



**State of Alaska
Public Employees'
Retirement System
Actuarial Valuation Report
as of June 30, 1998**

Revised November 1999

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Prepared by:

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November 16, 1999

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

Dear Members of the Board:

Actuarial Certification

The annual actuarial valuation required for the State of Alaska Public Employees' Retirement System has been prepared as of June 30, 1998 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, 1998;
- (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.

The following schedules that we have prepared are included in this report:

- (1) Summary of actuarial assumptions and method (Section 2.3)
- (2) Schedule of active member valuation data (Section 2.2(d) and (f))
- (3) Schedule of retirants and beneficiaries added to and removed from rolls (Section 2.2(p) and 2.2(q))
- (4) Solvency test (Section 3.3)
- (5) Analysis of financial experience (Section 3.1)

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, LLP, 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 non-health trend actuarial assumptions are based on the results of an experience study presented to the Board in October 1996. The health trend assumption was modified to better reflect our best estimate of future health trend inflation.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY99 and a rolling amortization of the funding target surplus or the unfunded target accrued liability. The amortization period is set by the Board. Contribution

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levels are recommended by the Actuary and adopted by the Board each year. Over time, the contribution rate is expected to remain constant as a percentage of payroll. The ratio of assets to liabilities decreased slightly from 106.3% to 105.9% during the year, primarily the net effect of continued favorable investment experience and a change in the health trend assumption. Over the years, progress has been made toward achieving the funding objectives of the System.

There were no significant changes in the actuarial assumptions or actuarial methods used in the determination of system liabilities this year other than the health trend assumption change and asset valuation method change. The new asset valuation method produces no gains or losses if expected assets fall within a 5% corridor of the market value. Expected assets outside this corridor are amortized over 20 years as a level percent of pay and applied directly to the consolidated rate. 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:

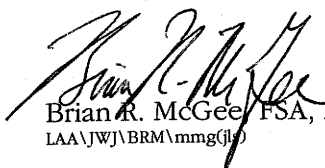
- (1) differences between actual experience and anticipated experience based on the assumptions;
- (2) changes in actuarial assumptions or methods;
- (3) changes in statutory provisions; or
- (4) differences between the contribution rates determined by the valuation and those adopted by the Board.

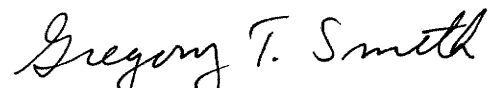
The undersigned are members of the American Academy of Actuaries or the Society of Actuaries and are fully qualified to provide actuarial services to the State of Alaska.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement Nos. 25 and 27.

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, MAAA
LAA\JWJ\BRM\mmg(jl)


Gregory T. Smith, ASA, EA

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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 Public Employees' Retirement System as of June 30, 1998;
- (2) review experience under the plan for the year ended June 30, 1998;
- (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 1998 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 and unfunded liabilities.

The principle results are as follows:

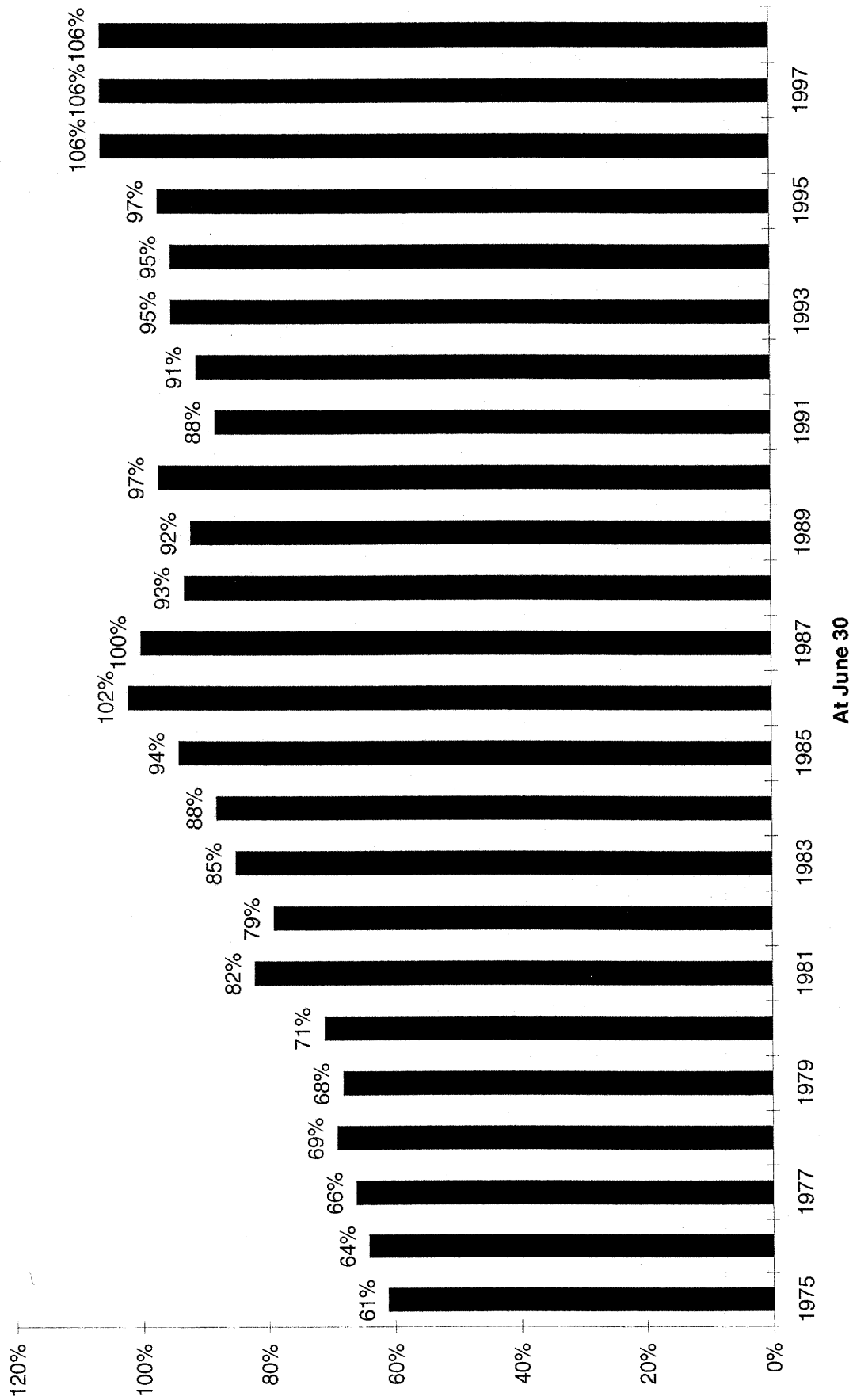
	<u>1997</u>	<u>1998</u>
Funding Status as of June 30:		
(a) Valuation Assets*	\$ 5,885,488	\$ 6,571,562
(b) Accrued Liability*		
i) Non-Medical Benefits	4,031,527	4,430,237**
ii) Total Benefits (including medical)	5,534,116	6,203,991**
(c) Funding Ratio, (a) ÷ (b)		
i) Non-Medical Benefits	146.0%	148.3%
ii) Total Benefits (including medical)	106.3%	105.9%

* In thousands.

** After health trend assumption change

Highlights (continued)

State of Alaska PERS Funding Ratio History



Highlights (continued)

Employer Contribution Rates for Fiscal Year:

	<u>2000</u>	<u>2001</u>
(a) Consolidated Rate	9.89%	8.67%
(b) Average Past Service Rate	(2.53%)	(1.64%)
(c) Average Total Contribution Rate	7.36%	7.03%
(d) Public Employees' Retirement Board Adopted Average Total Contribution Rate	7.74%	7.40%

Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio as of June 30, 1998 has decreased slightly from 106.3% to 105.9%, a decrease of 0.4%. The average employer contribution rate has decreased from 7.36% of payroll for FY00 to 7.03% for FY01, a decrease of 0.33% 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>Time Period</u>	<u>Monthly Premium Per Retiree For Health Coverage</u>	<u>Annual Percentage Increase</u>	<u>Average Compound Annual Increase Since FY78</u>
2/1/76 - 1/31/77	\$ 34.75	--	--
2/1/77 - 1/31/78	57.64	66%	--
2/1/78 - 1/31/79	69.10	20%	20%
2/1/79 - 1/31/80	64.70	- 6%	6%
2/1/80 - 1/31/81	96.34	49%	19%
2/1/81 - 1/31/82	96.34	0%	14%
2/1/82 - 1/31/83	115.61	20%	15%
2/1/83 - 1/31/84	156.07	35%	18%
2/1/84 - 1/31/85	191.85	23%	19%
2/1/85 - 1/31/86	168.25	-12%	14%
2/1/86 - 1/31/87	165.00	- 2%	12%
2/1/87 - 1/31/88	140.25	-15%	9%
2/1/88 - 1/31/89	211.22	51%	13%
2/1/89 - 1/31/90	252.83	20%	13%
2/1/90 - 1/31/91	243.98	- 4%	12%
2/1/91 - 1/31/92	243.98	0%	11%
2/1/92 - 1/31/93	226.90	- 7%	10%
2/1/93 - 1/31/94	309.72	37%	11%
2/1/94 - 1/31/95	336.05	9%	11%
2/1/95 - 1/31/96	350.50	4%	11%
2/1/96 - 1/31/97	350.50	0%	10%
2/1/97 - 1/31/98	368.00	5%	10%
2/1/98 - 12/31/98	368.00	0%	9%
1/1/99 - 12/31/99	442.00	20%	10%

As you can see from the above table, the monthly retiree medical premium for the January 1, 1999 to December 31, 1999 time period has increased to \$442.00. Since the 86/87 time period, annual premium rate changes have ranged from 51% up to 15% down, but the average compound annual increase has been about 8%.

Effective June 30, 1998, 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 0.5%, or 4.5% for FY09 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. The difference

Analysis of the Valuation *(continued)*

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.

Because no adjustments were made to the assumed medical premium rate this year, the average employer contribution rate was unaffected by medical cost experience.

(2) Investment Performance

The approximate FY98 investment return based on market values was 14.31%. The Asset Valuation Method was changed four years ago to smooth over five years the difference between actual and expected investment return. One purpose of this change was to adopt a method which better accomplished the goal of smoothing volatility in investment returns.

The approximate rate of return in FY98 based on valuation assets, after applying the smoothing technique, was 12.79%, 4.54% higher than the 8.25% investment return assumption. This produced a gain of approximately \$265,731,000 to the System from investment performance which increased the funding ratio by 4.4% and lowered the average employer contribution rate by 1.90% of total payroll.

Effective June 30, 1998 the PERS Board adopted a revised asset smoothing method. This method does not recognize asset gains or losses for the fiscal year if the expected actuarial value of assets plus (minus) any deferred gains (losses) is within a 5% corridor of the market value of assets. Any amount outside this 5% corridor is set aside and applied to the employer rate as a level percentage of pay over 20 years. If the gain (loss) amount that is set aside is offset by any future gains (losses), then the method is restarted.

As of June 30, 1998 the deferred asset gain is \$866,836,000. The amount outside the 5% corridor is \$494,916,000. This produces a reduction in the employer contribution rate of 1.36% of total payroll.

(3) Salary Increases

Last year, salary increases were slightly less than anticipated in the valuation assumptions. Salary experience resulted in an actuarial gain which increased the funding ratio by 0.7%, and lowered the average employer contribution rate by 0.46% of total payroll.

(4) Employee Data

Section 2.2 provides statistics on active and inactive participants. The number of active participants increased 0.2% from 31,854 at June 30, 1997 to 31,910 at June 30, 1998. The average age of active participants increased from 43.21 to 43.32 and average credited service decreased from 8.56 to 8.51 years.

The number of retirees and beneficiaries increased 11.0% from 11,802 to 13,101, and their average age decreased from 64.62 to 64.43. Any increase in retirees as a result of the RIP is cost neutral to the System, since the cost is funded by the individual employers. There was an 8.5% increase in the number of vested terminated participants from 4,742 to 5,143. Their average age increased from 45.83 to 46.20.

The overall effect of these participant data changes was an actuarial loss to the System, resulting in an increase in the average employer contribution rate equal to 1.12% of total payroll.

Analysis of the Valuation (continued)

(5) Ad hoc PRPA

An ad hoc Post Retirement Pension Adjustment (PRPA) was granted during FY98. This increased benefit payments to many Tier I (hired before July 1, 1986) retirees. This action produced a loss to the system of approximately \$28,204,000.

The overall effect of the ad hoc PRPA was an actuarial loss to the System which lowered the funding ratio by 0.5% and increased the average employer contribution rate by 0.20% of total payroll.

(6) Actuarial Projections

At the Fall 1991 Board Meetings, the PERS Board approved the use of an enhanced actuarial projection system. 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 1.5, Actuarial Projections, contains the results of this analysis.

This type of information can be especially useful to multi-tiered systems, such as PERS. All of the projected new entrants will be covered under the cost savings provisions of the third tier so that the ultimate effect of the second and third tiers on plan liabilities can be anticipated. As you can see in Section 1.5, based on the actuarial assumptions and cost method, future contribution rates are expected to remain fairly stable. This reflects the fact that many second-tier employees are already in PERS and affecting the rate.

The large asset gains over the last four years are being partially deferred under the asset smoothing method. As these deferred gains become recognized over the next 5 years the funded status is expected to improve. However, if the long term investment return assumption remains valid, investment losses can be anticipated which would offset these gains.

(7) 102% Target Funding Ratio

Effective June 30, 1998 the PERS Board adopted an actuarial method change that would target an ultimate funding ratio of 102% for the System. Using the actuarial projections discussed in item (6) above, an adjustment is made to the current and projected unfunded accrued liability so that the projected employer contributions to the System will result in an ultimate funding ratio of 102%.

This method change increased the average employer contribution rate by 0.99% of total payroll.

Analysis of the Valuation *(continued)*

Summary

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

Last year's average employer contribution rate	7.36%*
Change due to:	
Retiree medical insurance	0.00%
Investment performance	(1.90%)
Salary increases	(0.46%)
Demographic experience	1.12%
Ad hoc PRPA	0.20%
Change in Health Trend Assumption.	1.08%
Change due to 102% Target Funding Ratio	0.99%
Recognition of Investment Gains outside of 5% corridor	(1.36%)
Average employer contribution rate this year	7.03%**

* *The Public Employees' Retirement Board adopted an average employer contribution rate of 7.74%.*
** *The Public Employees' Retirement Board adopted an average employer contribution rate of 7.40%.*

Section 1

Valuation Results

This section sets forth the results of the actuarial valuation.

Section 1.1(a) shows the distribution of net assets as of June 30, 1998.

Section 1.1(b) shows the changes in net assets during FY98.

Section 1.1(c) develops the expected valuation assets and investment return as of June 30, 1998.

Section 1.1(d) develops the actual valuation assets as of June 30, 1998.

