

State of Alaska
Teachers' Retirement System

Actuarial Valuation Report
as of June 30, 1992

Prepared by:

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April 1, 1993

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, 1992 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, 1992;
- (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 an experience study presented to the Board in October 1991.

The contribution requirements are determined as a level percentage of payroll, and reflect the cost of benefits accruing in FY93 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 increased from 85.7% to 89.7% during the year. Over the years, progress has been made toward achieving the funding objectives of the System.

Teachers' Retirement Board
April 1, 1993
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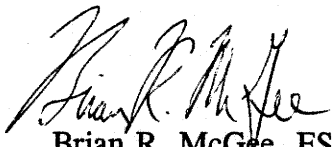
The valuation reflects a change in the determination of the actuarial value of the fixed income portion of the assets, from book value to full market value. The assumptions and methods, when applied in combination, fairly represent past and anticipated future experience of the System.

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

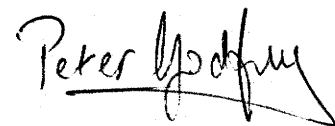
- (1) differences between actual experience and anticipated experience based on the assumptions;
- (2) changes in actuarial assumptions or methods;
- (3) changes in statutory provisions; or
- (4) differences between the contribution rates determined by the valuation and those adopted by the Board.

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
Principal

BRM/JWJ/PLG/jls


Peter L. Godfrey, FIA
Associate

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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, 1992;
- (2) review experience under the plan for the year ended June 30, 1992;
- (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 two sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 1991-92 plan 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.

The principle results are as follows:

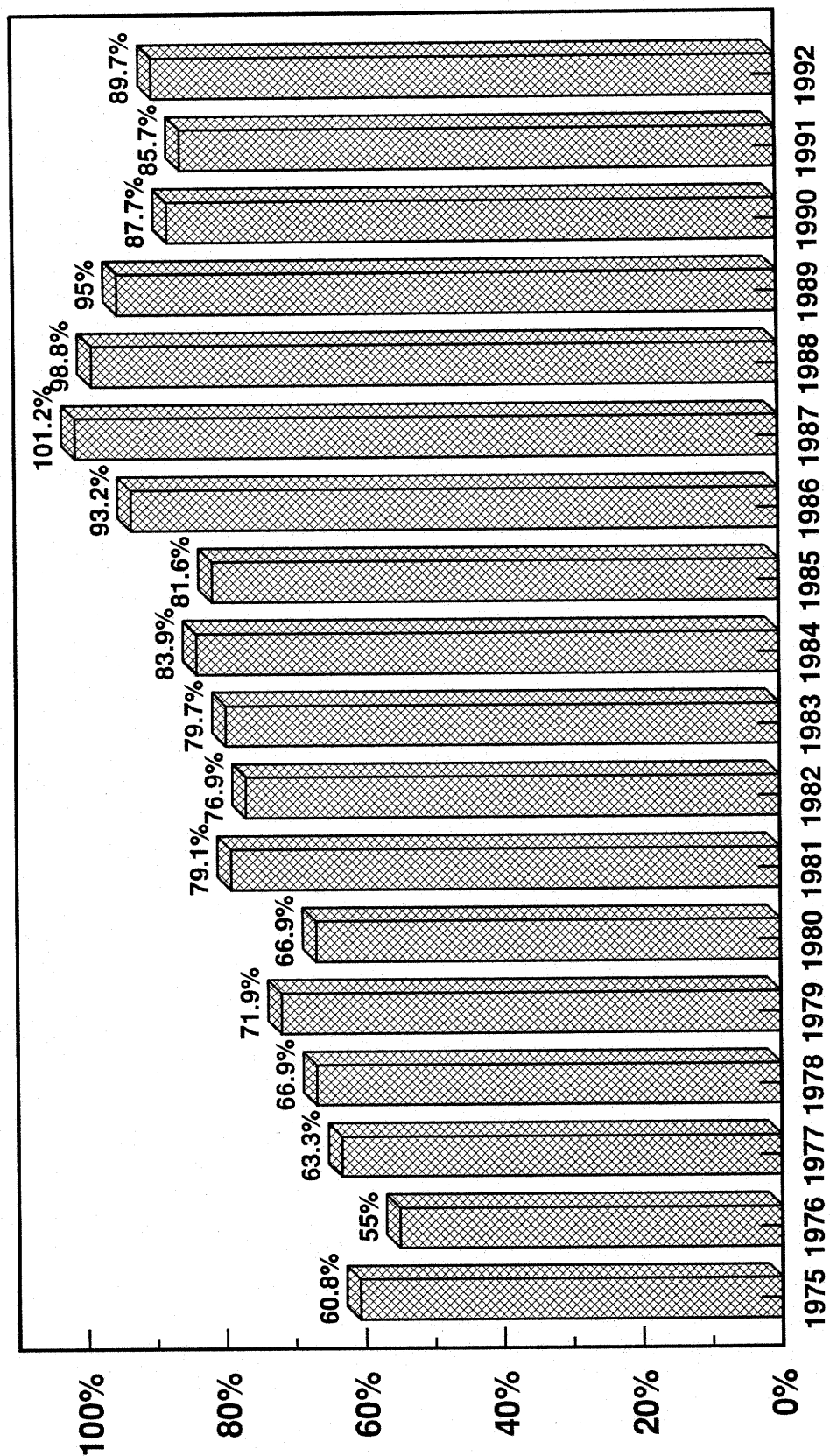
	<u>1991</u>	<u>1992</u>
Funding Status as of June 30:		
(a) Valuation Assets*	\$1,779,579	\$2,001,864**
(b) Accrued Liability*		
i) Non-Medical Benefits	1,749,725	1,872,660
ii) Total Benefits (including medical)	2,075,405	2,231,746
(c) Funding Ratio, (a) / (b)		
i) Non-Medical Benefits	101.7%	106.9%
ii) Total Benefits (including medical)	85.7%	89.7%

* In thousands.

** Reflects change in asset valuation method.

STATE OF ALASKA TRS

FUNDING RATIO HISTORY



Employer Contribution Rates
for Fiscal Year:

	<u>1994</u>	<u>1995</u>
(a) Normal Cost Rate	9.05%	8.57%
(b) Past Service Rate	6.54%	4.79%
(c) Total Contribution Rate	15.59%	13.36%
(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, 1992 has increased from 85.7% to 89.7%, an increase of 4.0%. The total employer contribution rate has reduced from 15.59% of payroll for FY94 to 13.36% for FY95, a reduction of 2.23% of payroll. The reasons for the change in the funded status and contribution rate are explained below.

(1) Retiree Medical Insurance

As you are aware, retiree medical premium experience has, in recent years, caused large fluctuations in the employer contribution rate. 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	24%	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	--	11%
1993	226.90	- 7%	10%
1994	309.72	37%	11%

As you can see from the above table, the monthly retiree medical premium decreased during the year, to \$226.90. The premium for the 1994 fiscal year has increased to \$309.72, an increase of 37%. Since FY88, annual premium rate changes have ranged from 51% up to 15% down, but the average annual increase has been about 9.5%.

Last 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 7.5% for FY97 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 of bringing large health-related gains and losses into the System every year, we recommend that the Board use the health cost trend assumption to determine actuarial liabilities for retiree medical benefits. 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, if necessary, to the assumed medical premium rate every four to five years when a formal experience analysis is performed.

The effect of this approach is that no gain or loss emerges this year due to retiree medical insurance.

(2) Asset Valuation Method

The asset valuation method is based upon the five-year average ratio between actuarial and book values of the System's assets. Prior to June 30, 1992, the actuarial value of assets equalled the market value, except that fixed income investments were carried at book value. Beginning June 30, 1992, the actuarial value of assets of fixed income investments equals the full market value.

This change was made as a result of a change in investment philosophy over time from a "buy and hold" strategy for fixed income investments to a "managed" strategy. This means that the fixed income funds are actively managed to obtain market advantages, making the market value a more appropriate valuation method. The effect of the change increased valuation assets by \$62,303,000, which increased the funding ratio by 2.8% and lowered the employer contribution rate by 1.30%.

(3) Investment Performance

The approximate rate of return based on market value of system assets was 11.36%. The effect of the five-year smoothing technique, before the change in asset valuation method, was a rate of return based on valuation assets of 8.99%, compared to the 9.00% investment return assumption. This effectively produced no gain or loss to the System from investment performance.

(4) 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 0.34%.

(5) Employee Data

Section 2.2 provides statistics on active and inactive participants. The number of active participants increased 3.8% from 8,903 at June 30, 1991 to 9,238 at June 30, 1992. This was in excess of all three population increase scenarios reviewed last year, and produced a gain to the System from more Tier 2 actives entering the System than expected. The average age of active participants increased from 42.28 to 42.74 and average credited service increased from 10.48 to 10.75 years.

The number of retirees and beneficiaries increased 1.6% from 3,544 to 3,602, and their average age increased from 61.64 to 61.97. There was a 10.1% increase in the number of vested terminated participants from 645 to 710. Their average age increased from 45.57 to 46.22.

The overall effect of these participant data changes was an actuarial gain to the System, resulting in a decrease in the past service rate equal to 0.44%. These demographic changes also had the effect of decreasing the normal cost rate by 0.15%.

(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 slowly increase 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 FY95 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:

(1)	Last year's total employer contribution rate	15.59%
(2)	Change in past service rate due to retiree medical insurance	0.0%
(3)	Change in normal cost rate due to retiree medical insurance	0.0%
(4)	Change due to investment performance	0.0%
(5)	Decrease due to salary increases	(0.34%)
(6)	Decrease in past service rate due to demographic experience	(0.44%)
(7)	Decrease in normal cost rate due to demographic experience	(0.15%)
(8)	Decrease in total employer contribution rate due to change in asset valuation method	(1.30%)
(9)	Total employer contribution rate this year	13.36%
(10)	Effect of enhanced Actuarial Projection system	(1.36%)
(11)	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, 1992.

Section 1.1(b) shows the transactions of the plan's fund during FY92.

Section 1.1(c) develops the valuation assets as of June 30, 1992.

Section 1.2 shows the actuarial present values as of June 30, 1992.

Section 1.3 calculates the total contribution rate for FY95.

Section 1.4 calculates the actuarial gain or loss for FY92.

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, 1992 (in thousands)

	<u>Book Value</u>	<u>Actuarial Value*</u>
Cash and Cash Equivalents	\$ 12,498	\$ 12,498
United States Government Bonds	371,996	424,620
Other United States Government Securities	23,123	22,846
Corporate Bonds	464,286	493,450
United States Common Stocks	690,855	795,659
Foreign Stocks	119,088	116,680
Real Estate Equities	89,908	70,478
Mortgages (net of reserves)	58,369	66,053
Net Accrued Receivables	<u>29,654</u>	<u>29,654</u>
Total Assets	\$1,859,777	\$2,031,938

* Effective June 30, 1992, the Actuarial Value of Assets equals the full Market Value, as provided in the audited financial statements.

1.1(b) Changes in Net Assets During Fiscal Year 1992 (in thousands)

Net Assets, June 30, 1991, (market value) \$1,824,663

Additions:

Employee Contributions	\$ 44,338	
Employer Contributions	55,953	
Contributions for Retirement Incentive Program -		
Employee Contributions	0	
Employer Contributions	1,118	
Interest Income and Realized Gain/(Loss)	136,952	
Dividend Income	29,180	
Unrealized Gain (Loss) on Investments	<u>46,746</u>	314,287

Deductions:

Medical Benefits	\$ 10,111	
Retirement Benefits	88,648	
Refunds of Contributions	2,641	
Administrative Expenses	<u>5,612</u>	<u>107,012</u>

Net Assets, June 30, 1992, (market value) \$2,031,938

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

Based on Market Values	11.36%
Based on Valuation Assets (prior to change in asset valuation method)	8.99%

**1.1(c) Development of Valuation Assets as of June 30, 1992
(in thousands)**

	A	B	C
	<u>Actuarial Values</u>	<u>Book Values</u>	<u>Ratio (A/B)</u>
(1) June 30, 1992	\$2,031,938	\$1,859,777	1.0926
(2) June 30, 1991	1,824,663	1,706,315	1.0694
(3) June 30, 1990	1,706,346	1,583,324	1.0777
(4) June 30, 1989	1,545,877	1,434,984	1.0773
(5) June 30, 1988	1,356,575	1,273,971	1.0648
(6) Average Ratio			1.0764
(7) Book Value at June 30, 1992			\$ 1,859,777
(8) Valuation Assets at June 30, 1992, (6) x (7) but not outside the range of book and actuarial values			\$ 2,001,864

1.2 Actuarial Present Values as of June 30, 1992 (in thousands)

	<u>Normal Cost</u>	<u>Accrued Liabilities</u>
<u>Active Members</u>		
Retirement Benefits	\$ 52,600	\$ 850,005
Termination Benefits	2,804	33,277
Disability Benefits	1,451	30,335
Death Benefits	1,261	20,544
Return of Contributions	3,197	15,580
Medical Benefits	16,497	204,693
Indebtedness	0	(31,219)
Retiree Incentive Program Receivables	<u>0</u>	<u>(2,450)</u>
Subtotal	\$ 77,810	\$ 1,120,765
<u>Inactive Members</u>		
Not Vested	\$ 0	\$ 11,005
Vested Terminations - Retirement Benefits	0	58,854
- Medical Benefits	0	29,452
Retirees & Beneficiaries - Retirement Benefits	0	886,729
- Medical Benefits	<u>0</u>	<u>124,941</u>
Subtotal	\$ 0	\$ 1,110,981
<u>Totals</u>	\$ 77,810	\$ 2,231,746

1.3 Development of Total Employer Contribution Rate - FY95 (in thousands)

Normal Cost Rate

(1)	Total Normal Cost	\$ 77,810
(2)	Total Salaries	448,186
(3)	Normal Cost Rate, (1) / (2)	17.36%
(4)	Average Member Contribution Rate	8.79%
(5)	Employer Normal Cost Rate, (3) - (4)	8.57%

Past Service Rate

(1)	Accrued Liability	\$2,231,746
(2)	Valuation Assets	2,001,864
(3)	Total Unfunded Liability, (1) - (2)	229,882
(4)	Amortization Factor (25 year)	10.706612
(5)	Past Service Cost, (3) / (4)	21,471
(6)	Total Salaries	448,186
(7)	Past Service Rate, (5) / (6)	4.79%

<u>Total Employer Contribution Rate</u>	13.36%
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1.4 Development of Actuarial Gain/(Loss) for FY92 (in thousands)

(1) Unfunded Liability, June 30, 1991	\$ 295,826
(2) Normal Cost for FY92	75,452
(3) Interest on (1) and (2) at 9%	33,415
(4) Employee Contributions for FY92	44,338
(5) Employer Contributions for FY92	57,071
(6) Interest on (4) and (5) at 9% for one-half year	4,563
(7) Expected Unfunded Liability, June 30, 1992, (1) + (2) + (3) - (4) - (5) - (6)	298,721
(8) Reduction in Unfunded Liability due to Change in Asset Valuation Method	62,303
(9) Expected Unfunded Liability after Changes, (7) - (8)	236,418
(10) Actual Unfunded Liability, June 30, 1992	229,882
(11) Actuarial Gain/(Loss) for the Year, (9) - (10)	\$ 6,536

