



State of Alaska

Public Employees' Retirement System

Actuarial Valuation Report as of June 30, 2003

MERCER

Human Resource Consulting

April 30, 2004

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, 2003 by Mercer Human Resource Consulting. The purposes of the report include:

- (1) a review of experience under the Plan for the year ended June 30, 2003;
- (2) a determination of the appropriate contribution rate for each employer in the System which will be applied for the fiscal year ending June 30, 2006; and
- (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 methods (Section 2.3)
- (2) Schedule of active member valuation data (Section 2.2(d) and (f))
- (3) Schedule of benefit recipients 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 Division of Retirement and Benefits and financial information provided by the audited report from KPMG 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. Actuarial assumptions are based on the results of an experience study presented to the Board in October 2000 and adopted in December 2000. Actuarial methods, medical cost trend, and assumed blended medical premiums were reviewed and revised in January 2003.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY04 and a fixed 25-year level percentage of payroll amortization of the initial unfunded accrued liability and subsequent gains/losses. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. Over time, the contribution rate is expected to remain relatively constant as a percentage of payroll. The ratio of assets to liabilities changed from 75.2% to 72.8% during the year primarily due to lower than expected equity market returns. Over the years, progress has been made toward achieving the funding objectives of the System.

A summary of the actuarial assumptions and methods is presented in Section 2.3 of this report. The assumptions, 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 and 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,



Robert M. Reynolds, ASA, MAAA



Marcia L. Chapman, FSA, EA, MAAA

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Report Highlights

This report has been prepared by Mercer Human Resource Consulting for the State of Alaska Public Employees' Retirement System to:

- (1) Present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 2003;
- (2) Review experience under the plan for the year ended June 30, 2003;
- (3) Determine the appropriate contribution rate for each employer in the System; and
- (4) Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 2003 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.

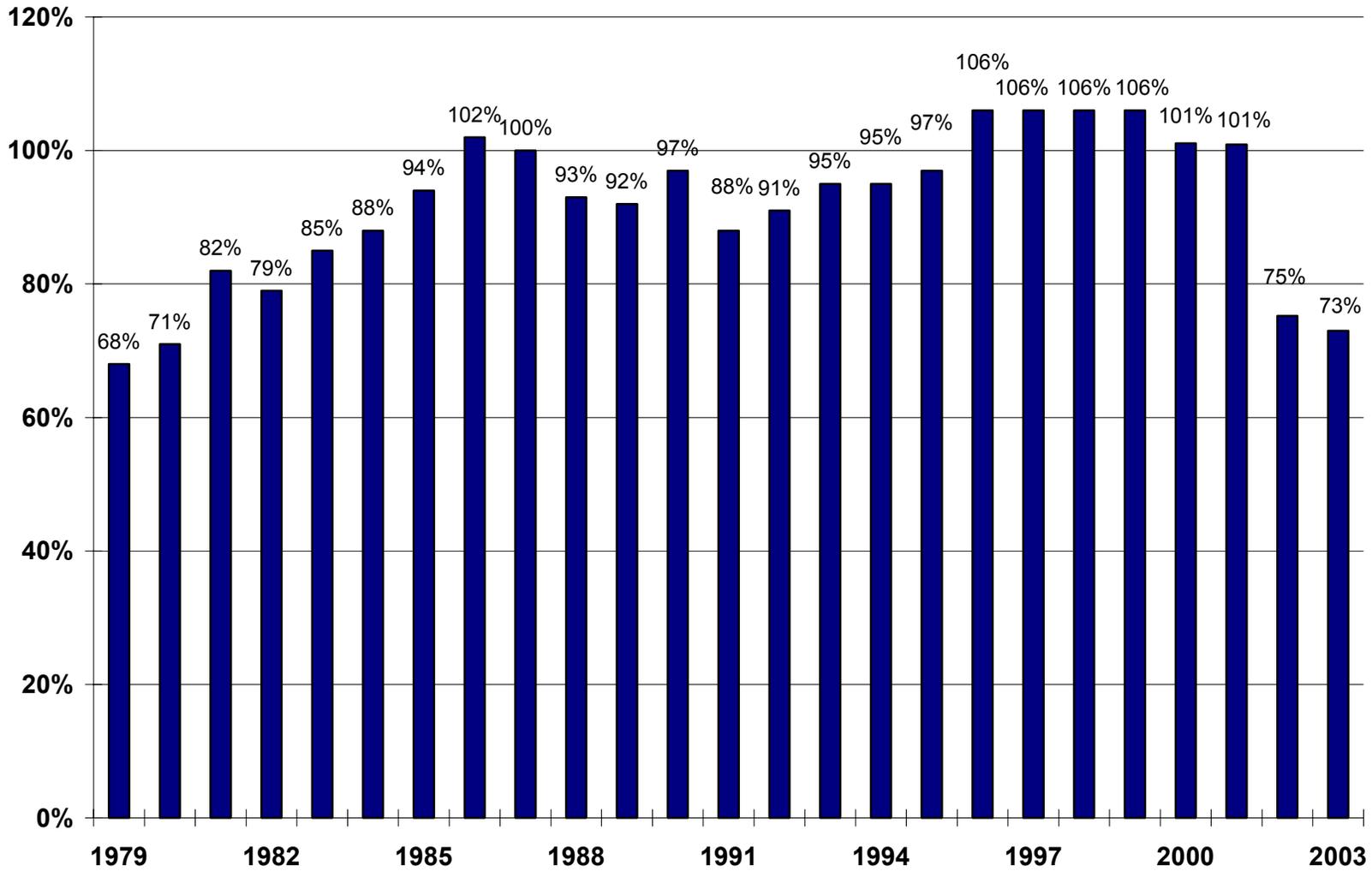
The principal results are as follows:

Funding Status as of June 30	2002	2003
(a) Valuation assets ¹	\$ 7,412,833	\$ 7,687,281
(b) Accrued liability ¹		
i) Non-medical benefits	6,133,182	6,330,541
ii) Total benefits (including medical)	9,859,591	10,561,653
(c) Funding Ratio, $(a) \div (b)$		
i) Non-medical benefits	120.9%	121.4%
ii) Total benefits (including medical)	75.2%	72.8%

¹ In thousands.

Report Highlights (continued)

PERS Funding Ratio History



Report Highlights *(continued)*

Employer Contribution Rates for Fiscal Year:	2005	2006
(a) Consolidated Rate	13.31%	13.24%
(b) Average Past Service Rate	11.60%	12.39%
(c) Average Employer Contribution Rate <i>(a) + (b)</i>	24.91%	25.63%
(d) PERS Board Adopted Average Employer Contribution Rate	11.77%	16.77%

Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio as of June 30, 2003 has decreased from 75.2% to 72.8%, a decrease of 2.4%. The average calculated employer contribution rate has increased from 24.91% of payroll for FY05 to 25.63% for FY06, an increase of 0.72% of payroll. The reasons for the change in the funded status and average 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.

Time Period	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Change	Average Compound Annual Increase Since FY78
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%
1/1/00-12/31/00	530.00	20%	10%
1/1/01-12/31/01	610.00	15%	10%
1/1/02-12/31/02	668.00	10%	10%
1/1/03-12/31/03	720.00	8%	10%
1/1/04-12/31/04	806.00	12%	10%

As you can see from the above table, the monthly retiree medical premium for the January 1, 2004 to December 31, 2004 time period has increased to \$806.00. Over the last 10 years, annual premium rate changes have ranged from no change to up 20%. Also, over the last ten years, the increase in the premium rate has been about 9% compounded annually.

Analysis of the Valuation (continued)

Effective June 30, 2002, the Board adopted a health cost trend assumption which varies by year, declining to an ultimate rate equal to inflation plus 1.5%, or 5.0% for FY17 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.

On June 30, 2002, the assumed total blended premium was reset to the actual total blended premium for FY03. 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 whenever experience and current trends indicate a change is appropriate.

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 Experience

The approximate FY03 investment return based on market values was 3.18%. The expected investment return was 8.25%. This resulted in a loss of approximately \$369.8 million to the system from investment experience. The asset valuation method recognizes 20 percent of this loss (\$74 million) this year and an additional 20 percent in each of the next 4 years. As a result, the approximate return on the actuarial value of assets was 7.24%, which decreased the funding ratio by 0.7% and increased the average employer contribution rate by 0.31%.

(3) Elimination of 102% Target Funding Ratio

Effective June 30, 2002, the Board effectively eliminated the requirement that the average employer contribution rate be calculated based on 102% of the system's accrued liability. This methodology has now been revised to calculate the average employer contribution rate based on 100% of the System's accrued liability. This change in methodology decreased the average employer contribution rate by 0.90%.

(4) Salary Increase

During the period from June 30, 2002, to June 30, 2003, salary increases were less than anticipated in the valuation assumptions. Salary experience resulted in an actuarial gain which increased the funding ratio by 0.3% and lowered the average employer contribution rate by 0.19% of the total payroll.

Analysis of the Valuation (continued)

(5) Demographic Experience

Section 2.2 provides statistics on active participants. The number of active participants increased 2.5%, from 33,242 at June 30, 2002 to 34,065 at June 30, 2003. The average age of active participants increased from 43.99 to 44.23 and average credited service increased from 8.47 to 8.51 years.

The number of benefit recipients increased 7.1%, from 17,215 to 18,431, and their average age increased from 64.70 to 64.81. There was a 2.4% increase in the number of vested terminated participants, from 5,702 to 5,841. Their average age decreased from 47.86 to 47.85.

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 0.40% of total payroll.

(6) Contribution Shortfall Compared to Average Employer Calculated Rate

As of June 30, 2002 the average employer calculated rate was 24.91% for FY05 employer contributions. Since average employer contribution rates are determined two years prior to the fiscal year, the June 30, 2000 average employer rate of 6.75% was contributed during FY03. The difference between the two calculated rates, 6.75% and 24.91%, created a contribution shortfall to the System. This shortfall increased the average employer contribution rate by 1.10%.

(7) 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 20 years into the future. By also projecting plan assets, this report in effect produces an actuarial valuation for each of the next 20 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 provisions of the current tier so that the ultimate effect on plan liabilities can be anticipated. As you can see in Section 1.5, based on the actuarial assumptions and asset valuation method, future contribution rates are expected to increase in the future.

Analysis of the Valuation *(continued)*

Summary

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

1. Last year's average employer contribution rate	24.91%
2. Change due to:	
a. Elimination of 102% target funding ratio	(0.90%)
b. Contribution shortfall compared to average employer contribution rate	1.10%
c. Investment experience	0.31%
d. Salary increases	(0.19%)
e. Demographic experience	0.40%
3. Average employer contribution rate this year	25.63%

Section 1

This section sets forth the results of the actuarial valuation.