Section 1.2(a) shows the actuarial present values for Police and Fire members as of June 30, 1998.

Section 1.2(b) shows the actuarial present values for "Other" members as of June 30, 1998.

Section 1.3(a) develops the average employer contribution rate for Police and Fire members - FY01.

Section 1.3(b) develops the average employer contribution rate for "Other" members - FY01.

Section 1.3(c) develops the average employer contribution rate for all members - FY01.

Section 1.4 calculates the actuarial gain or loss for FY98.

Section 1.5 contains the financial projections.

1.1(a) Statement of Net Assets as of June 30, 1998 (in thousands)

	<u>Pension</u>	<u>Postemployment Health</u>	<u>Total Market Value</u>
Cash and Cash Equivalents	\$ 132	\$ 50	\$ 182
Retirement Fixed Income Pool	1,835,349	687,876	2,523,225
United States Common Stocks	2,199,358	895,215	3,094,573
International Stocks	821,122	307,751	1,128,873
International Fixed Income Pool	287,539	107,768	395,307
Emerging Markets Stocks	48,041	18,005	66,046
Real Estate Equities	151,969	56,957	208,926
Private Equity Pool	1,015	380	1,395
Mortgages (Net of Reserves)	464	174	638
Net Accrued Receivables	<u>13,990</u>	<u>5,243</u>	<u>19,233</u>
Total Assets	\$ 5,358,979	\$ 2,079,419	\$ 7,438,398

1.1(b) Changes in Net Assets During Fiscal Year 1998 (in thousands)

	<u>Pension</u>	<u>Postemployment Health</u>	<u>Total</u>
(1) Net Assets, June 30, 1997, (market value)	\$ 4,737,708	\$ 1,828,447	\$ 6,566,155
(2) Additions:			
(a) Employee Contributions	64,226	24,072	88,298
(b) Employer Contributions	69,259	25,958	95,217
(c) Retirement Incentive Program - Employee	697	261	958
(d) Retirement Incentive Program - Employer	12,487	4,680	17,167
(e) Interest and Dividend Income	197,636	74,073	271,709
(f) Net Appreciation on Investments	495,745	185,802	681,547
(g) Net Recognized Mortgage Loan Recovery	230	86	316
(h) Other	<u>5</u>	<u>2</u>	<u>7</u>
(i) Total Additions	840,285	314,934	1,155,219
(3) Deductions:			
(a) Medical Benefits	0	55,165	55,165
(b) Retirement Benefits	195,544	0	195,544
(c) Refunds of Contributions	9,861	3,696	13,557
(d) Investment Expenses	11,485	4,305	15,790
(e) Administrative Expenses	<u>2,124</u>	<u>796</u>	<u>2,920</u>
(f) Total Deductions	219,014	63,962	282,976
(4) Net Assets, June 30, 1998 (market value)	\$ 5,358,979	\$ 2,079,419	\$ 7,438,398

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

14.31%

1.1(c) Development of Expected Valuation Assets as of June 30, 1998
(in thousands)

(1)	June 30, 1997 Valuation Assets	\$ 5,885,488
(2)	Total Contributions for FY98, (Item (2a) + (2b) + (2c) + (2d) from 1.1(b))	201,640
(3)	Total Benefit Payments for FY98, (Item (3a) + (3b) + (3c) from 1.1(b))	264,266
(4)	Expected Investment Return, Net of Expenses, for the period July 1, 1997 through June 30, 1998, $((1) + .5 \times [(2) - (3)]) \times 8.25\%$	482,969
(5)	Actual Investment Return, Net of Expenses, for the period July 1, 1997 through June 30, 1998, [Item (2e) + (2f) + (2g) + (2h) - (3d) - (3e) from 1.1(b)]	934,869
(6)	Total Investment Gain/(Loss), (5) - (4)	451,900
(7)	Expected Valuation Assets, (1) + (2) - (3) + (4)	\$ 6,305,831

1.1(d) Development of Valuation Assets as of June 30, 1998 (in thousands)

	A	B	C
	Total Investment Gain/(Loss)	Gain/(Loss) Recognized in Prior Fiscal Years	Gain/(Loss) Recognized this Fiscal Year (A ÷ 5)
(1) Fiscal Year ending June 30, 1998	\$ 451,900	\$ 0	\$ 90,380
(2) Fiscal Year ending June 30, 1997	559,550	111,910	111,910
(3) Fiscal Year ending June 30, 1996	277,855	111,142	55,571
(4) Fiscal Year ending June 30, 1995	292,216	175,329	58,443
(5) Fiscal Year ending June 30, 1994	(252,865)	(202,292)	(50,573)
(6) Total Gain/(Loss) Recognized this Fiscal Year			265,731
(7) Expected Valuation Assets, June 30, 1998, (Item (7) from 1.1(c))			6,305,831
(8) Valuation Assets at June 30, 1998, (6) + (7), but not outside a corridor of 80% to 120% of the market value of assets			\$ 6,571,562
Approximate Valuation Assets Investment Return Rate During the Year, Net of Expenses			12.79%

1.1(e) Determination of Contribution Adjustment Rate due to Investment Returns Outside of 5% Corridor (in thousands)

(1)	Market Value of Assets at June 30, 1998	\$ 7,438,398
(2)	5% Corridor Around Market Value of Assets	
(a)	Upper End (105%)	7,810,318
(b)	Lower End (95%)	7,066,478
(3)	Valuation Assets at June 30, 1998	6,571,562
(4)	Amount Outside of Corridor, (2(b) – 3)	494,916
(5)	Outstanding Balance of Amounts Previously Recognized Outside of the Corridor	0
(6)	Amount to be Recognized Over 20 Years, (4 – 5)	494,916
(7)	Sum of Total Projected System Payroll Over 20 Year Period	36,444,545
(8)	Contribution Adjustment Rate, (6 ÷ 7)	1.36%

1.2(a) Actuarial Present Values as of June 30, 1998 Police and Fire Members (in thousands)

	<u>Normal Cost</u>	<u>Accrued Liability</u>
<u>Active Members</u>		
Retirement Benefits	\$ 14,158	\$ 239,666
Termination Benefits	2,298	31,573
Disability Benefits	551	11,652
Death Benefits	879	19,878
Return of Contributions	455	3,271
Medical Benefits	4,761	72,375
Indebtedness	0	(9,878)
Retirement Incentive Program Receivable	<u>0</u>	<u>(2,449)*</u>
Subtotal	23,102	366,088
<u>Inactive Members</u>		
Not Vested	0	480
Vested Terminations		
- Retirement Benefits	0	9,479
- Medical Benefits	0	12,626
Retirees & Beneficiaries		
- Retirement Benefits	0	445,137
- Medical Benefits	<u>0</u>	<u>92,439</u>
Subtotal	0	560,161
<u>Totals</u>	\$ 23,102	\$ 926,249

* Allocated between Police/Fire and Other members in proportion to Active Members' Accrued Liability prior to receivable

1.2(b) Actuarial Present Values as of June 30, 1998 "Other" Members
(in thousands)

	<u>Normal Cost</u>	<u>Accrued Liability</u>
<u>Active Members</u>		
Retirement Benefits	\$ 94,374	\$ 1,302,845
Termination Benefits	19,205	209,247
Disability Benefits	2,102	30,786
Death Benefits	4,616	80,873
Return of Contributions	5,250	25,476
Medical Benefits	59,400	649,109
Indebtedness	0	(55,883)
Retirement Incentive Program Receivable	<u>0</u>	<u>(14,902)*</u>
Subtotal	184,947	2,227,551
<u>Inactive Members</u>		
Not Vested	0	20,138
Vested Terminations - Retirement Benefits	0	359,452
- Medical Benefits	0	384,938
Retirees & Beneficiaries - Retirement Benefits	0	1,723,396
- Medical Benefits	<u>0</u>	<u>562,267</u>
Subtotal	0	3,050,191
<u>Totals</u>	\$ 184,947	\$ 5,277,742

* Allocated between Police/Fire and Other members in proportion to Active Members' Accrued Liability prior to receivable

1.3(a) Development of Average Employer Contribution Rate - FY01 Police and Fire Members (in thousands)

Consolidated Rate

(1)	Total Normal Cost	\$ 23,102
(2)	Total Salaries	138,653
(3)	Normal Cost Rate for Police & Fire Members, (1) ÷ (2)	16.66%
(4)	Member Contribution Rate (Police & Fire)	7.50%
(5)	Preliminary Consolidated Employer Normal Cost Rate For Police & Fire Members, (3) - (4)	9.16%
(6)	Net Adjustment Due to Investment Returns Outside of 5% Corridor, (Section 1.1(e))	(1.36%)
(7)	Consolidated Employer Normal Cost Rate For Police & Fire Members, (5) + (6)	7.80%

Past Service Rate

(1)	Target Accrued Liability	\$ 946,836
(2)	Valuation Assets	981,127 *
(3)	Target Unfunded Liability, (1) - (2)	(34,291)
(4)	Amortization Factor (25 years)	11.312888
(5)	Past Service Cost, (3) ÷ (4)	(3,031)
(6)	Total Salaries	138,653
(7)	Past Service Rate, (5) ÷ (6)	(2.19%)

Average Employer Contribution Rate 5.61%

* Allocated between Police/Fire and Other members in proportion to Accrued Liability.

1.3(b) Development of Average Employer Contribution Rate – FY01 For "Other" Members (in thousands)

Consolidated Rate

(1)	Total Normal Cost	\$ 184,947
(2)	Total Salaries	1,096,786
(3)	Normal Cost Rate for "Other" Members, (1) ÷ (2)	16.86%
(4)	Member Contribution Rate ("Other")	6.75%
(5)	Preliminary Consolidated Employer Normal Cost Rate For "Other" Members, (3) - (4)	10.11%
(6)	Net Adjustment Due to Investment Returns Outside of 5% Corridor, (Section 1.1(e))	(1.36%)
(7)	Consolidated Employer Normal Cost Rate For Police & Fire Members, (5) + (6)	8.75%

Past Service Rate

(1)	Target Accrued Liability	\$ 5,395,040
(2)	Valuation Assets	5,590,435*
(3)	Target Unfunded Liability, (1) - (2)	(195,395)
(4)	Amortization Factor (25 years)	11.312888
(5)	Past Service Cost, (3) ÷ (4)	(17,272)
(6)	Total Salaries	1,096,786
(7)	Past Service Rate, (5) ÷ (6)	(1.57%)

Average Employer Contribution Rate 7.18%

* Allocated between Police/Fire and Other members in proportion to Accrued Liability.

1.3(c) Development of Average Employer Contribution Rate - FY01 All Members (in thousands)

Consolidated Rate

(1)	Total Normal Cost	\$ 208,049
(2)	Total Salaries	1,235,439
(3)	Normal Cost Rate for All Members, (1) ÷ (2)	16.84%
(4)	Average Member Contribution Rate	6.81%
(5)	Preliminary Consolidated Employer Normal Cost Rate for All Members, (3) - (4)	10.03%
(6)	Net Adjustment Due to Investment Returns Outside of 5% Corridor, (Section 1.1(e))	(1.36%)
(7)	Consolidated Employer Normal Cost Rate For All Members, (5) + (6)	8.67%

Past Service Rate

(1)	Target Accrued Liability	\$ 6,341,876
(2)	Valuation Assets	6,571,562
(3)	Target Unfunded Liability, (1) - (2)	(229,686)
(4)	Amortization Factor (25 years)	11.312888
(5)	Past Service Cost, (3) ÷ (4)	(20,303)
(6)	Total Salaries	1,235,439
(7)	Past Service Rate, (5) ÷ (6)	(1.64%)

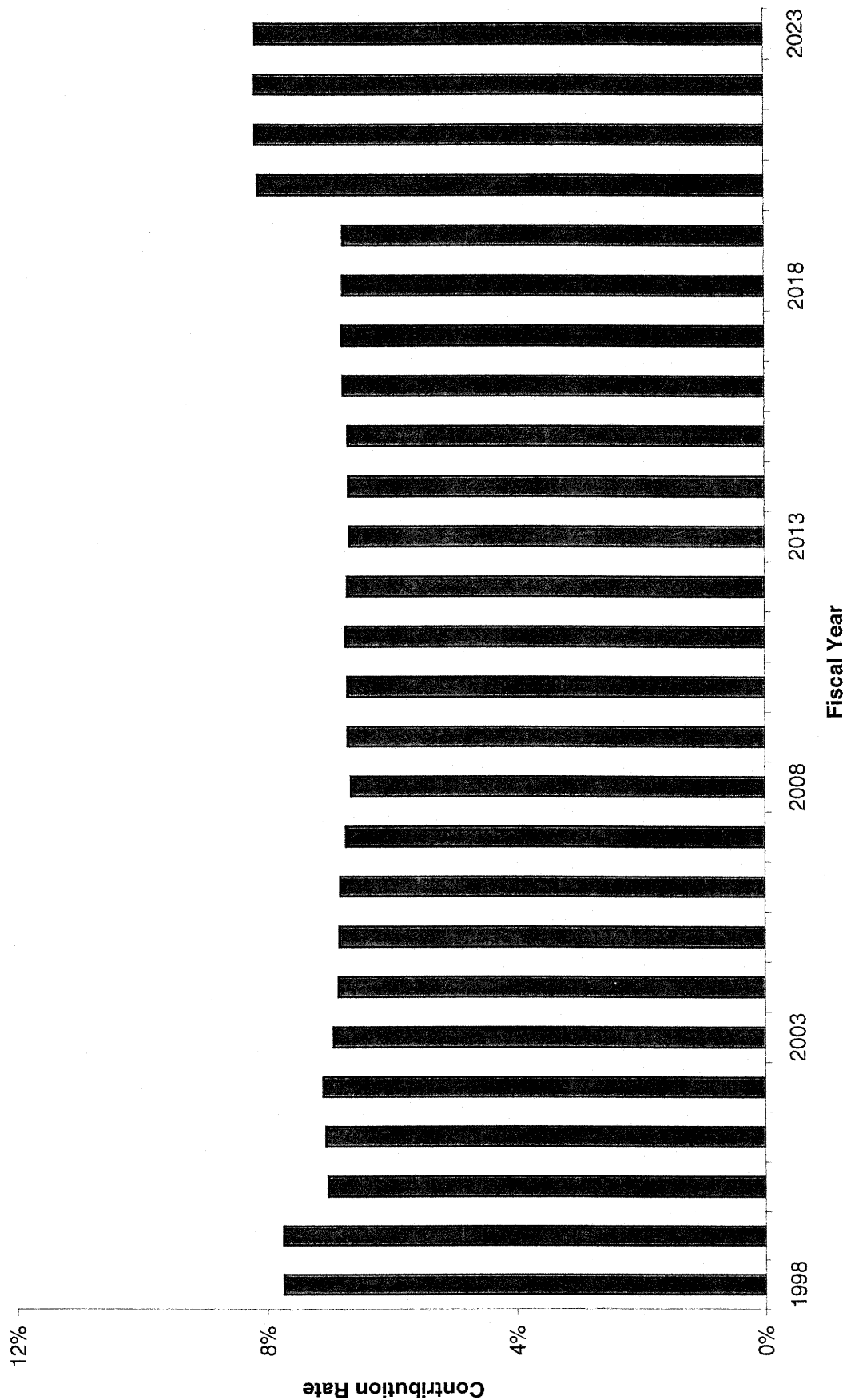
Average Employer Contribution Rate 7.03%

