)	266,298	3,534,243
2001	3,534,243	3,969,923	89.0%	(435,680)	548,222	12.00%	66,482	48,199	114,681	252,251	(137,569)	277,237	3,673,910
2002	3,673,910	4,127,589	89.0%	(453,679)	559,810	12.00%	67,873	49,151	117,024	271,408	(154,364)	287,737	3,807,263
2003	3,807,263	4,277,830	89.0%	(470,567)	571,398	12.00%	69,263	50,100	119,363	290,612	(171,249)	297,731	3,933,746
2004	3,933,746	4,420,501	89.0%	(486,755)	582,986	12.00%	70,667	51,274	122,261	309,265	(187,024)	307,219	4,053,941
2005	4,053,941	4,555,835	89.0%	(501,894)	599,801	12.00%	72,085	52,671	125,656	328,106	(202,459)	316,217	4,167,708
2006	4,167,708	4,683,641	89.0%	(515,933)	616,616	12.00%	73,503	54,085	129,067	346,607	(217,539)	324,715	4,274,864
2007	4,274,864	4,804,308	89.0%	(529,444)	633,431	12.00%	74,921	55,519	132,540	363,704	(231,164)	332,744	4,376,464
2008	4,376,464	4,918,798	89.0%	(542,334)	650,246	12.00%	76,348	56,974	136,012	379,336	(243,324)	340,384	4,473,524
2009	4,473,524	5,027,654	89.0%	(554,130)	667,061	12.00%	77,776	58,433	140,213	394,397	(254,183)	347,715	4,567,055
2010	4,567,055	5,131,795	89.0%	(564,739)	690,936	12.00%	79,203	60,799	145,143	408,698	(263,553)	354,822	4,658,323
2011	4,658,323	5,232,316	89.0%	(573,993)	714,811	12.00%	80,630	62,164	150,074	421,707	(271,633)	361,803	4,748,491
2012	4,748,491	5,330,493	89.1%	(582,002)	738,687	12.00%	82,057	64,929	155,004	433,634	(278,633)	368,734	4,838,594
2013	4,838,594	5,427,776	89.1%	(589,180)	762,562	12.00%	83,484	66,994	159,934	444,622	(284,668)	375,700	4,929,607
2014	4,929,607	5,525,786	89.2%	(596,182)	786,437	12.71%	84,911	69,416	171,378	454,167	(282,789)	383,057	5,029,875
2015	5,029,875	5,626,342	89.6%	(596,467)	818,550	12.60%	86,338	72,193	177,323	462,778	(285,455)	390,972	5,135,392
2016	5,135,392	5,731,616	89.6%	(596,224)	850,662	12.45%	87,765	74,971	182,646	468,836	(285,990)	399,392	5,248,794
2017	5,248,794	5,843,171	89.6%	(594,377)	882,774	12.34%	89,192	77,749	188,640	477,101	(288,441)	408,363	5,368,697
2018	5,368,697	5,963,944	90.0%	(595,246)	914,887	12.23%	90,619	80,527	194,370	485,587	(291,216)	417,847	5,495,328
2019	5,495,328	6,096,249	90.1%	(600,921)	946,999	12.12%	92,046	83,353	200,111	494,246	(294,135)	427,861	5,629,053

\* Surpluses reduce employer contributions over 5 years  
\* Deficits increase employer contributions over 25 years

# 1.6 Actuarial Projections (continued)

Table 5  
State of Alaska IRS  
Financial Projections ('000 omitted)

As of June 30	Investment Return 8.00%		Valuation Amounts on July 1		Total Salaries	Employer Contri	Employee Contri	Annual Population Increase 1.00%		Ending Asset Value	
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)				Total Benefit Payments	Net Contribs		Investment Earnings
1996	2,672,957	2,761,409	89.6%	(288,452)	476,098	57,968	62,365	100,334	165,156	196,046	2,624,178
1997	2,624,178	2,911,132	89.5%	(306,954)	490,042	59,665	43,556	103,221	154,106	(50,885)	2,781,192
1998	2,781,192	3,108,385	89.5%	(327,194)	504,377	61,326	44,717	106,042	167,923	(61,881)	2,939,331
1999	2,939,331	3,286,173	89.4%	(347,042)	517,718	62,950	45,849	108,799	183,469	(74,670)	3,096,821
2000	3,096,821	3,462,865	89.4%	(366,044)	531,456	64,659	47,040	111,699	199,617	(87,919)	3,253,131
2001	3,253,131	3,637,671	89.4%	(384,539)	546,197	66,624	48,414	115,038	217,810	(102,772)	3,406,499
2002	3,406,499	3,811,162	89.4%	(404,663)	564,209	68,766	49,927	118,713	234,409	(115,697)	3,558,694
2003	3,558,694	3,978,739	89.4%	(420,045)	582,222	70,947	51,437	122,384	252,948	(130,564)	3,707,604
2004	3,707,604	4,140,009	89.6%	(432,406)	600,234	73,109	52,943	126,052	272,320	(146,268)	3,852,093
2005	3,852,093	4,294,779	89.7%	(442,685)	618,247	75,270	54,446	129,716	291,699	(161,983)	3,991,798
2006	4,000,000	4,443,051	90.0%	(451,051)	636,259	77,926	56,301	134,227	310,564	(176,317)	4,127,772
2007	4,127,772	4,585,031	90.0%	(457,259)	662,504	81,075	58,509	139,585	329,585	(190,003)	4,260,394
2008	4,260,394	4,721,121	90.2%	(460,727)	688,750	84,225	60,712	144,937	348,308	(203,371)	4,389,719
2009	4,389,719	4,851,921	90.5%	(462,202)	714,995	87,374	62,982	150,356	365,655	(215,299)	4,516,986
2010	4,516,986	4,978,233	90.7%	(461,247)	741,240	90,524	65,232	155,776	381,575	(225,799)	4,643,513
2011	4,643,513	5,101,055	91.0%	(457,542)	767,486	94,343	68,005	162,348	398,968	(234,620)	4,770,990
2012	4,770,990	5,221,586	91.4%	(450,597)	804,891	98,831	71,241	170,072	411,648	(247,291)	4,901,430
2013	4,901,430	5,341,223	91.8%	(439,793)	842,297	103,320	74,476	177,796	425,088	(251,990)	5,036,361
2014	5,036,361	5,461,562	92.2%	(425,200)	879,702	107,809	77,712	185,521	437,510	(251,990)	5,172,201
2015	5,172,201	5,584,397	92.7%	(407,196)	917,108	112,297	80,948	193,265	449,087	(255,842)	5,307,302
2016	5,307,302	5,711,723	93.2%	(386,421)	954,514	95,180	84,778	199,958	459,319	(259,361)	5,440,791
2017	5,440,791	5,845,733	93.4%	(384,942)	1,005,671	96,999	89,203	186,202	468,724	(262,522)	5,574,831
2018	5,574,831	5,988,817	93.6%	(384,986)	1,056,829	97,817	93,628	191,645	478,692	(264,266)	5,709,521
2019	5,709,521	6,143,566	93.7%	(387,043)	1,107,987	8,992	98,053	200,005	485,265	(265,262)	5,844,373
2020	5,844,373	6,312,771	93.8%	(392,398)	1,159,145	106,240	102,479	208,718	495,345	(266,627)	5,979,911
2021	5,979,911	6,499,419	93.8%	(403,508)	1,210,303	110,827	107,001	217,828	505,904	(268,076)	6,115,955

\* Surpluses reduce employer contributions over 5 years  
\* Deficits increase employer contributions over 25 years

# 1.6 Actuarial Projections (continued)

Table 6  
State of Alaska IRS  
Financial Projections ('000 omitted)