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)

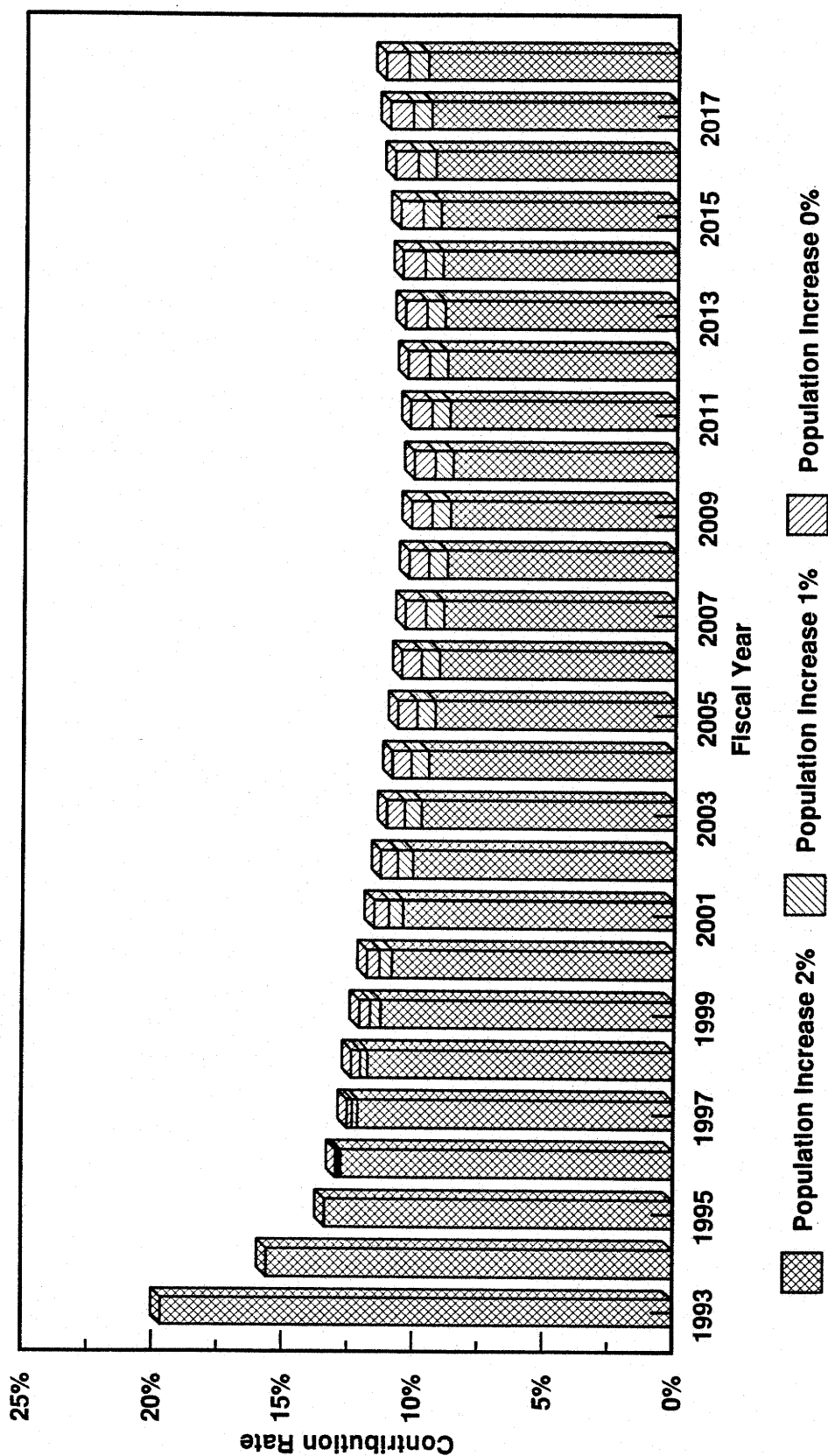
Totals For All Employers

***** Projected Benefit Obligation *****					
<u>Valuation Date</u>	<u>Current Retirees & Terminated</u>	***** Current Employees *****			<u>Total</u>
		<u>Contribs With Int</u>	**** Employer Financed **** <u>Vested</u>	<u>Non-Vested</u>	
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	1,056,453	293,136	598,527	127,289	2,075,405
June 30, 1992	1,110,981	341,204	655,821	123,740	2,231,746

<u>Valuation Date</u>	***** Valuation Assets *****			***** Market Value Assets *****		
	<u>Net Assets Available For Benefits</u>	<u>Unfunded PBO</u>	<u>Assets as Percent of PBO</u>	<u>Net Assets Available For Benefits</u>	<u>Unfunded PBO</u>	<u>Assets as Percent of PBO</u>
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	88%	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%

1.6 Actuarial Projections

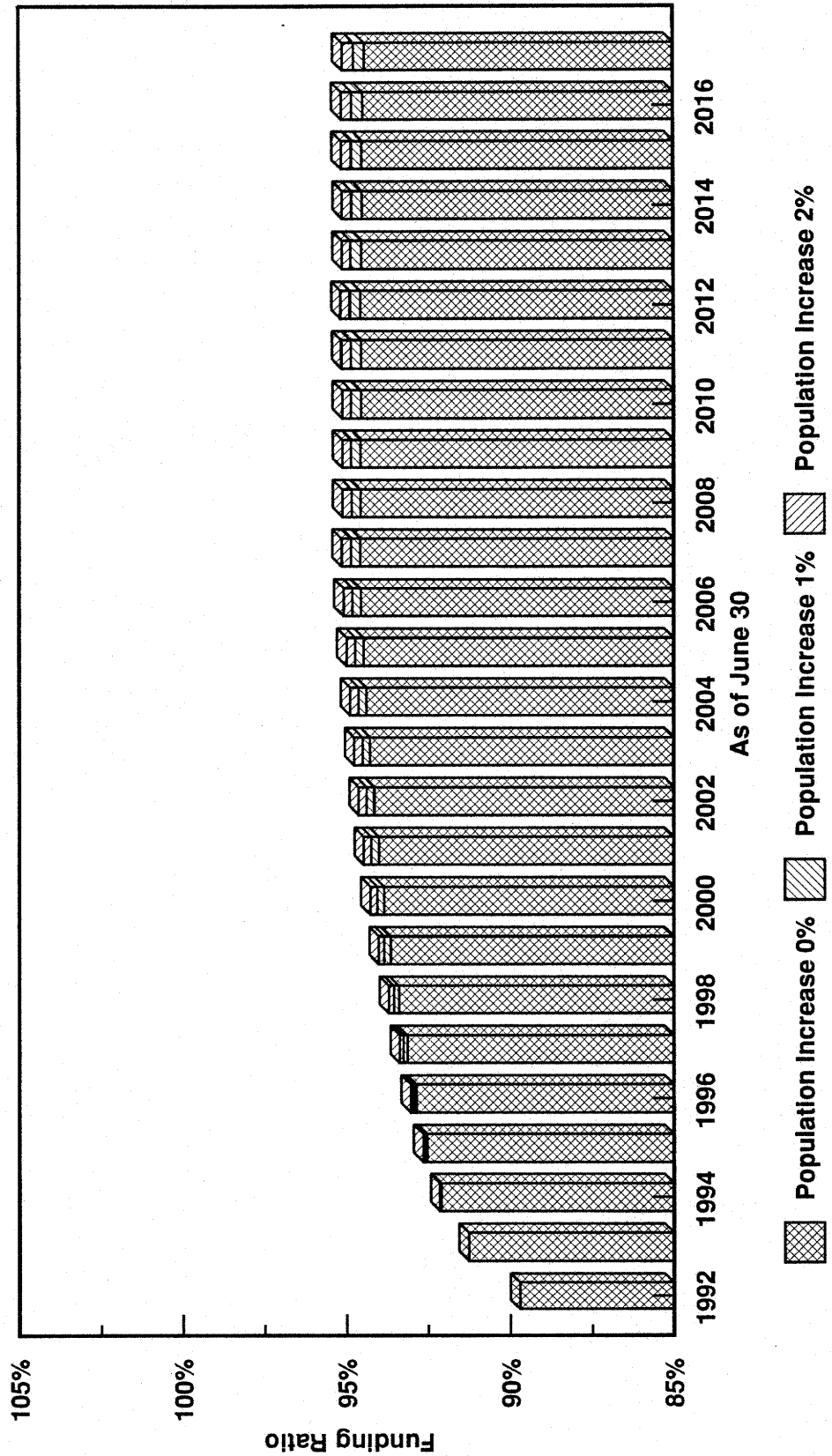
State of Alaska TRS Projected Contribution Rates



William M. Mercer, Incorporated

1.6 Actuarial Projections (continued)

State of Alaska TRS Projected Funding Ratios



William M. Mercer, Incorporated

1.6 Actuarial Projections (continued)

Table 1

State of Alaska TRS
Financial Projections ('000 omitted)

As of June 30	Investment Return			9.00%	Annual Population Increase										0.00%	Ending Asset Value
	Valuation Amounts on July 1			Surplus* (Deficit)	Flow Amounts During Following 12 Months				Net Contribs	Investment Earnings						
	Total Assets	Accrued Liability	Funding Ratio		Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs				Total Contribs	Benefit Payments			
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	19.65%	88,069	39,396	127,464	118,123	9,342	180,588	2,191,794			
1993	2,191,794	2,401,764	91.3%	(209,970)	466,623	15.59%	72,747	40,970	113,716	125,871	(12,155)	196,714	2,376,353			
1994	2,376,353	2,580,164	92.1%	(203,811)	485,690	13.36%	64,896	42,595	107,491	137,614	(30,123)	212,516	2,558,746			
1995	2,558,746	2,765,369	92.5%	(206,623)	504,498	12.93%	65,249	44,194	109,443	150,175	(40,731)	228,454	2,746,469			
1996	2,746,469	2,957,551	92.9%	(211,082)	524,322	12.51%	65,584	45,878	111,462	165,238	(53,775)	244,762	2,937,457			
1997	2,937,457	3,153,911	93.1%	(216,454)	543,775	12.36%	67,184	47,526	114,710	180,195	(65,485)	261,424	3,133,396			
1998	3,133,396	3,354,882	93.4%	(221,487)	566,330	12.05%	68,259	49,441	117,699	197,844	(80,145)	278,399	3,331,650			
1999	3,331,650	3,557,730	93.6%	(226,080)	588,885	11.78%	69,380	51,351	120,731	217,857	(97,126)	295,478	3,530,002			
2000	3,530,002	3,761,413	93.8%	(231,411)	611,440	11.51%	70,388	53,256	123,644	238,704	(115,059)	312,523	3,727,465			
2001	3,727,465	3,965,139	94.0%	(237,674)	633,994	11.26%	71,366	55,158	126,523	258,790	(132,267)	329,520	3,924,718			
2002	3,924,718	4,168,364	94.2%	(243,646)	656,549	11.03%	72,431	57,054	129,485	279,916	(150,431)	346,455	4,120,742			
2003	4,120,742	4,370,790	94.3%	(250,048)	686,519	10.84%	74,405	59,590	133,995	302,260	(168,265)	363,295	4,315,772			
2004	4,315,772	4,572,372	94.4%	(256,600)	716,488	10.65%	76,333	62,120	138,453	324,256	(185,803)	380,058	4,510,027			
2005	4,510,027	4,773,308	94.5%	(263,281)	746,458	10.51%	78,432	64,643	143,075	346,840	(203,765)	396,733	4,702,994			
2006	4,702,994	4,974,048	94.6%	(271,053)	776,427	10.38%	80,559	67,161	147,720	369,384	(221,664)	413,295	4,894,625			
2007	4,894,625	5,175,289	94.6%	(280,663)	806,396	10.26%	82,712	69,753	152,465	391,502	(239,037)	429,760	5,085,348			
2008	5,085,348	5,377,976	94.6%	(292,628)	847,356	10.16%	86,104	73,296	159,400	411,998	(252,598)	446,314	5,279,065			
2009	5,279,065	5,583,304	94.6%	(304,239)	888,315	10.09%	89,587	76,839	166,426	432,265	(265,839)	463,153	5,476,379			
2010	5,476,379	5,792,714	94.5%	(316,335)	929,274	10.22%	94,975	80,382	175,357	452,148	(276,791)	480,419	5,680,007			
2011	5,680,007	6,007,898	94.5%	(327,891)	970,234	10.34%	100,317	83,925	184,242	471,481	(287,240)	498,275	5,891,042			
2012	5,891,042	6,230,792	94.5%	(339,750)	1,011,193	10.45%	105,699	87,468	193,167	491,480	(298,313)	516,770	6,109,499			
2013	6,109,499	6,463,586	94.5%	(354,087)	1,065,658	10.55%	112,444	92,179	204,623	510,485	(305,862)	536,091	6,339,728			
2014	6,339,728	6,708,714	94.5%	(368,985)	1,120,123	10.65%	119,238	96,891	216,129	526,855	(310,726)	556,593	6,585,595			
2015	6,585,595	6,968,859	94.5%	(383,264)	1,174,588	10.86%	127,542	101,602	229,144	546,012	(316,868)	578,445	6,847,172			
2016	6,847,172	7,246,955	94.5%	(399,783)	1,229,054	11.06%	135,880	106,313	242,193	565,567	(323,374)	601,694	7,125,491			
2017	7,125,491	7,546,180	94.4%	(420,689)	1,283,519	11.23%	144,136	111,024	255,160	586,451	(331,291)	626,386	7,420,587			