1.4 Development of Actuarial Gain/(Loss) for FY98 (in thousands)

(1)	Unfunded Liability, June 30, 1997	\$ (351,372)
(2)	Normal Cost for FY98	205,224
(3)	Interest on (1) and (2) at 8.25%	(12,057)
(4)	Employee Contributions for FY98	89,256
(5)	Employer Contributions for FY98	112,384
(6)	Interest on (4) and (5) at 8.25% for one-half year	8,318
(7)	Actuarial Assumption Change	122,345
(8)	Expected Unfunded Liability, June 30, 1998, (1) + (2) + (3) - (4) - (5) - (6) + (7)	(245,818)
(9)	Actual Unfunded Liability, June 30, 1998	(367,571)
(10)	Actuarial Gain/(Loss) for the Year, (8) - (9)	\$ (121,753)

1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Contribution Rates



Population Increase 1%

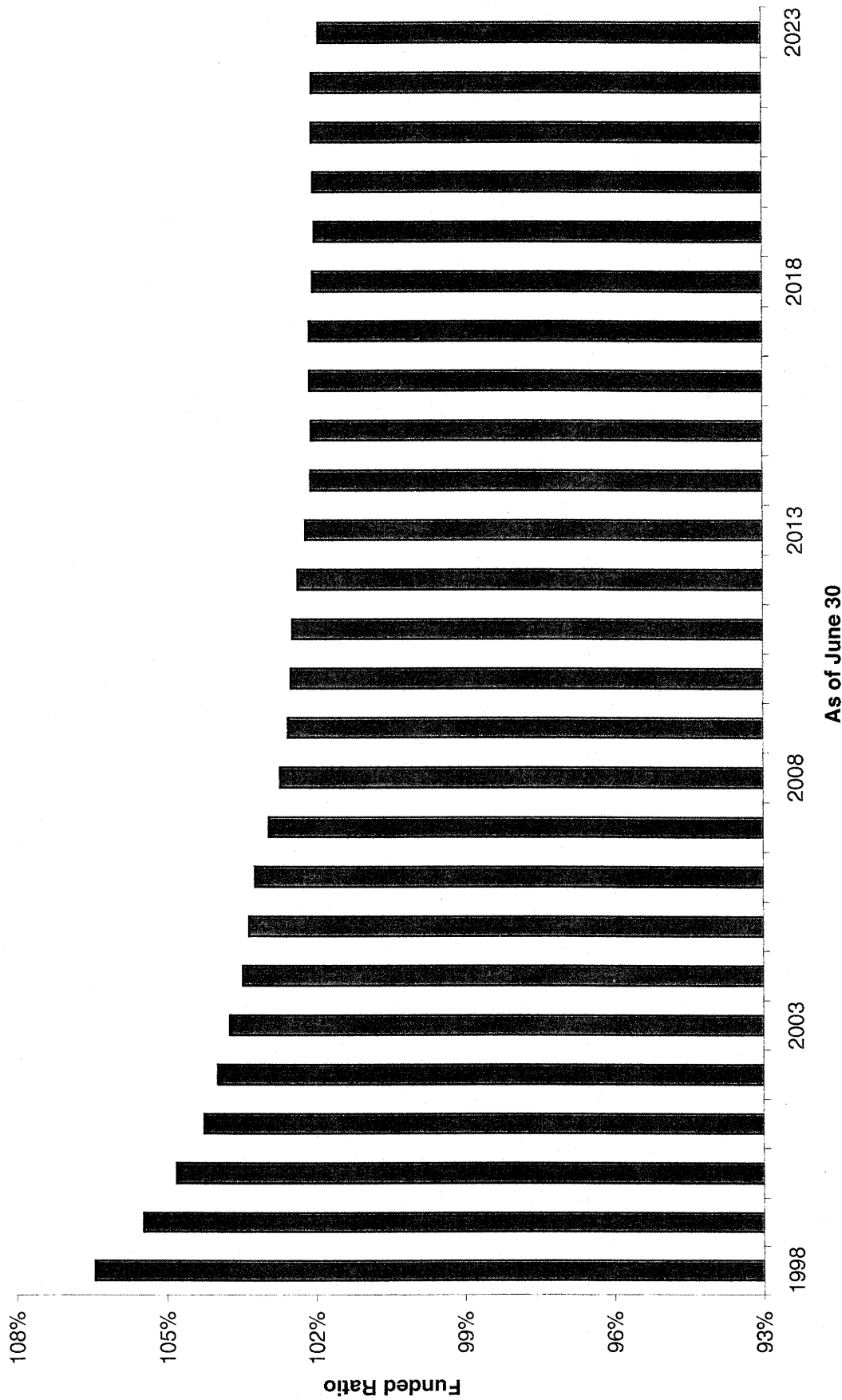
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1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Funded Ratios



Population Increase 1%

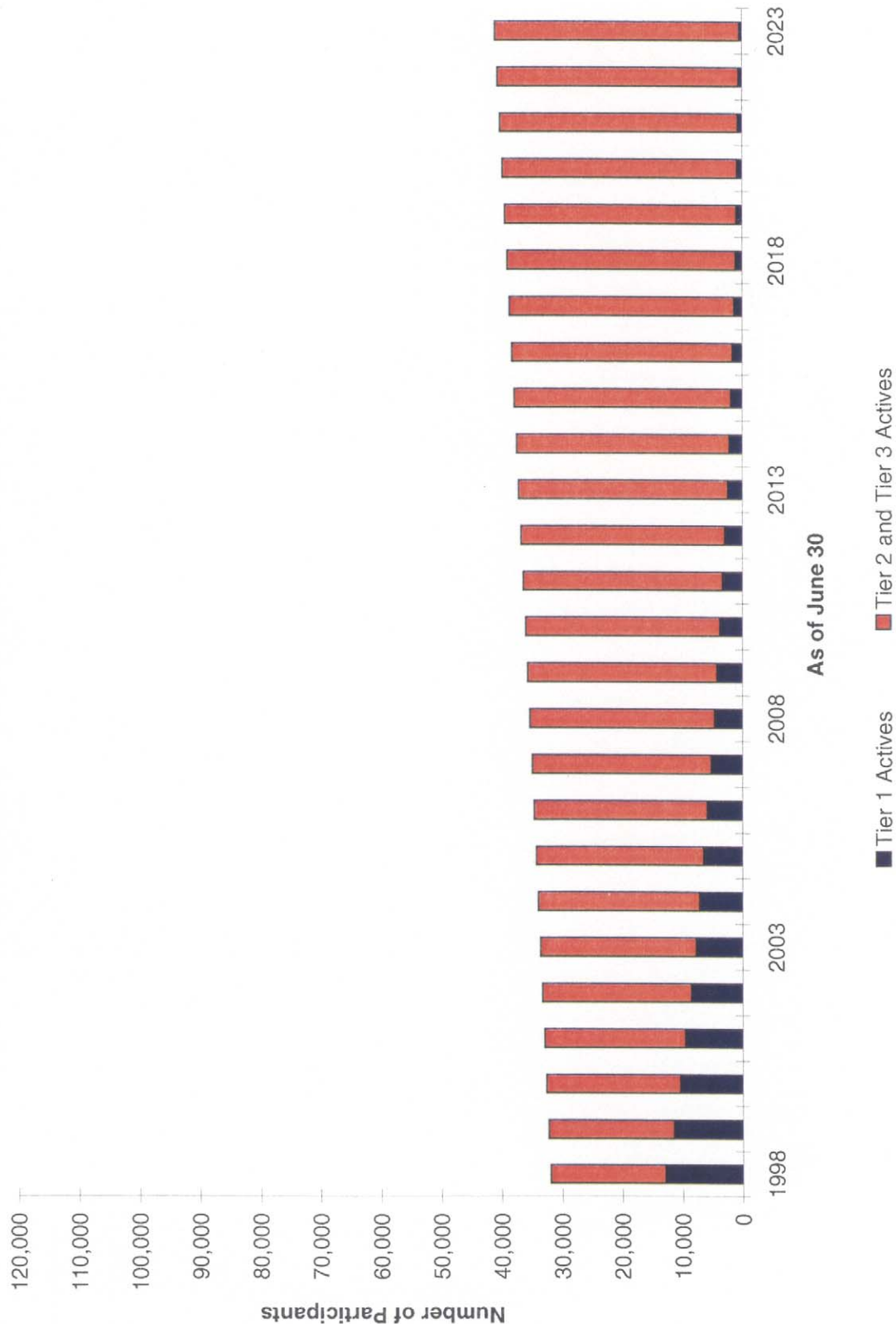
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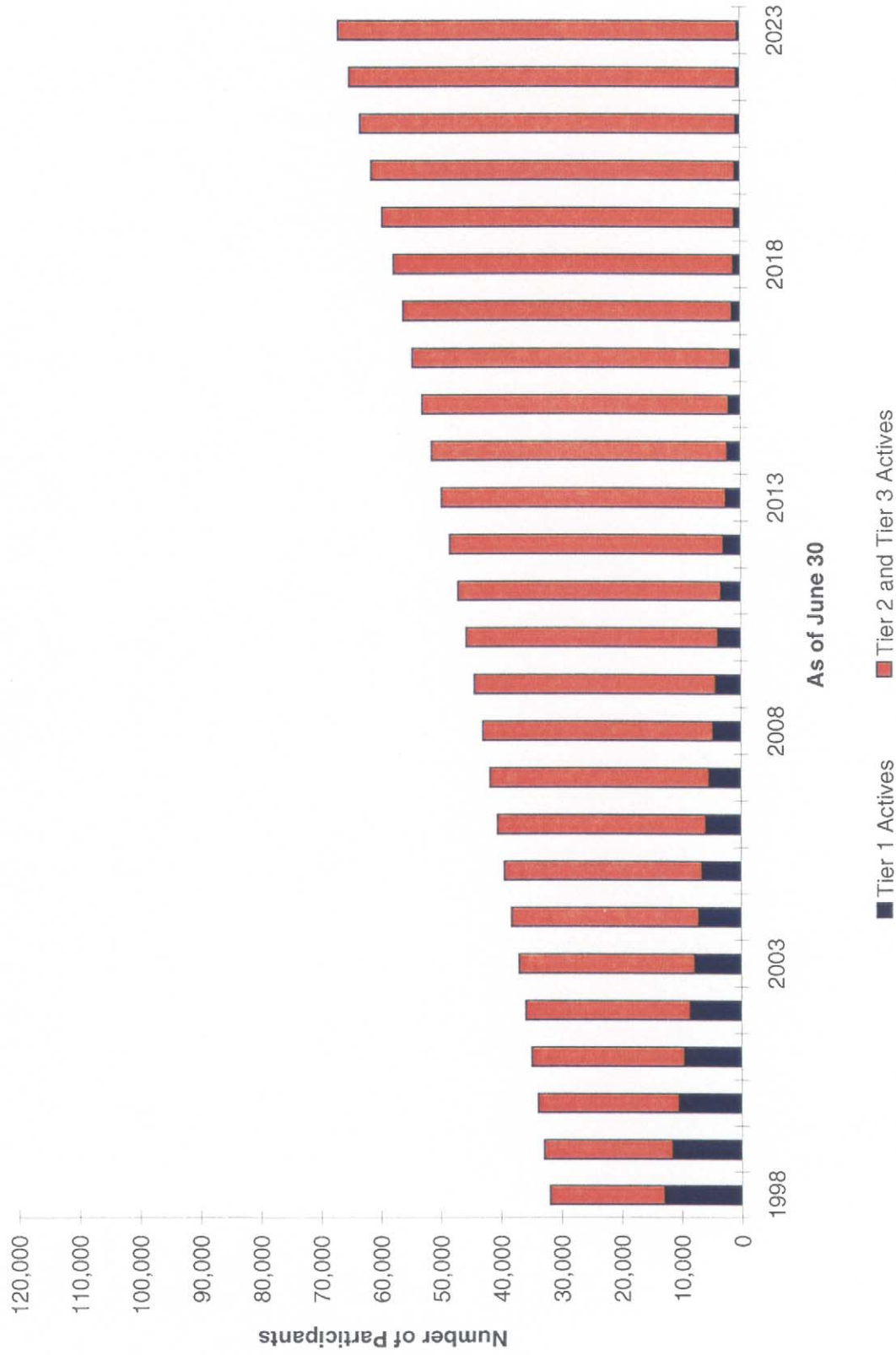
1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Active Participant Count Annual Population Increase 1%