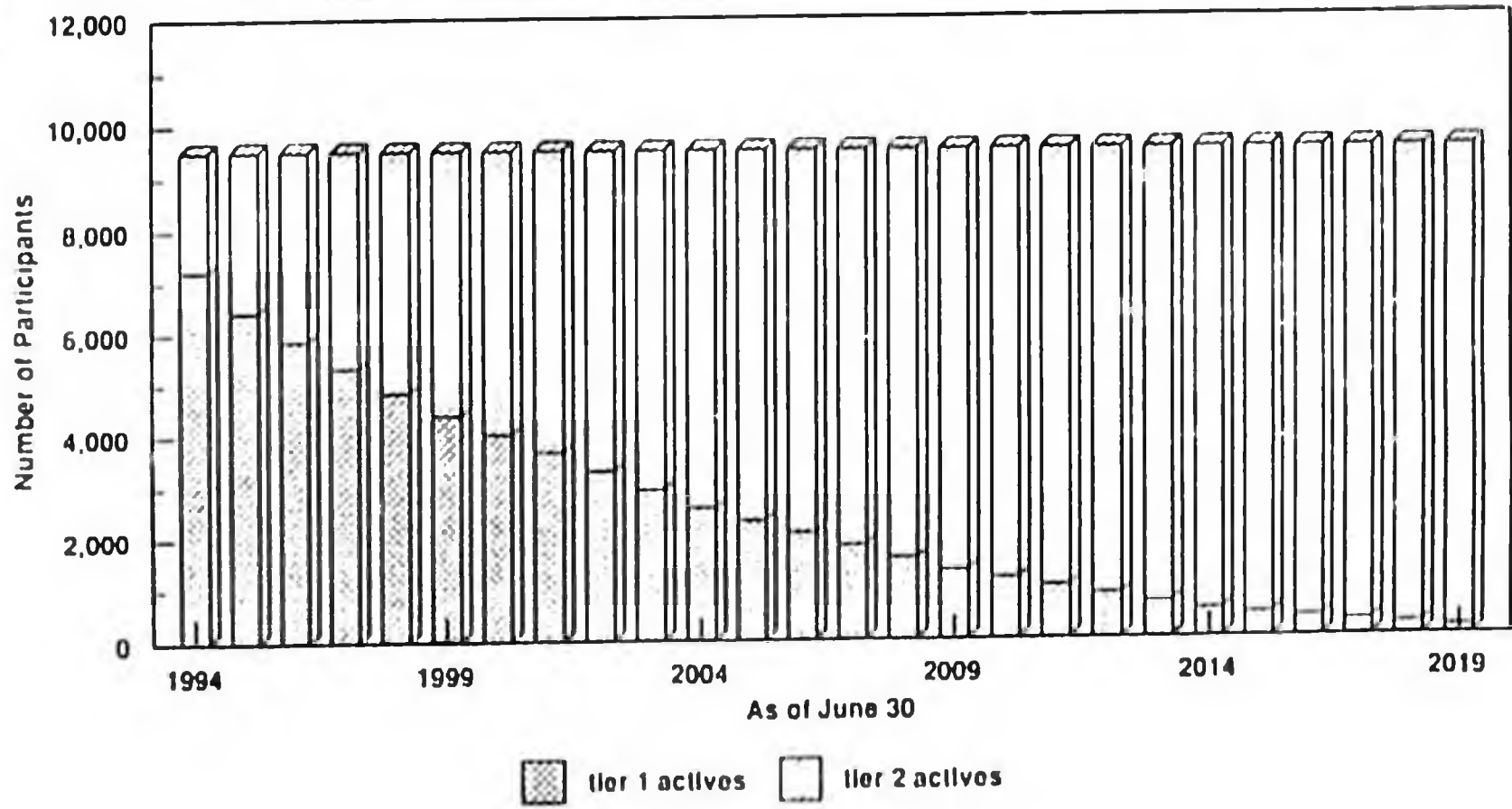
As of June 30	Investment Return 8.00%		Valuation Amounts on July 1		Surplus- (Deficit)	Total Salaries	Flow Amounts During following 12 Months			Annual Population Increase 2.00%			Ending Asset Value
	Total Assets	Accrued Liability	Funding Ratio	Total Employer Contribs			Employer Rate (% of Salary)	Total Employee Contribs	Total Contribs	Total Benefit Payments	Net Contribs	Investment Earnings	
1994	2,472,957	2,761,409	89.6%	(288,452)	476,098	58,184	12.00%	180,707	145,156	(64,449)	196,059	2,624,567	
1995	2,624,567	2,931,197	89.5%	(306,630)	493,641	60,329	12.00%	104,370	154,106	(59,736)	207,976	2,782,866	
1996	2,782,866	3,108,836	89.5%	(326,029)	511,846	62,481	12.00%	108,041	167,980	(59,940)	220,227	2,943,094	
1997	2,943,094	3,287,549	89.5%	(344,555)	529,509	64,654	12.00%	111,744	183,607	(71,863)	232,573	3,103,804	
1998	3,103,804	3,465,185	89.6%	(361,381)	548,060	66,972	12.00%	115,694	199,859	(84,165)	244,938	3,264,577	
1999	3,264,577	3,641,647	89.6%	(377,070)	568,144	69,692	12.00%	120,335	218,184	(97,649)	257,252	3,423,980	
2000	3,423,980	3,817,263	89.7%	(393,283)	593,394	72,722	12.00%	125,506	234,944	(109,438)	269,541	3,584,083	
2001	3,584,083	3,997,771	89.9%	(403,688)	618,643	75,752	12.00%	130,673	253,675	(123,002)	281,807	3,742,887	
2002	3,742,887	4,152,871	90.1%	(409,984)	643,893	78,782	12.00%	135,834	273,277	(137,443)	293,933	3,899,377	
2003	3,899,377	4,312,497	90.4%	(413,120)	669,143	81,812	12.00%	140,990	292,855	(151,863)	305,876	4,053,387	
2004	4,053,387	4,466,813	90.7%	(415,426)	694,393	85,086	12.00%	147,422	311,917	(164,495)	317,691	4,208,584	
2005	4,208,584	4,616,213	91.1%	(409,629)	719,039	90,103	12.00%	155,128	331,192	(176,064)	329,486	4,360,004	
2006	4,360,004	4,761,323	91.6%	(401,319)	749,685	94,621	12.00%	162,827	350,176	(187,349)	341,306	4,513,960	
2007	4,513,960	4,903,000	92.1%	(389,039)	807,331	99,139	12.00%	170,601	367,816	(197,215)	353,228	4,669,973	
2008	4,669,973	5,042,332	92.6%	(372,358)	864,977	103,656	12.00%	178,375	384,079	(205,704)	365,370	4,829,639	
2009	4,829,639	5,180,637	93.2%	(350,998)	932,623	109,266	12.00%	187,926	399,865	(211,939)	377,894	4,995,593	
2010	4,995,593	5,319,465	93.9%	(323,873)	937,484	115,790	12.00%	197,255	414,997	(215,742)	391,018	5,170,869	
2011	5,170,869	5,460,598	94.7%	(289,730)	992,345	122,373	12.00%	210,583	428,953	(218,370)	404,935	5,357,434	
2012	5,357,434	5,606,048	95.6%	(248,614)	1,047,205	128,956	12.00%	221,912	443,922	(220,060)	419,792	5,537,166	
2013	5,537,166	5,758,076	96.5%	(200,890)	1,102,066	135,540	12.00%	233,241	454,755	(221,014)	435,733	5,721,804	
2014	5,721,804	5,919,097	97.5%	(147,293)	1,156,926	143,602	7.26%	190,019	465,368	(275,289)	450,739	5,947,335	
2015	5,947,335	6,091,877	97.6%	(146,542)	1,234,219	146,701	6.81%	196,804	475,666	(278,862)	464,632	6,133,105	
2016	6,133,105	6,279,330	97.7%	(146,225)	1,311,511	149,950	6.29%	201,739	483,728	(281,989)	479,369	6,330,484	
2017	6,330,484	6,484,624	97.6%	(154,140)	1,388,803	153,474	6.36%	211,194	494,625	(280,633)	495,211	6,545,066	
2018	6,545,066	6,711,357	97.5%	(166,090)	1,466,095	158,908	6.44%	227,069	506,756	(279,687)	512,418	6,777,797	
2019	6,777,797	6,962,357	97.3%	(184,560)	1,543,388	163,828	6.53%	240,850	519,320	(278,070)	531,077	7,030,204	

\* Surpluses reduce employer contributions over 5 years  
\* Deficits increase employer contributions over 25 years