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

1.6 Actuarial Projections (continued)

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

As of June 30	Investment Return 9.00%			Annual Population Increase 1.00%									
	Valuation Amounts on July 1			Flow Amounts During Following 12 Months									
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employer Ctb Rate	Employee Ctb Rate	Total Contributions	Total Payments	Net Contributions	Investment Earnings	Ending Asset Value
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	19.65%	88,069	39,396	127,464	118,123	9,342	180,588	2,191,794
1993	2,191,794	2,401,825	91.3%	(210,032)	470,387	15.59%	73,333	41,300	114,633	125,871	(11,238)	196,756	2,377,312
1994	2,377,312	2,580,658	92.1%	(203,346)	493,672	13.36%	65,962	43,295	109,258	137,678	(28,421)	212,679	2,561,570
1995	2,561,570	2,766,699	92.6%	(205,128)	517,189	12.83%	66,346	45,306	111,652	150,328	(38,677)	228,801	2,751,695
1996	2,751,695	2,960,226	93.0%	(208,531)	542,252	12.30%	66,677	47,447	114,124	165,506	(51,382)	245,340	2,945,653
1997	2,945,653	3,158,561	93.3%	(212,908)	567,521	12.01%	68,170	49,601	117,771	180,611	(62,840)	262,281	3,145,095
1998	3,145,095	3,361,658	93.6%	(216,563)	597,938	11.64%	69,598	52,200	121,798	198,439	(76,641)	279,610	3,348,064
1999	3,348,064	3,568,002	93.8%	(219,938)	628,356	11.29%	70,917	54,793	125,709	218,665	(92,956)	297,143	3,552,250
2000	3,552,250	3,776,562	94.1%	(224,312)	658,773	10.94%	72,051	57,379	129,430	239,770	(110,340)	314,737	3,756,647
2001	3,756,647	3,986,619	94.2%	(229,972)	689,190	10.62%	73,184	59,960	133,144	260,083	(126,940)	332,386	3,962,093
2002	3,962,093	4,197,757	94.4%	(235,664)	719,608	10.35%	74,444	62,534	136,977	281,471	(144,494)	350,086	4,167,686
2003	4,167,686	4,409,872	94.5%	(242,186)	761,899	10.11%	77,056	66,133	143,189	304,108	(160,920)	367,850	4,374,616
2004	4,374,616	4,623,164	94.6%	(248,548)	804,189	9.90%	79,640	69,723	149,363	326,443	(177,080)	385,747	4,583,283
2005	4,583,283	4,838,145	94.7%	(254,861)	846,480	9.74%	82,484	73,305	155,789	349,421	(193,632)	403,782	4,793,433
2006	4,793,433	5,055,630	94.8%	(262,197)	888,771	9.60%	85,334	76,879	162,213	372,437	(210,224)	421,949	5,005,159
2007	5,005,159	5,276,747	94.9%	(271,588)	931,062	9.47%	88,201	80,537	168,738	395,120	(226,382)	440,277	5,219,054
2008	5,219,054	5,502,929	94.8%	(283,874)	990,826	9.37%	92,830	85,706	178,536	416,281	(237,745)	459,016	5,440,325
2009	5,440,325	5,735,916	94.8%	(295,590)	1,050,590	9.29%	97,554	90,876	188,430	437,325	(248,895)	478,429	5,669,859
2010	5,669,859	5,977,758	94.8%	(307,899)	1,110,354	9.41%	104,501	96,046	200,546	458,114	(257,568)	498,697	5,910,988
2011	5,910,988	6,230,812	94.9%	(319,823)	1,170,118	9.52%	111,371	101,215	212,587	478,530	(265,944)	520,021	6,165,066
2012	6,165,066	6,497,742	94.9%	(332,677)	1,229,882	9.62%	118,289	106,385	224,674	499,811	(275,137)	542,475	6,432,404
2013	6,432,404	6,781,523	94.9%	(349,119)	1,312,341	9.70%	127,358	113,518	240,876	520,320	(279,445)	566,341	6,719,300
2014	6,719,300	7,085,433	94.8%	(366,133)	1,394,801	9.79%	136,551	120,650	257,201	538,441	(281,240)	592,081	7,030,142
2015	7,030,142	7,413,062	94.8%	(382,921)	1,477,260	10.00%	147,666	127,783	275,449	559,929	(284,480)	619,911	7,365,573
2016	7,365,573	7,768,306	94.8%	(402,733)	1,559,720	10.18%	158,801	134,916	293,717	582,296	(288,579)	649,915	7,726,909
2017	7,726,909	8,155,370	94.7%	(428,461)	1,642,179	10.34%	169,878	142,049	311,927	606,531	(294,605)	682,165	8,114,469

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

1.6 Actuarial Projections (continued)

Table 3

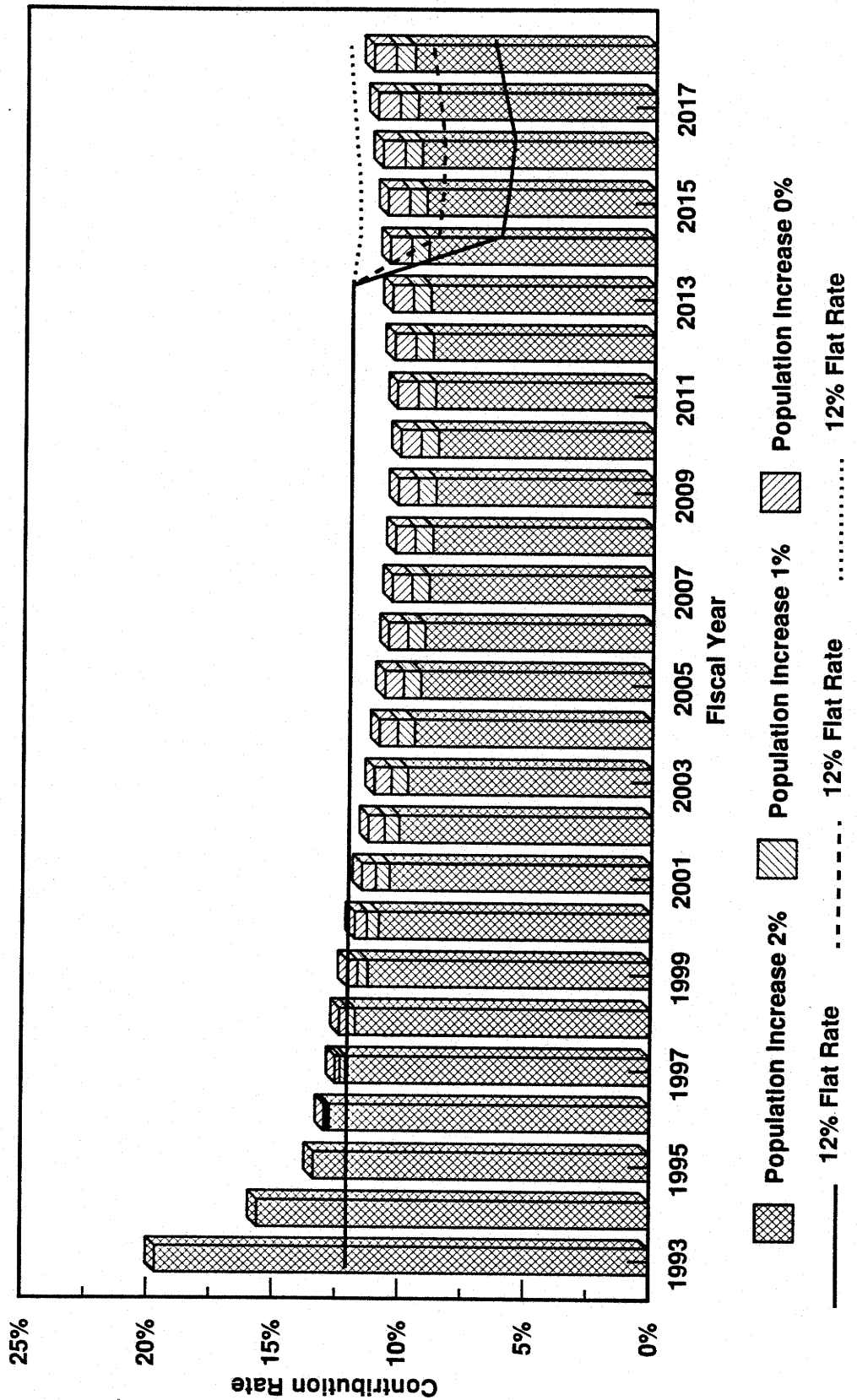
State of Alaska TRS
Financial Projections ('000 omitted)

As of June 30	Investment Return 9.00%			Flow Amounts During Following 12 Months					Annual Population Increase 2.00%			Ending Asset Value
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Total Benefit Payments	Net Contribs	
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	19.65%	88,069	39,396	127,464	118,123	9,342	2,191,794
1993	2,191,794	2,401,887	91.3%	(210,093)	474,151	15.59%	73,920	41,630	115,551	125,871	(10,320)	2,378,270
1994	2,378,270	2,581,153	92.1%	(202,883)	501,735	13.36%	67,040	44,002	111,042	137,742	(26,700)	2,564,413
1995	2,564,413	2,768,040	92.6%	(203,627)	530,133	12.72%	67,457	46,440	113,897	150,484	(36,587)	2,756,977
1996	2,756,977	2,962,942	93.0%	(205,965)	560,719	12.09%	67,786	49,063	116,849	165,779	(48,930)	2,953,973
1997	2,953,973	3,163,312	93.4%	(209,339)	592,217	11.72%	69,437	51,760	121,197	181,036	(59,840)	3,157,298
1998	3,157,298	3,369,187	93.7%	(211,889)	631,469	11.24%	70,991	55,127	126,118	199,054	(72,936)	3,365,237
1999	3,365,237	3,579,352	94.0%	(214,115)	670,721	10.81%	72,528	58,487	131,015	219,508	(88,493)	3,575,633
2000	3,575,633	3,792,940	94.3%	(217,307)	709,972	10.40%	73,813	61,839	135,652	240,890	(105,238)	3,787,465
2001	3,787,465	4,009,442	94.5%	(221,977)	749,224	10.03%	75,112	65,182	140,295	261,456	(121,161)	4,001,724
2002	4,001,724	4,228,714	94.6%	(226,990)	788,476	9.71%	76,552	68,519	145,071	283,138	(138,067)	4,217,598
2003	4,217,598	4,450,970	94.8%	(233,371)	845,597	9.45%	79,867	73,398	153,265	306,110	(152,845)	4,437,459
2004	4,437,459	4,676,787	94.9%	(239,328)	902,718	9.21%	83,164	78,266	161,429	328,833	(167,403)	4,661,894
2005	4,661,894	4,907,103	95.0%	(245,210)	959,839	9.05%	86,821	83,122	169,943	352,264	(182,322)	4,890,938
2006	4,890,938	5,143,218	95.1%	(252,280)	1,016,960	8.90%	90,470	87,967	178,437	375,826	(197,389)	5,124,852
2007	5,124,852	5,386,792	95.1%	(261,941)	1,074,081	8.77%	94,145	92,908	187,053	399,162	(212,109)	5,364,434
2008	5,364,434	5,639,847	95.1%	(275,413)	1,157,885	8.66%	100,284	100,157	200,441	421,096	(220,655)	5,616,649
2009	5,616,649	5,904,766	95.1%	(288,117)	1,241,689	8.58%	106,554	107,406	213,961	443,045	(229,084)	5,882,755
2010	5,882,755	6,184,293	95.1%	(301,538)	1,325,493	8.71%	115,468	114,655	230,123	464,894	(234,770)	6,166,868
2011	6,166,868	6,481,534	95.1%	(314,666)	1,409,297	8.82%	124,271	121,904	246,175	486,578	(240,402)	6,470,665
2012	6,470,665	6,799,955	95.2%	(329,290)	1,493,101	8.92%	133,127	129,153	262,280	509,361	(247,081)	6,794,825
2013	6,794,825	7,143,386	95.1%	(348,561)	1,613,730	9.00%	145,247	139,588	284,834	531,640	(246,806)	7,148,448
2014	7,148,448	7,516,015	95.1%	(367,567)	1,734,359	9.09%	157,568	150,022	307,590	551,828	(244,238)	7,536,579
2015	7,536,579	7,922,392	95.1%	(385,813)	1,854,987	9.29%	172,300	160,456	332,756	576,024	(243,268)	7,960,656
2016	7,960,656	8,367,431	95.1%	(406,775)	1,975,616	9.46%	186,935	170,891	357,825	601,658	(243,832)	8,422,310
2017	8,422,310	8,856,404	95.1%	(434,094)	2,096,245	9.61%	201,435	181,325	382,760	629,793	(247,033)	8,922,168

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

1.6 Actuarial Projections

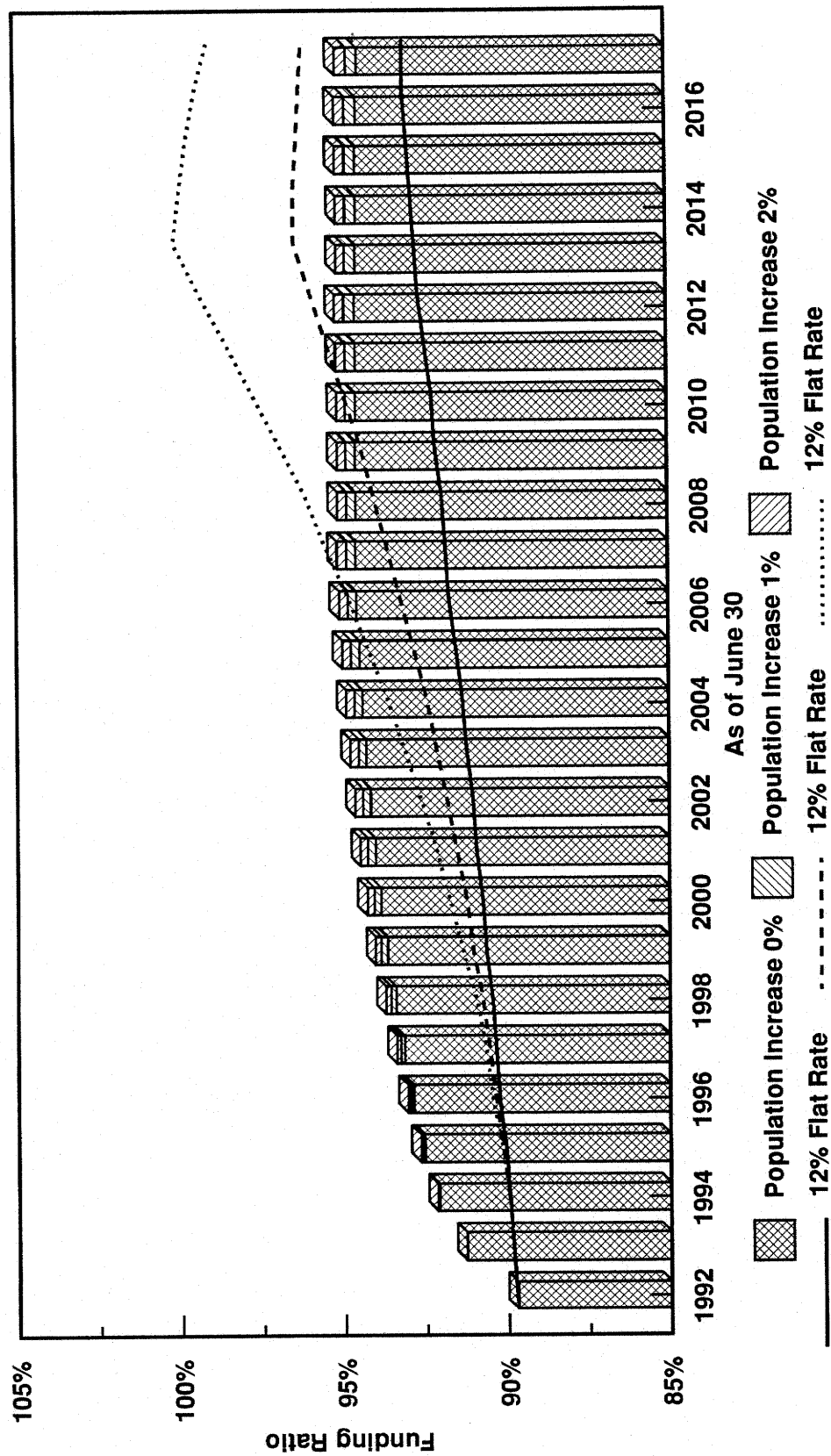
State of Alaska TRS Projected Contribution Rates