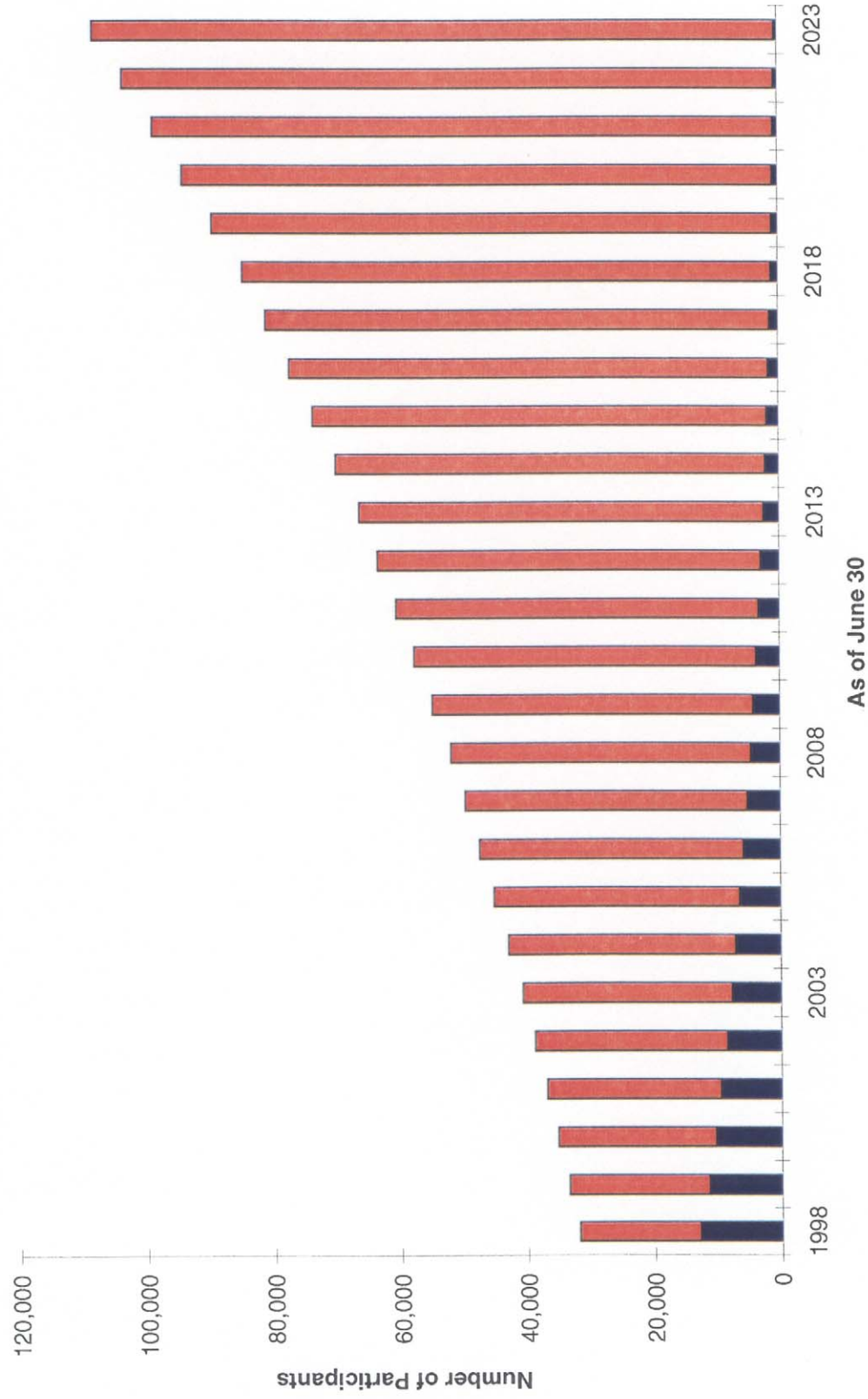
1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Active Participant Count Annual Population Increase 3%



1.5 Actuarial Projections (continued)

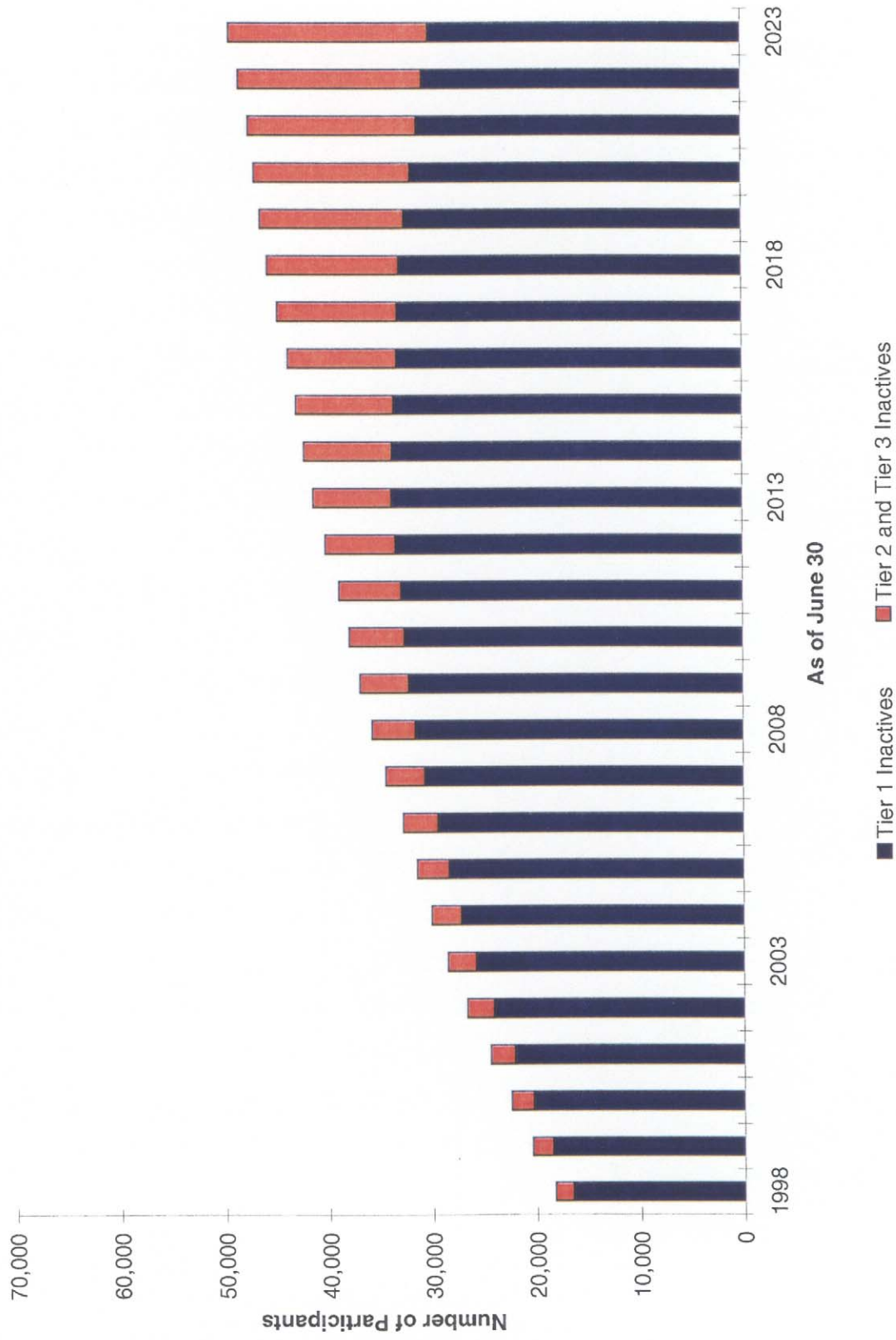
State of Alaska PERS Projected Active Participant Count Annual Population Increase 5%



■ Tier 1 Actives ■ Tier 2 and Tier 3 Actives

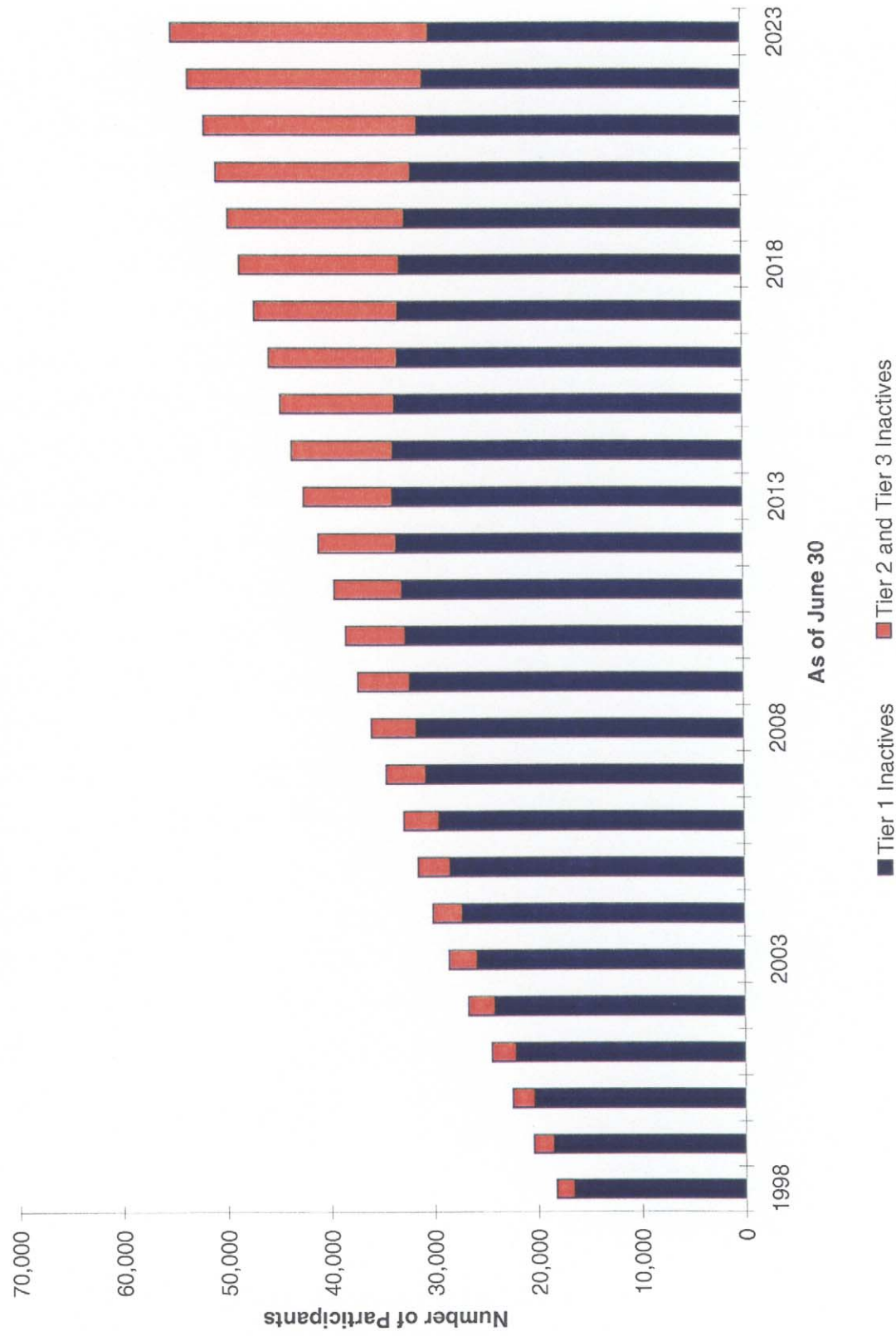
1.5 Actuarial Projections (continued)

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



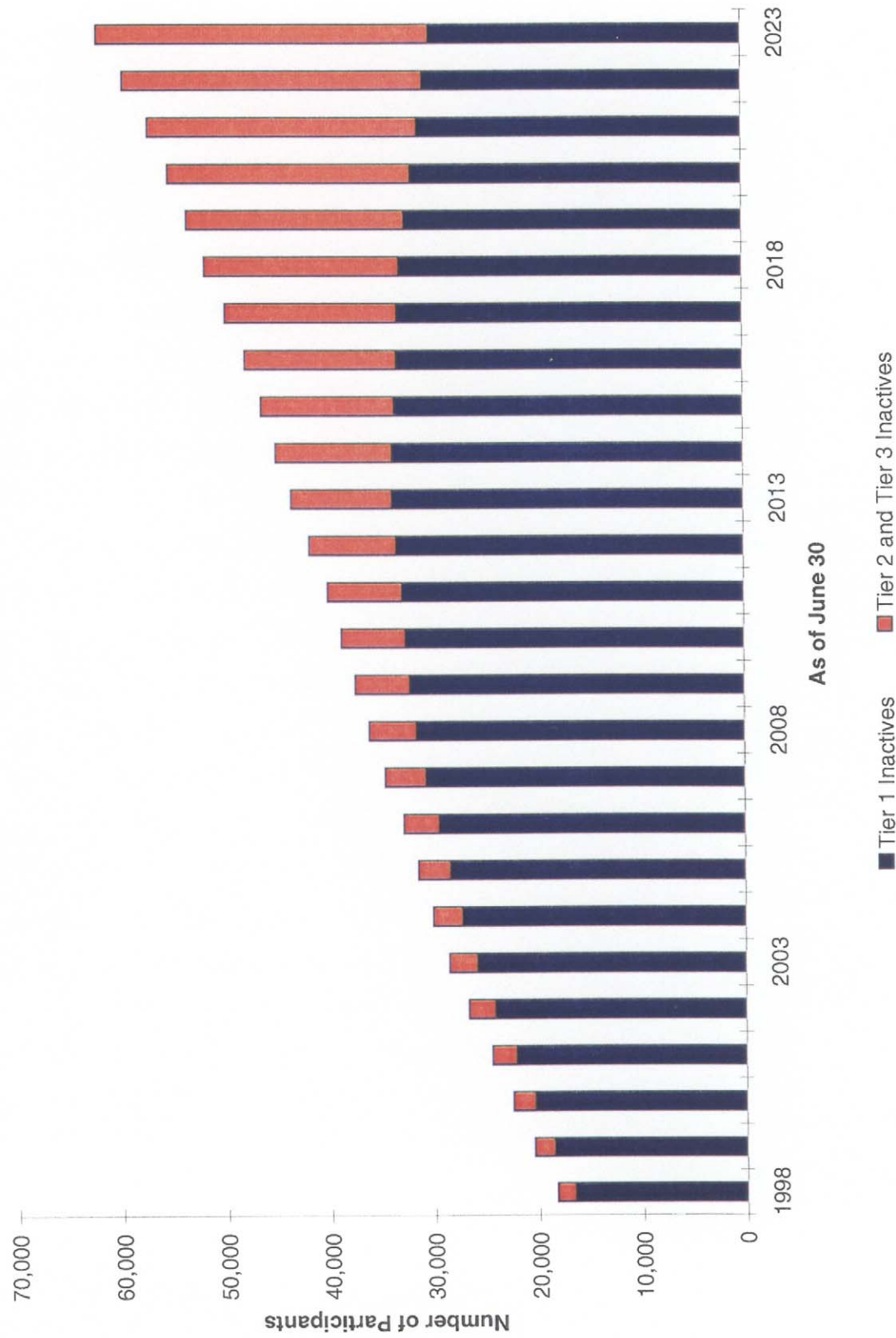
1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Inactive Participant Count Annual Population Increase 3%



1.5 Actuarial Projections (continued)

State of Alaska PERS Projected Inactive Participant Count Annual Population Increase 5%



Section 2

Basis of 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 Public Employees' Retirement System

(1) Effective Date

January 1, 1961, with amendments through June 30, 1998. Chapter 82, 1986 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the PERS before July 1, 1986, are eligible for different benefits than members hired after June 30, 1986. Members who were first hired after June 30, 1996 are eligible for different health benefits than members from the other tiers.

(2) Administration of Plan

The Commissioner of Administration is responsible for administering the system. The Public Employees' 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 PERS funds. The Attorney General represents the system in legal proceedings.

(3) Employers Included

Currently there are 148 employers participating in the PERS, including the State of Alaska and 147 political subdivisions and public organizations.

(4) Members Included

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

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

(5) Credited Service

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

Members may claim other types of service, including:

- part-time State of Alaska service rendered after December 31, 1960, and before January 1, 1976;
- service with the State, former Territory of Alaska, or U.S. Government in Alaska before January 1, 1961;;
- past peace officer, correctional officer, fire fighter, and special officer service after January 1, 1961;
- military service (not more than five years may be claimed);

2.1 Summary of the Alaska Public Employees' Retirement System (continued)

- temporary service after December 31, 1960;
- elected official service before January 1, 1981;
- Alaska Bureau of Indian Affairs service;
- past service rendered by employees who worked half-time in the PERS and Teachers' Retirement System (TRS) simultaneously; and
- leave without pay service after June 13, 1987, while receiving Workers' Compensation.