# State of Alaska TRS

## Projected Active Participant Count

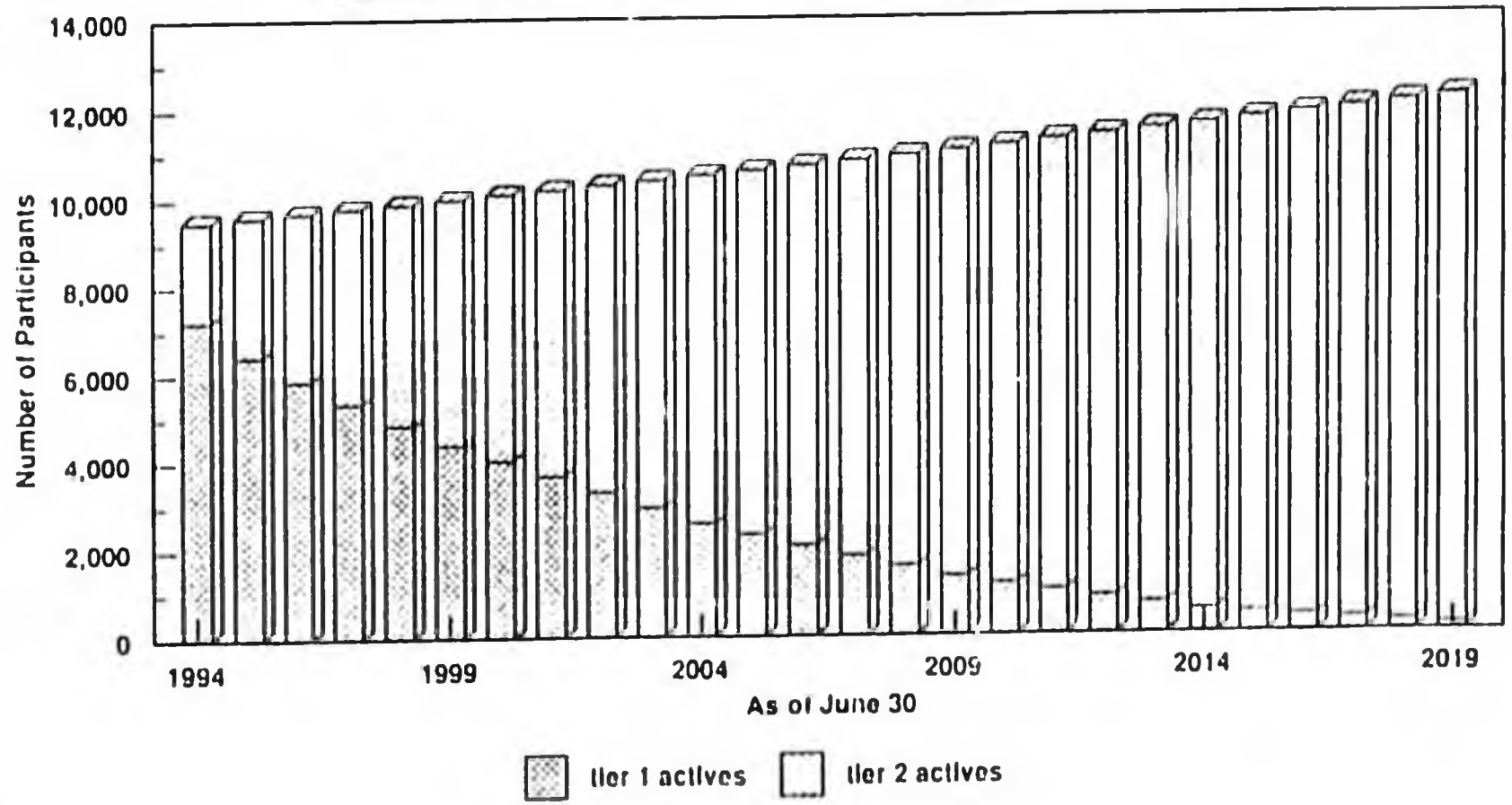
### Annual Population Increase of 0%



# State of Alaska TRS

## Projected Active Participant Count

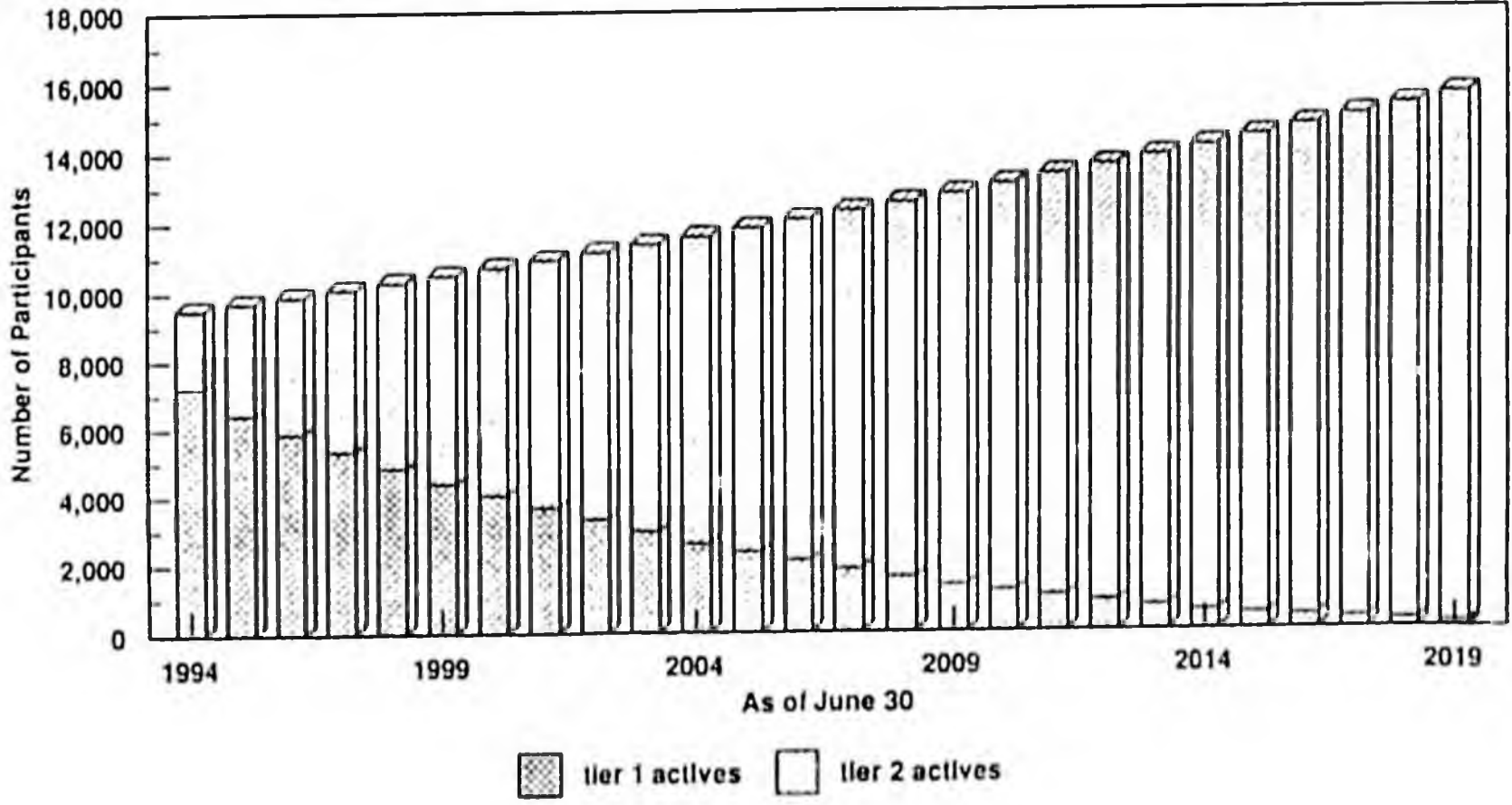
### Annual Population Increase of 1%



# State of Alaska TRS

## Projected Active Participant Count

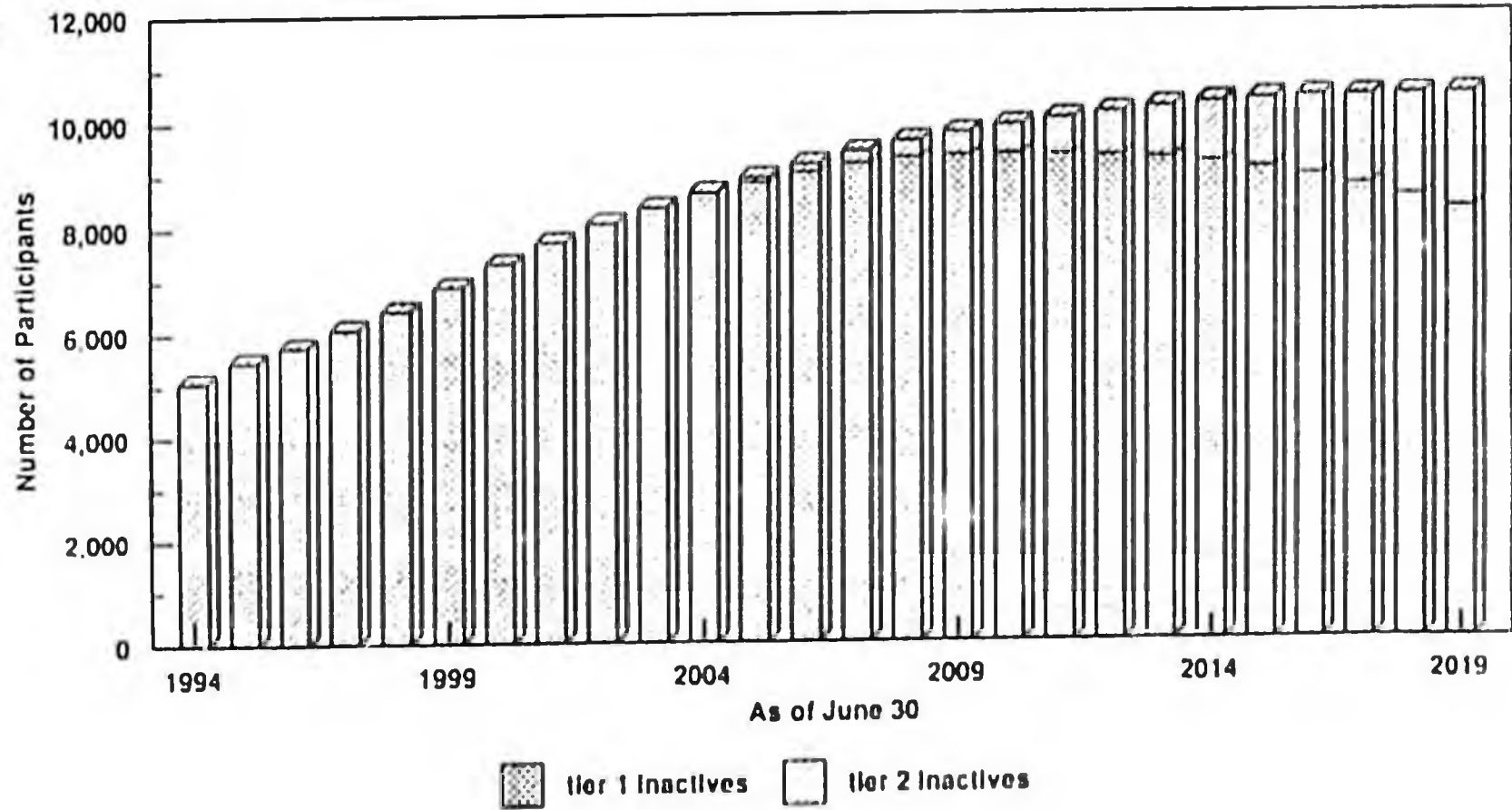
### Annual Population Increase of 2%



# State of Alaska TRS

## Projected Inactive Participant Count

### Annual Population Increase of 0%

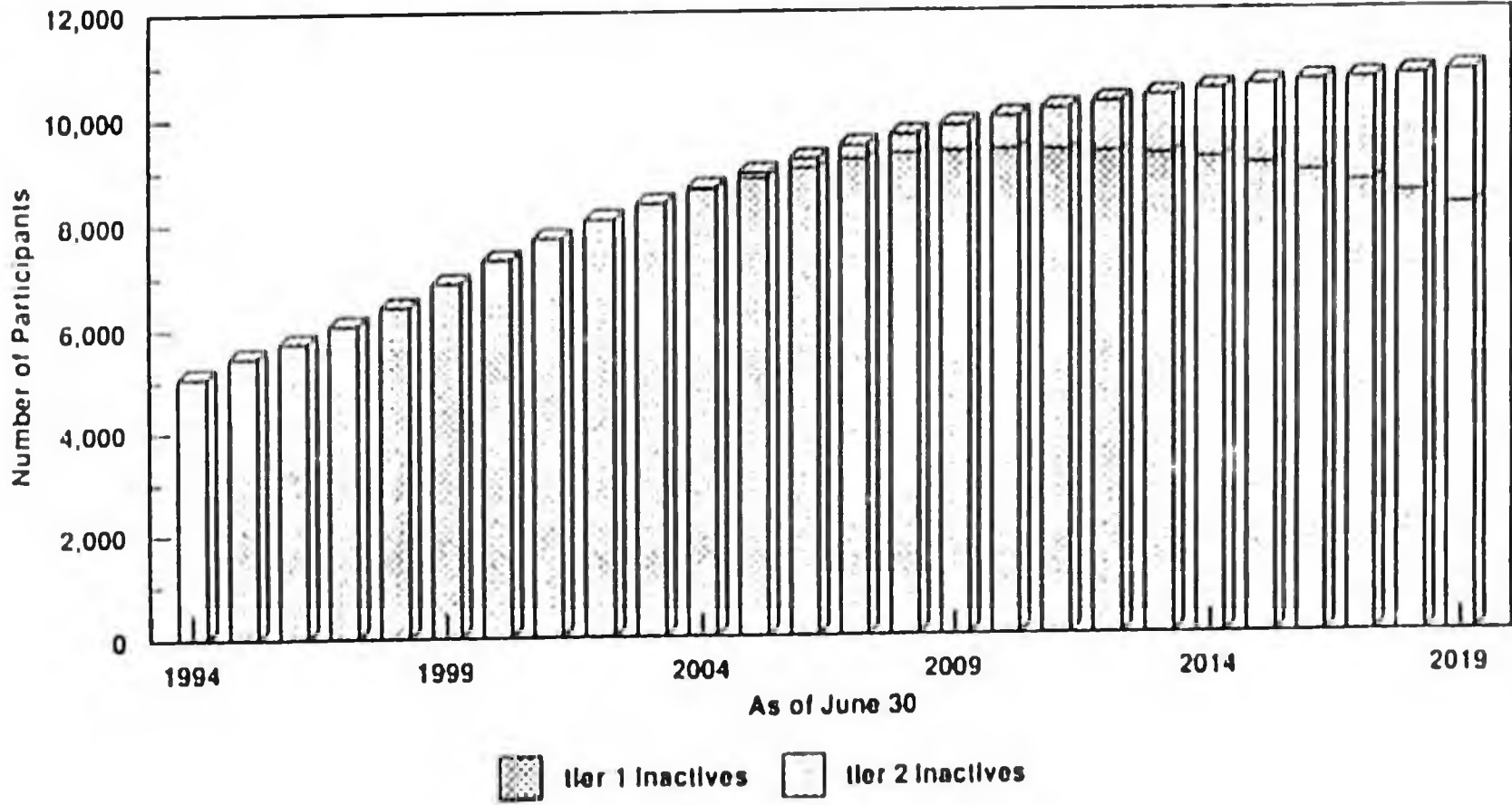


# State of Alaska TRS

## Projected Inactive Participant Count

### Annual Population Increase of 1%

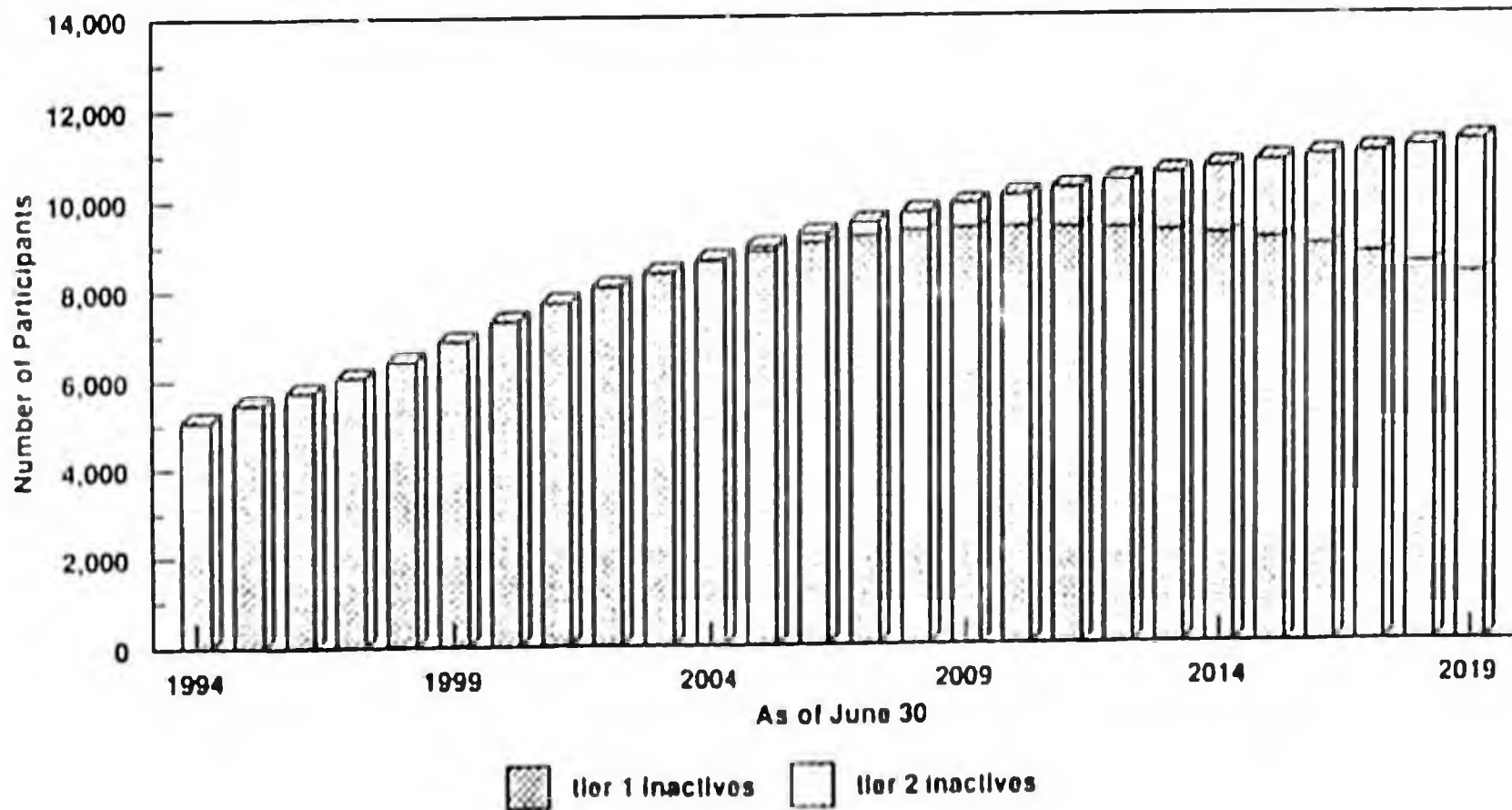
William M. Mercer Incorporated



# State of Alaska TRS

## Projected Inactive Participant Count

### Annual Population Increase of 2%



## Section 2

### Basis of the Valuation

In this section, the basis of the valuation is presented and described. This information--the provisions of the plan and the census of participants--is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of plan provisions is provided in Section 2.1 and participant census information is shown in Section 2.2.

The valuation is based upon the premise that the plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will retire, die, terminate their services, their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in Section 2.3.

## 2.1 Summary of the Alaska Teachers' Retirement System

### (1) Effective Date

July 1, 1955, with amendments through June 30, 1994. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the TRS before July 1, 1990, are eligible for different benefits than members hired after June 30, 1990.

### (2) Administration of Plan

The Commissioner of Administration is responsible for administering the system. The Teachers' Retirement Board prescribes policies and regulations and performs other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division is responsible for investing TRS funds. The Attorney General represents the system in legal proceedings.

### (3) Membership

Membership in the Alaska TRS is mandatory for the following employees:

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- the Commissioner of the Alaska Department of Education and certificated supervisors employed by the Department of Education in permanent positions requiring teaching certificates;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator;
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under the TRS;
- ~~members~~ on approved sabbatical leave under AS 14.20.310; and
- certain State legislators who have elected to be covered under the TRS.

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

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

**(4) Credited Service**

TRS members receive a year of membership credit if they work a minimum of 172 days during the school year (July 1 through June 30 of the following year). Fractional credit is determined based on the number of days worked. Members receive one-half membership credit for each day of part-time service. Credit is granted for all Alaskan public school service.

Members may claim other types of service, including:

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

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

Members receiving TRS disability benefits continue to earn TRS credit while disabled.

**(5) Employer Contributions**

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