- Section 1.1(a) Statement of net assets.
- Section 1.1(b) Statement of changes in net assets during FY03 and investment return during FY03.
- Section 1.1(c) Actuarial value of assets.
- Section 1.2(a) Actuarial present values for Police/Fire.
- Section 1.2(b) Actuarial present values for Others.
- Section 1.3(a) Average employer contribution rate for Police/Fire for FY06.
- Section 1.3(b) Average employer contribution rate for Others for FY06.
- Section 1.3(c) Average employer contribution rate for all members for FY06.
- Section 1.4 Development of actuarial gain or loss for FY03.
- Section 1.5(a) Actuarial Projections – Projections at Calculated Rate.
- Section 1.5(b) Actuarial Projections – Projections at Current Rate
- Section 1.5(c) Actuarial Projections – Effect of Economic Scenarios

1.1(a) Statement of Net Assets

As of June 30, 2003 (in thousands)	Pension	Postemployment Healthcare	Total Market Value
Cash and Cash Equivalents	\$ 369	\$ 155	\$ 524
Domestic Equity Pool	2,210,167	764,062	2,974,229
Retirement Fixed Income Pool	986,806	415,586	1,402,392
International Equity Pool	811,591	341,794	1,153,385
Real Estate Pool	364,096	153,337	517,433
International Fixed Income Pool	193,697	81,574	275,271
Private Equity Pool	152,079	64,046	216,125
Emerging Markets Equity Pool	52,442	22,085	74,527
External Domestic Fixed Income Pool	545,603	229,776	775,379
Loans and Mortgages (Net of Reserves)	99	42	141
Other Current Assets	17	8	25
Net Accrued Receivables	1,424	600	2,024
Net Assets	<u>\$ 5,318,390</u>	<u>\$ 2,073,065</u>	<u>\$ 7,391,455</u>

1.1(b) Statement of Changes in Net Assets

Fiscal Year 2003 (in thousands)	Pension	Postemployment Healthcare	Total Market Value
(1) Net Assets, June 30, 2002, (market value)	\$ 5,323,757	\$ 2,089,076	\$ 7,412,833
(2) Additions:			
(a) Plan Member Contributions	78,889	33,223	112,112
(b) Employer Contributions	69,801	29,397	99,198
(c) Interest and Dividend Income	168,595	71,003	239,598
(d) Net Appreciation (Depreciation) in Fair Value of Investments	9,723	4,094	13,817
(e) Net Recognized Mortgage Loan Recovery	<u>50</u>	<u>21</u>	<u>71</u>
(f) Total Additions	\$ 327,058	\$ 137,738	\$ 464,796
(3) Deductions:			
(a) Medical Benefits	0	143,331	143,331
(b) Retirement Benefits	307,684	0	307,684
(c) Refunds of Contributions	9,165	3,860	13,025
(d) Investment Expenses	11,438	4,816	16,254
(e) Administrative Expenses	<u>4,138</u>	<u>1,742</u>	<u>5,880</u>
(f) Total Deductions	\$ 332,425	\$ 153,749	\$ 486,174
(4) Net Assets, June 30, 2003, (market value)	\$ 5,318,390	\$ 2,073,065	\$ 7,391,455

Approximate Market Value Investment Return Rate During
FY03, Net of Expenses

3.18%

1.1(c) Actuarial Value of Assets

The actuarial value of assets was set equal to the market value at June 30, 2002. Future investment gains and losses will be recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of market value as of the current valuation date.

(1) Deferral of Investment Return for FY03

(a) Market Value, June 30, 2002	\$	7,412,833
(b) Contributions for FY03		211,310
- <i>Weighted for Timing</i>		105,655
(c) Benefit Payments for FY03		464,040
- <i>Weighted for Timing</i>		232,020
(d) Investment Return (<i>net of expenses</i>)		231,352
(e) Expected Return Rate (<i>net of expenses</i>)		8.25%
(f) Expected Return-weighted for Timing, $[(a. + b. - c.) \times e.]$		601,134
(g) Investment Gain/(Loss) for the Year ($d. - f.$)		(369,782)
(h) Deferral Percentage		80%
(i) Deferred Investment Return ² , ($g. \times h.$)	\$	(295,826)

(2) Actuarial Value, June 30, 2003

(a) Market Value, June 30, 2003	\$	7,391,455
(b) 2003 Deferred Investment Return		(295,826)
(c) Preliminary Actuarial Value, June 30, 2003 ($a. - b.$)	\$	7,687,281
(d) Upper Limit: 120% of Market Value, June 30, 2003		8,869,746
(e) Lower Limit: 80% of Market Value, June 30, 2003		5,913,164
(f) Actuarial Value, June 30, 2003, ($c.$ limited by $d.$ and $e.$)	\$	7,687,281

² The table below shows the development of gain/(loss) to be recognized in the current year.

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2003	\$ (369,782)	\$ 0	\$ (73,956)	\$ (295,826)
Total	\$ (369,782)	\$ 0	\$ (73,956)	\$ (295,826)

1.2(a) Actuarial Present Values - Police/Fire

As of June 30, 2003 (in thousands)	Normal Cost	Accrued Liability
Active Members		
Retirement Benefits	\$ 18,923	\$ 302,745
Termination Benefits	1,270	11,312
Disability Benefits	348	9,297
Death Benefits	317	12,661
Return of Contributions	577	2,682
Medical Benefits	9,726	151,364
Indebtedness	0	(8,629)
Subtotal	31,161	481,432
Inactive Members		
Not Vested	\$ 0	\$ 0
Vested Terminations		
- Retirement Benefits	0	16,572
- Medical Benefits	0	29,916
- Indebtedness	0	(609)
Retirees & Beneficiaries		
- Retirement Benefits	0	771,957
- Medical Benefits	0	277,983
Subtotal	0	1,095,819
Totals	\$ 31,161	\$ 1,577,251

1.2(b) Actuarial Present Values - Others

As of June 30, 2003 (in thousands)	Normal Cost	Accrued Liability
Active Members		
Retirement Benefits	\$ 117,003	\$ 1,707,862
Termination Benefits	15,838	169,127
Disability Benefits	1,109	18,463
Death Benefits	2,602	63,125
Return of Contributions	8,098	31,639
Medical Benefits	117,015	1,293,732
Indebtedness	0	(64,561)
Subtotal	261,665	3,219,387
Inactive Members		
Not Vested	\$ 0	\$ 39,072
Vested Terminations		
- Retirement Benefits	0	410,951
- Medical Benefits	0	858,856
- Indebtedness	0	(11,381)
Retirees & Beneficiaries		
- Retirement Benefits	0	2,848,256
- Medical Benefits	0	1,619,261
Subtotal	0	5,765,015
Totals	\$ 261,665	\$ 8,984,402

1.3(a) Average Employer Contribution Rate – FY06 Police/Fire

Consolidated Rate	In Thousands
(1) Total Normal Cost	\$ 31,161
(2) Total Salaries	160,742
(3) Normal Cost Rate for Police/Fire, $(1) \div (2)$	19.39%
(4) Member Contribution Rate (Police/Fire)	7.50%
(5) Consolidated Employer Normal Cost Rate For Police/Fire, $(3) - (4)$	11.89%
 Past Service Rate	
(1) Accrued Liability	\$ 1,577,251
(2) Valuation Assets	1,147,999 ³
(3) Unfunded Liability, $(1) - (2)$	429,252
(4) Expected Unfunded Liability	411,335
(5) FY03 (Gain)/Loss $(3) - (4)$	17,917
(6) Amortization Factor (25 years)	16.246963
(7) FY03 (Gain)/Loss Amortization, $(5) \div (6)$	1,103
(8) Pre-Existing Past Service Cost Amortizations	25,940
(9) Total Amortization Payments, $(7) + (8)$	27,043
(10) Total Salaries	160,742
(11) Past Service Rate, $(9) \div (10)$	16.82%
 Average Employer Contribution Rate	 28.71%

³ Allocated between Police/Fire and Others in proportion to accrued liability.

1.3(a) Average Employer Contribution Rate – FY06 Police/Fire (continued)

Schedule of Past Service Cost Amortizations – Police/Fire

Charge	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Initial Unfunded Liability	6/30/2002	24	\$ 404,908	\$ 411,335	\$ 25,940
FY03 Loss	6/30/2003	25	17,917	17,917	1,103
Total				\$ 429,252	\$ 27,043

Credit	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Total				\$ 0	\$ 0
Total				\$ 429,252	\$ 27,043

1.3(b) Average Employer Contribution Rate – FY06 Others

Consolidated Rate	In Thousands
(1) Total Normal Cost	\$ 261,665
(2) Total Salaries	1,300,041
(3) Normal Cost Rate for Others, (1) ÷ (2)	20.13%
(4) Member Contribution Rate (Other)	6.75%
(5) Consolidated Employer Normal Cost Rate For Others, (3) – (4)	13.38%
Past Service Rate	
(1) Accrued Liability	\$ 8,984,402
(2) Valuation Assets	6,539,282 ⁴
(3) Unfunded Liability, (1) – (2)	2,445,120
(4) Expected Unfunded Liability	2,274,580
(5) FY03 (Gain)/Loss, (3) – (4)	170,540
(6) Amortization Factor (25 years)	16.246963
(7) FY03 (Gain)/Loss Amortization, (5) ÷ (6)	10,497
(8) Pre-Existing Past Service Cost Amortizations	143,445
(9) Total Amortization Payments, (7) + (8)	153,942
(10) Total Salaries	1,300,041
(11) Past Service Rate, (9) ÷ (10)	11.84%
Average Employer Contribution Rate	25.22%

⁴ Allocated between Police/Fire and Others in proportion to accrued liability.