William M. Mercer, Incorporated

1.6 Actuarial Projections (continued)

State of Alaska TRS Projected Funding Ratios



1.6 Actuarial Projections (continued)

Table 4
State of Alaska TRS
Financial Projections ('000 omitted)

As of June 30	Investment Return 9.00%			Flow Amounts During Following 12 Months			Annual Population Increase 0.00%			Ending Asset Value
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Contribs	Employee Contribs	Total Contribs	Net Benefit Payments	
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	53,782	39,396	93,178	118,123	2,155,965
1993	2,155,965	2,401,764	89.8%	(245,799)	466,623	55,995	40,970	96,964	125,871	2,319,794
1994	2,319,794	2,580,164	89.9%	(260,370)	485,690	58,283	42,595	100,878	137,614	2,490,186
1995	2,490,186	2,765,369	90.0%	(275,183)	504,498	60,540	44,194	104,734	150,175	2,666,817
1996	2,666,817	2,957,551	90.2%	(290,734)	524,322	62,919	45,878	108,797	165,238	2,847,850
1997	2,847,850	3,153,911	90.3%	(306,061)	543,775	65,253	47,526	112,779	180,195	3,033,707
1998	3,033,707	3,354,882	90.4%	(321,176)	566,330	67,960	49,441	117,400	197,844	3,222,676
1999	3,222,676	3,557,730	90.6%	(335,054)	588,885	70,666	51,351	122,017	217,857	3,412,565
2000	3,412,565	3,761,413	90.7%	(348,849)	611,440	73,373	53,256	126,629	238,704	3,602,578
2001	3,602,578	3,965,139	90.9%	(362,562)	633,994	76,079	55,158	131,237	258,790	3,793,516
2002	3,793,516	4,168,364	91.0%	(374,848)	656,549	78,786	57,054	135,840	279,916	3,984,373
2003	3,984,373	4,370,790	91.2%	(386,417)	686,519	82,382	59,590	141,972	302,260	4,175,466
2004	4,175,466	4,572,372	91.3%	(396,906)	716,488	85,979	62,120	148,098	324,256	4,367,173
2005	4,367,173	4,773,308	91.5%	(406,135)	746,458	89,575	64,643	154,218	346,840	4,558,928
2006	4,558,928	4,974,048	91.7%	(415,120)	776,427	93,171	67,161	160,332	369,384	4,750,773
2007	4,750,773	5,175,289	91.8%	(424,516)	806,396	96,768	69,753	166,521	391,502	4,943,237
2008	4,943,237	5,377,976	91.9%	(434,739)	847,356	101,683	73,296	174,979	411,998	5,140,443
2009	5,140,443	5,583,304	92.1%	(442,861)	888,315	106,598	76,839	183,437	432,265	5,343,058
2010	5,343,058	5,792,714	92.2%	(449,656)	929,274	111,513	80,382	191,895	452,148	5,551,969
2011	5,551,969	6,007,898	92.4%	(455,928)	970,234	116,428	83,925	200,353	471,481	5,768,318
2012	5,768,318	6,230,792	92.6%	(462,475)	1,011,193	121,343	87,468	208,811	491,480	5,992,078
2013	5,992,078	6,463,586	92.7%	(471,508)	1,065,658	125,578	92,179	217,758	510,485	6,225,465
2014	6,225,465	6,708,714	92.8%	(483,249)	1,120,123	131,935	96,891	228,826	526,855	6,474,316
2015	6,474,316	6,968,859	92.9%	(494,543)	1,174,588	139,630	101,602	241,231	546,012	6,738,509
2016	6,738,509	7,246,955	93.0%	(508,446)	1,229,054	147,590	106,313	253,903	565,567	7,019,286
2017	7,019,286	7,546,180	93.0%	(526,895)	1,283,519	155,493	111,024	266,517	586,451	7,316,690

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

1.6 Actuarial Projections (continued)

Table 5

State of Alaska TRS
Financial Projections ('000 omitted)

As of June 30	Investment Return			9.00%			Annual Population Increase										1.00%			Ending Asset Value
	Valuation Amounts on July 1			Flow Amounts During Following 12 Months			Employee			Employer			Net			Investment				
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Total Benefit Payments	Net Contribs	Investment Earnings								
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	12.00%	53,782	39,396	93,178	118,123	(24,945)	179,045	2,155,965							
1993	2,155,965	2,401,825	89.8%	(245,861)	470,387	12.00%	56,446	41,300	97,746	125,871	(28,124)	192,771	2,320,611							
1994	2,320,611	2,580,658	89.9%	(260,047)	493,672	12.00%	59,241	43,295	102,536	137,678	(35,142)	207,274	2,492,743							
1995	2,492,743	2,766,699	90.1%	(273,956)	517,189	12.00%	62,063	45,306	107,368	150,328	(42,960)	222,414	2,672,196							
1996	2,672,196	2,960,226	90.3%	(288,030)	542,252	12.00%	65,070	47,447	112,517	165,506	(52,989)	238,113	2,857,321							
1997	2,857,321	3,158,561	90.5%	(301,240)	567,521	12.00%	68,102	49,601	117,704	180,611	(62,907)	254,328	3,048,742							
1998	3,048,742	3,361,658	90.7%	(312,916)	597,938	12.00%	71,753	52,200	123,953	198,439	(74,487)	271,035	3,245,291							
1999	3,245,291	3,568,002	91.0%	(322,711)	628,356	12.00%	75,403	54,793	130,195	218,665	(88,470)	288,095	3,444,916							
2000	3,444,916	3,776,562	91.2%	(331,647)	658,773	12.00%	79,053	57,379	136,432	239,770	(103,338)	305,392	3,646,969							
2001	3,646,969	3,986,619	91.5%	(339,650)	689,190	12.00%	82,703	59,960	142,662	260,083	(117,421)	322,943	3,852,492							
2002	3,852,492	4,197,757	91.8%	(345,266)	719,608	12.00%	86,353	62,534	148,887	281,471	(132,584)	340,758	4,060,665							
2003	4,060,665	4,409,872	92.1%	(349,207)	761,899	12.00%	91,428	66,133	157,561	304,108	(146,548)	358,865	4,272,983							
2004	4,272,983	4,623,164	92.4%	(350,182)	804,189	12.00%	96,503	69,723	166,226	326,443	(160,217)	377,359	4,490,124							
2005	4,490,124	4,838,145	92.8%	(348,020)	846,480	12.00%	101,578	73,305	174,883	349,421	(174,538)	396,257	4,711,843							
2006	4,711,843	5,055,630	93.2%	(343,787)	888,771	12.00%	106,653	76,879	183,531	372,437	(188,905)	415,565	4,938,503							
2007	4,938,503	5,276,747	93.6%	(338,244)	931,062	12.00%	111,727	80,537	192,264	395,120	(202,856)	435,337	5,170,984							
2008	5,170,984	5,502,929	94.0%	(331,944)	990,826	12.00%	118,899	85,706	204,606	416,281	(211,676)	455,863	5,415,172							
2009	5,415,172	5,735,916	94.4%	(320,744)	1,050,590	12.00%	126,071	90,876	216,947	437,325	(220,378)	477,448	5,672,242							
2010	5,672,242	5,977,758	94.9%	(305,516)	1,110,354	12.00%	133,242	96,046	229,288	458,114	(228,826)	500,205	5,943,620							
2011	5,943,620	6,230,812	95.4%	(287,191)	1,170,118	12.00%	140,414	101,215	241,629	478,530	(236,901)	524,265	6,230,985							
2012	6,230,985	6,497,742	95.9%	(266,758)	1,229,882	12.00%	147,586	106,385	253,971	499,811	(245,840)	549,726	6,534,870							
2013	6,534,870	6,781,523	96.4%	(246,653)	1,312,341	9.44%	123,940	113,518	237,458	520,320	(282,863)	575,409	6,827,417							
2014	6,827,417	7,085,433	96.4%	(258,016)	1,394,801	9.29%	129,569	120,650	250,219	538,441	(288,222)	601,498	7,140,692							
2015	7,140,692	7,413,062	96.3%	(272,370)	1,477,260	9.27%	136,894	127,783	264,677	559,929	(295,253)	629,376	7,474,816							
2016	7,474,816	7,768,306	96.2%	(293,491)	1,559,720	9.46%	147,510	134,916	282,425	582,296	(299,871)	659,239	7,834,184							
2017	7,834,184	8,155,370	96.1%	(321,186)	1,642,179	9.65%	158,401	142,049	300,449	606,531	(306,082)	691,303	8,219,404							

* Surpluses reduce employer contributions over 5 years

* Deficits increase employer contributions over 25 years

1.6 Actuarial Projections (continued)

Table 6

State of Alaska TRS
Financial Projections ('000 omitted)

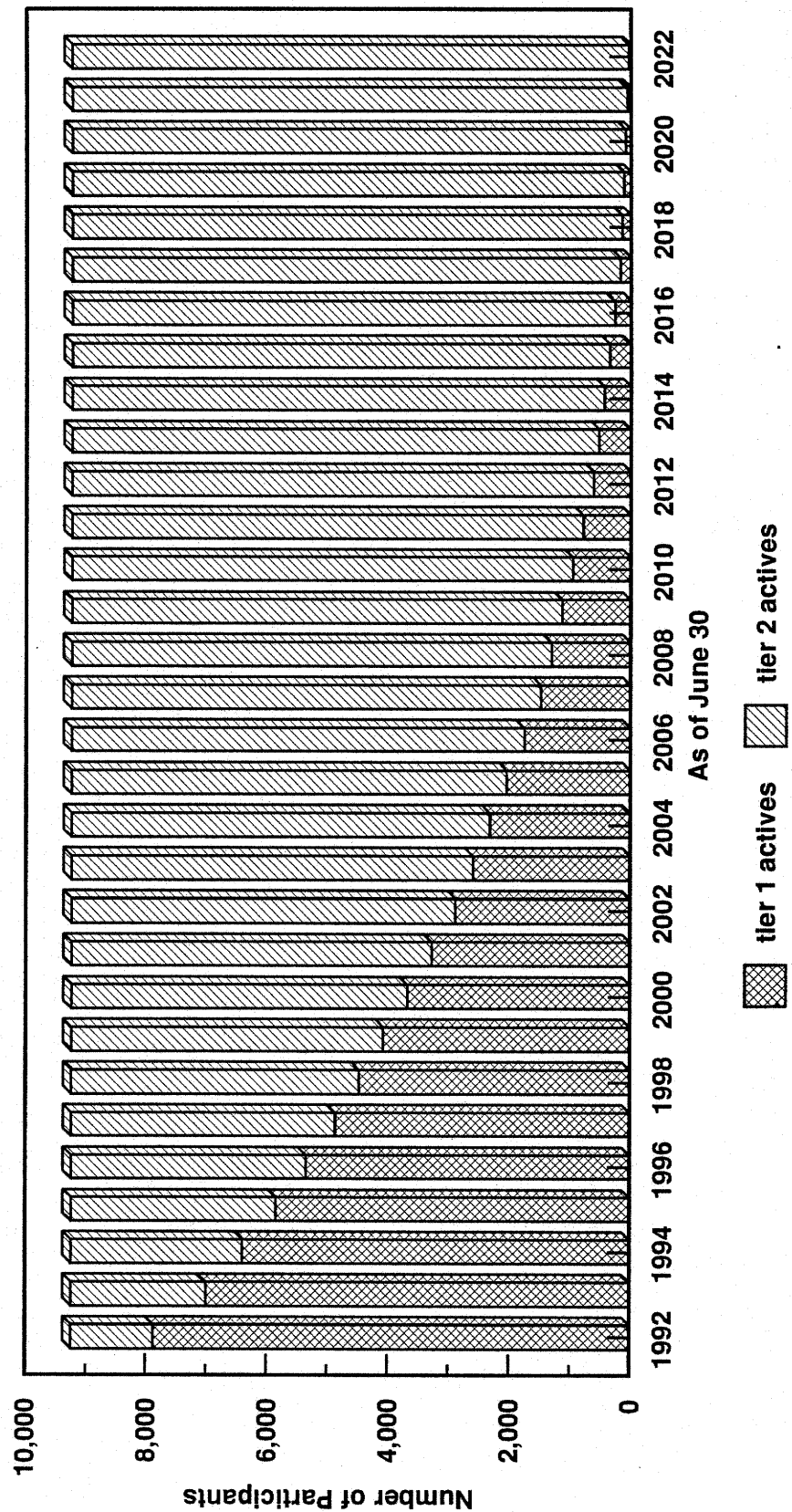
As of June 30	Investment Return 9.00%			Flow Amounts During Following 12 Months				Annual Population Increase 2.00%			Ending	
	Total Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employee Contris	Total Contris	Total Benefit Payments	Net Contris	Investment Earnings	Asset Value
1992	2,001,864	2,231,746	89.7%	(229,882)	448,186	12.00%	53,782	39,396	93,178	118,123	179,045	2,155,965
1993	2,155,965	2,401,887	89.8%	(245,923)	474,151	12.00%	56,898	41,630	98,528	125,871	192,806	2,321,429
1994	2,321,429	2,581,153	89.9%	(259,725)	501,735	12.00%	60,208	44,002	104,210	137,742	207,420	2,495,317
1995	2,495,317	2,768,040	90.1%	(272,724)	530,133	12.00%	63,616	46,440	110,056	150,484	222,759	2,677,648
1996	2,677,648	2,962,942	90.4%	(285,294)	560,719	12.00%	67,286	49,063	116,349	165,779	238,764	2,866,982
1997	2,866,982	3,163,312	90.6%	(296,329)	592,217	12.00%	71,066	51,760	122,826	181,036	255,409	3,064,181
1998	3,064,181	3,369,187	90.9%	(305,006)	631,469	12.00%	75,776	55,127	130,904	199,054	272,709	3,268,740
1999	3,268,740	3,579,352	91.3%	(310,613)	670,721	12.00%	80,486	58,487	138,973	219,508	290,563	3,478,767
2000	3,478,767	3,792,940	91.7%	(314,172)	709,972	12.00%	85,197	61,839	147,035	240,890	308,866	3,693,778
2001	3,693,778	4,009,442	92.1%	(315,664)	749,224	12.00%	89,907	65,182	155,089	261,456	327,653	3,915,064
2002	3,915,064	4,228,714	92.6%	(313,649)	788,476	12.00%	94,617	68,519	163,136	283,138	346,956	4,142,017
2003	4,142,017	4,450,970	93.1%	(308,952)	845,597	12.00%	101,472	73,398	174,869	306,110	366,876	4,377,653
2004	4,377,653	4,676,787	93.6%	(299,134)	902,718	12.00%	108,326	78,266	186,592	328,833	387,588	4,623,000
2005	4,623,000	4,907,103	94.2%	(284,104)	959,839	12.00%	115,181	83,122	198,303	352,264	409,142	4,878,180
2006	4,878,180	5,143,218	94.8%	(265,039)	1,016,960	12.00%	122,035	87,967	210,002	375,826	431,574	5,143,930
2007	5,143,930	5,386,792	95.5%	(242,862)	1,074,081	12.00%	128,890	92,908	221,798	399,162	454,972	5,421,538
2008	5,421,538	5,639,847	96.1%	(218,309)	1,157,885	12.00%	138,946	100,157	239,103	421,096	479,749	5,719,294
2009	5,719,294	5,904,766	96.9%	(185,472)	1,241,689	12.00%	149,003	107,406	256,409	443,045	506,338	6,038,996
2010	6,038,996	6,184,293	97.7%	(145,297)	1,325,493	12.00%	159,059	114,655	273,714	464,894	534,907	6,382,723
2011	6,382,723	6,481,534	98.5%	(98,810)	1,409,297	12.00%	169,116	121,904	291,020	486,578	565,645	6,752,811
2012	6,752,811	6,799,955	99.3%	(47,145)	1,493,101	12.00%	179,172	129,588	308,325	509,361	598,706	7,150,481
2013	7,150,481	7,143,386	100.1%	7,095	1,613,730	7.57%	122,162	139,588	261,750	531,640	631,398	7,511,989
2014	7,511,989	7,516,015	99.9%	(4,025)	1,734,359	7.32%	126,959	150,022	276,981	551,828	663,711	7,900,853
2015	7,900,853	7,922,392	99.7%	(21,540)	1,854,987	7.17%	132,955	160,456	293,411	576,024	698,359	8,316,598
2016	8,316,598	8,367,431	99.4%	(50,833)	1,975,616	7.50%	148,258	170,891	319,149	601,658	735,781	8,769,870
2017	8,769,870	8,856,404	99.0%	(86,534)	2,096,245	7.78%	162,988	181,325	344,313	629,793	776,442	9,260,832