**(6) Member Contributions**

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

Contributions for Claimed Service: Member contributions are also required for most of the claimed service described in (4) above.

1% Supplemental Contributions: Members who joined the system before July 1, 1982, and elected to participate in the supplemental contributions provision, are required to contribute an additional 1% of their salaries. Under the supplemental provision, an eligible spouse or dependent child will receive a survivor's allowance or spouse's pension if the member dies (see (10) below).

Interest: Members' contributions earn 4.5% interest, compounded annually on June 30.

Refund of Contributions: Terminated members may receive refunds of their member contribution accounts, which includes their mandatory contributions, indebtedness payments, and interest earned. Terminated members' accounts may be attached to satisfy claims under Alaska Statute 09.38.065, federal income tax levies, and valid qualified domestic relations orders.

Reinstatement of Contributions: Refunded accounts and the corresponding TRS service may be reinstated upon reemployment in the TRS. Accounts attached to satisfy claims under Alaska Statute 09.38.065 or a federal tax levy may be reinstated at any time. Interest accrues on refunds until paid in full or members retire.

## (7) Retirement Benefits

### Eligibility:

(a) Members, including deferred vested members, are eligible for normal retirement at age 60\*, or early retirement at age 55, if they have at least:

- (i) eight years of paid-up membership service;
- (ii) 15 years of paid-up creditable service, the last five years which are membership service, and they were first hired under the TRS before July 1, 1975;
- (iii) five years of paid-up membership service and three years of paid-up Alaska Bureau of Indian Affairs service;
- (iv) 12 years of combined part-time and full-time paid-up membership service, or
- (v) two years of paid-up membership service if they are vested in the Public Employees' Retirement System (PERS).

- \* Members participating before July 1, 1990, are eligible for normal retirement at age 55 or early retirement at age 50.

- (b) Members may retire at any age when they have:
- (i) 25 years of paid-up creditable service, the last five years which are membership service;
  - (ii) 20 years of paid-up membership service;
  - (iii) 20 years of combined paid-up membership and Alaska Bureau of Indian Affairs service, the last five years which are membership service; or
  - (iv) 20 years of combined paid-up part-time and full-time membership service.

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

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

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

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

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

#### (8) Reemployment of Retired Members

Retirement benefits are suspended while retired members are reemployed under the TRS. During reemployment, members earn additional TRS service and contributions are withheld from their wages.

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

- (a) forfeit the three years of incentive credits that they received;
- (b) owe the TRS 110% of the benefits that they received under the RIP, which may include costs for health insurance, excluding amounts that they paid to participate; and
- (c) be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

(9) **Disability Benefits**