1.3(b) Average Employer Contribution Rate – FY06 Others (continued)

Schedule of Past Service Cost Amortizations – All Others

Charge	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Initial Unfunded Liability	6/30/2002	24	\$ 2,239,042	\$ 2,274,580	\$ 143,445
FY03 Loss	6/30/2003	25	170,540	170,540	10,497
Total				\$ 2,445,120	\$ 153,942

Credit	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Total				\$ 0	\$ 0
Total				\$ 2,445,120	\$ 153,942

1.3(c) Average Employer Contribution Rate – FY06 All Members

Consolidated Rate	In Thousands
(1) Total Normal Cost	\$ 292,826
(2) Total Salaries	1,460,783
(3) Normal Cost Rate All Members, (1) ÷ (2)	20.05
(4) Member Contribution Rate	6.81%
(5) Consolidated Employer Normal Cost Rate For All Members, (3) – (4)	13.24%
Past Service Rate	
(1) Accrued Liability	\$ 10,561,653
(2) Valuation Assets	7,687,281
(3) Total Unfunded Liability, (1) – (2)	2,874,372
(4) Expected Unfunded Liability	2,685,915
(5) FY03 (Gain)/Loss, (3) – (4)	188,457
(6) Amortization Factor (25 years)	16.246963
(7) FY03 (Gain)/Loss Amortization, (5) ÷ (6)	11,600
(8) Pre-Existing Past Service Cost Amortization	169,385
(9) Total Amortization Payments, (7) + (8)	180,985
(10) Total Salaries	1,460,783
(11) Past Service Rate, (9) ÷ (10)	12.39%
Average Employer Contribution Rate	25.63%

1.3(c) Average Employer Contribution Rate – FY06 All Members (continued)

Schedule of Past Service Cost Amortizations – All Members

Charge	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Initial Unfunded Liability	6/30/2002	24	\$ 2,643,950	\$ 2,685,915	\$ 169,385
FY03 Loss	6/30/2003	25	188,457	188,457	11,600
Total				\$ 2,874,372	\$ 180,985

Credit	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Left	Initial	Outstanding	
Total				\$ 0	\$ 0
Total				\$ 2,874,372	\$ 180,985

1.4 Development of Actuarial Gain/(Loss) for FY03

	In Thousands
(1) Expected Actuarial Accrued Liability	
(a) Accrued Liability, June 30, 2002	\$ 9,859,591
(b) Normal Cost for FY03	282,508
(c) Interest on (a) and (b) at 8.25%	836,723
(d) Benefit Payments for FY03	451,015
(e) Refund of Contributions for FY03	13,025
(f) Interest on (d) and (e) at 8.25% for one-half year	19,142
(g) Expected Accrued Liability as of June 30, 2003, (a) + (b) + (c) - (d) - (e) - (f)	10,495,640
(2) Actual Accrued Liability, June 30, 2003	10,561,653
(3) Liability Gain/(Loss), (1)(g) - (2)	\$ (66,013)
(4) Expected Actuarial Asset Value	
(a) Actuarial Asset Value, June 30, 2002	7,412,833
(b) Interest on (a) at 8.25%	611,559
(c) Employee Contributions for FY03	112,112
(d) Employer Contributions for FY03	99,198
(e) Interest on (c) and (d) at 8.25% for one-half year	8,717
(f) Benefit Payments for FY03	451,015
(g) Refund of Contributions for FY03	13,025
(h) Interest on (f) and (g) at 8.25% for one-half year	19,142
(i) Expected Actuarial Asset Value, June 30, 2003, (a) + (b) + (c) + (d) + (e) - (f) - (g) - (h)	7,761,237
(5) Actuarial Asset Value, June 30, 2003	7,687,281
(6) Actuarial Asset Gain/(Loss), (5) - (4)(i)	\$ (73,956)
(7) Actuarial Gain/(Loss), (3) + (6)	\$ (139,969)

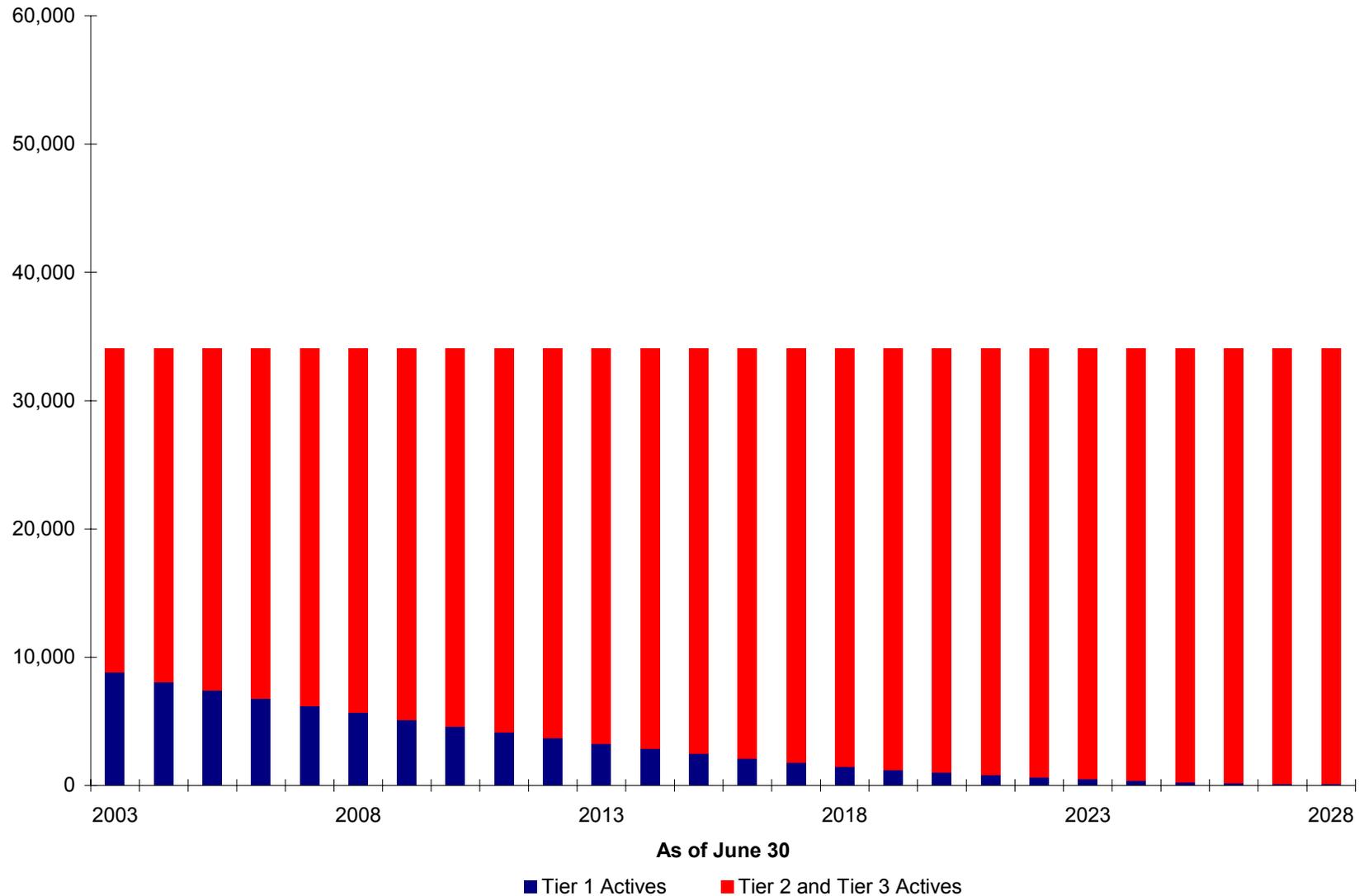
1.5(a) Actuarial Projections – Projections at Calculated Rate

Key Assumptions

- 8.25% investment return in all years, except for Fiscal Year 2004
- 17% investment return for FY04, based on actual return from July 1, 2003 through January 31, 2004
- Actuarial assumptions and methods as described in Section 2.3
- The actuarially calculated contribution rate is adopted each year beginning in FY06, but rates cannot increase by more than 5% per year
- Annual active population increases of 0%, 1% or 2%
- Profiles of new entrants to System are based on average new entrant profiles from prior 3 years

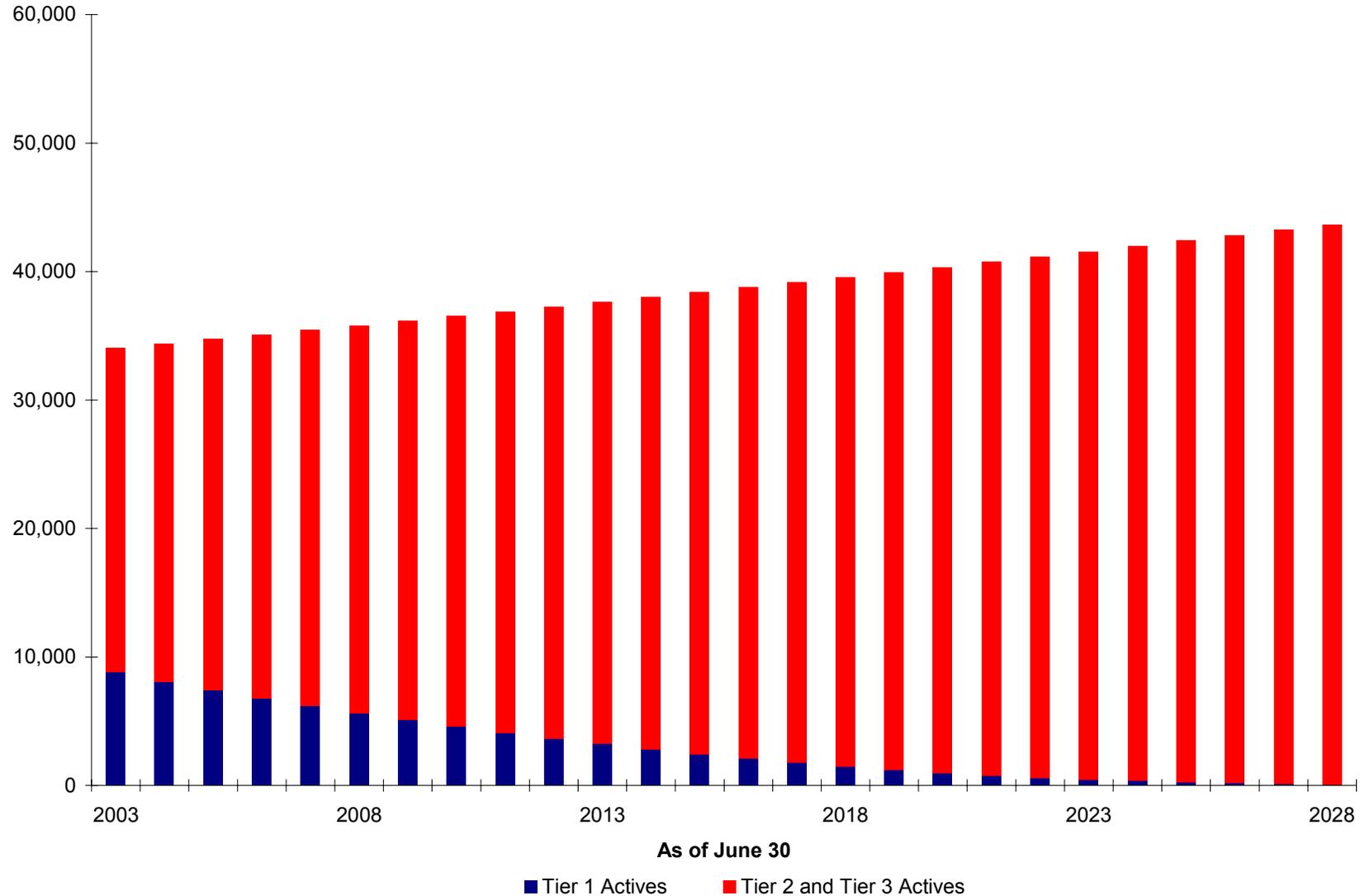
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Active Participant Count
Annual Population Increase 0%