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

1.6 Actuarial Projections (continued)

State of Alaska TRS

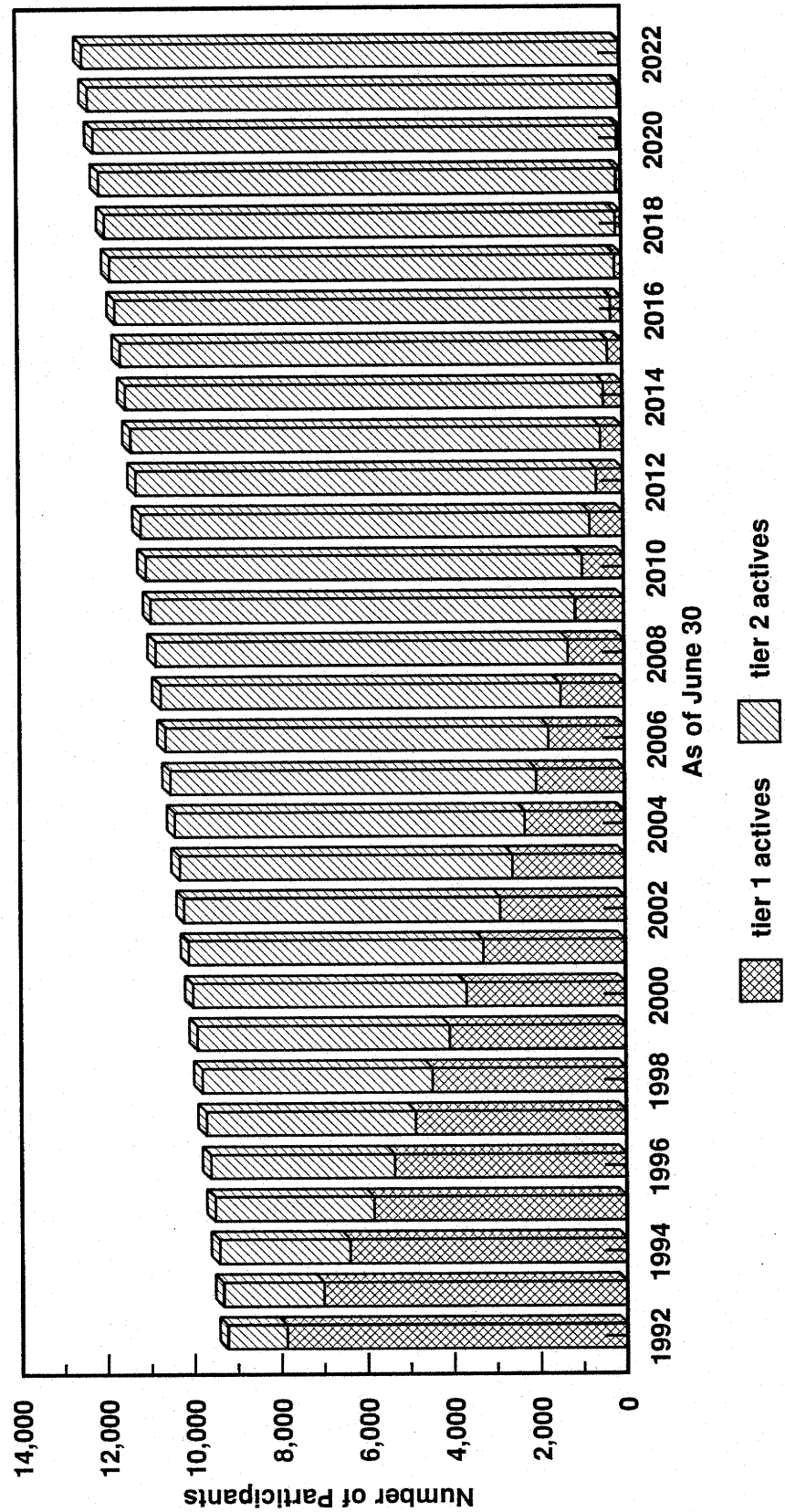
Projected Active Participant Count
Annual Population Increase of 0%