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

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

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

(10) **Death Benefits**

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

Occupational Death: When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse, unless benefits are payable under the supplemental contributions provision (below). The pension equals 40% of the member's base salary on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's average base salary as existed on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date.

**Nonoccupational Death:** When a vested member dies from nonoccupational causes, the surviving spouse may elect to receive a monthly 50% joint and survivor benefit or a lump sum benefit, unless benefits are payable under the supplemental contributions provision (below). The monthly benefit is calculated on the member's average base salary and TRS service accrued at the time of death.

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

**Supplemental Contributions Provision:** Members are eligible for supplemental coverage if they joined the TRS before July 1, 1982, elected to participate in the supplemental provision, and made the required contributions. A survivor's allowance or spouse's pension (below) may be payable if the member made supplemental contributions for at least one year and dies while in membership service or while disabled under the TRS. In addition, the allowance and pension may be payable if the member dies while retired or in deferred vested status if supplemental contributions were made for at least five years.

- (a) **Survivor's Allowance:** If the member is survived by dependent children, the surviving spouse and dependent children are entitled to a survivor's allowance. The allowance for the spouse is equal to 35% of the member's base salary at the time of death or disability, plus 10% for each dependent child up to a maximum of 40%. The allowance terminates and a spouse's pension becomes payable when there is no longer an eligible dependent child.
- (b) **Spouse's Pension:** The spouse's pension is equal to 50% of the retirement benefit that the deceased member was receiving or would have received if retired at the time of death. The spouse's pension begins on the first of the month after the member's death or termination of the survivor's allowance.

**Death After Retirement:** If a joint and survivor option was selected at retirement, the eligible spouse receives continuing, lifetime monthly benefits after the member dies. A survivor's allowance or spouse's pension may be payable if the member participated in the supplemental contributions provision. If a joint and survivor option was not selected and benefits are not payable under the supplemental contributions provision, the designated beneficiary receives the member's contribution account, less any benefits already paid.

**(11) Post Retirement Pension Adjustments**

Post retirement pension adjustments (PRPAs) are granted annually to eligible benefit recipients when the consumer price index (CPI) increases during the preceding calendar year. PRPAs are calculated by multiplying the recipient's base benefit, including past PRPAs, times:

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

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who were first hired before July 1, 1990, if the CPI increases and the financial condition of the fund will permit an increase.