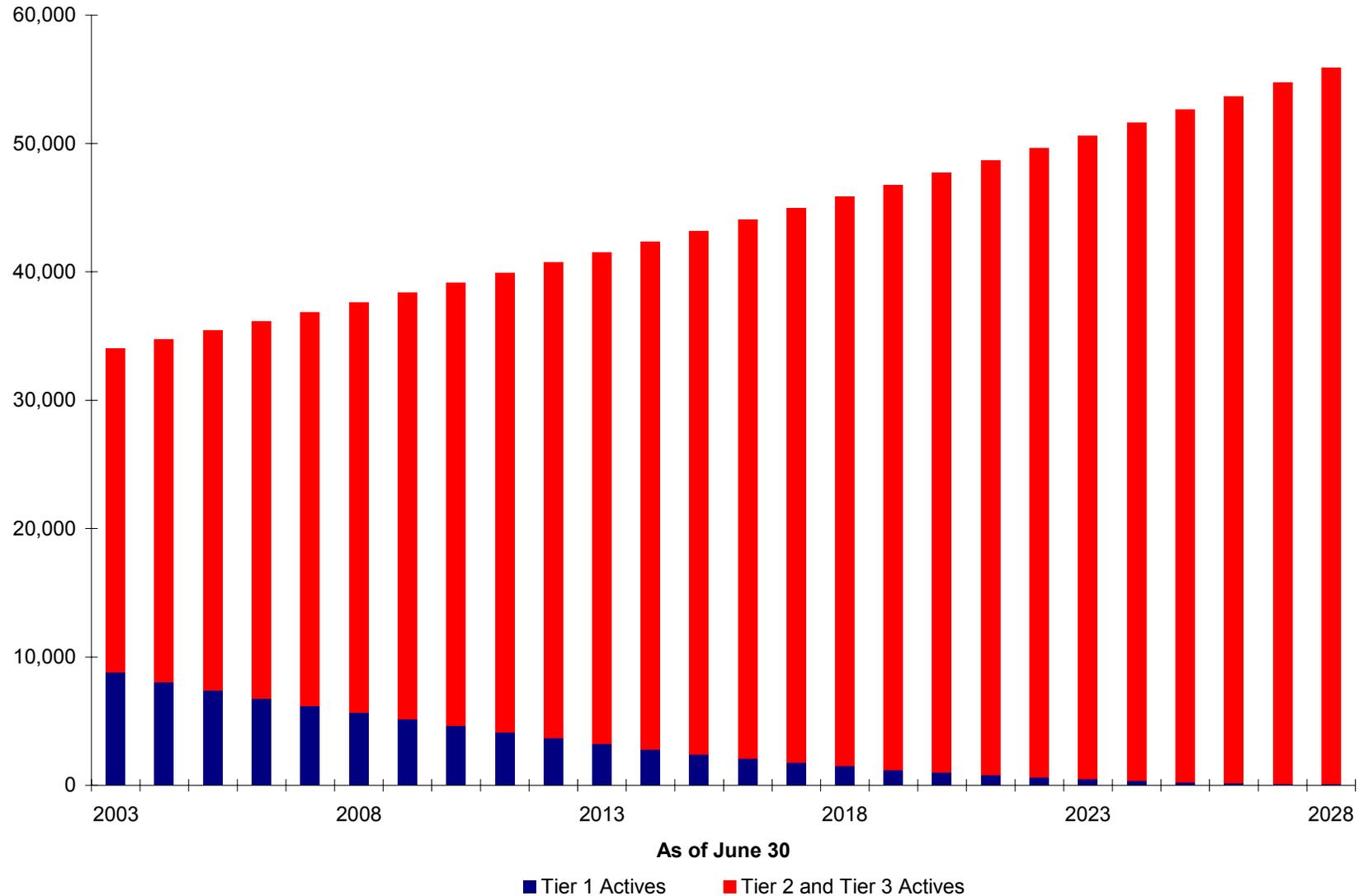
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Active Participant Count
Annual Population Increase 1%



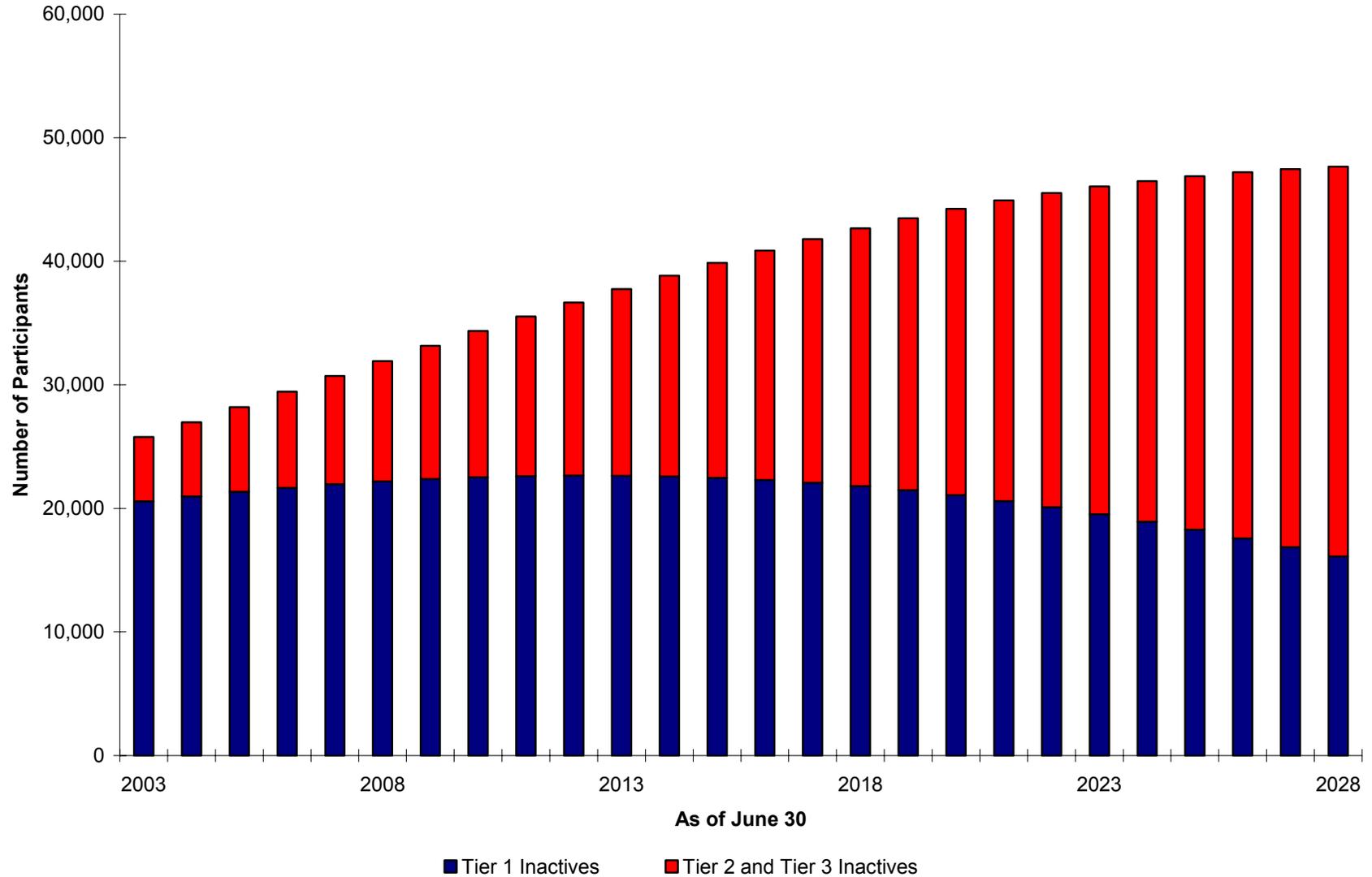
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Active Participant Count
Annual Population Increase 2%



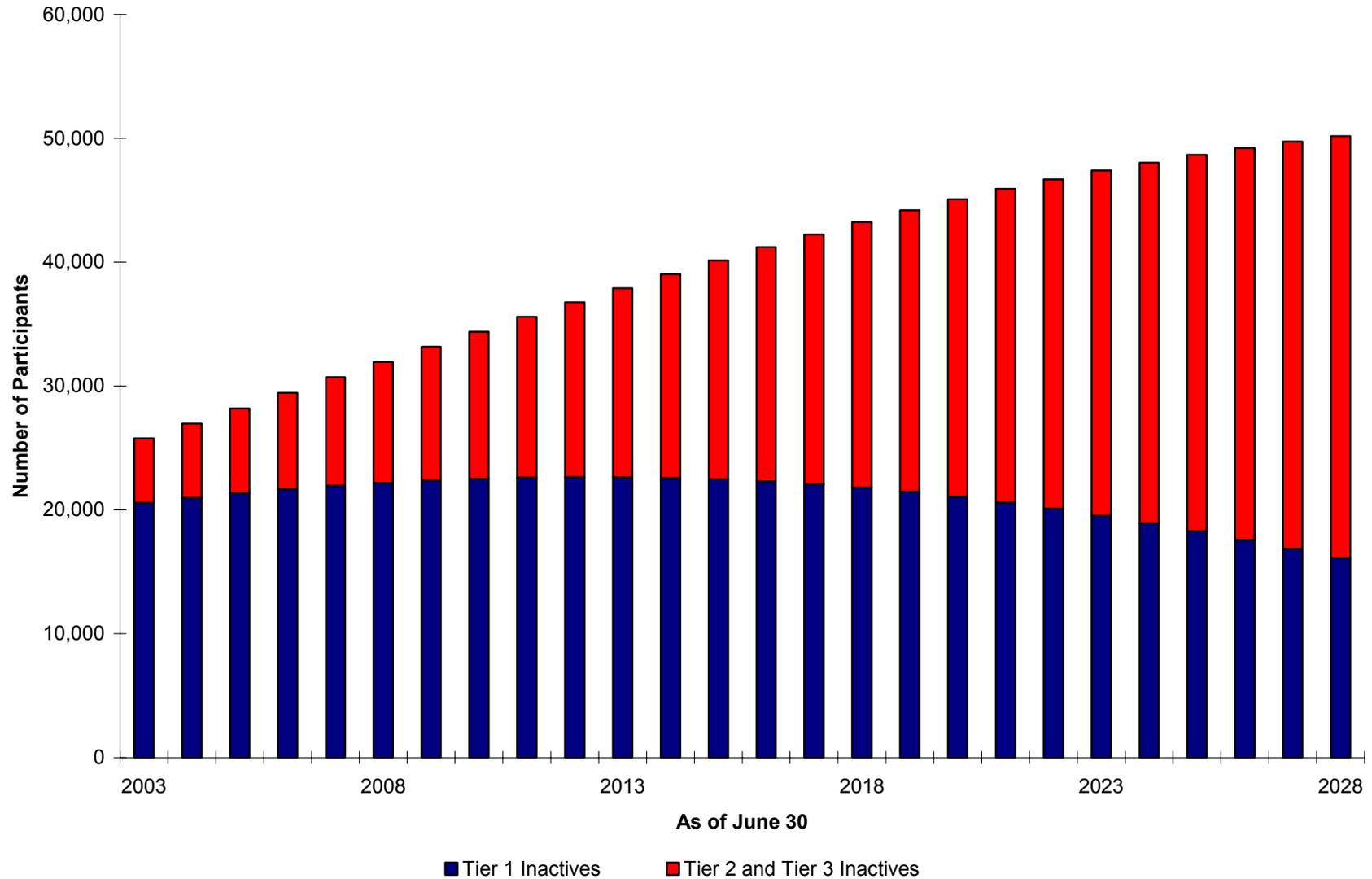
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Inactive Participant Count
Annual Population Increase 0%