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

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

(6) Employer Contributions

Individual contribution rates are established for PERS employers based upon their consolidated and past service rates.

The consolidated rate is a uniform rate for all participating employers, amortized to include future service liabilities (less the value of members' contributions) for the members' future service.

The past service rate is determined separately for each employer to amortize their unfunded past service liability with level payments over 25 years. Effective June 30, 1996, funding surpluses are amortized over 25 years.

(7) Member Contributions

Mandatory Contributions: Police and fire members are required to contribute 7.5% of their compensation; all other members contribute 6.75%. Members' contributions are deducted from gross wages before federal income taxes are withheld.

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

Voluntary Contributions: Members may voluntarily contribute up to 5% of their salary. Voluntary contributions are recorded in a separate account and are payable to the:

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

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

2.1 Summary of the Alaska Public Employees' Retirement System (continued)

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

Reinstatement of Contributions: Refunded accounts and the corresponding PERS service may be reinstated upon reemployment in the PERS. 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.

(8) Retirement Benefits

Eligibility:

- (a) Members, including deferred vested members, are eligible for normal retirement at age 60¹, or early retirement at age 55, if they have at least:
 - (i) five years of paid-up PERS service;
 - (ii) 60 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired under the PERS before May 30, 1987;
 - (iii) 80 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired under the PERS after May 29, 1987; or
 - (iv) two years of paid-up PERS service and they are vested in the Teachers' Retirement System.
- (b) Members may retire at any age when they have:
 - (i) 20 paid-up years of PERS police/fire service; or
 - (ii) 30 paid-up years of PERS "all other" or "elected official" service.

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

Members may also select level income or 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 monthly compensation (AMC) times credited PERS service times the percentage multiplier. The AMC is determined by averaging the salaries earned during the three highest, consecutive payroll years. Members must earn at least 115 days of credit in the last year worked to include it in the AMC

¹ Members participating before July 1, 1986 are eligible for normal retirement at age 55 or early retirement at age 50.

2.1 Summary of the Alaska Public Employees' Retirement System (continued)

calculation. The PERS pays a minimum benefit of \$25.00 per month for each year of service when the calculated benefit is less.

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

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

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

(9) Reemployment of Retired Members

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

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

- (a) forfeit the three years of incentive credits that they received;
- (b) owe the PERS 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.

(10) Postemployment Healthcare Benefits

Major medical benefits are provided to retirees without cost for all employees hired before July 1, 1986. Employees hired after July 1, 1986 with five years of credited service (or ten years of credited service for those first hired after July 1, 1996) must pay the full monthly premium if they are under age sixty, must pay half of the monthly premium if they are over age sixty but under age sixty-five, and received benefits at no cost if they are over age sixty-five.

2.1 Summary of the Alaska Public Employees' Retirement System (continued)

(11) Disability Benefits

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

Occupational Disability: Members are not required to satisfy age or service requirements to be eligible for occupational disability. Monthly benefits are equal to 40% of their gross monthly compensation on the date of their disability. Members on occupational disability continue to earn PERS service until they become eligible for normal retirement.

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

(12) Death Benefits

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

Occupational Death: When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse. The pension equals 40% of the member's gross monthly compensation on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date.

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

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

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

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

2.1 Summary of the Alaska Public Employees' Retirement System

(continued)

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

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who were first hired before July 1, 1986, if the CPI increases and the financial condition of the fund will permit an increase.

(14) Alaska Cost of Living Allowance

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

- (a) members who were first hired under the PERS before July 1, 1986, and their survivors;
- (b) members who were first hired under the PERS after June 30, 1986, and their survivors if they are at least age 65; and
- (c) all disabled members.

2.2(a) Participant Census Information – Total PERS as of June 30

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Active Members					
(1) Number	31,364	31,450	31,960	31,854	31,910
(2) Average Age	42.18	42.58	42.95	43.21	43.32
(3) Average Credited Service	7.92	8.20	8.41	8.56	8.51
(4) Average Annual Salary	\$ 37,527	\$ 37,776	\$ 38,231	\$ 38,587	\$ 38,716
Retirees and Beneficiaries					
(1) Number	9,643	10,173	10,921	11,802	13,101
(2) Average Age	64.22	64.48	64.61	64.62	64.43
(3) Average Monthly Benefit:					
Base	\$ 874	\$ 900	\$ 913	\$ 941	\$ 994
C.O.L.A.	63	64	64	67	70
P.R.P.A.	135	136	131	212	209
Adjustment	0	-1	-4	-10	0
TOTAL	1,072	1,099	1,104	1,210	1,273
Vested Terminations					
(1) Number	3,771	4,144	4,382	4,742	5,143
(2) Average Age	44.39	45.00	45.43	45.83	46.20
(3) Average Monthly Benefit	\$ 626	\$ 653	\$ 662	\$ 690	\$ 717
Non-Vested Terminations With Account Balances					
(1) Number	4,859	5,398	5,847	6,260	6,571
(2) Average Account Balance	\$ 2,637	\$ 2,758	\$ 2,896	\$ 2,981	\$ 3,138

2.2(b) Additional Information –Active Members by Type of Status as of June 30

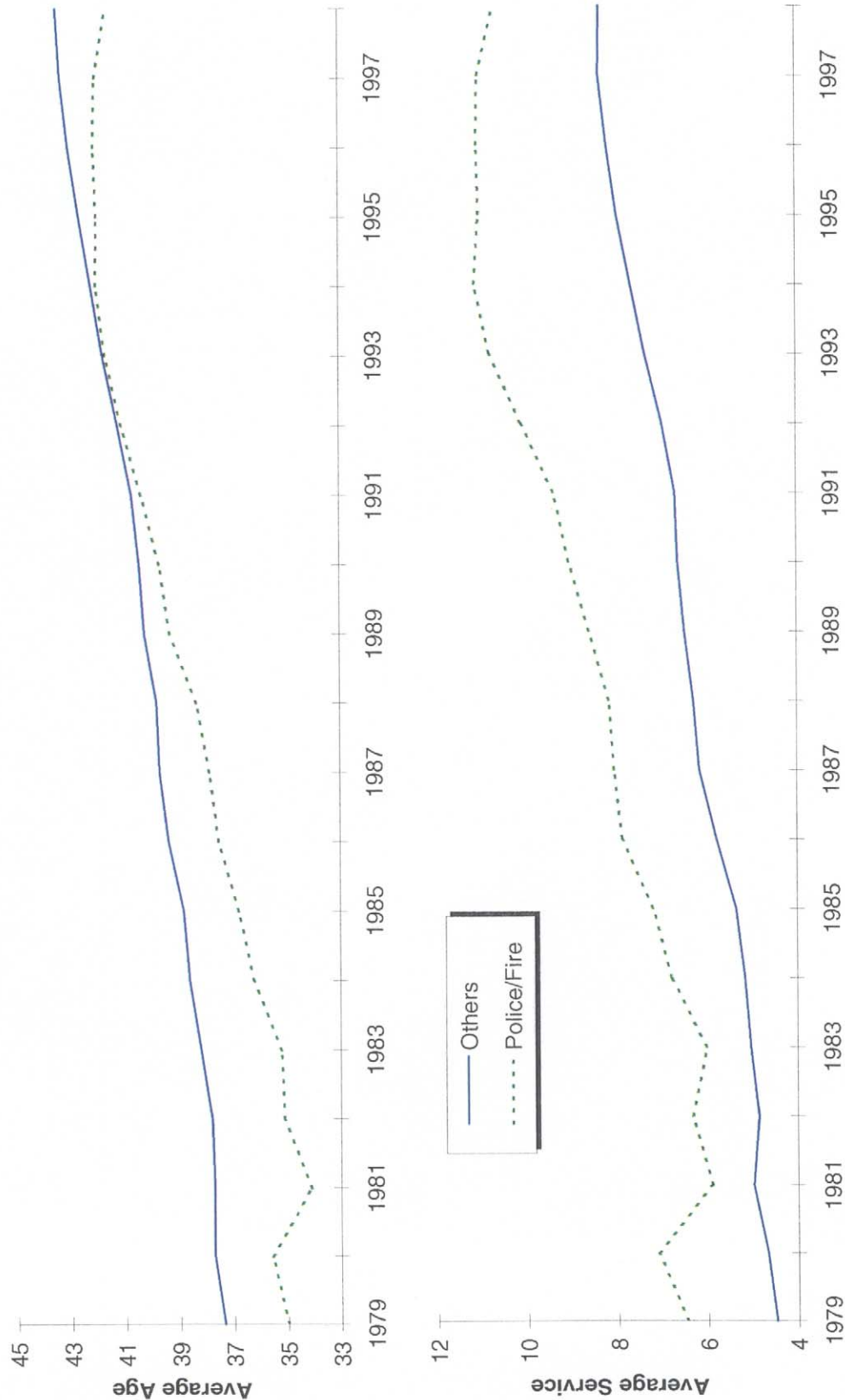
	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Active Police & Fire					
(1) Number	2,481	2,557	2,634	2,587	2,617
(2) Average Age	42.01	42.00	42.09	42.04	41.62
(3) Average Credited Service	11.13	11.03	11.07	11.05	10.68
(4) Average Annual Salary	\$ 51,776	\$ 50,921	\$ 51,011	\$ 52,455	\$ 52,982
(5) Number Vested	1,981	1,986	1,986	1,887	1,799
(6) Percent Who Are Vested	79.8%	77.7%	75.4%	72.9%	68.7%

Active "Other" Members

(1) Number	28,883	28,893	29,326	29,267	29,293
(2) Average Age	42.19	42.63	43.03	43.31	43.47
(3) Average Credited Service	7.65	7.95	8.17	8.34	8.32
(4) Average Annual Salary	\$ 36,303	\$ 36,612	\$ 37,083	\$ 37,361	\$ 37,442
(5) Number Vested	16,162	16,877	17,618	17,695	17,335
(6) Percent Who Are Vested	56.0%	58.4%	60.1%	60.5%	59.2%

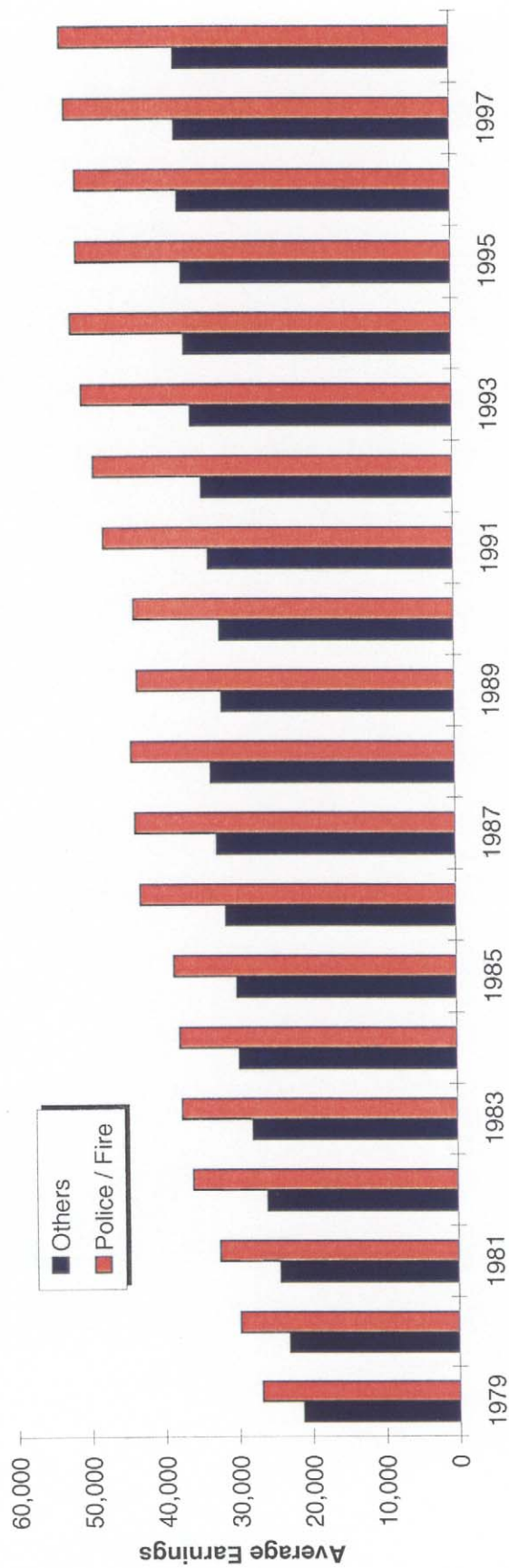
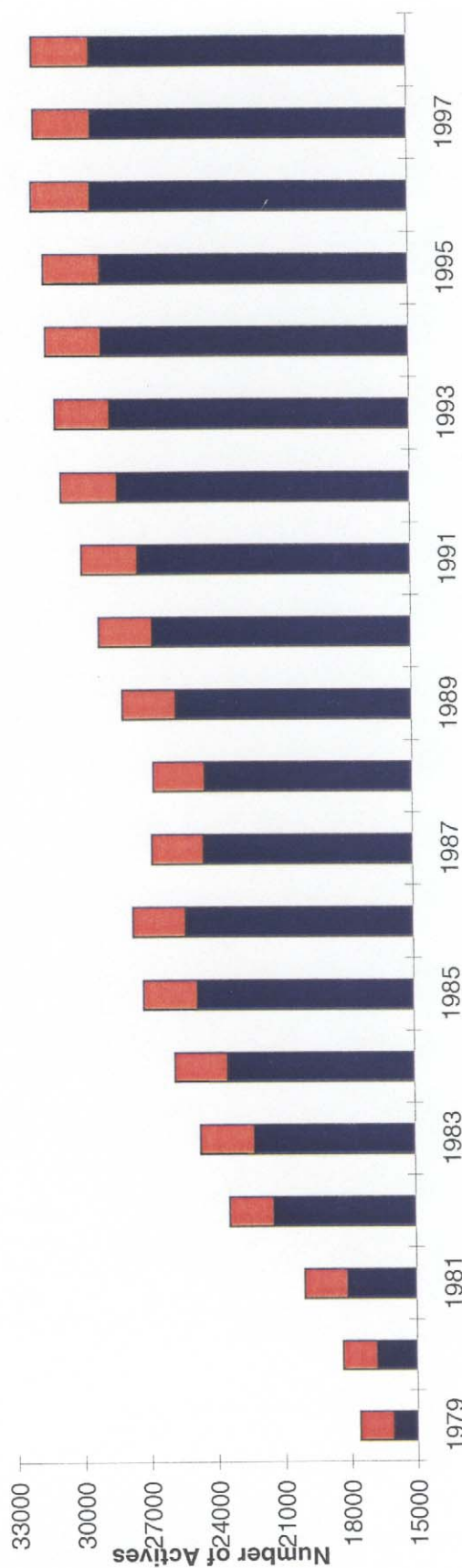
2.2(b) Additional Information -Active Members by Type of Status as of June 30 (continued)