**(12) Alaska Cost of Living Allowance**

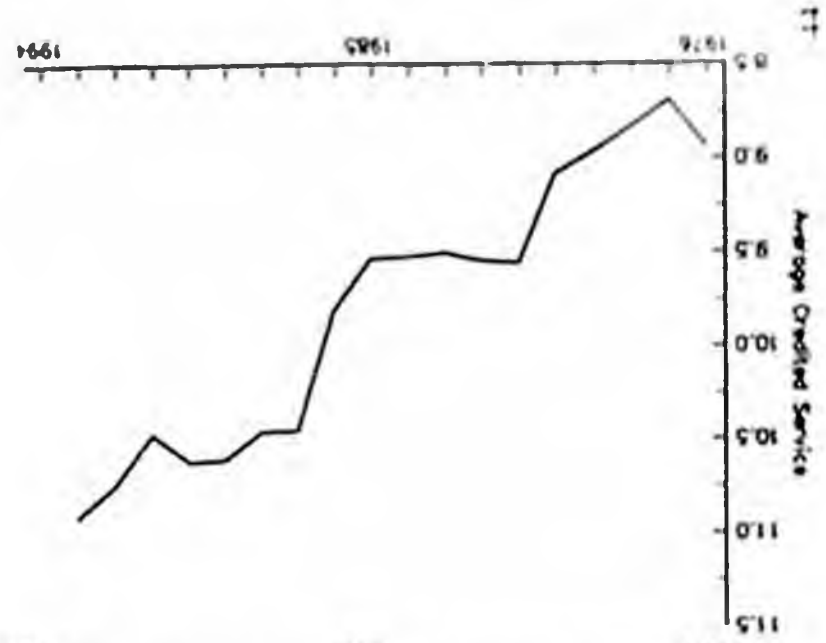
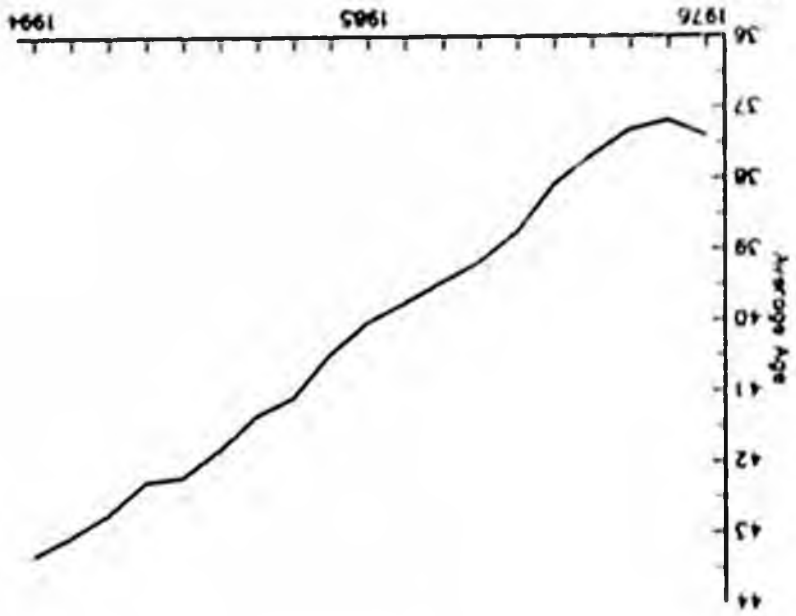
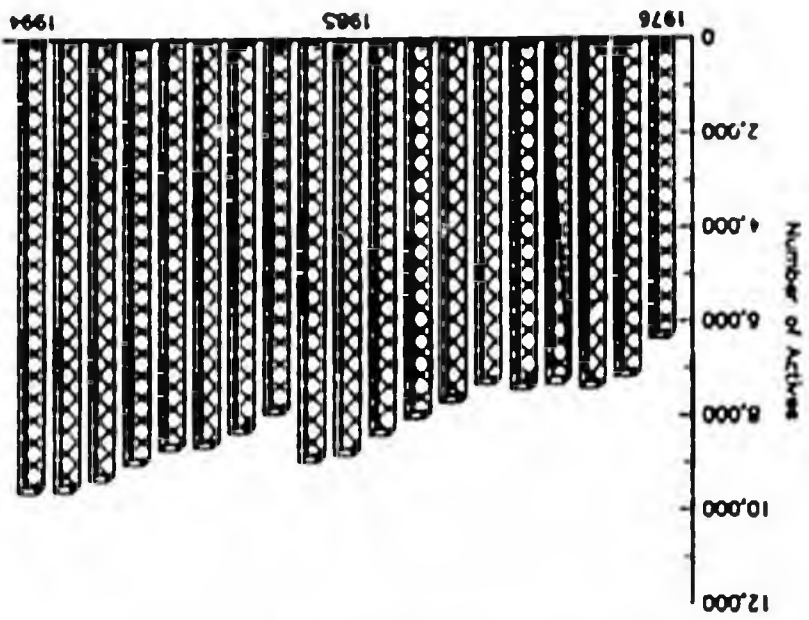
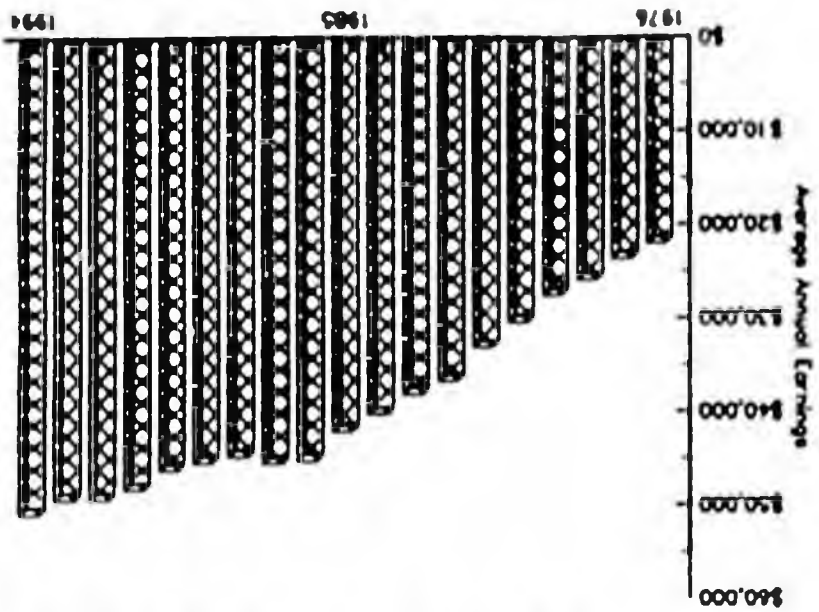
Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (COLA) equal to 10% of their base benefits. The following benefit recipients are eligible:

- (a) members who were first hired under the TRS before July 1, 1990, and their survivors;
- (b) members who were first hired under the TRS after June 30, 1990, and their survivors if they are at least age 65, and
- (c) all disabled members.

## 2.2(a) Participant Census Information as of June 30

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
<b>Active Members</b>					
(1) Number	8,586	8,903	9,238	9,459	9,489
(2) Average Age	42.21	42.28	42.74	43.06	43.32
(3) Average Credited Service	10.62	10.48	10.75	10.92	11.06
(4) Average Annual Salary	\$ 45,388	\$ 47,473	\$ 48,515	\$ 48,604	\$ 50,174
(5) Number Vested	4,890	5,069	5,422	5,604	5,562
(6) Percent Who Are Vested	57.0%	57.0%	58.7%	59.2%	58.6%
<b>Retirees and Beneficiaries</b>					
(1) Number	3,184	3,544	3,602	3,891	4,134
(2) Average Age	62.45	61.64	61.97	62.47	62.73
(3) Average Monthly Benefit:					
Base	\$ 1,491	\$ 1,587	\$ 1,601	\$ 1,598	\$ 1,643
COLA	\$ 100	\$ 105	\$ 102	\$ 98	\$ 102
PRPA	\$ 262	\$ 238	\$ 297	\$ 280	\$ 293
Adjustment	N/A	N/A	N/A	\$ 0	\$ 0
Total	\$ 1,853	\$ 1,930	\$ 2,000	\$ 1,976	\$ 2,038
<b>Vested Terminations</b>					
(1) Number	816	645	710	823	950
(2) Average Age	46.74	45.57	46.22	47.51	48.10
(3) Average Monthly Benefit	\$ 1,244	\$ 897	\$ 1,087	\$ 1,236	\$ 1,294
<b>Non-Vested Terminations With Account Balances</b>					
(1) Number	985	1,003	1,057	1,013	1,099
(2) Average Account Balance	\$ 10,244	\$ 10,270	\$ 10,411	\$ 11,208	\$ 11,807