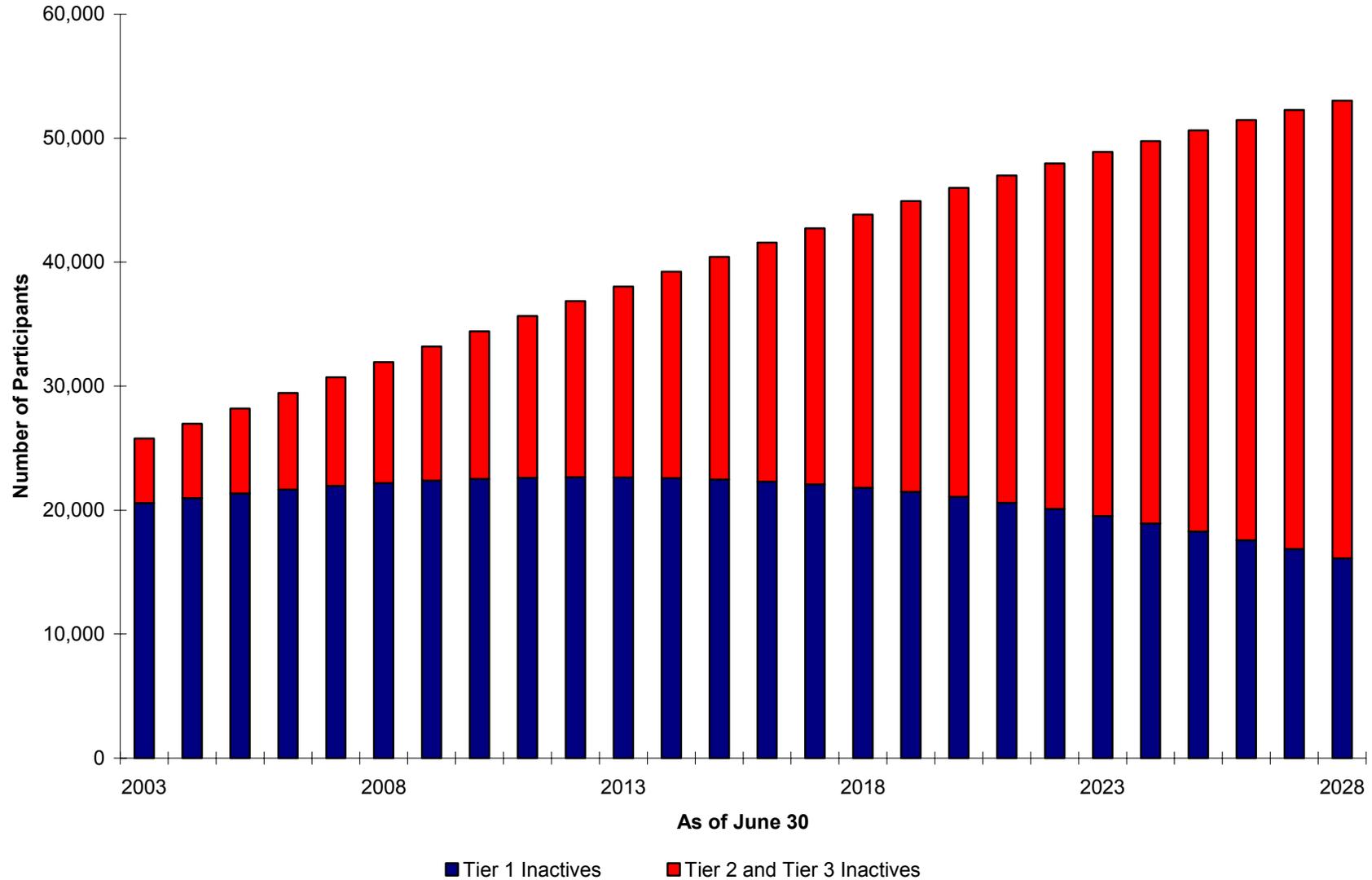
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Inactive Participant Count
Annual Population Increase 1%



1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Inactive Participant Count
Annual Population Increase 2%



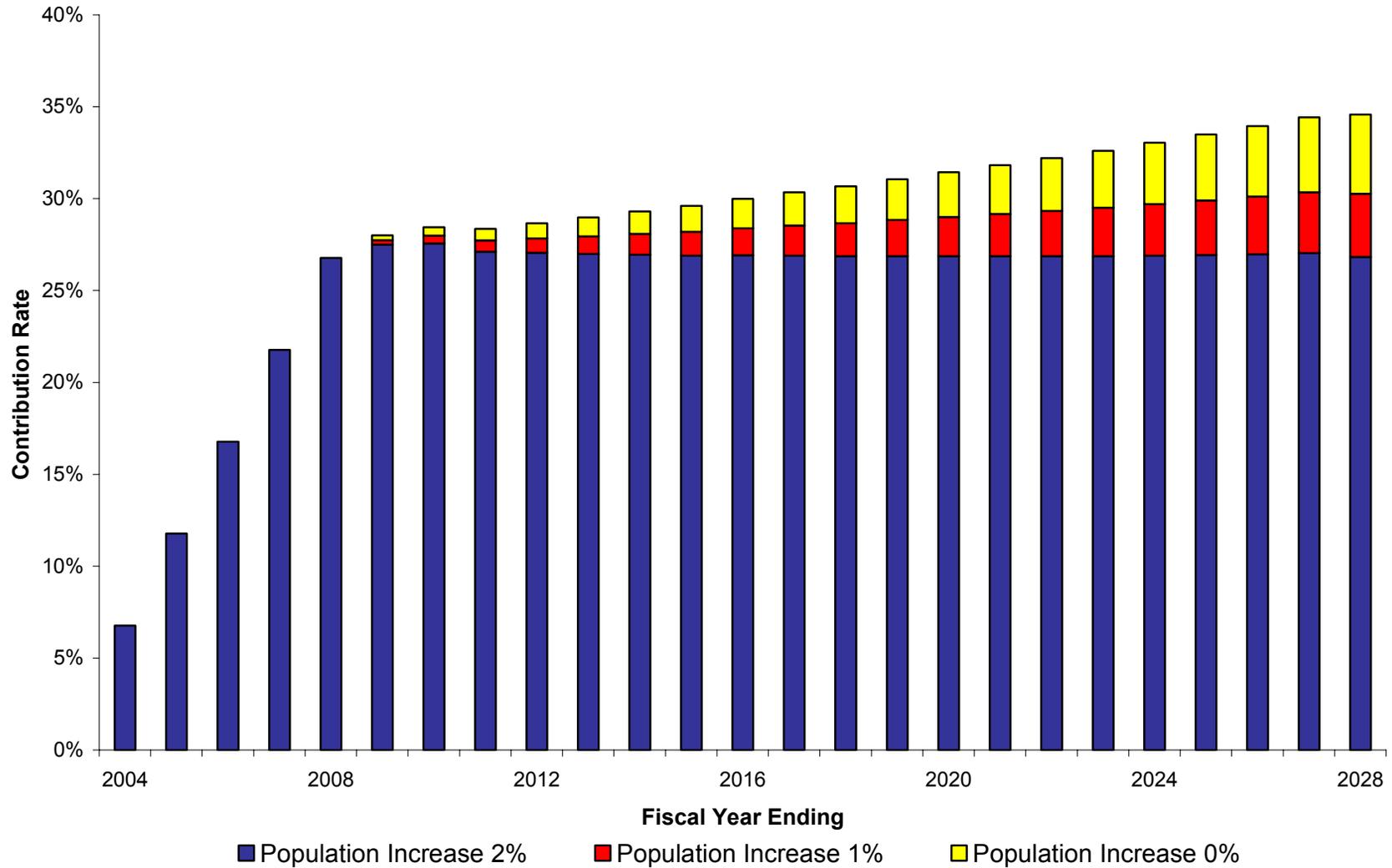
1.5(a) Actuarial Projections – Projections at Calculated Rate *(continued)*

Observations

- Calculated rates increase under all population scenarios
- Calculated rates begin to decline towards end of the projection period under the 1% and 2% scenarios.
- Over the past 9 years, the average annual population increase for the PERS has been 1.1%
- Calculated rates increase to above 30% under the 1% population increase scenario
- Factors contributing to the projected rate increases are:
 - Contributions are less than the actuarially calculated rate for the first 5 years of the projection
 - New entrants enter the System at lower pay levels than the exiting members they are replacing, diluting the pay-off of unfunded liabilities. Because new entrants also add additional liability, each new entrant generates a loss.
- Funding ratios are at least 96% by the end of the 25-year period, under all 3 population scenarios