State of Alaska - PERS Actives



2.2(b) Additional Information -Active Members by Type of Status as of June 30 (continued)

State of Alaska - PERS Actives



2.2(c) Distribution of Active Police and Fire 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	\$ 5,242,945	\$ 27,025
20-24	57	1,889,120	33,142	1	128	5,178,730	40,459
25-29	274	11,963,717	43,663	2	171	7,912,379	46,271
30-34	318	15,534,358	48,850	3	180	9,291,663	51,620
35-39	401	21,579,969	53,815	4	145	7,183,911	49,544
40-44	550	30,700,009	55,818	0- 4	818	34,809,628	42,555
45-49	560	31,625,471	56,474	5- 9	469	24,724,726	52,718
50-54	327	17,928,836	54,828	10-14	512	28,400,669	55,470
55-59	109	6,304,029	57,835	15-19	515	31,064,718	60,320
60-64	19	1,047,562	55,135	20-24	252	16,233,149	64,417
65-69	1	35,188	35,188	25-29	44	2,940,425	66,828
70-74	0	0	0	30-34	7	479,710	68,530
75+	1	44,766	44,766	35-39	0	0	0
				40+	0	0	0
Total	2,617	\$ 138,653,025	\$ 52,982	Total	2,617	\$ 138,653,025	\$ 52,982

Years of Credited Service By Age

----- Years of Service -----										Total
Age	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	56	1	0	0	0	0	0	0	0	57
25-29	243	31	0	0	0	0	0	0	0	274
30-34	203	84	31	0	0	0	0	0	0	318
35-39	122	117	110	48	4	0	0	0	0	401
40-44	84	79	140	179	64	4	0	0	0	550
45-49	68	85	112	169	108	18	0	0	0	560
50-54	34	44	89	83	57	18	2	0	0	327
55-59	7	23	24	29	17	4	5	0	0	109
60-64	0	4	6	7	2	0	0	0	0	19
65-69	0	1	0	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	0	0	0
75+	1	0	0	0	0	0	0	0	0	1
Total	818	469	512	515	252	44	7	0	0	2,617

2.2(d) Schedule of Active Member Valuation Data - Police/Fire

Valuation Date	Number	Annual Payroll (000's)	Annual Average Pay	Percent Increase/ (Decrease) In Average Pay	Number of Participating Employers
June 30, 1998	2,617	\$ 138,653	\$ 52,982	1.0%	148
June 30, 1997	2,587	135,702	52,455	2.8%	156
June 30, 1996	2,634	134,362	51,011	0.2%	156
June 30, 1995	2,557	130,204	50,921	(1.7%)	153
June 30, 1994	2,481	128,456	51,776	2.8%	155
June 30, 1993	2,463	124,025	50,355	3.2%	155
June 30, 1992	2,515	122,762	48,812	2.8%	155
June 30, 1991	2,533	120,240	47,470	9.2%	145
June 30, 1990	2,419	105,135	43,462	.9%	143
June 30, 1989	2,414	104,000	43,082	(2.0%)	135

2.2(e) Distribution of Active "Other" 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	78	\$ 1,014,779	\$ 13,010	0	3,684	\$ 73,599,079	\$ 19,978
20-24	752	16,991,092	22,595	1	2,508	74,053,655	29,527
25-29	1,804	50,236,857	27,847	2	2,217	71,511,400	32,256
30-34	2,795	89,902,997	32,166	3	1,904	64,582,228	33,919
35-39	4,478	157,074,229	35,077	4	1,645	56,872,556	34,573
40-44	6,037	231,126,293	38,285	0- 4	11,958	340,618,918	28,485
45-49	6,213	256,174,334	41,232	5- 9	7,254	278,811,605	38,436
50-54	4,209	178,066,359	42,306	10-14	4,638	201,671,613	43,482
55-59	2,007	81,063,018	40,390	15-19	3,348	162,211,094	48,450
60-64	734	28,574,481	38,930	20-24	1,544	81,220,540	52,604
65-69	141	5,180,808	36,743	25-29	469	27,063,701	57,705
70-74	36	1,037,025	28,806	30-34	76	4,774,824	62,827
75+	9	343,922	38,214	35-39	4	287,709	71,927
				40+	2	126,190	63,095
Total	29,293	\$ 1,096,786,194	\$ 37,442	Total	29,293	\$ 1,096,786,194	\$ 37,442

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	78	0	0	0	0	0	0	0	0	78
20-24	746	6	0	0	0	0	0	0	0	752
25-29	1,564	231	8	1	0	0	0	0	0	1,804
30-34	1,781	799	206	9	0	0	0	0	0	2,795
35-39	2,092	1,360	718	293	15	0	0	0	0	4,478
40-44	2,203	1,592	1,146	823	265	8	0	0	0	6,037
45-49	1,736	1,511	1,176	1,041	601	148	0	0	0	6,213
50-54	981	982	810	731	435	224	46	0	0	4,209
55-59	506	534	403	314	157	67	23	3	0	2,007
60-64	213	194	136	112	54	19	5	1	0	734
65-69	41	31	28	20	16	2	2	0	1	141
70-74	15	13	6	1	1	0	0	0	0	36
75+	2	1	1	3	0	1	0	0	1	9
Total	11,958	7,254	4,638	3,348	1,544	469	76	4	2	29,293

2.2(f) Schedule of Active Member Valuation Data - "Other"

Valuation Date	Number	Annual Payroll (000's)	Annual Average Pay	Average Increase/ (Decrease) In Average Pay	Number of Participating Employers
June 30, 1998	29,293	\$ 1,096,786	\$ 37,442	0.2%	148
June 30, 1997	29,267	1,093,433	37,361	0.7%	156
June 30, 1996	29,326	1,087,504	37,083	1.3%	156
June 30, 1995	28,893	1,057,840	36,612	0.9%	153
June 30, 1994	28,883	1,048,541	36,303	2.3%	155
June 30, 1993	28,509	1,011,864	35,493	4.2%	155
June 30, 1992	28,206	961,054	34,073	2.5%	155
June 30, 1991	27,307	907,567	33,236	4.6%	145
June 30, 1990	26,667	846,935	31,760	0.6%	143
June 30, 1989	25,630	808,835	31,558	(4.7%)	135

2.2(g) Statistics on New Retirees - Police and Fire Members During the Year Ending June 30

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Service					
(1) Number	65	84	63	140	147
(2) Average Age at Retirement	51.25	51.10	49.82	52.21	51.71
(3) Average Monthly Benefit	\$ 2,324	\$ 2,282	\$ 2,735	\$ 2,364	\$ 2,696
Survivor (including surviving spouse and QDROs)					
(1) Number	1	0	2	20	14
(2) Average Age at Retirement	41.35	N/A	49.47	53.25	51.50
(3) Average Monthly Benefit	\$ 417	N/A	\$ 1,678	\$ 1,184	\$ 1,265
Disability					
(1) Number	5	4	11	6	3
(2) Average Age at Retirement	44.84	43.31	47.00	48.77	43.40
(3) Average Monthly Benefit	\$ 1,193	\$ 2,513	\$ 1,709	\$ 1,601	\$ 2,056
Total					
(1) Number	71	88	76	166	164
(2) Average Age at Retirement	50.66	50.75	49.40	52.21	51.54
(3) Average Monthly Benefit	\$ 2,217	\$ 2,293	\$ 2,559	\$ 2,194	\$ 2,562

2.2(h) Schedule of Average Benefit Payments - New Retirees - Police/Fire

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/97 - 6/30/98: Average Monthly Benefit Number of Active Retirees	\$ 1,472 13	\$ 723 8	\$ 1,177 13	\$ 2,091 40	\$ 3,199 64	\$ 3,548 22	\$ 3,380 4
Period 7/1/96 - 6/30/97: Average Monthly Benefit Number of Active Retirees	\$ 1,263 10	\$ 592 12	\$ 957 18	\$ 1,719 40	\$ 2,811 68	\$ 3,545 15	\$ 4,733 3
Period 7/1/95 - 6/30/96: Average Monthly Benefit Number of Active Retirees	\$ 1,938 3	\$ 757 6	\$ 1,708 5	\$ 1,852 11	\$ 2,916 39	\$ 3,375 10	\$ 3,870 2
Period 7/1/94 - 6/30/95: Average Monthly Benefit Number of Active Retirees	\$ 0 0	\$ 893 8	\$ 851 10	\$ 1,608 18	\$ 3,002 42	\$ 3,107 10	\$ 0 0
Period 7/1/93 - 6/30/94: Average Monthly Benefit Number of Active Retirees	\$ 417 1	\$ 748 7	\$ 1,054 9	\$ 1,532 13	\$ 2,748 32	\$ 3,825 9	\$ 0 0
Period 7/1/92 - 6/30/93: Average Monthly Benefit Number of Active Retirees	\$ 1,047 3	\$ 546 2	\$ 1,078 7	\$ 1,648 6	\$ 2,700 17	\$ 3,704 3	\$ 3,231 1
Period 7/1/91 - 6/30/92: Average Monthly Benefit Number of Active Retirees	\$ 1,552 4	\$ 955 3	\$ 1,040 8	\$ 1,427 8	\$ 2,499 11	\$ 3,511 1	\$ 0 0

"Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.

2.2(i) Statistics on New Retirees "Other" Members During the Year Ending June 30

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Service					
(1) Number	539	522	621	791	1,098
(2) Average Age at Retirement	56.92	57.21	57.80	56.59	56.59
(3) Average Monthly Benefit	\$ 1,113	\$ 1,245	\$ 1,183	\$ 1,272	\$ 1,443
Survivor (including surviving spouse and QDROs)					
(1) Number	10	16	45	88	85
(2) Average Age at Retirement	48.68	50.61	55.87	62.17	61.68
(3) Average Monthly Benefit	\$ 1,005	\$ 976	\$ 709	\$ 805	\$ 710
Disability					
(1) Number	18	23	36	25	36
(2) Average Age at Retirement	49.71	47.49	49.47	46.69	48.21
(3) Average Monthly Benefit	\$ 1,221	\$ 1,243	\$ 1,417	\$ 1,656	\$ 1,421
Total					
(1) Number	567	561	702	904	1,219
(2) Average Age at Retirement	56.55	56.62	57.25	56.86	56.70
(3) Average Monthly Benefit	\$ 1,115	\$ 1,237	\$ 1,165	\$ 1,238	\$ 1,391

2.2(j) Schedule of Average Benefit Payments - New Retirees - "Other"

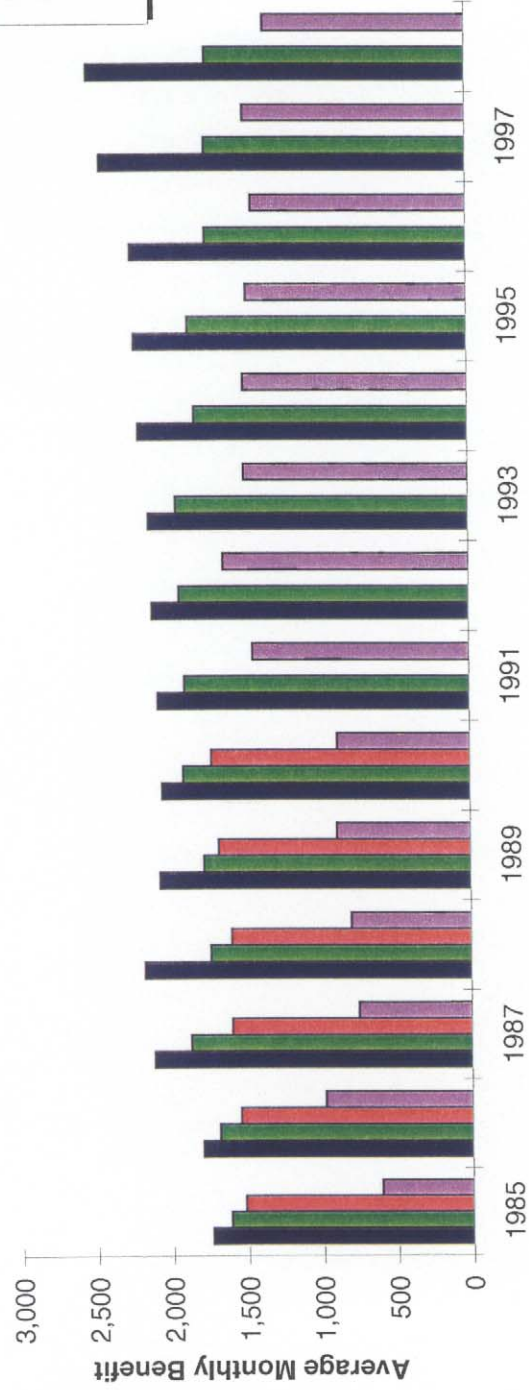
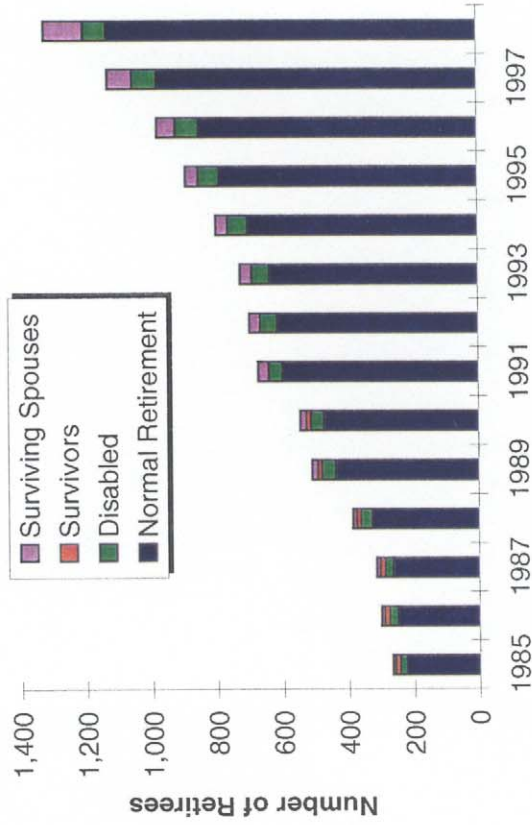
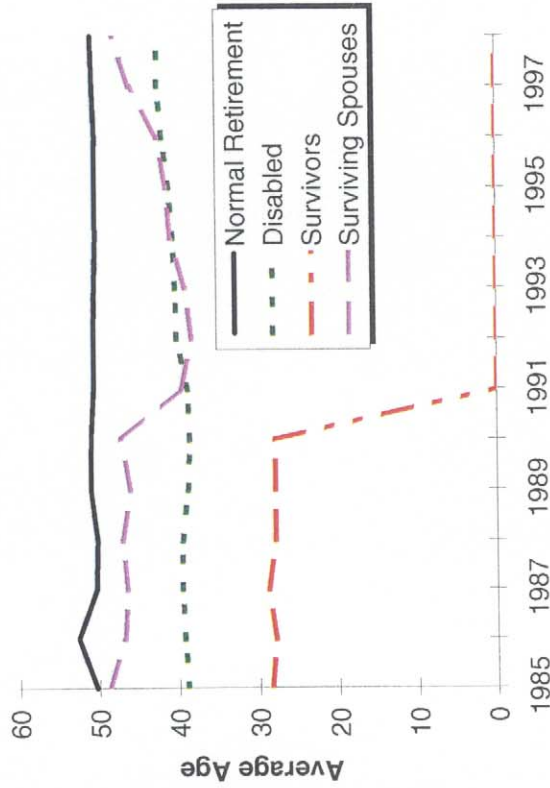
	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/97 - 6/30/98:							
Average Monthly Benefit	\$ 943	\$ 511	\$ 935	\$ 1,512	\$ 2,090	\$ 3,007	\$ 3,700
Number of Active Retirants	107	246	281	282	175	86	42
Period 7/1/96 - 6/30/97:							
Average Monthly Benefit	\$ 905	\$ 481	\$ 872	\$ 1,507	\$ 2,086	\$ 2,821	\$ 3,308
Number of Active Retirants	43	254	223	191	112	54	27
Period 7/1/95 - 6/30/96:							
Average Monthly Benefit	\$ 652	\$ 483	\$ 855	\$ 1,385	\$ 1,920	\$ 2,624	\$ 3,473
Number of Active Retirants	46	179	188	143	87	35	24
Period 7/1/94 - 6/30/95:							
Average Monthly Benefit	\$ 754	\$ 483	\$ 890	\$ 1,523	\$ 2,087	\$ 2,688	\$ 2,607
Number of Active Retirants	5	148	154	132	76	25	21
Period 7/1/93 - 6/30/94:							
Average Monthly Benefit	\$ 503	\$ 449	\$ 863	\$ 1,412	\$ 1,886	\$ 2,710	\$ 3,131
Number of Active Retirants	17	149	169	136	60	17	19
Period 7/1/92 - 6/30/93:							
Average Monthly Benefit	\$ 558	\$ 449	\$ 866	\$ 1,343	\$ 2,029	\$ 2,534	\$ 3,223
Number of Active Retirants	23	158	143	83	36	13	8
Period 7/1/91 - 6/30/92:							
Average Monthly Benefit	\$ 584	\$ 498	\$ 842	\$ 1,240	\$ 1,941	\$ 2,350	\$ 2,758
Number of Active Retirants	19	161	138	71	32	8	6

"Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.

2.2(k) Statistics on All Retirees as of June 30, 1998

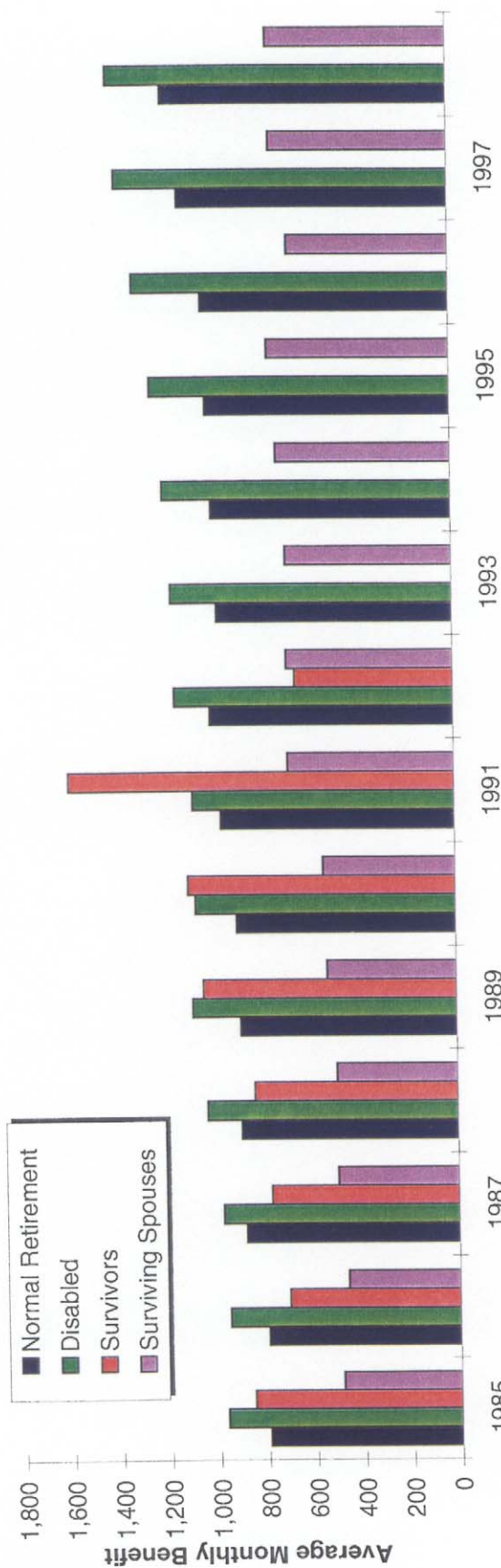
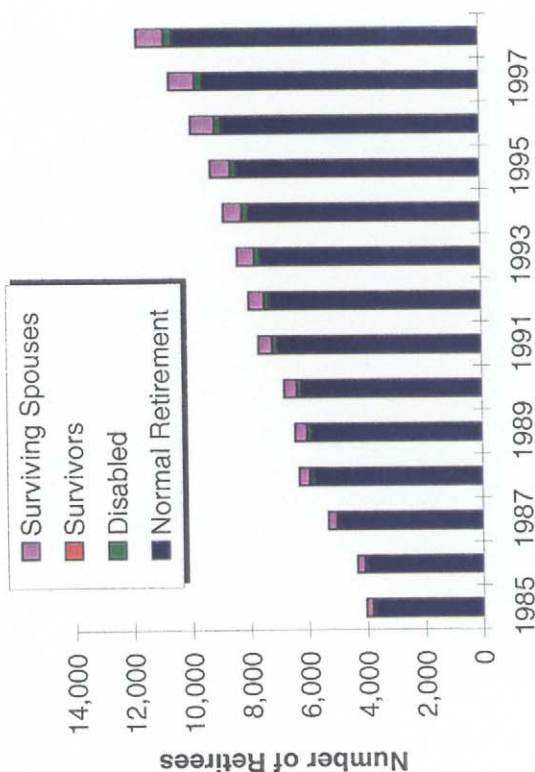
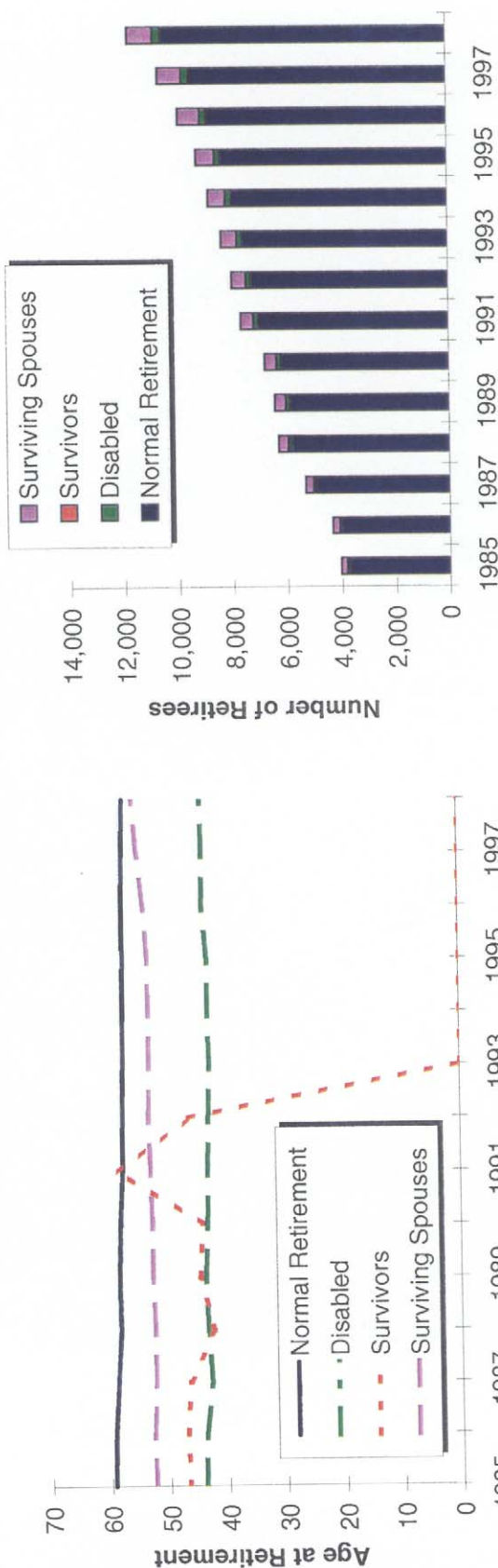
	<u>Police & Fire</u>	<u>"Other"</u>
Service Retirement		
(1) Number, June 30, 1997	979	9,528
(2) Net Change During FY98	153	1,024
(3) Number, June 30, 1998	1,132	10,552
(4) Average Age At Retirement	50.70	57.01
(5) Average Age Now	58.24	65.63
(6) Average Monthly Benefit	\$ 2,517.09	\$ 1,180.13
Survivor (including surviving spouse and QDRO's)		
(1) Number, June 30, 1997	76	884
(2) Net Change During FY98	43	60
(3) Number, June 30, 1998	119	944
(4) Average Age At Retirement	48.03	55.40
(5) Average Age Now	55.42	65.09
(6) Average Monthly Benefit	\$ 1,341.08	\$ 741.80
Disabilities		
(1) Number, June 30, 1997	75	260
(2) Net Change During FY98	(3)	22
(3) Number, June 30, 1998	72	282
(4) Average Age At Retirement	42.32	43.71
(5) Average Age Now	47.97	49.11
(6) Average Monthly Benefit	\$ 1,727.55	1,406.98
Total Number of Retirees	1,323	11,778

State of Alaska - PERS Police / Fire Retirees



2.2(k) Statistics on All Retirees as of June 30, 1998 (continued)

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	\$ 0	0	164	\$ 5,041,784	\$ 30,743
20-24	0	0	0	1	176	4,813,708	27,351
25-29	0	0	0	2	80	2,403,285	30,041
30-34	4	103,292	25,823	3	99	2,766,658	27,946
35-39	4	81,201	20,300	4	77	2,078,194	26,990
40-44	54	1,483,556	27,473	0- 4	596	17,103,629	28,697
45-49	157	4,969,114	31,650	5- 9	284	7,269,825	25,598
50-54	331	10,605,746	32,042	10-14	273	9,016,979	33,029
55-59	331	9,266,655	27,996	15-19	114	2,953,985	25,912
60-64	202	5,308,122	26,278	20-24	48	1,059,529	22,074
65-69	120	3,159,767	26,331	25-29	8	195,833	24,479
70-74	83	1,849,923	22,288	30-34	0	0	0
75+	37	772,404	20,876	35-39	0	0	0
				40+	0	0	0
Total	1,323	\$ 37,599,780	\$ 28,420	Total	1,323	\$ 37,599,780	\$ 28,420

Years Since Retirement by Age

----- Years Since Retirement -----										
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	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	2	0	0	0	0	0	0	0	4
35-39	2	2	0	0	0	0	0	0	0	4
40-44	39	11	2	2	0	0	0	0	0	54
45-49	121	26	8	1	1	0	0	0	0	157
50-54	199	76	46	6	3	1	0	0	0	331
55-59	165	89	69	6	1	1	0	0	0	331
60-64	51	53	72	19	6	1	0	0	0	202
65-69	10	18	50	37	5	0	0	0	0	120
70-74	6	7	22	33	15	0	0	0	0	83
75+	1	0	4	10	17	5	0	0	0	37
Total	596	284	273	114	48	8	0	0	0	1,323

2.2(m) Schedule of Retired Members by Type of Retirant and Option Selected - Police/Fire - June 30, 1998

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	13	10	2	1	5	3	4	1
301 - 600	76	52	18	6	36	21	14	5
601 - 900	90	61	22	7	54	21	6	9
901 - 1200	102	77	20	5	63	13	17	9
1201 - 1500	89	74	13	2	43	18	16	12
1501 - 1800	83	54	14	15	43	21	9	10
1801 - 2100	111	84	12	15	55	38	10	8
2101 - 2400	118	100	8	10	44	49	16	9
2401 - 2700	111	100	5	6	42	41	18	10
2701 - 3000	111	108	1	2	43	37	15	16
3001 - 3300	111	109	1	1	38	44	18	11
3301 - 3600	104	103	1	0	35	51	7	11
3601 - 3900	64	62	0	2	23	33	3	5
3901 - 4200	54	53	1	0	19	22	9	4
over 4200	86	85	1	0	29	45	8	4
Totals	1,323	1,132	119	72	572	457	170	124

Type of Retirement

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

- Option 1 - Whole Life Annuity
- Option 2 - 75% Joint and Contingent Annuity
- Option 3 - 50% Joint and Contingent Annuity
- Option 4 - 66 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	1,219	\$ 20,344,709	\$ 16,690
20-24	0	0	0	1	1,054	15,635,650	14,835
25-29	0	0	0	2	736	10,468,708	14,224
30-34	4	41,250	10,313	3	608	9,023,906	14,842
35-39	30	281,998	9,400	4	588	8,006,017	13,616
40-44	70	943,216	13,475	0- 4	4,205	63,478,990	15,096
45-49	186	2,439,283	13,114	5- 9	2,793	34,829,582	12,470
50-54	1,025	14,721,936	14,363	10-14	2,810	40,872,459	14,545
55-59	2,421	36,882,018	15,234	15-19	1,185	14,040,769	11,849
60-64	2,432	35,670,310	14,667	20-24	696	8,194,045	11,773
65-69	2,175	29,091,035	13,375	25-29	83	1,054,695	12,707
70-74	1,623	20,276,043	12,493	30-34	5	104,270	20,854
75+	1,812	22,249,443	12,279	35-39	1	21,722	21,722
				40+	0	0	0
Total	11,778	\$ 162,596,532	\$ 13,805	Total	11,778	\$ 162,596,532	\$ 13,805