1.6 Actuarial Projections (continued)

State of Alaska TRS

Projected Active Participant Count
Annual Population Increase of 1%

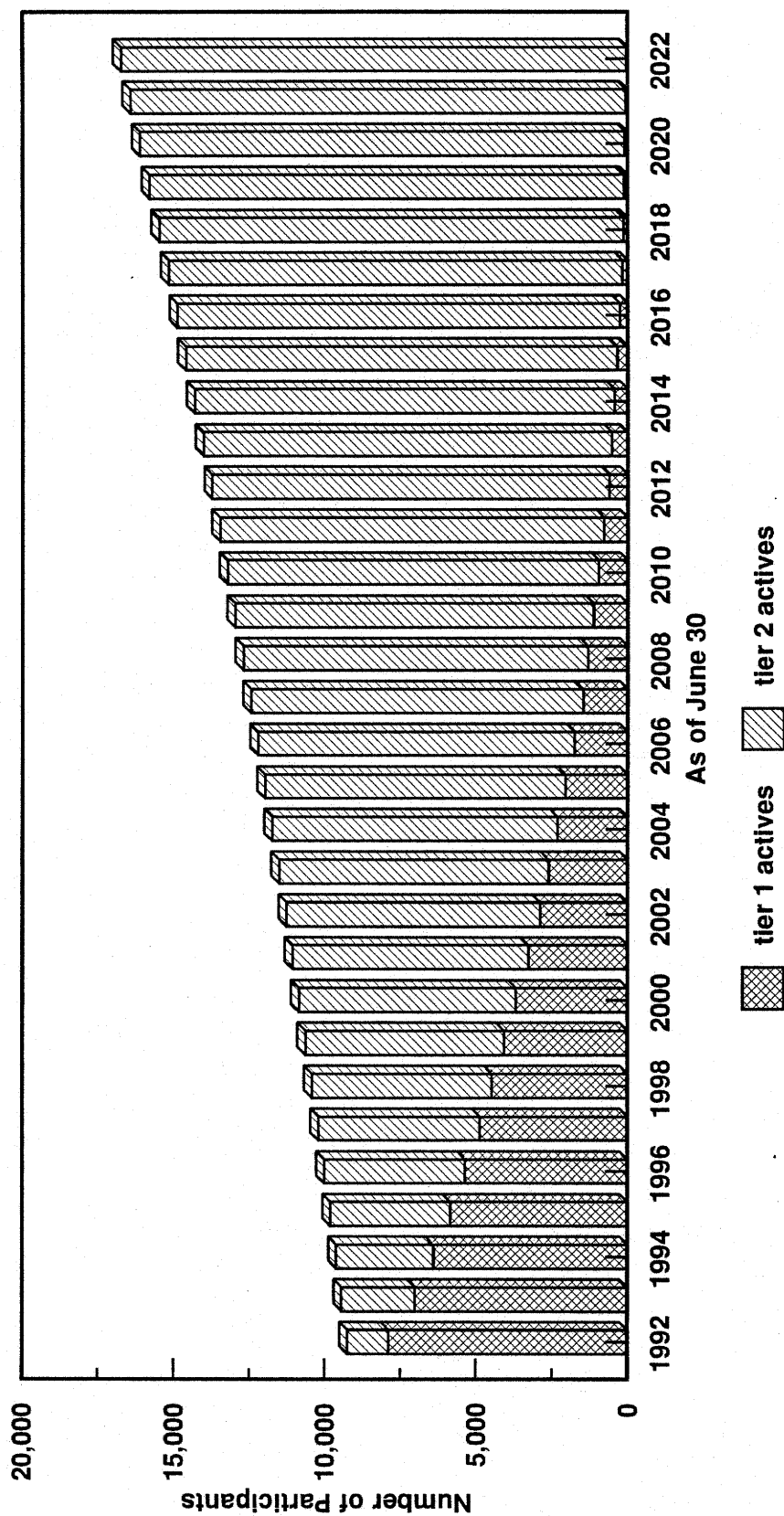


William M. Mercer, Incorporated

1.6 Actuarial Projections (continued)

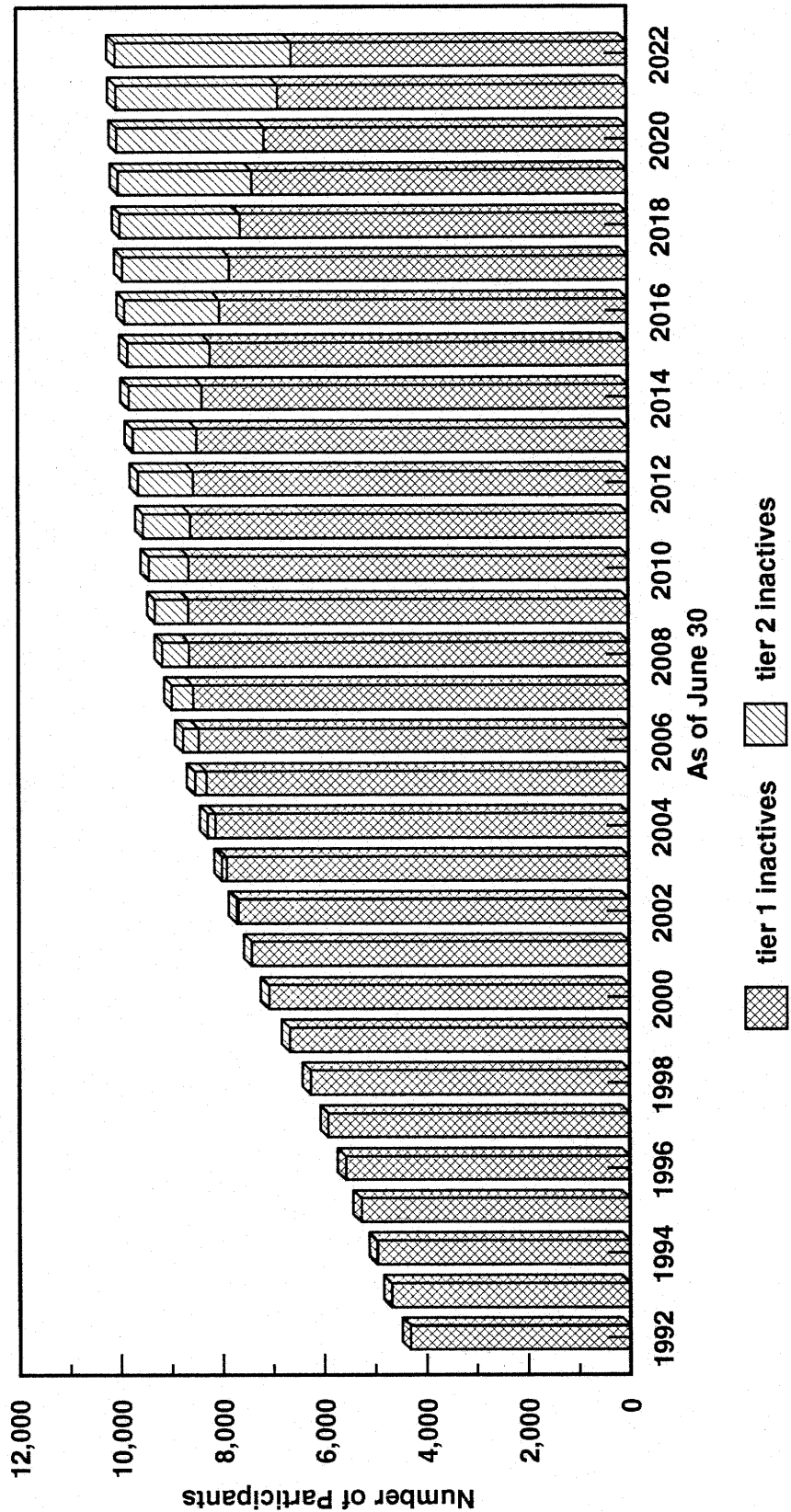
State of Alaska TRS

Projected Active Participant Count
Annual Population Increase of 2%



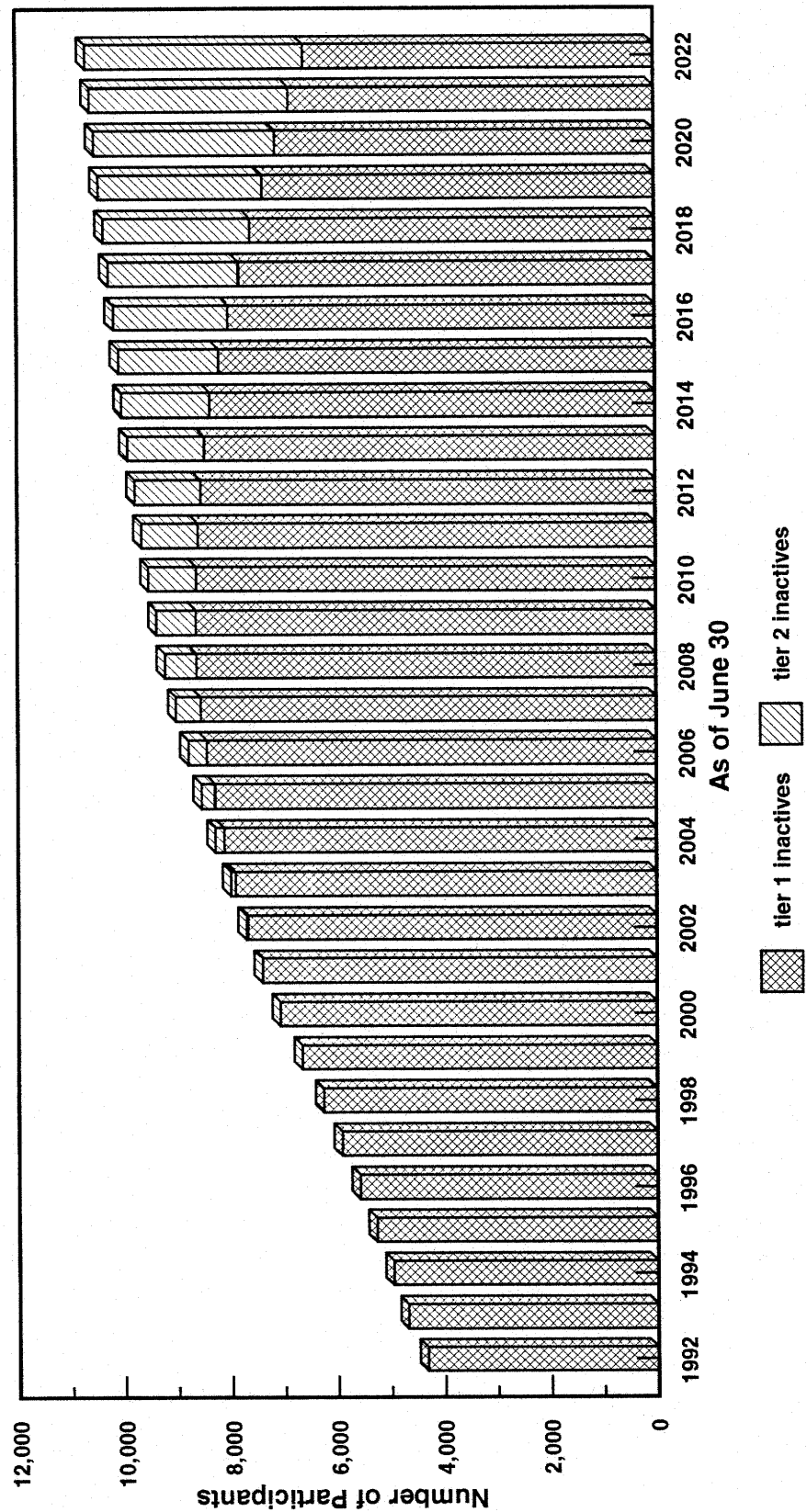
1.6 Actuarial Projections (continued)

State of Alaska TRS
Projected Inactive Participant Count
Annual Population Increase of 0%



1.6 Actuarial Projections (continued)

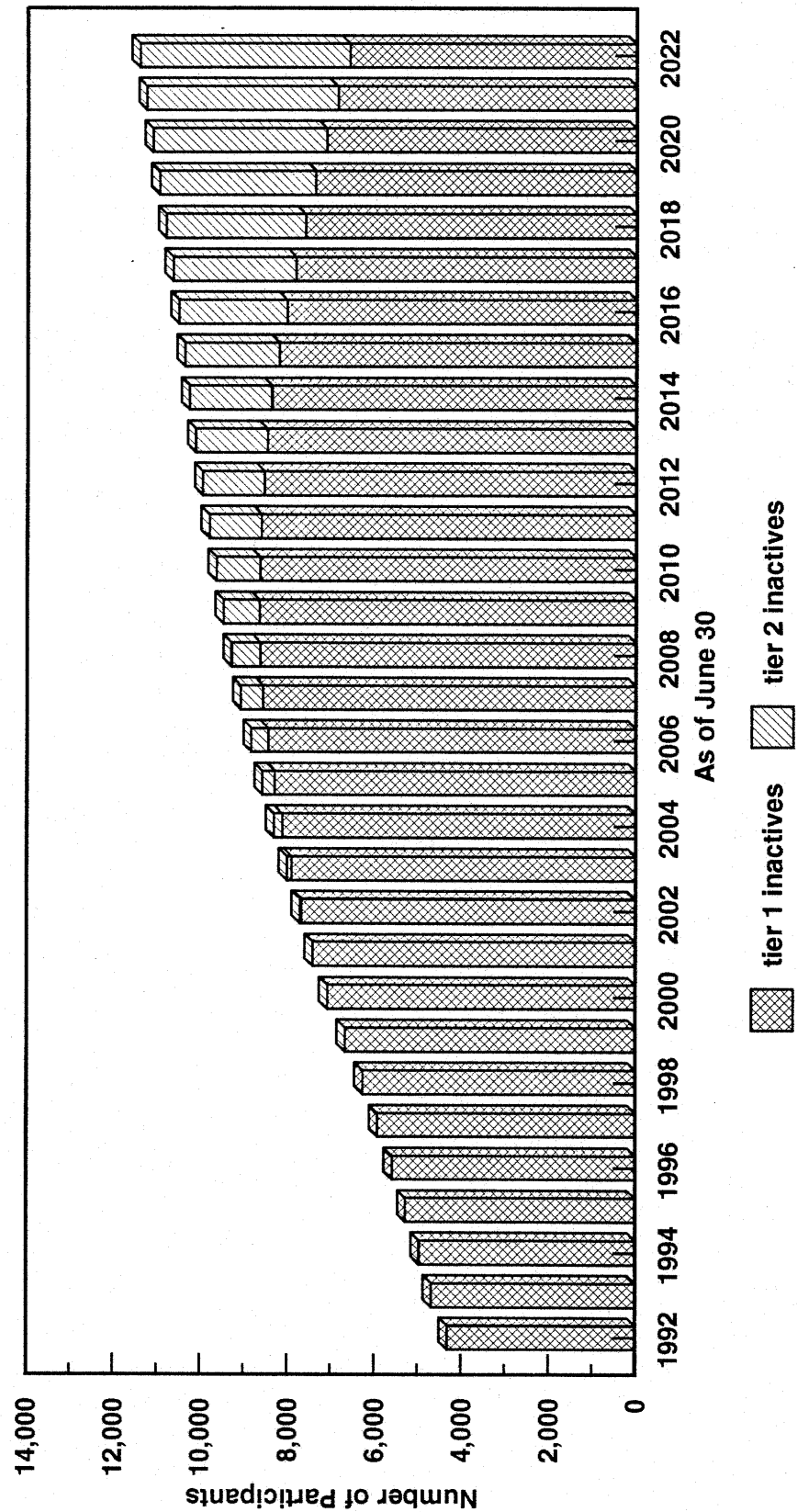
State of Alaska TRS Projected Inactive Participant Count Annual Population Increase of 1%



William M. Mercer, Incorporated

1.6 Actuarial Projections (continued)

State of Alaska TRS Projected Inactive Participant Count Annual Population Increase of 2%



William M. Mercer, Incorporated

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

June 30, 1955, with amendments through June 30, 1992. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. New members who are first hired under the TRS after June 30, 1990 are entitled to different benefits than those members who were hired before July 1, 1990.

(2) Administration of Plan

The Commissioner of Administration is responsible for administration of the system; the Alaska Teachers' Retirement Board prescribes policies and adopts regulations to carry out provisions of the system; and the Commissioner of Revenue invests the funds. The Attorney General represents the system in legal proceedings.

In 1992, legislation passed (Ch. 31, SLA 1992) to establish the Alaska State Pension Investment Board. The Investment Board will be responsible for managing and investing Alaska's State pension funds. The new Board will begin managing the funds on July 1, 1993, or the date that the funds are transferred to the Board, whichever is earlier.

(3) Membership

Membership in the Alaska TRS is compulsory 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 (employees who elect to participate in the University of Alaska's optional retirement plan are excluded);
- 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.

TRS members who receive TRS disability benefits are also covered under the TRS and earn membership service while they are on disability.

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

Members may claim TRS credit for the following service:

- Outside teaching service. Members may claim up to ten years of outside service for their employment in out-of-state schools or Alaska private schools. Outside service includes employment as:
 - (a) certificated full-time elementary and secondary teachers and certificated full-time employees in positions which require teaching certificates as a condition of employment with out-of-state public schools and approved or accredited nonpublic schools either inside or outside of the United States supported by U.S. funds;
 - (b) full-time employees in out-of-state institutions of higher learning requiring academic standing and accreditation; or
 - (c) full-time teachers in approved or accredited nonpublic institutions of higher learning in Alaska.

Contributions are required for service which is claimed. Members who are first hired after June 30, 1978 are charged the full actuarial cost for providing benefits for the service. Credit for fractional years of outside service is not allowed.

- Military service. Members may claim up to five years of military service; however, the combined total of outside and military service may not exceed ten years, unless entry into the military is immediately preceded by TRS service and following discharge is continued by TRS service within one year. Contributions are required for service which is claimed. Credit for fractional years of military service is allowed.
- Bureau of Indian Affairs (BIA) service in Alaska. Members may claim their Alaska BIA service as professional educators and certificated full-time teachers in positions requiring teaching certificates. Contributions are required for service which is claimed. Credit for fractional years of BIA service is allowed.
- Retroactive service. Members may claim their earlier Alaskan service that was not creditable at the time it occurred, but later became creditable because of legislative change. Retroactive contributions are required for earlier service that occurred after June 30, 1955. Contributions are not required for service before July 1, 1955.
- Unused sick leave. Members may claim their unused sick leave after they retire. Contributions are not required.
- Leave of absence without pay. Members may receive credit for their employer-approved leave of absence without pay. Contributions are required.

(5) Computation of Average Base Salary

The average base salary is determined by adding the member's three highest annual base salaries together and dividing the total by three. Members must work and receive compensation for at least two-thirds of a school year (115 days) to include it as one of the three highest.

(6) Employer Contributions

The employer contributes the amount required, in addition to employee contributions, to fund the benefits of the system.

(7) Employee Contributions

Mandatory Employee Contributions: 8.65% of base salary. Employee contributions are deducted from the gross salary before federal income tax is withheld.

Note: Prior to January 1, 1991, the rate was 7%. Employee contributions were deducted from the gross salary after federal income tax was withheld.

Interest Credited: 4.5% compounded annually on June 30.

Refund of Contributions: If a member terminates TRS employment, the balance of the member's account (mandatory contributions, indebtedness payments and interest earned) may be withdrawn by the member.

Note: The contribution accounts of terminated members may be attached to satisfy claims made under Alaska Statute 09.38.065, federal income tax levies and valid Qualified Domestic Relations Orders.

Reinstatement of Contributions: If mandatory contributions are withdrawn, the member must return to TRS employment in order to reinstate the refunded service. Upon reemployment, an indebtedness will be established for the amount of the refund. Contributions that are attached to satisfy claims under Alaska Statute 09.38.065 or a federal tax levy may be reinstated at any time; the member is not required to return to TRS employment. The indebtedness will accrue interest until it is paid in full or the member retires, whichever occurs first.

Refund at Death: If monthly survivor's benefits are not payable upon the member's death, the member's contribution account balance, including mandatory and supplemental contributions, indebtedness payments, and interest earned, will be paid to the designated beneficiary. When the member has more than one year of TRS service, the beneficiary will also receive \$1,000 plus \$100 for each year of membership service (not to exceed \$3,000). An additional \$500 may be payable if the member is survived by dependent children.

(8) 1% Supplemental Contributions

If a member first joined the system before July 1, 1982 and elected to participate in the supplemental contributions provision, a spouse's pension and/or survivor's allowance may be payable to his or her spouse and dependent children. To participate, the member must contribute an additional 1% of his or her base salary. An election to participate must be made no later than 90 days after marriage, the birth or adoption of a child, or reemployment in the system if there was at least a twelve (12) month break in service.

(9) Normal Retirement Benefit

Eligibility:

- (a) Upon attaining age 60 (age 55 for members who participated before July 1, 1990) and meeting one of the following service requirements:
 - (i) Eight years of fully-paid membership service; or

- (ii) 15 years of fully-paid creditable service, if the last five years are membership service and the member was first hired under the TRS before July 1, 1975; or
- (iii) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service; or
- (iv) 12 years of combined part-time and full-time fully-paid membership service; or
- (v) two years of fully-paid membership service if the member is vested in the Public Employees' Retirement System;

or;

(b) At any age after meeting one of the following service requirements:

- (i) 25 years of fully-paid creditable service, the last five of which are membership service; or
- (ii) 20 years of fully-paid membership service; or
- (iii) 20 years of fully-paid combined membership service and Alaska B.I.A. service, the last five of which are membership service.
- (iv) 20 years of combined part-time and full-time fully-paid membership service.

A member who has been receiving TRS disability benefits is eligible for a service retirement benefit upon satisfying the requirements for normal retirement.

Type:

Life only or optional joint and survivor benefits (actuarially reduced).

Amount:

Two percent of average base salary for the first twenty years of service, and 2.5% for all remaining years. Service before July 1, 1990 is calculated at 2%.

Minimum Benefit: \$25 per month for each year of credited service.

(10) Early Retirement Benefit

Eligibility:

Upon attaining age 55 (age 50 for members who participated before July 1, 1990) and meeting one of the following service requirements:

- (i) Eight years of fully-paid membership service; or

- (ii) 15 years of fully-paid creditable service, if the last five years are membership service and the member was first hired under the TRS before July 1, 1975; or
- (iii) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service; or
- (iv) 12 years of combined part-time and full-time membership service; or
- (v) two years of fully-paid membership service if the member is vested in the Public Employees' Retirement System.

Type:

Life only or optional joint and survivor benefits (actuarially reduced).

Amount:

Actuarial equivalent of the normal retirement benefit (see 10 above) based on service and salary to early retirement date.

(11) Deferred Benefit

Eligibility:

Refer to (9) *Normal Retirement Eligibility* and (10) *Early Retirement Eligibility* (page 37 - 38). Withdrawal of employee contributions voids rights to benefits.

Type:

Life only or optional joint and survivor benefits (actuarially reduced).

Amount:

Refer to (9) *Normal Retirement Benefit* and (10) *Early Retirement Benefit*, above.

(12) Indebtedness Owing At Retirement

If on the date of appointment to retirement, a member has not paid the full indebtedness amount including interest to the retirement fund, the member's retirement benefit will be reduced for life by an amount equal to the actuarial equivalent of the outstanding indebtedness at the time of retirement. Note: Indebtedness must be paid in full for service used to qualify the member to receive a retirement benefit.

(13) Re-employment of a Retired Member

If a retired member is reemployed in a position covered under the system, the retirement benefit will be suspended during the period of reemployment. During such period of reemployment, retirement contributions are mandatory.