# State of Alaska - TRS Actives



## 2.2(b) Distribution of Active Participants

..... Annual Earnings By Age .....				..... Annual Earnings By Credited Service .....			
Age Groups	Number of People	Total Annual Earnings	Average Annual Earnings	Years of Service	Number of People	Total Annual Earnings	Average Annual Earnings
0-19	0	\$ 0	\$ 0	0	158	\$ 5,820,369	\$ 36,838
20-24	58	1,902,801	32,807	1	621	22,729,436	36,601
25-29	595	21,587,148	36,281	2	598	22,907,414	38,307
30-34	949	38,811,281	40,897	3	601	24,811,028	41,283
35-39	1,449	65,718,140	45,354	4	656	27,982,454	42,656
40-44	2,275	114,745,716	50,438	0-4	2,634	104,250,701	39,579
45-49	2,244	121,633,824	54,204	5-9	2,101	100,552,552	47,859
50-54	1,292	74,379,656	57,569	10-14	2,286	124,253,958	54,354
55-59	446	26,412,790	59,222	15-19	1,554	90,709,104	58,371
60-64	144	8,678,964	60,271	20-24	679	41,243,684	60,742
65-69	29	1,789,167	61,695	25-29	207	13,041,323	63,002
70-74	6	320,721	53,454	30-34	24	1,799,383	74,974
75-79	2	117,534	58,767	35-39	4	247,044	61,761
80-	0	0	0	40-	0	0	0
Total	9,489	\$ 476,097,749	\$ 50,174	Total	9,489	\$ 476,097,749	\$ 50,174

### Years of Credited Service By Age

Age	..... Years of Service .....									
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-	Total
0-19	0	0	0	0	0	0	0	0	0	0
20-24	58	0	0	0	0	0	0	0	0	58
25-29	538	57	0	0	0	0	0	0	0	595
30-34	533	341	75	0	0	0	0	0	0	949
35-39	475	461	440	73	0	0	0	0	0	1,449
40-44	468	522	712	498	75	0	0	0	0	2,275
45-49	328	402	590	577	302	45	0	0	0	2,244
50-54	154	202	321	289	220	101	5	0	0	1,292
55-59	56	74	104	91	58	46	14	3	0	446
60-64	23	35	34	18	18	12	4	0	0	144
65-69	0	4	9	6	5	3	1	1	0	29
70-74	0	2	1	2	1	0	0	0	0	6
75-79	1	1	0	0	0	0	0	0	0	2
80-	0	0	0	0	0	0	0	0	0	0
Total	2,634	2,101	2,286	1,554	679	207	24	4	0	9,489

## 2.2(c) Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Payroll (000's)	Annual Average Pay	Percent Increase In Average Pay
June 30, 1994	9,489	\$ 476,098	\$ 50,174	3.2%
June 30, 1993	9,459	459,746	48,604	.2%
June 30, 1992	9,238	448,186	48,515	2.2%
June 30, 1991	8,903	422,655	47,473	4.6%
June 30, 1990	8,586	389,702	45,388	1.8%
June 30, 1989	8,527	380,267	44,596	1.4%
June 30, 1988	8,218	361,310	43,966	-1.7%
June 30, 1987	7,797	348,606	44,710	.6%
June 30, 1986	8,824	392,136	44,440	7.8%
June 30, 1985	8,684	358,110	41,238	4.6%

## 2.2(d) Statistics on New Retirees During the Year Ending June 30

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
<b>Service</b>					
(1) Number	199	507	110	158	267
(2) Average Age At Retirement	52.44	51.56	53.04	52.62	54.14
(3) Average Monthly Benefit	\$ 2,037	\$ 2,123	\$ 1,926	\$ 2,086	\$ 2,349
<b>Disability</b>					
(1) Number	8	8	8	4	6
(2) Average Age At Retirement	46.48	45.46	43.81	48.69	48.31
(3) Average Monthly Benefit	\$ 2,485	\$ 2,448	\$ 3,230	\$ 2,431	\$ 2,870
<b>Surviving Spouses</b>					
(1) Number	1	4	2	3	7
(2) Average Age At Retirement	63.96	45.40	49.46	49.37	44.47
(3) Average Monthly Benefit	\$ 1,203	\$ 435	\$ 620	\$ 930	\$ 2,554
<b>Total</b>					
(1) Number	208	519	120	165	280
(2) Average Age At Retirement	52.27	51.42	52.37	52.47	53.77
(3) Average Monthly Benefit	\$ 2,040	\$ 2,124	\$ 1,991	\$ 2,073	\$ 2,365

**2.2(c) Schedule of Average Benefit Payments -  
New Retirees**

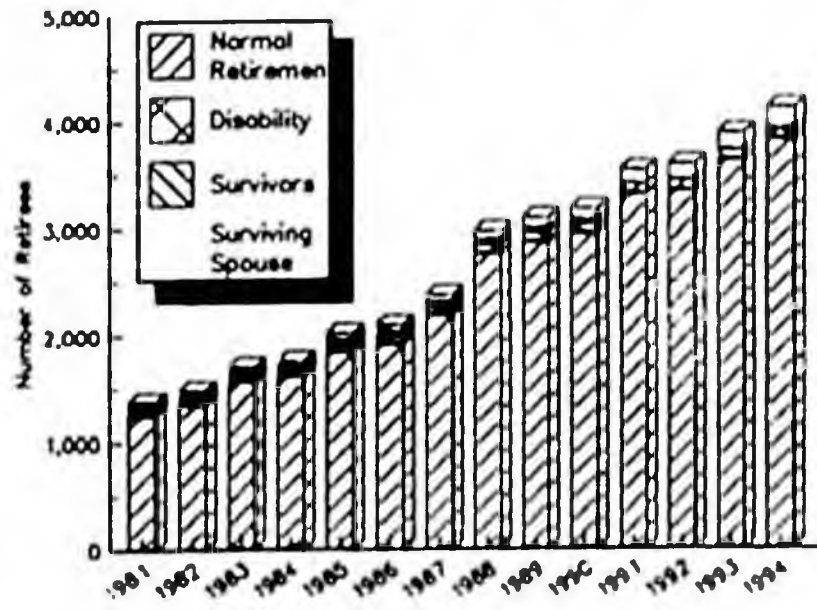
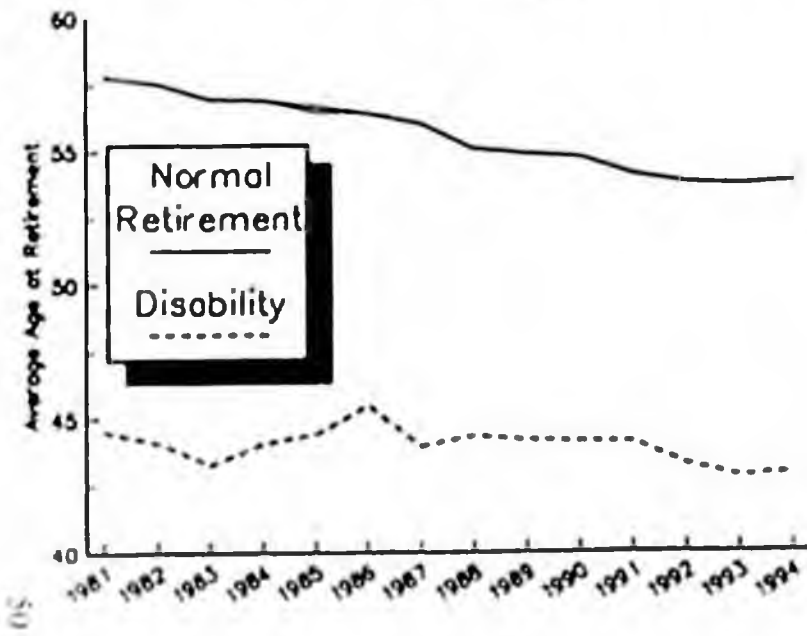
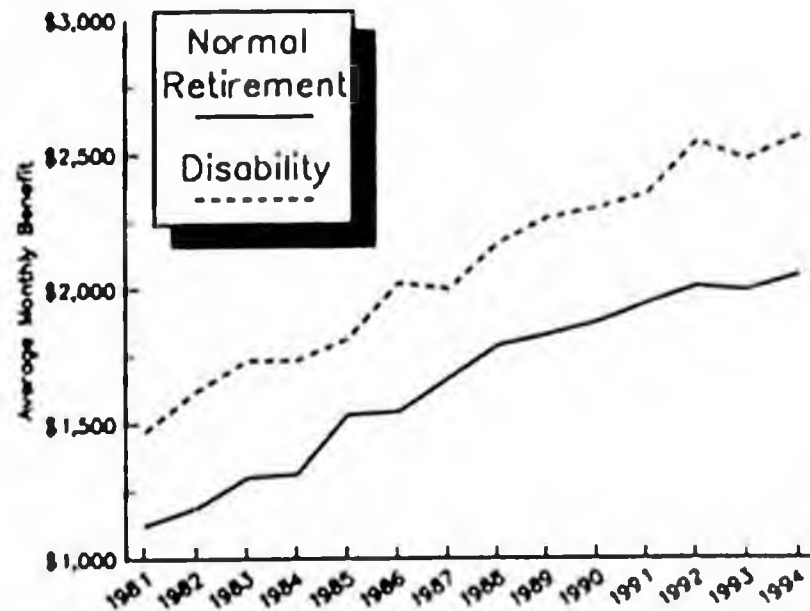
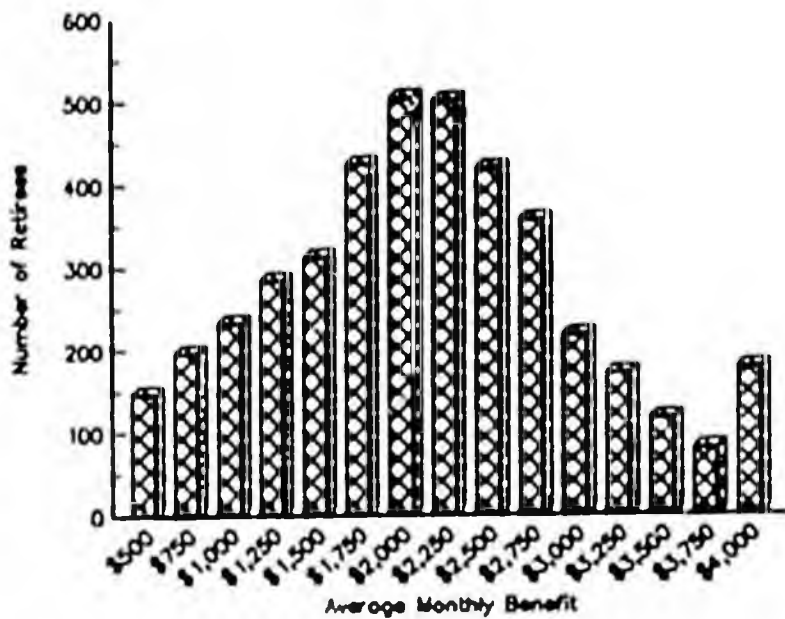
	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>Period 7/1/93 - 6/30/94:</b>							
Average Monthly Benefit*	\$ 1,161	\$ 576	\$ 1,151	\$ 1,605	\$ 2,354	\$ 3,176	\$ 3,685
Number of Active Retirees	7	11	35	24	107	72	24
<b>Period 7/1/92 - 6/30/93:</b>							
Average Monthly Benefit*	\$ 408	\$ 1,002	\$ 1,015	\$ 1,561	\$ 2,258	\$ 3,090	\$ 3,043
Number of Active Retirees	7	17	23	9	62	37	10
<b>Period 7/1/91 - 6/30/92:</b>							
Average Monthly Benefit	\$ 819	\$ 1,205	\$ 1,941	\$ 2,256	\$ 2,290	\$ 3,159	\$ 3,930
Number of Active Retirees	4	27	25	17	38	8	1
<b>Period 7/1/90 - 6/30/91:</b>							
Average Monthly Benefit	\$ 949	\$ 1,093	\$ 1,689	\$ 2,085	\$ 2,540	\$ 2,944	\$ 4,173
Number of Active Retirees	14	53	95	155	160	37	5
<b>Period 7/1/89 - 6/30/90:</b>							
Average Monthly Benefit	\$ 1,161	\$ 1,215	\$ 1,551	\$ 2,295	\$ 2,394	\$ 3,852	\$ 3,733
Number of Active Retirees	6	36	33	70	55	6	2
<b>Period 7/1/88 - 6/30/89:</b>							
Average Monthly Benefit	\$ 1,174	\$ 1,327	\$ 1,491	\$ 2,249	\$ 2,312	\$ 2,817	\$ 0
Number of Active Retirees	3	33	33	61	68	3	0