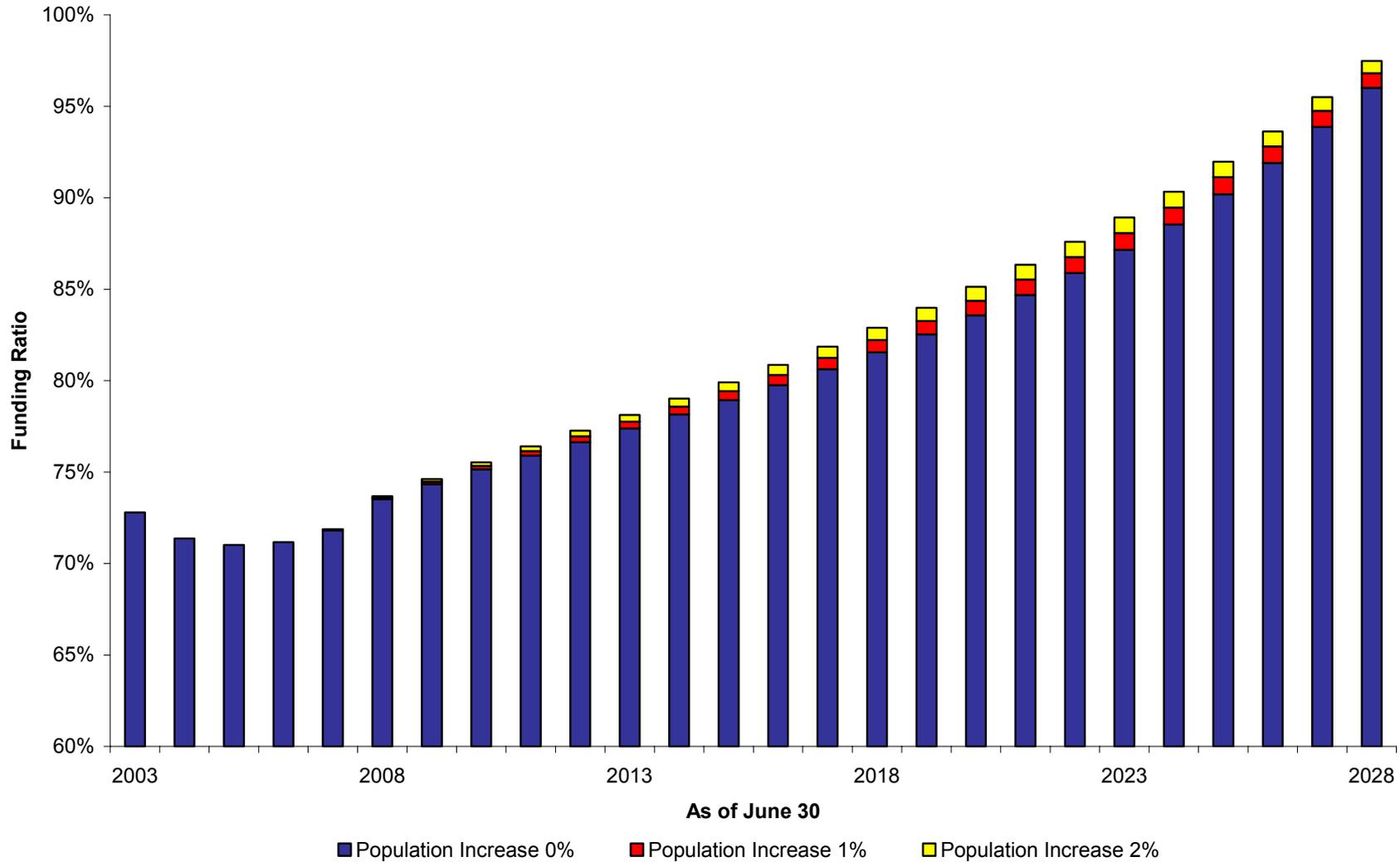
1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Contribution Rates



1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Projected Funding Ratios



1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Table 1
State of Alaska PERS
Financial Projections (in thousands)

As of June 30	Investment Return 8.25%				Annual Population Increase 0.00%								Recognized Asset Gain	Ending Actuarial Assets
	----- Valuation Amounts on July 1 -----				----- Flow Amounts During Following 12 Months -----									
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings		
2003	7,687,281	10,561,653	72.8%	(2,874,372)	1,460,783	6.77%	98,895	99,479	198,374	526,345	(327,970)	1,228,670	52,524	8,640,504
2004	8,008,101	11,220,156	71.4%	(3,212,055)	1,531,183	11.77%	180,220	104,274	284,494	569,004	(284,510)	672,367	52,524	8,448,481
2005	8,448,481	11,898,173	71.0%	(3,449,691)	1,572,844	16.77%	263,766	107,111	370,877	617,251	(246,374)	705,938	52,524	8,960,569
2006	8,960,569	12,591,977	71.2%	(3,631,407)	1,619,105	21.77%	352,479	110,261	462,740	669,522	(206,782)	745,485	52,524	9,551,797
2007	9,551,797	13,298,892	71.8%	(3,747,095)	1,666,423	26.77%	446,101	113,483	559,585	726,337	(166,752)	791,579	126,481	10,303,105
2008	10,303,105	14,015,423	73.5%	(3,712,317)	1,715,556	28.00%	480,377	116,829	597,206	788,427	(191,221)	842,118	0	10,954,003
2009	10,954,003	14,736,883	74.3%	(3,782,880)	1,766,209	28.44%	502,343	120,279	622,622	854,570	(231,948)	894,137	0	11,616,192
2010	11,616,192	15,459,737	75.1%	(3,843,545)	1,818,672	28.36%	515,766	123,852	639,618	922,920	(283,302)	946,650	0	12,279,540
2011	12,279,540	16,180,553	75.9%	(3,901,013)	1,872,364	28.66%	536,712	127,508	664,220	992,494	(328,274)	999,521	0	12,950,787
2012	12,950,787	16,897,994	76.6%	(3,947,207)	1,928,329	28.97%	558,730	131,319	690,049	1,063,497	(373,448)	1,053,035	0	13,630,374
2013	13,630,374	17,612,028	77.4%	(3,981,654)	1,985,939	29.30%	581,913	135,242	717,155	1,135,658	(418,503)	1,107,243	0	14,319,114
2014	14,319,114	18,321,383	78.2%	(4,002,270)	2,045,810	29.60%	605,648	139,320	744,967	1,210,881	(465,914)	1,162,108	0	15,015,307
2015	15,015,307	19,023,318	78.9%	(4,008,011)	2,109,369	29.99%	632,654	143,648	776,302	1,284,686	(508,383)	1,217,792	0	15,724,716
2016	15,724,716	19,715,946	79.8%	(3,991,230)	2,173,921	30.34%	659,583	148,044	807,627	1,353,496	(545,870)	1,274,772	0	16,453,619
2017	16,453,619	20,405,934	80.6%	(3,952,316)	2,241,311	30.67%	687,404	152,633	840,037	1,421,965	(581,928)	1,333,419	0	17,205,110
2018	17,205,110	21,098,287	81.5%	(3,893,177)	2,312,521	31.06%	718,220	157,483	875,702	1,491,551	(615,849)	1,394,018	0	17,983,279
2019	17,983,279	21,791,202	82.5%	(3,807,923)	2,387,182	31.44%	750,493	162,567	913,060	1,561,508	(648,448)	1,456,872	0	18,791,703
2020	18,791,703	22,486,408	83.6%	(3,694,705)	2,465,541	31.83%	784,695	167,903	952,598	1,632,589	(679,990)	1,522,266	0	19,633,978
2021	19,633,978	23,184,799	84.7%	(3,550,821)	2,547,953	32.21%	820,640	173,516	994,156	1,703,881	(709,725)	1,590,527	0	20,514,780
2022	20,514,780	23,888,953	85.9%	(3,374,172)	2,635,107	32.60%	859,173	179,451	1,038,624	1,776,142	(737,518)	1,662,047	0	21,439,309
2023	21,439,309	24,598,928	87.2%	(3,159,619)	2,727,764	33.05%	901,460	185,761	1,087,221	1,847,080	(759,859)	1,737,399	0	22,416,849
2024	22,416,849	25,317,829	88.5%	(2,900,980)	2,825,691	33.50%	946,481	192,430	1,138,910	1,915,020	(776,109)	1,817,376	0	23,458,115
2025	23,458,115	26,011,049	90.2%	(2,552,934)	2,927,133	33.94%	993,519	199,338	1,192,856	1,984,302	(791,446)	1,902,647	0	24,569,316
2026	24,569,316	26,735,726	91.9%	(2,166,410)	3,032,217	34.43%	1,043,864	206,494	1,250,358	2,048,032	(797,673)	1,994,065	0	25,765,708
2027	25,765,708	27,447,386	93.9%	(1,681,678)	3,141,073	34.58%	1,086,109	213,907	1,300,016	2,110,813	(810,797)	2,092,226	0	27,047,136
2028	27,047,136	28,170,768	96.0%	(1,123,631)	3,253,837	34.77%	1,131,311	221,586	1,352,897	2,170,825	(817,928)	2,197,649	0	28,426,858

1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Table 2
State of Alaska PERS
Financial Projections (in thousands)

As of June 30	Investment Return 8.25%				Annual Population Increase 1.00%								Recognized Asset Gain	Ending Actuarial Assets
	----- Valuation Amounts on July 1 -----				----- Flow Amounts During Following 12 Months -----									
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings		
2003	7,687,281	10,561,653	72.8%	(2,874,372)	1,460,783	6.77%	98,895	99,479	198,374	526,345	(327,970)	1,228,670	52,524	8,640,504
2004	8,008,101	11,220,324	71.4%	(3,212,224)	1,531,183	11.77%	180,220	104,274	284,494	569,007	(284,513)	672,367	52,524	8,448,479
2005	8,448,479	11,899,896	71.0%	(3,451,417)	1,585,006	16.77%	265,806	107,939	373,745	617,365	(243,620)	706,051	52,524	8,963,434
2006	8,963,434	12,596,905	71.2%	(3,633,471)	1,644,687	21.77%	358,048	112,003	470,052	669,830	(199,778)	746,010	52,524	9,562,191
2007	9,562,191	13,309,044	71.8%	(3,746,854)	1,706,759	26.77%	456,899	116,230	573,130	726,921	(153,791)	792,972	126,481	10,327,852
2008	10,327,852	14,033,243	73.6%	(3,705,392)	1,772,065	27.74%	491,641	120,678	612,318	789,363	(177,045)	844,745	0	10,995,551
2009	10,995,551	14,765,321	74.5%	(3,769,770)	1,840,407	27.99%	515,183	125,332	640,515	855,776	(215,261)	898,253	0	11,678,544
2010	11,678,544	15,502,494	75.3%	(3,823,950)	1,912,174	27.73%	530,251	130,219	660,470	924,447	(263,976)	952,591	0	12,367,159
2011	12,367,159	16,242,023	76.1%	(3,874,864)	1,986,893	27.84%	553,153	135,307	688,460	994,403	(305,943)	1,007,670	0	13,068,886
2012	13,068,886	16,983,362	77.0%	(3,914,476)	2,065,722	27.96%	577,496	140,676	718,172	1,065,814	(347,642)	1,063,843	0	13,785,087
2013	13,785,087	17,727,409	77.8%	(3,942,322)	2,148,151	28.08%	603,194	146,289	749,483	1,138,456	(388,972)	1,121,225	0	14,517,340
2014	14,517,340	18,473,903	78.6%	(3,956,563)	2,234,922	28.20%	630,281	152,198	782,480	1,214,285	(431,805)	1,179,869	0	15,265,403
2015	15,265,403	19,221,061	79.4%	(3,955,658)	2,327,596	28.39%	660,814	158,509	819,323	1,288,878	(469,554)	1,240,027	0	16,035,875
2016	16,035,875	19,967,978	80.3%	(3,932,102)	2,423,538	28.53%	691,483	165,043	856,526	1,358,696	(502,170)	1,302,245	0	16,835,951
2017	16,835,951	20,722,487	81.2%	(3,886,537)	2,524,705	28.67%	723,779	171,932	895,712	1,428,434	(532,722)	1,366,991	0	17,670,220
2018	17,670,220	21,490,710	82.2%	(3,820,490)	2,632,258	28.84%	759,267	179,257	938,524	1,499,578	(561,054)	1,434,650	0	18,543,816
2019	18,543,816	22,272,117	83.3%	(3,728,301)	2,745,982	29.01%	796,577	187,001	983,578	1,571,428	(587,850)	1,505,616	0	19,461,582
2020	19,461,582	23,069,801	84.4%	(3,608,219)	2,866,296	29.17%	836,231	195,195	1,031,426	1,644,832	(613,405)	1,580,278	0	20,428,454
2021	20,428,454	23,886,053	85.5%	(3,457,599)	2,993,733	29.34%	878,335	203,873	1,082,208	1,718,975	(636,767)	1,659,081	0	21,450,768
2022	21,450,768	24,725,092	86.8%	(3,274,324)	3,129,150	29.50%	923,255	213,095	1,136,350	1,794,769	(658,419)	1,742,529	0	22,534,878
2023	22,534,878	25,588,389	88.1%	(3,053,511)	3,273,542	29.70%	972,337	222,928	1,195,265	1,869,878	(674,613)	1,831,300	0	23,691,565
2024	23,691,565	26,480,795	89.5%	(2,789,230)	3,426,878	29.90%	1,024,757	233,370	1,258,127	1,942,712	(684,585)	1,926,315	0	24,933,295
2025	24,933,295	27,364,626	91.1%	(2,431,331)	3,587,398	30.11%	1,080,246	244,302	1,324,548	2,018,010	(693,462)	2,028,392	0	26,268,225
2026	26,268,225	28,304,080	92.8%	(2,035,855)	3,755,436	30.34%	1,139,379	255,745	1,395,124	2,087,849	(692,724)	2,138,554	0	27,714,054
2027	27,714,054	29,252,224	94.7%	(1,538,170)	3,931,345	30.27%	1,189,973	267,725	1,457,697	2,157,398	(699,701)	2,257,547	0	29,271,900
2028	29,271,900	30,236,363	96.8%	(964,463)	4,115,495	30.22%	1,243,684	280,265	1,523,949	2,224,881	(700,931)	2,386,018	0	30,956,987