A member who returns to TRS employment after retiring under the Retirement Incentive Program (RIP) will:

- (a) forfeit the three years of incentive credits that were granted; and
- (b) be indebted to the system in an amount equal to 110% of the benefits that were paid because of the member's participation in the RIP, including health insurance costs. The indebtedness is reduced by the amount that the member paid to participate.

(14) Disability Retirement Benefits

A disability retirement benefit may be paid if a member becomes permanently disabled before the normal retirement date and has at least five years of fully-paid membership service.

The benefit is equal to 50% of the disabled member's base salary immediately prior to becoming disabled. This benefit will be increased by 10% of the member's base salary for each minor child up to a maximum of 40%.

When the disabled member becomes eligible for normal retirement, the disability benefit will terminate and the member will be appointed to normal retirement. The normal retirement benefit will be computed as if the member had been in membership service during the period of disability.

(15) Death Benefit Before Retirement

Nonoccupational Death

With less than one year of membership service, the member's contribution account balance, including mandatory and supplemental contributions, indebtedness payments and interest earned, will be paid to the designated beneficiary. With more than one but less than eight years of membership service, the beneficiary will also receive \$1,000 plus \$100 for each year of membership service (not to exceed \$3,000). An additional \$500 may be payable if the member is survived by dependent children.

When the member is vested, the surviving spouse may elect to receive the benefits described above or a 50% joint and survivor option based on the member's average base salary and credited service at the time of death.

Note: If a survivor's allowance or spouse's pension is payable under the supplemental contributions provision, benefits will instead be paid under that provision.

Occupational Death

Upon an occupational death of an active member, a monthly survivor's pension equal to 40% of the base salary at the time of death or disability, if earlier, may be paid to the spouse, unless a survivor's allowance or spouse's pension is payable under the supplemental contributions provision. 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 based on the member's average base salary on the date of death or disability and credited service, including the period from the date of death or disability to the normal retirement date.

(16) Death Benefits After Retirement

If a member dies after retirement, the designated beneficiary will receive the member's contribution account balance, minus any benefits already paid, unless benefits are payable under a joint and survivor option. If the member elected a survivor option at retirement, the spouse will receive a continuing monthly benefit for the rest of his or her life.

(17) Survivor's Allowance - Supplemental Contributions

If a member has made supplemental contributions for at least one year and dies while in membership service, or while receiving TRS disability benefits, or if the member has made supplemental contributions for at least five years and dies while on retirement or in deferred vested status, and is survived by dependent children, the surviving spouse and/or 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 survivor's allowance commences the month following the member's death. When there is no longer an eligible dependent child, the survivor's allowance ceases and a spouse's pension becomes payable.

(18) Spouse's Pension - Supplemental Contributions

If a member has made supplemental contributions for at least one year and dies while in membership service, or while receiving TRS disability benefits, or if the member has made supplemental contributions for at least five years and dies while on retirement or in deferred vested status, the surviving spouse is entitled to receive a spouse's pension.

The pension is equal to 50% of the retirement benefit that the deceased member was receiving or would have received if the member had been retired at the time of death. The spouse's pension commences the month following the member's death or cessation of the survivor's allowance. The pension ceases when the spouse dies.

(19) Post-Retirement Pension Adjustment

A post-retirement pension adjustment will be issued to an eligible benefit recipient each year if the consumer price index (CPI) increases during the prior calendar year. The adjustment to the benefit, excluding the cost-of-living allowance, will be:

- (a) 75% of the CPI increase (not to exceed 9%) for recipients who are at least age 65 or on TRS disability; or
- (b) 50% of the CPI increase (not to exceed 6%) for recipients who are at least age 60 but under 65, and for recipients who have been receiving benefits for at least eight years who are under age 60.

(Ad hoc PRPA's of up to 4% may be issued to retirees who were first hired before July 1, 1990 if the CPI has increased and the financial condition of the fund will permit an adjustment).

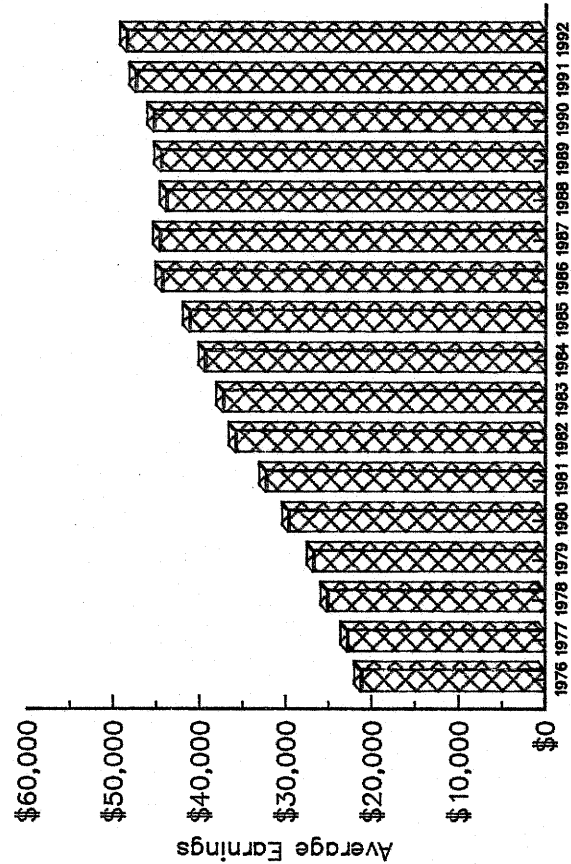
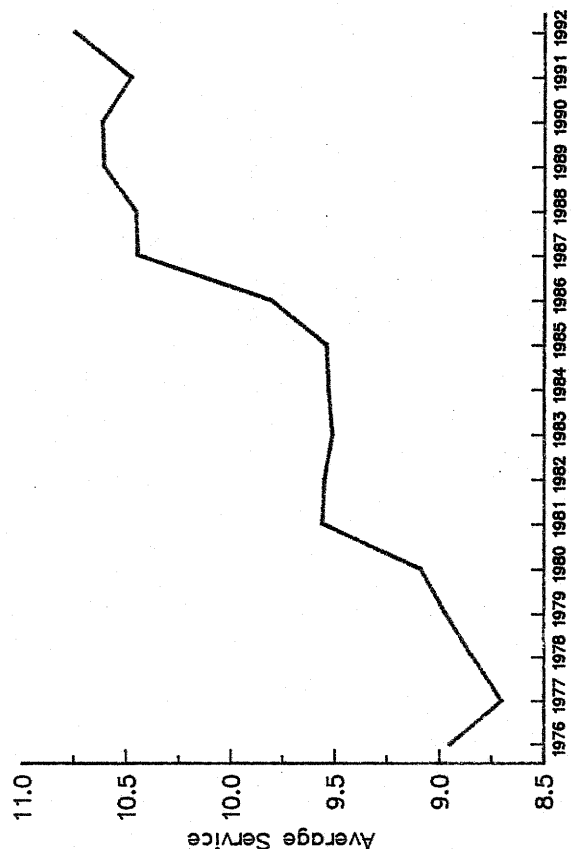
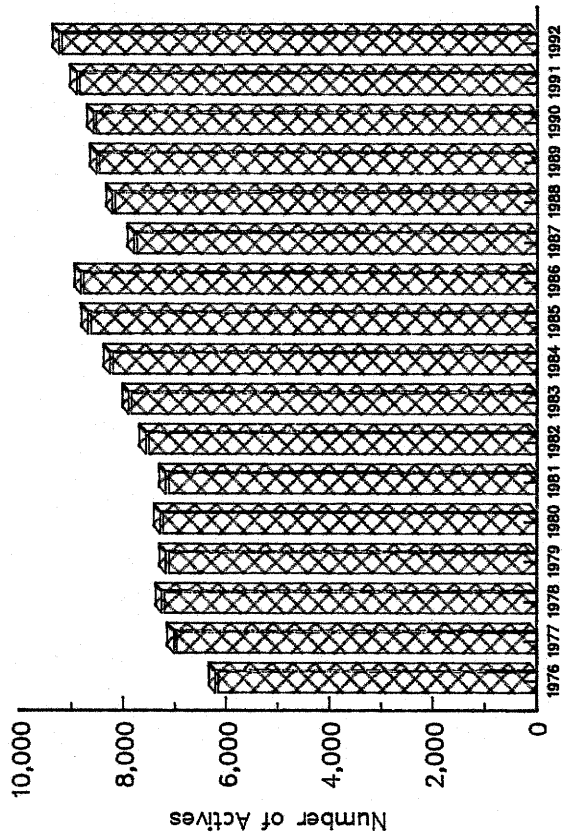
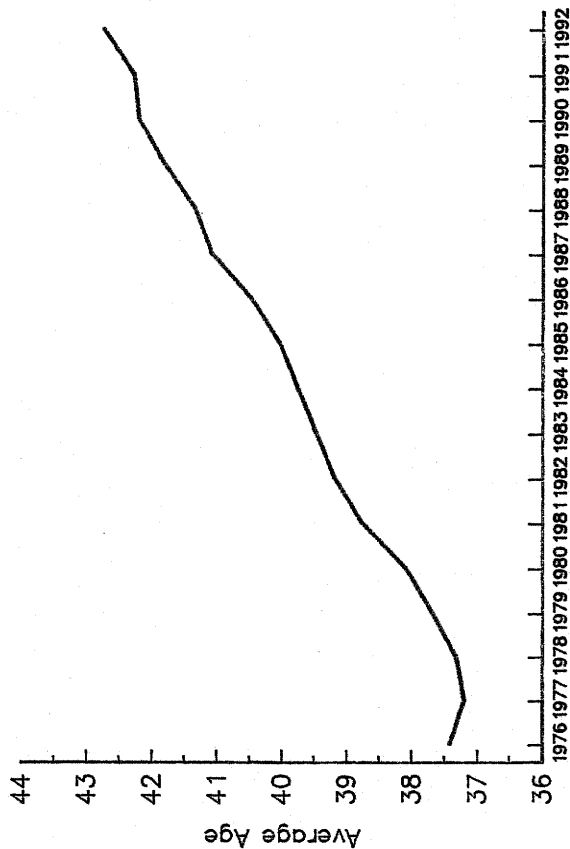
(20) Cost-of-Living Allowance

Starting at age 65, a retired member who remains in Alaska is eligible for a cost-of-living allowance (COLA) equal to 10% of the base retirement benefit. Members who were first hired before July 1, 1990 or who are receiving disability benefits are eligible for COLA, regardless of age.

2.2(a) Participant Census Information as of June 30

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Active Members					
(1) Number	8,218	8,527	8,586	8,903	9,238
(2) Number Vested	4,053	4,787	4,890	5,069	5,422
(3) Average Age	41.34	41.82	42.21	42.28	42.74
(4) Average Credited Service	10.46	10.61	10.62	10.48	10.75
(5) Average Annual Salary	\$ 43,966	\$ 44,596	\$ 45,388	\$ 47,473	\$ 48,515
Retirees and Beneficiaries					
(1) Number	2,972	3,098	3,184	3,544	3,602
(2) Average Age	61.41	61.85	62.45	61.64	61.97
(3) Average Monthly Benefit:					
Base	\$ 1,460	\$ 1,476	\$ 1,491	\$ 1,587	\$ 1,601
C.O.L.A.	\$ 102	\$ 102	\$ 100	\$ 105	\$ 102
P.R.P.A.	\$ 208	\$ 234	\$ 262	\$ 238	\$ 297
Total	\$ 1,770	\$ 1,812	\$ 1,853	\$ 1,930	\$ 2,000
Vested Terminations					
(1) Number	408	508	816	645	710
(2) Average Age	44.26	45.11	46.75	45.57	46.22
(3) Average Monthly Benefit	\$ 847	\$ 957	\$ 1,244	\$ 897	\$ 1,087
Non-Vested Terminations With Account Balances					
(1) Number	938	943	985	1,003	1,057
(2) Average Account Balance	\$ 9,773	\$ 9,765	\$ 10,244	\$ 10,270	\$ 10,411

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	194	\$ 6,523,252	\$ 33,625
20-24	67	2,138,319	31,915	1	663	23,596,510	35,591
25-29	544	18,949,690	34,834	2	742	29,194,188	39,345
30-34	969	38,315,968	39,542	3	501	20,089,954	40,100
35-39	1,676	74,702,016	44,572	4	450	18,997,688	42,217
40-44	2,367	116,753,068	49,325	0- 4	2,550	98,401,592	38,589
45-49	2,013	107,637,680	53,471	5- 9	2,097	97,312,456	46,406
50-54	1,043	57,866,084	55,480	10-14	1,931	100,000,808	51,787
55-59	400	22,686,462	56,716	15-19	1,292	71,618,976	55,433
60-64	126	7,291,065	57,866	20-24	954	55,532,204	58,210
65-69	25	1,409,146	56,366	25-29	338	20,707,414	61,265
70-74	7	395,871	56,553	30-34	64	3,918,834	61,232
75-79	1	40,510	40,510	35-39	11	650,520	59,138
80+	0	0	0	40+	1	43,075	43,075
Total	9,238	\$448,185,879	\$ 48,515	Total	9,238	\$448,185,879	\$ 48,515

Years of Credited Service By Age

----- Years of Service -----										
Age	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	67	0	0	0	0	0	0	0	0	67
25-29	497	47	0	0	0	0	0	0	0	544
30-34	507	378	84	0	0	0	0	0	0	969
35-39	523	551	484	118	0	0	0	0	0	1,676
40-44	466	521	640	558	182	0	0	0	0	2,367
45-49	286	322	437	363	498	107	0	0	0	2,013
50-54	120	175	195	173	187	170	22	1	0	1,043
55-59	59	68	66	57	69	44	34	3	0	400
60-64	21	25	20	17	14	15	6	7	1	126
65-69	1	8	4	5	3	2	2	0	0	25
70-74	2	2	1	1	1	0	0	0	0	7
75-79	1	0	0	0	0	0	0	0	0	1
80+	0	0	0	0	0	0	0	0	0	0
Total	2,550	2,097	1,931	1,292	954	338	64	11	1	9,238