\* "Average Monthly Benefit" included post-retirement pension adjustments and cost-of-living increases.

## 2.2(f) Statistics on All Retirees as of June 30

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
<b>Service Retirements</b>					
(1) Number, Fiscal Year Start	2,870	2,948	3,322	3,352	3,636
(2) Net Change During FY	78	374	30	284	195
(3) Number, Fiscal Year End	2,948	3,322	3,352	3,636	3,831
(4) Average Age At Retirement	54.80	54.14	53.83	53.75	53.85
(5) Average Age Now	62.84	61.82	62.15	62.60	63.00
(6) Average Monthly Benefit	\$ 1,879	\$ 1,950	\$ 2,013	\$ 1,998	\$ 2,052
<b>Surviving Spouse's Benefits</b>					
(1) Number, Fiscal Year Start	103	108	125	150	161
(2) Net Change During FY	5	17	25	11	39
(3) Number, Fiscal Year End	108	125	150	161	200
(4) Average Age At Retirement	55.76	54.44	54.04	53.91	51.51
(5) Average Age Now	67.79	65.95	65.90	66.72	64.25
(6) Average Monthly Benefit	\$ 794	\$ 1,093	\$ 1,339	\$ 1,187	\$ 1,290
<b>Survivor's Benefits (other than spouses)</b>					
(1) Number, Fiscal Year Start	31	31	1	2	0
(2) Net Change During FY	0	(30)	1	(2)	0
(3) Number, Fiscal Year End	31	1	2	0	0
(4) Average Age At Retirement	35.42	23.81	50.47	--	37.24
(5) Average Age Now	44.73	41.68	59.01	--	42.57
(6) Average Monthly Benefit	\$ 1,661	\$ 544	\$ 3,013	--	\$ 2,166
<b>Disabilities</b>					
(1) Number, Fiscal Year Start	94	97	96	98	94
(2) Net Change During FY93	3	(1)	2	(4)	0
(3) Number, Fiscal Year End	97	96	98	94	94
(4) Average Age At Retirement	44.18	44.15	43.30	42.85	42.98
(5) Average Age Now	50.14	50.33	49.97	49.97	50.28
(6) Average Monthly Benefit	\$ 2,304	\$ 2,358	\$ 2,552	2,484	\$ 2,467
<b>Total Number of Retirees</b>	<b>3,184</b>	<b>3,544</b>	<b>3,602</b>	<b>3,891</b>	<b>4,134</b>

# State of Alaska – TRS Retirees



## 2.2(g) Distribution of Annual Benefits for Benefit Recipients

----- Annual Benefit By Age -----				--- Annual Benefit By Years Since Retirement ---			
Age Groups	Number of People	Total Annual Benefit	Average Annual Benefit	Years Since Retirement	Number of People	Total Annual Benefit	Average Annual Benefit
0-19	3	\$ 17,181	\$ 5,727	0	280	\$ 7,946,175	\$ 28,379
20-24	2	9,768	4,884	1	168	4,178,806	24,874
25-29	0	0	0	2	125	2,850,576	22,805
30-34	2	29,792	14,896	3	529	13,280,528	25,105
35-39	3	54,989	18,330	4	222	5,398,655	24,318
40-44	29	797,787	27,510	0-4	1,324	33,654,740	25,419
45-49	251	6,385,175	25,439	5-9	1,334	35,480,724	26,597
50-54	711	18,434,004	25,927	10-14	689	15,381,354	22,324
55-59	842	21,068,894	25,022	15-19	554	11,554,758	20,857
60-64	746	18,509,658	24,812	20-24	177	3,342,792	18,886
65-69	592	14,370,305	24,274	25-29	44	879,148	19,981
70-74	431	10,031,189	23,274	30-34	11	273,420	24,856
75-79	263	5,628,691	21,402	35-39	0	0	0
80-	249	5,252,479	20,280	40-	1	22,976	22,976
<b>Total</b>	<b>4,134</b>	<b>\$100,589,912</b>	<b>\$ 24,332</b>	<b>Total</b>	<b>4,134</b>	<b>\$100,589,912</b>	<b>\$ 24,332</b>

### Years Since Retirement By Age

Age	----- Years Since Retirement -----									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-	
0-19	1	0	2	0	0	0	0	0	0	3
20-24	0	0	2	0	0	0	0	0	0	2
25-29	0	0	0	0	0	0	0	0	0	0
30-34	2	0	0	0	0	0	0	0	0	2
35-39	1	1	0	0	1	0	0	0	0	3
40-44	23	5	0	1	0	0	0	0	0	29
45-49	195	44	7	4	1	0	0	0	0	251
50-54	458	224	20	8	1	0	0	0	0	711
55-59	387	371	76	6	2	0	0	0	0	842
60-64	169	364	174	35	3	1	0	0	0	746
65-69	70	203	199	111	6	2	1	0	0	592
70-74	15	99	130	177	10	0	0	0	0	431
75-79	2	20	63	145	31	2	0	0	0	263
80-	1	1	15	67	122	39	10	0	1	249
<b>Total</b>	<b>1,324</b>	<b>1,334</b>	<b>689</b>	<b>554</b>	<b>177</b>	<b>44</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>4,134</b>