1.5(a) Actuarial Projections – Projections at Calculated Rate (continued)

Table 3
State of Alaska PERS
Financial Projections (in thousands)

As of June 30	Investment Return 8.25%				Annual Population Increase 2.00%								Recognized Asset Gain	Ending Actuarial Assets
	----- Valuation Amounts on July 1 -----				----- Flow Amounts During Following 12 Months -----									
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings		
2003	7,687,281	10,561,653	72.8%	(2,874,372)	1,460,783	6.77%	98,895	99,479	198,374	526,345	(327,970)	1,228,670	52,524	8,640,504
2004	8,008,101	11,220,493	71.4%	(3,212,392)	1,531,183	11.77%	180,220	104,274	284,494	569,009	(284,515)	672,366	52,524	8,448,476
2005	8,448,476	11,901,623	71.0%	(3,453,147)	1,597,168	16.77%	267,845	108,767	376,612	617,479	(240,866)	706,165	52,524	8,966,299
2006	8,966,299	12,601,873	71.2%	(3,635,574)	1,670,523	21.77%	363,673	113,763	477,435	670,140	(192,705)	746,539	52,524	9,572,657
2007	9,572,657	13,319,342	71.9%	(3,746,684)	1,747,895	26.77%	467,911	119,032	586,943	727,514	(140,571)	794,380	126,481	10,352,947
2008	10,352,947	14,051,429	73.7%	(3,698,482)	1,830,263	27.49%	503,167	124,641	627,808	790,321	(162,513)	847,414	0	11,037,848
2009	11,037,848	14,794,520	74.6%	(3,756,672)	1,917,570	27.56%	528,567	130,587	659,154	857,024	(197,870)	902,460	0	11,742,439
2010	11,742,439	15,546,654	75.5%	(3,804,215)	2,010,366	27.12%	545,208	136,906	682,113	926,044	(243,930)	958,689	0	12,457,198
2011	12,457,198	16,305,878	76.4%	(3,848,680)	2,108,342	27.06%	570,429	143,578	714,008	996,419	(282,411)	1,016,069	0	13,190,856
2012	13,190,856	17,072,554	77.3%	(3,881,697)	2,212,837	26.99%	597,313	150,694	748,007	1,068,283	(320,276)	1,075,034	0	13,945,614
2013	13,945,614	17,848,644	78.1%	(3,903,029)	2,323,536	26.94%	626,033	158,233	784,266	1,141,463	(357,197)	1,135,779	0	14,724,197
2014	14,724,197	18,635,064	79.0%	(3,910,868)	2,441,380	26.90%	656,678	166,258	822,936	1,217,969	(395,033)	1,198,451	0	15,527,614
2015	15,527,614	19,431,191	79.9%	(3,903,577)	2,568,158	26.92%	691,247	174,892	866,138	1,293,438	(427,300)	1,263,402	0	16,363,717
2016	16,363,717	20,237,334	80.9%	(3,873,617)	2,701,386	26.89%	726,520	183,964	910,484	1,364,374	(453,890)	1,331,284	0	17,241,111
2017	17,241,111	21,062,758	81.9%	(3,821,647)	2,843,237	26.87%	763,866	193,624	957,490	1,435,518	(478,027)	1,402,673	0	18,165,756
2018	18,165,756	21,915,010	82.9%	(3,749,254)	2,995,166	26.87%	804,690	203,971	1,008,661	1,508,392	(499,731)	1,478,061	0	19,144,086
2019	19,144,086	22,795,189	84.0%	(3,651,102)	3,157,228	26.86%	848,140	215,007	1,063,148	1,582,351	(519,203)	1,557,970	0	20,182,853
2020	20,182,853	23,708,154	85.1%	(3,525,301)	3,330,149	26.86%	894,564	226,783	1,121,347	1,658,345	(536,998)	1,642,934	0	21,288,789
2021	21,288,789	24,658,054	86.3%	(3,369,264)	3,514,782	26.86%	944,130	239,357	1,183,487	1,735,674	(552,187)	1,733,547	0	22,470,150
2022	22,470,150	25,651,264	87.6%	(3,181,114)	3,712,311	26.86%	997,251	252,808	1,250,059	1,815,413	(565,354)	1,830,467	0	23,735,263
2023	23,735,263	26,691,258	88.9%	(2,955,995)	3,924,132	26.90%	1,055,538	267,233	1,322,771	1,895,206	(572,435)	1,934,546	0	25,097,373
2024	25,097,373	27,785,287	90.3%	(2,687,914)	4,150,604	26.94%	1,118,141	282,656	1,400,798	1,973,568	(572,771)	2,046,907	0	26,571,509
2025	26,571,509	28,893,212	92.0%	(2,321,703)	4,390,146	26.97%	1,184,110	298,969	1,483,078	2,055,651	(572,572)	2,168,531	0	28,167,468
2026	28,167,468	30,087,029	93.6%	(1,919,561)	4,643,513	27.04%	1,255,465	316,223	1,571,689	2,132,256	(560,567)	2,300,693	0	29,907,593
2027	29,907,593	31,318,227	95.5%	(1,410,634)	4,911,502	26.82%	1,317,380	334,473	1,651,854	2,209,241	(557,387)	2,444,384	0	31,794,590
2028	31,794,590	32,617,562	97.5%	(822,972)	5,194,958	26.64%	1,383,800	353,777	1,737,577	2,284,928	(547,351)	2,600,475	0	33,847,714

1.5(b) Actuarial Projections – Projections at Current Rate

Key Assumptions

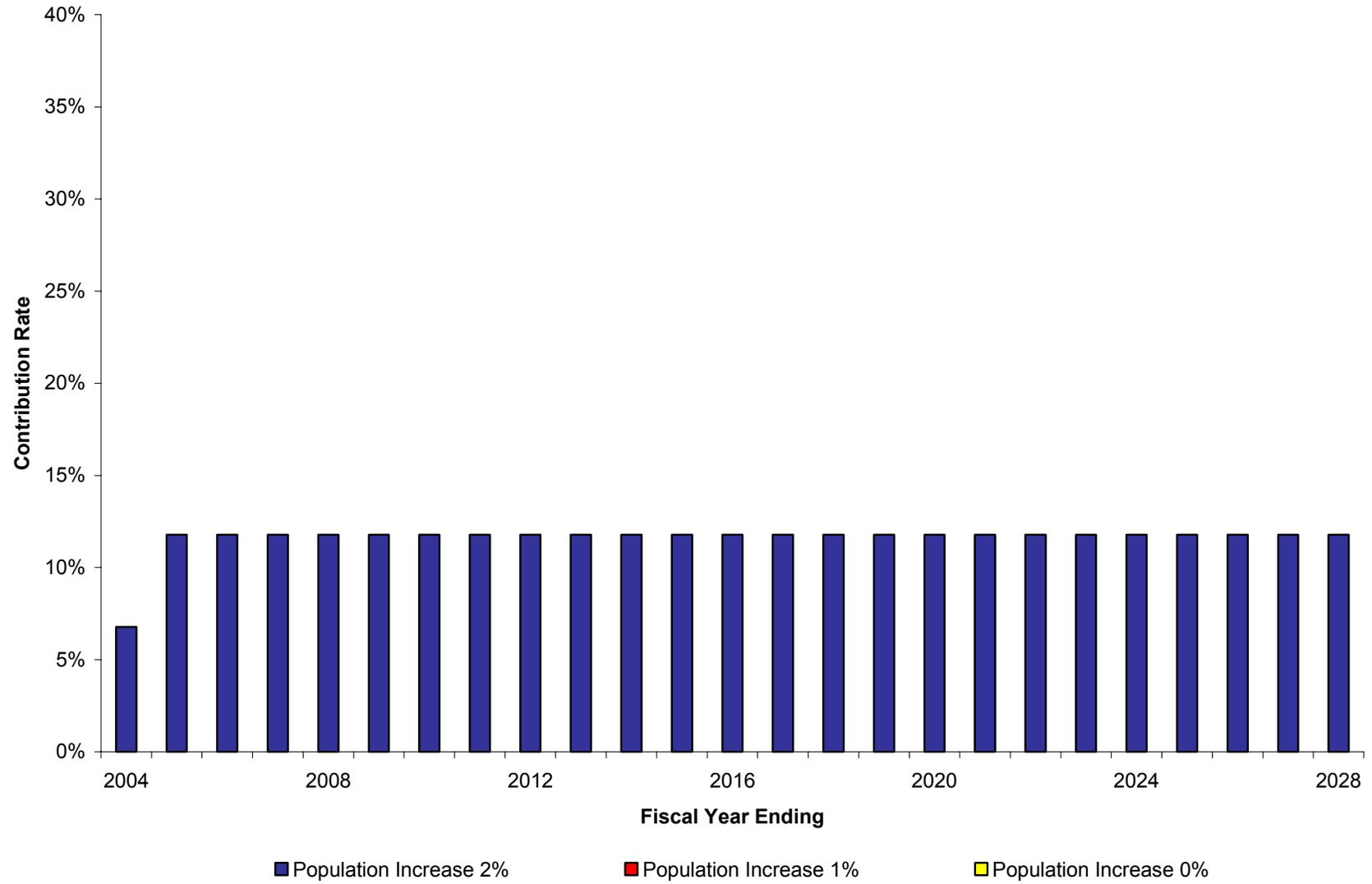
- All assumptions and methods are the same as Section 1.5(a), except
 - Adopted contribution rate is maintained at the FY05 level for all future years

Observations

- System funding deteriorates under all three population scenarios
- Actuarially calculated rates escalate under all population scenarios
- Assuming 1% population growth, actuarially calculated rates increase to more than 75%, while the funding ratio decreases to 20% by the end of the projection period.