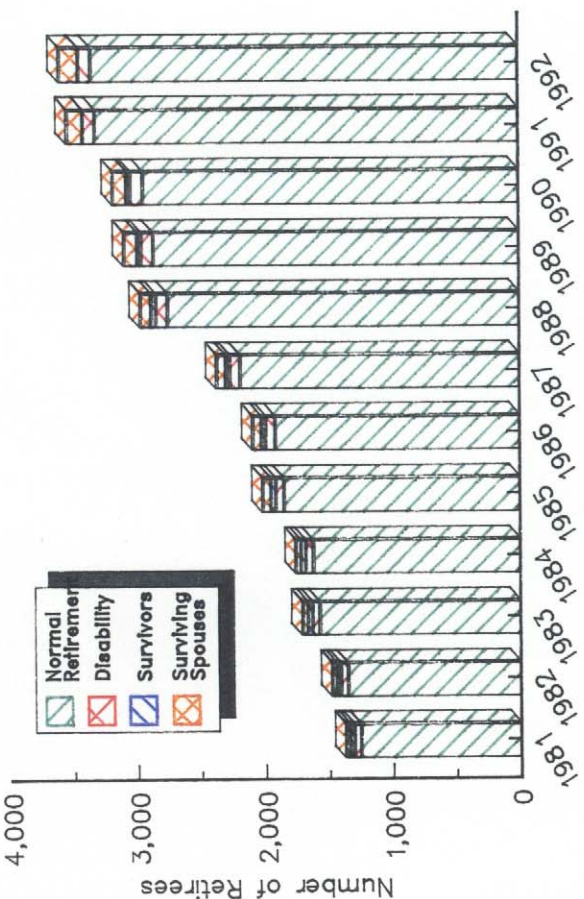
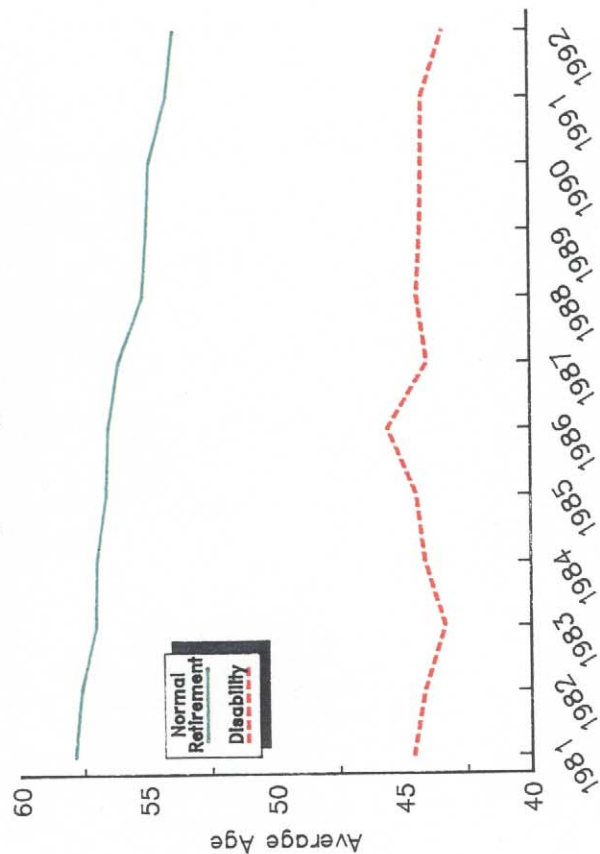
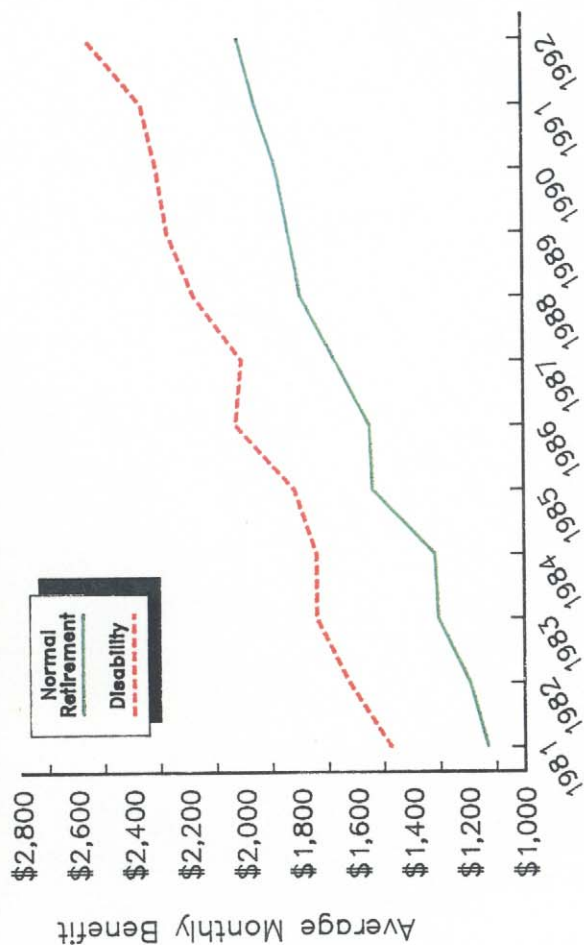
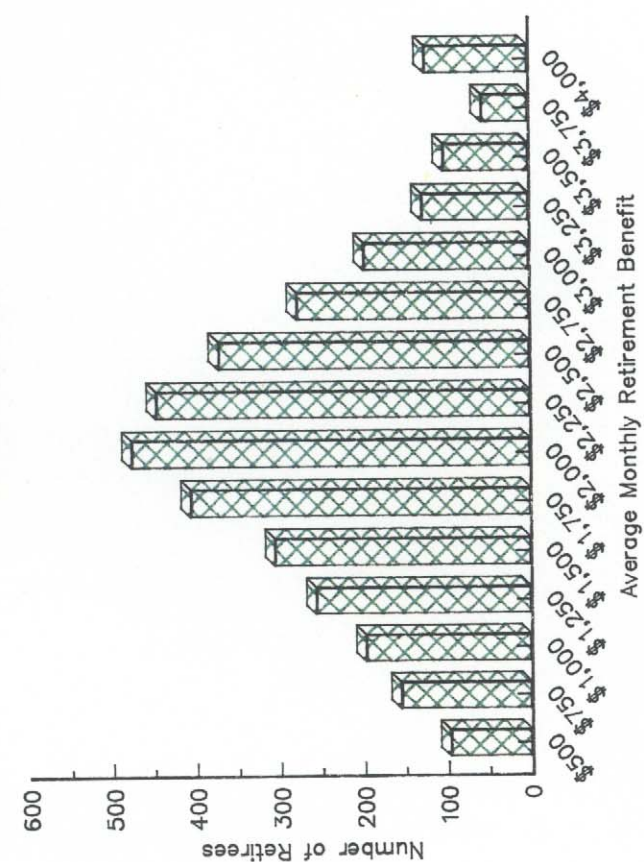
2.2(c) Statistics on New Retirees During the Year Ending June 30

		<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Service						
(1)	Number	621	187	199	507	110
(2)	Average Age At Retirement	52.07	51.82	52.44	51.56	53.04
(3)	Average Monthly Benefit	\$ 2,224	\$ 1,943	\$ 2,037	\$ 2,133	\$ 1,926
Disability						
(1)	Number	15	12	8	8	8
(2)	Average Age At Retirement	46.28	46.24	46.48	45.46	43.81
(3)	Average Monthly Benefit	\$ 2,743	\$ 2,618	\$ 2,485	\$ 2,448	\$ 3,230
Survivor						
(1)	Number	3	2	1	4	2
(2)	Average Age At Retirement	47.39	43.81	63.96	45.40	49.46
(3)	Average Monthly Benefit	\$ 1,143	\$ 2,318	\$ 1,203	\$ 435	\$ 620
Total						
(1)	Number	639	201	208	519	120
(2)	Average Age At Retirement	51.91	51.41	52.27	51.42	52.37
(3)	Average Monthly Benefit	\$ 2,231	\$ 1,987	\$ 2,050	\$ 2,124	\$ 1,991
Total Number of Retirees		2,972	3,098	3,184	3,544	3,602

2.2(d) Statistics on All Retirees as of June 30

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Service Retirements					
(1) Number, Prior Year	2,194	2,760	2,870	2,948	3,322
(2) Net Change During Year	566	110	78	374	30
(3) Number, This Year	2,760	2,870	2,948	3,322	3,352
(4) Average Age At Retirement	55.11	54.91	54.80	54.14	53.83
(5) Average Age Now	61.84	62.25	62.84	61.82	62.15
(6) Average Monthly Benefit	\$ 1,793	\$ 1,834	\$ 1,879	\$ 1,950	\$ 2,013
Surviving Spouse's Benefits					
(1) Number, Prior Year	70	85	103	108	125
(2) Net Change During Year	15	18	5	17	25
(3) Number, This Year	85	103	108	125	150
(4) Average Age At Retirement	55.83	55.56	55.76	54.44	54.04
(5) Average Age Now	66.74	67.26	67.79	65.95	65.90
(6) Average Monthly Benefit	\$ 708	\$ 738	\$ 794	\$ 1,093	\$ 1,339
Survivor's Benefits (other than spouses)					
(1) Number, Prior Year	32	36	31	31	1
(2) Net Change During Year	4	(5)	0	(30)	1
(3) Number, This Year	36	31	31	1	2
(4) Average Age At Retirement	36.15	35.42	35.42	23.81	50.47
(5) Average Age Now	44.66	43.73	44.73	41.68	59.01
(6) Average Monthly Benefit	\$ 1,513	\$ 1,652	\$ 1,661	\$ 544	\$ 3,013
Disabilities					
(1) Number, Prior Year	80	91	94	97	96
(2) Net Change During Year	11	3	3	(1)	2
(3) Number, This Year	91	94	97	96	98
(4) Average Age At Retirement	44.39	44.22	44.18	44.15	43.30
(5) Average Age Now	49.87	49.71	50.14	50.33	49.97
(6) Average Monthly Benefit	\$ 2,125	\$ 2,267	\$ 2,304	\$ 2,358	\$ 2,552
Total Number of Retirees	2,972	3,098	3,184	3,544	3,602

State of Alaska - TRS Retirees



2.2(e) Distributions of Annual Benefits for Benefit Recipients

----- Annual Benefit By Age -----

Age Groups	Number of People	Total Annual Benefit	Average Annual Benefit
0-19	5	\$ 30,030	\$ 6,006
20-24	0	0	0
25-29	0	0	0
30-34	2	29,466	14,733
35-39	5	128,940	25,788
40-44	62	1,576,467	25,427
45-49	312	7,802,415	25,008
50-54	640	16,258,316	25,404
55-59	688	17,440,715	25,350
60-64	623	15,454,477	24,807
65-69	454	10,648,230	23,454
70-74	379	8,475,522	22,363
75-79	208	4,247,578	20,421
80+	224	4,360,497	19,467
Total	3,602	\$86,452,653	\$24,001

--- Annual Benefit By Years Since Retirement ---

Years of Service	Number of People	Total Annual Benefit	Average Annual Benefit
0	120	\$ 2,866,958	\$ 23,891
1	518	13,261,137	25,601
2	211	5,232,584	24,799
3	103	2,439,473	23,684
4	564	15,967,064	28,310
0- 4	1,516	39,767,216	26,232
5- 9	912	22,947,031	25,161
10-14	603	12,877,045	21,355
15-19	419	7,936,137	18,941
20-24	116	2,139,177	18,441
25-29	30	645,674	21,522
30-34	5	117,814	23,563
35-39	1	22,559	22,559
40+	0	0	0
Total	3,602	\$86,452,653	\$ 24,001

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	3	1	0	0	0	0	0	5
20-24	0	0	0	0	0	0	0	0	0	0
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	3	1	0	0	1	0	0	0	0	5
40-44	55	3	2	2	0	0	0	0	0	62
45-49	275	26	8	2	1	0	0	0	0	312
50-54	495	124	17	3	1	0	0	0	0	640
55-59	381	254	44	6	3	0	0	0	0	688
60-64	212	251	143	16	1	0	0	0	0	623
65-69	73	152	173	53	2	1	0	0	0	454
70-74	16	84	145	129	5	0	0	0	0	379
75-79	1	14	56	119	18	0	0	0	0	208
80+	2	3	12	88	84	29	5	1	0	224
Total	1,516	912	603	419	116	30	5	1	0	3,602

2.3 Actuarial Basis

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 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 | 9% per year, compounded annually, net of expenses. |
| 2. Salary Scale | 6.5% per year for the first five years of employment and 5.5% per year thereafter. |

3. Total Inflation
Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 5% annually.
4. Health Cost Trend
FY92 - 12.5%
FY93 - 11.5%
FY94 - 10.5%
FY95 - 9.5%
FY96 - 8.5%
FY97 and later - 7.5%
5. Mortality
1984 Unisex Pension Mortality Table, set forward one year for male members and set backward four years for female members. All deaths are assumed to result from nonoccupational causes.
6. Turnover
Based upon the 1986-90 actual total turnover experience. (See Table 1).
7. Disability
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.
8. Retirement Age
Retirement rates based upon the 1986-90 actual experience in accordance with Table 3.
9. Spouse's Age
Wives are assumed to be four years younger than husbands.
10. Dependent Children
Benefits to dependent children have been valued assuming members who are not single have one dependent child.
11. Contribution Refunds
100% of those terminating after age 35 who are vested 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., 66% are assumed to remain in Alaska and receive the C.O.L.A.
13. New Entrants Growth projections are made for the active TRS population under three scenarios:
- | | |
|--------------|-------------|
| Pessimistic: | 0% per year |
| Median: | 1% per year |
| Optimistic: | 2% per year |
14. Sick Leave 4.7 days of unused sick leave for each year of service will be available to be credited once the member is retired.
15. Expenses Expenses are covered in the investment return assumption.

Valuation of Assets

Based upon the five-year average ratio between actuarial and book values of the System's assets. Prior to June 30, 1992, the actuarial value of assets equalled the market value, except that fixed income investments were carried at book value. Effective June 30, 1992, the actuarial value of assets equals the full 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 the range of book and actuarial values.

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 FY93, the pre-65 monthly premium is \$310.80 and the post-65 premium is \$108.37, based on a total blended premium of \$226.90. For FY94, the pre-65 monthly premium is assumed to be \$346.54 and the post-65 premium is assumed to be \$120.83, based on a total blended premium of \$252.99. The FY93 rates and the pre-65/post-65 split were provided by Deloitte & Touche.

Table 1

Alaska TRS

Total Turnover Assumptions

Select Rates of Turnover
During the First 10 Years
of Employment

<u>Year of Employment</u>	<u>Rate</u>
1	.26
2	.24
3	.16
4	.12
5	.11
6	.10
7	.09
8	.09
9	.09
10	.09

Ultimate Rates of Turnover
After the First 10 Years
of Employment

<u>Ages</u>	<u>Rate</u>
20-39	.03
40+	.02

Table 2
Alaska TRS
Disability Rates
Annual Rates Per 1,000 Employees

<u>Age</u>	<u>Rate</u>
20	.14
21	.14
22	.14
23	.15
24	.15
25	.15
26	.15
27	.15
28	.16
29	.16
30	.16
31	.17
32	.17
33	.25
34	.34
35	.44
36	.53
37	.64
38	.75
39	.87
40	.99
41	1.12
42	1.25
43	1.39
44	1.53
45	1.68
46	1.84
47	2.00
48	2.17
49	2.34
50	2.52
51	2.70
52	2.89
53	3.08
54	3.29
55	3.49
56	3.70
57	3.92
58	4.14
59	4.37
60	4.61
61	4.84
62	5.09
63	5.34
64	5.60

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Table 3
Alaska TRS
Retirement Rates

<u>Age at Retirement</u>	<u>Retirement Rate</u>
50	.10
51	.07
52	.07
53	.07
54	.07
55	.16
56	.16
57	.16
58	.16
59	.13
60	.13
61	.13
62	.13
63	.13
64	.10
65	.47
66	.82
67	1.00

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