Years Since Retirement By Age

----- Years Since Retirement -----										
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	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
30-34	3	1	0	0	0	0	0	0	0	4
35-39	16	11	3	0	0	0	0	0	0	30
40-44	34	27	7	2	0	0	0	0	0	70
45-49	121	43	16	4	2	0	0	0	0	186
50-54	909	75	32	7	2	0	0	0	0	1,025
55-59	1,546	696	148	19	10	2	0	0	0	2,421
60-64	861	936	607	17	9	1	1	0	0	2,432
65-69	495	557	900	206	15	2	0	0	0	2,175
70-74	150	344	627	401	99	2	0	0	0	1,623
75+	<u>70</u>	<u>103</u>	<u>470</u>	<u>529</u>	<u>559</u>	<u>76</u>	<u>4</u>	<u>1</u>	<u>0</u>	<u>1,812</u>
Total	4,205	2,793	2,810	1,185	696	83	5	1	0	11,778

2.2(o) Schedule of Retired Members by Type of Retirant and Option Selected -- "Other" -- June 30, 1998

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	1,161	954	197	10	663	242	195	61
301 - 600	2,647	2,314	281	52	1,517	534	404	192
601 - 900	2,121	1,908	187	26	1,157	498	287	179
901 - 1200	1,656	1,486	129	41	887	385	220	164
1201 - 1500	1,164	1,063	64	37	635	261	186	82
1501 - 1800	849	775	42	32	445	214	102	88
1801 - 2100	585	538	17	30	329	131	74	51
2101 - 2400	440	410	9	21	220	112	63	45
2401 - 2700	339	318	10	11	165	93	43	38
2701 - 3000	240	229	3	8	119	72	27	22
3001 - 3300	155	151	2	2	62	54	25	14
3301 - 3600	126	117	3	6	57	43	15	11
3601 - 3900	106	103	0	3	33	47	15	11
3901 - 4200	62	60	0	2	30	18	7	7
over 4200	127	126	0	1	58	30	26	13
Totals	11,778	10,552	944	282	6,377	2,734	1,689	978

Type of Retirement

- 1 - Normal retirement
- 2 - Survivor payment
- 3 - Disability retirement
- Option 1 - Whole Life Annuity
- Option 2 - 75% Joint and Contingent Annuity
- Option 3 - 50% Joint and Contingent Annuity
- Option 4 - 66 2/3% 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		Increase in Annual Allowances	Average Annual Allowance
	No.*	Annual Allowances*	No.*	Annual Allowances*	No.	Annual Allowances		
June 30, 1998	195	\$ 6,096,918	2	\$ 62,532	1,323	\$ 37,599,780	19.1%	\$ 28,420
June 30, 1997	161	6,672,261 ⁽¹⁾	9	372,984 ⁽¹⁾	1,130	31,565,394	24.9%	27,934
June 30, 1996	88	2,217,256	2	50,392	978	25,266,117	9.4%	25,834
June 30, 1995	95	2,697,924	3	85,198	892	23,099,253	12.8%	25,896
June 30, 1994	77	2,428,767	4	119,938	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
* Numbers are estimated, and include other internal transfers.								

⁽¹⁾ Includes additional benefits to current retirees from a one time retroactive ad hoc Post-Retirement Pension Adjustment.

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

Year Ended	Added to Rolls		Removed from Rolls		Rolls - End of Year		Increase in Annual Allowances	Average Annual Allowance
	No.*	Annual Allowances*	No.*	Annual Allowances*	No.	Annual Allowances		
June 30, 1998	1,219	\$ 25,116,364	113	\$ 2,328,260	11,778	\$ 162,596,532	16.3%	\$ 13,805
June 30, 1997	830	23,255,081 ⁽¹⁾	101	2,829,835 ⁽¹⁾	10,672	139,808,428	17.1%	13,100
June 30, 1996	702	8,803,872	40	501,645	9,943	119,383,182	7.5%	12,007
June 30, 1995	561	8,327,484	123	850,316	9,281	111,080,955	7.2%	11,969
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
* Numbers are estimated, and include other internal transfers.								

⁽¹⁾ Includes additional benefits to current retirees from a one time retroactive ad hoc Post-Retirement Pension Adjustment.

2.3 Summary of Actuarial Assumptions and Methods

The demographic and non-health economic assumptions used in this valuation were recommended by William M. Mercer, Incorporated and were adopted at the Fall 1996 PERS Board Meeting. These assumptions were the result of an experience study performed in the fall of 1996. The health trend assumption was revised effective June 30, 1998 to better reflect expected future health inflation. The funding method used in this valuation was adopted June 30, 1985. The asset smoothing method used to determine valuation assets was changed effective June 30, 1998.

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. Any funding surpluses or unfunded accrued liability is amortized over a rolling 25 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.

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

B. Actuarial Assumptions -

- | | | |
|-----|----------------------|--|
| 1. | Investment Return | 8.25% per year, compounded annually, net of expenses. |
| 2. | Salary Scale | Inflation - 4.0% per year
Productivity - 0.5% per year
Merit (first 5 years of employment) - 1.0% per year |
| 3. | Total Inflation | Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 4% annually. |
| 4. | Health Cost Trend | FY98 10.5%
FY99 - 9.5%
FY00 - 8.5%
FY01 - 7.5%
FY02 - 6.5%
FY03 - 5.5%
FY04 - FY08 - 5.0%
FY09 & later - 4.5% |
| 5. | Mortality | 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 "Other". |
| 6. | Turnover | Based upon the 1991-95 actual total turnover experience. (See Table 1). |
| 7. | Disability | Incidence rates, based upon the 1991-95 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 "Other". |
| 8. | Retirement Age | Retirement rates based upon the 1991-95 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 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. |

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

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|--------------|------------------------------------|--|--------------|-------------|---------|-------------|-------------|-------------|
| 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 | <p>Growth projections are made for the active PERS population under three scenarios:</p> <table border="0"><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> <p>Only the 1% per year scenarios for funding ratios and average contribution rates were presented in this report.</p> | 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. | Post-Retirement Pension Adjustment | 50% and 75% of assumed inflation is valued for the automatic Post-Retirement Pension Adjustment (PRPA) as specified in the statute. | | | | | | |
| 15. | Expenses | Expenses are covered in the investment return assumption. | | | | | | |
| 16. | Marital Status | 75% of participants are assumed to be married. | | | | | | |

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, LLP. Valuation assets cannot be outside a range of 80% to 120% of the market value of assets.

Effective June 30, 1998 the PERS board adopted a revised asset smoothing method. This method does not recognize any asset gain or loss for the fiscal year if the expected actuarial value of assets plus (minus) any deferred gains (losses) is within a 5% corridor of the market value of assets. Any amount outside this 5% corridor is set aside and applied to the employer rate as a level percentage of pay over the next 20 years. The gain (loss) amount that is set aside is not expected to be offset by any future gains (losses). If this is not the case then the method is restarted.

Determination of the Adjustment for the 102% Target Funding Ratio

The target unfunded (surplus) accrued liability is determined by first reducing the actuarial value of assets by 2.296% and calculating the resulting unfunded (surplus) accrued liability. This unfunded (surplus) liability is then loaded by 6% to account for the 2-year delay in employer contributions. Both of these factors are determined empirically from the actuarial projection valuation. This target unfunded accrued liability (surplus) is then added to the actuarial value of assets to determine the target accrued liability. This target accrued liability is the basis for the determination of the employer contribution rate before the rate is adjusted for the deferred gains or losses outside the 5% corridor as discussed above.

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

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 the June 30, 1998 valuation, the pre-65 monthly premium is \$600.44 and the post-65 premium is \$228.72, based on an assumed total blended premium of \$459.33. For the time period January 1, 1999 to December 31, 1999, the actual blended premium as provided by the State of Alaska Division of Retirement and Benefits is \$442.00.

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

Table 1

Alaska PERS

Total Turnover Assumptions

Select Rates of Turnover During the First 5 Years of Employment			Ultimate Rates of Turnover After the First 5 Years of Employment	
Police and Fire:				
Year of Employment	---Age at Hire---		<u>Age</u>	<u>Rate</u>
	<u>20-29</u>	<u>30+</u>		
	.22	.22	20-29	.06
	.15	.14	30+	.04
	.15	.12		
	.10	.08		
	.07	.06		
"Other"				
Year of Employment	---Age at Hire---		<u>Age</u>	<u>Rate</u>
	<u>20-29</u>	<u>30+</u>		
1	.30	.20	20-29	.10
2	.20	.15	30-39	.08
3	.15	.12	40+	.06
4	.12	.10		
5	.12	.10		

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

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

<u>Age</u>	<u>Police & Fire Rate</u>	<u>"Other" Member Rate</u>
20	.88	.28
21	.89	.28
22	.90	.29
23	.91	.29
24	.93	.30
25	.94	.30
26	.95	.30
27	.98	.31
28	1.00	.32
29	1.03	.33
30	1.05	.34
31	1.08	.34
32	1.10	.35
33	1.13	.36
34	1.16	.37
35	1.20	.38
36	1.24	.40
37	1.29	.41
38	1.34	.43
39	1.39	.44
40	1.44	.46
41	1.50	.48
42	1.59	.51
43	1.70	.54
44	1.85	.59
45	2.03	.65
46	2.20	.70
47	2.39	.76
48	2.59	.83
49	2.79	.89
50	3.00	.96
51	3.25	1.04
52	3.58	1.14
53	3.98	1.27
54	4.44	1.42
55	5.00	1.60
56	5.74	1.84
57	6.68	2.14
58	7.63	2.44
59	9.00	2.88
60	10.54	3.37
61	12.19	3.90
62	14.13	4.52
63	16.31	5.22
64	18.63	5.96

2.3 Summary of Actuarial Assumptions and Methods *(continued)*

Table 3

Alaska PERS

Retirement Rates

<u>Age</u>	<u>Police & Fire Rate</u>	<u>"Other" Member Rate</u>
50	.10	.06
51	.10	.06
52	.10	.06
53	.12	.06
54	.12	.06
55	.25	.19
56	.25	.16
57	.10	.13
58	.10	.12
59	.10	.11
60	.40	.17
61	.40	.14
62	1.00	.18
63	1.00	.18
64	1.00	.25
65	1.00	.35
66 & 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

Section 3.1 shows the analysis of financial experience.

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

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

Section 3.3 shows the solvency test.

3.1 Analysis of Financial Experience

Change in Average Contribution Rate Due to Gains and Losses in Accrued Liabilities During the Last Five Fiscal Years Resulting From Differences Between Assumed Experience and Actual Experience					
Type of Gain or Loss	Change in Average Contribution Rate During Fiscal Year				
	98	97	96	95	94
(1) Health Experience	0.00%	0.00%	0.00%	0.00%	0.41%
(2) Salary Experience	(0.46%)	(0.06%)	(0.50%)	(0.42%)	(0.55%)
(3) Investment Experience	(1.90%)	(1.26%)	(0.46%)	(0.06%)	0.37%
(4) Demographic Experience	1.12%	0.03%	(0.73%)	0.24%	0.36%
(5) Gain (or Loss) During Year From Experience, (1) + (2) + (3) + (4)	(1.24%)	(1.29%)	(1.69%)	(0.24%)	0.59%
Non-recurring Changes					
(6) Asset Valuation Method	(1.36%)	0.00%	0.00%	0.00%	(0.56%)
(7) Assumption Changes	1.08%	0.00%	(2.47%)	0.00%	(0.71%)
(8) Ad hoc PRPA	0.20%	0.91%	0.00%	0.00%	0.00%
(9) Plan Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(10) Method Changes	0.99%	0.00%	0.00%	0.00%	0.00%
Composite Gain (or Loss) During Year, (5) + (6) + (7) + (8) + (9) + (10)	(0.33%)	(0.38%)	(4.16%)	(0.24%)	(0.68%)
Beginning Average Employee Cont. Rate	7.36%	7.74%	11.90%	12.14%	12.82%
Ending Average Employee Cont. Rate	7.03%	7.36%	7.74%	11.90%	12.14%

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, 1998 ^{(1) (2) (3)}	\$ 926,249	\$ 981,127	105.9%	N/A	\$ 138,653	N/A
June 30, 1997	811,651	863,184	106.3%	N/A	135,702	N/A
June 30, 1996	733,303	776,196	105.8%	N/A	134,362	N/A
June 30, 1995	785,082	757,221	96.5%	27,861	130,204	21.4%
June 30, 1994 ⁽¹⁾⁽²⁾	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 ⁽¹⁾	592,518	540,087	91.2%	52,431	122,762	42.7%
June 30, 1991 ⁽²⁾	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 ⁽²⁾	402,021	368,325	91.6%	33,696	104,000	32.4%
⁽¹⁾ Change in Asset Valuation Method.						
⁽²⁾ Change in Assumptions.						
⁽³⁾ Change in Methods.						

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

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, 1998 ⁽¹⁾⁽²⁾⁽³⁾	\$ 5,277,742	\$ 5,590,435	105.9%	N/A	\$ 1,096,786	N/A
June 30, 1997	4,722,465	5,022,304	106.3%	N/A	1,093,433	N/A
June 30, 1996 ⁽²⁾	4,246,655	4,495,057	105.8%	N/A	1,087,504	N/A
June 30, 1995	4,186,090	4,037,533	96.5%	148,557	1,057,840	14.0%
June 30, 1994 ⁽¹⁾⁽²⁾	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 ⁽¹⁾	3,148,364	2,869,772	91.2%	278,592	961,054	29.0%
June 30, 1991 ⁽²⁾	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 ⁽²⁾	2,161,247	1,980,098	91.6%	181,149	808,835	22.4%
⁽¹⁾ Change in Asset Valuation Method. ⁽²⁾ Change in Assumptions. ⁽³⁾ Change in Methods.						

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, 1998 ⁽¹⁾⁽²⁾⁽³⁾	\$ 819,226	\$ 3,610,352	\$ 1,774,413	\$ 6,571,562	100.0%	100.0%	100.0%
June 30, 1997	795,170	3,020,608	1,716,338	5,885,488	100.0%	100.0%	100.0%
June 30, 1996 ⁽²⁾	754,679	2,511,953	1,713,326	5,271,253	100.0%	100.0%	100.0%
June 30, 1995	673,196	2,445,870	1,852,106	4,794,754	100.0%	100.0%	90.5%
June 30, 1994 ⁽¹⁾⁽²⁾	615,925	2,233,349	1,770,908	4,379,305	100.0%	100.0%	86.4%
June 30, 1993	551,753	1,921,967	1,652,041	3,936,776	100.0%	100.0%	88.6%
June 30, 1992 ⁽¹⁾	484,590	1,783,020	1,473,272	3,409,859	100.0%	100.0%	77.5%
June 30, 1991 ⁽²⁾	422,656	1,621,590	1,294,899	2,942,121	100.0%	100.0%	69.3%
June 30, 1990	380,680	1,285,515	1,087,323	2,677,486	100.0%	100.0%	93.0%
June 30, 1989 ⁽²⁾	329,966	1,217,648	1,015,654	2,348,423	100.0%	100.0%	78.8%
⁽¹⁾ Change in Asset Valuation Method. ⁽²⁾ Change in Assumptions. ⁽³⁾ Change in Methods.							

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