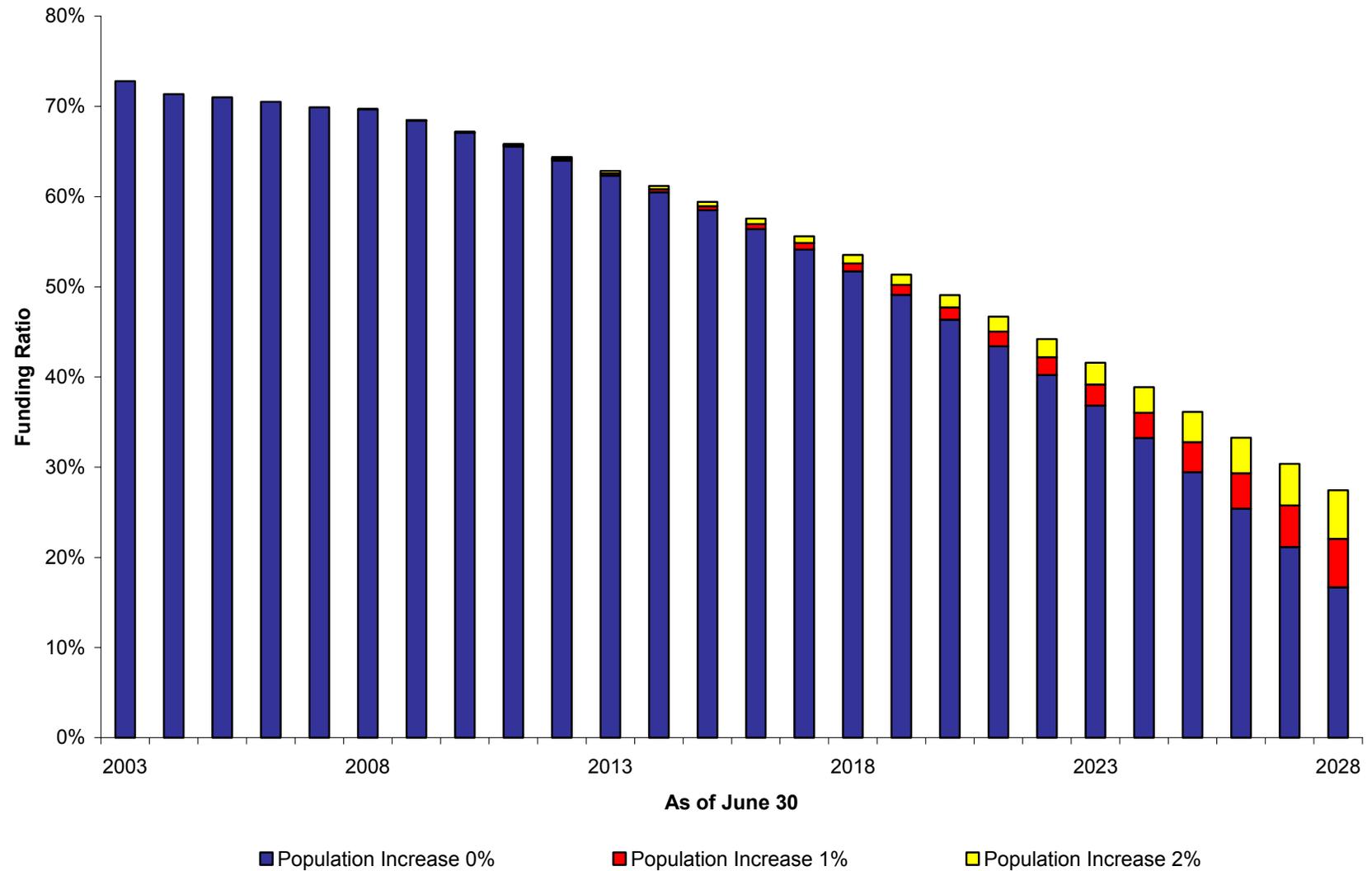
1.5(b) Actuarial Projections – Projections at Current Rate (continued)

Contribution Rate



1.5(b) Actuarial Projections – Projections at Current Rate (continued)

Funding Ratio



1.5(b) Actuarial Projections – Projections at Current Rate (continued)

Table 4
State of Alaska PERS
Financial Projections (in thousands)

As of June 30	Investment Return 8.25%				Annual Population Increase 1.00%								Recognized Asset Gain	Ending Actuarial Assets
	----- Valuation Amounts on July 1 -----				----- Flow Amounts During Following 12 Months -----									
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus* (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings		
2003	7,687,281	10,561,653	72.8%	(2,874,372)	1,460,783	6.77%	98,895	99,479	198,374	526,345	(327,970)	1,228,670	52,524	8,640,504
2004	8,008,101	11,220,324	71.4%	(3,212,224)	1,531,183	11.77%	180,220	104,274	284,494	569,007	(284,513)	672,367	52,524	8,448,479
2005	8,448,479	11,899,896	71.0%	(3,451,417)	1,585,006	11.77%	186,555	107,939	294,494	617,365	(322,870)	702,782	52,524	8,880,915
2006	8,880,915	12,596,905	70.5%	(3,715,990)	1,644,687	11.77%	193,580	112,003	305,583	669,830	(364,247)	732,418	52,524	9,301,610
2007	9,301,610	13,309,044	69.9%	(4,007,434)	1,706,759	11.77%	200,886	116,230	317,116	726,921	(409,805)	760,913	126,481	9,779,199
2008	9,779,199	14,033,243	69.7%	(4,254,044)	1,772,065	11.77%	208,572	120,678	329,250	789,363	(460,113)	787,804	0	10,106,890
2009	10,106,890	14,765,321	68.5%	(4,658,431)	1,840,407	11.77%	216,616	125,332	341,948	855,776	(513,828)	812,623	0	10,405,685
2010	10,405,685	15,502,494	67.1%	(5,096,809)	1,912,174	11.77%	225,063	130,219	355,282	924,447	(569,165)	834,991	0	10,671,511
2011	10,671,511	16,242,023	65.7%	(5,570,511)	1,986,893	11.77%	233,857	135,307	369,165	994,403	(625,239)	854,609	0	10,900,881
2012	10,900,881	16,983,362	64.2%	(6,082,481)	2,065,722	11.77%	243,135	140,676	383,811	1,065,814	(682,002)	871,190	0	11,090,069
2013	11,090,069	17,727,409	62.6%	(6,637,340)	2,148,151	11.77%	252,837	146,289	399,126	1,138,456	(739,329)	884,433	0	11,235,173
2014	11,235,173	18,473,903	60.8%	(7,238,730)	2,234,922	11.77%	263,050	152,198	415,249	1,214,285	(799,037)	893,942	0	11,330,078
2015	11,330,078	19,221,061	58.9%	(7,890,982)	2,327,596	11.77%	273,958	158,509	432,467	1,288,878	(856,410)	899,405	0	11,373,073
2016	11,373,073	19,967,978	57.0%	(8,594,905)	2,423,538	11.77%	285,250	165,043	450,293	1,358,696	(908,403)	900,807	0	11,365,477
2017	11,365,477	20,722,487	54.8%	(9,357,011)	2,524,705	11.77%	297,158	171,932	469,090	1,428,434	(959,343)	898,079	0	11,304,212
2018	11,304,212	21,490,710	52.6%	(10,186,498)	2,632,258	11.77%	309,817	179,257	489,073	1,499,578	(1,010,504)	890,914	0	11,184,622
2019	11,184,622	22,272,117	50.2%	(11,087,495)	2,745,982	11.77%	323,202	187,001	510,204	1,571,428	(1,061,224)	878,956	0	11,002,353
2020	11,002,353	23,069,801	47.7%	(12,067,447)	2,866,296	11.77%	337,363	195,195	532,558	1,644,832	(1,112,274)	861,813	0	10,751,893
2021	10,751,893	23,886,053	45.0%	(13,134,160)	2,993,733	11.77%	352,362	203,873	556,236	1,718,975	(1,162,740)	839,068	0	10,428,221
2022	10,428,221	24,725,092	42.2%	(14,296,870)	3,129,150	11.77%	368,301	213,095	581,396	1,794,769	(1,213,373)	810,277	0	10,025,125
2023	10,025,125	25,588,389	39.2%	(15,563,264)	3,273,542	11.77%	385,296	222,928	608,224	1,869,878	(1,261,654)	775,030	0	9,538,501
2024	9,538,501	26,480,795	36.0%	(16,942,294)	3,426,878	11.77%	403,344	233,370	636,714	1,942,712	(1,305,998)	733,054	0	8,965,556
2025	8,965,556	27,364,626	32.8%	(18,399,069)	3,587,398	11.77%	422,237	244,302	666,539	2,018,010	(1,351,471)	683,910	0	8,297,995
2026	8,297,995	28,304,080	29.3%	(20,006,085)	3,755,436	11.77%	442,015	255,745	697,760	2,087,849	(1,390,089)	627,243	0	7,535,149
2027	7,535,149	29,252,224	25.8%	(21,717,075)	3,931,345	11.77%	462,719	267,725	730,444	2,157,398	(1,426,954)	562,788	0	6,670,983
2028	6,670,983	30,236,363	22.1%	(23,565,380)	4,115,495	11.77%	484,394	280,265	764,659	2,224,881	(1,460,222)	490,122	0	5,700,884

1.5(c) Actuarial Projections – Effect of Economic Scenarios

Key Assumptions

- All assumptions and methods are the same as Section 1.5(a) except
 - Results are shown only under the 1% population growth scenario
 - The actuarially calculated contribution rate is adopted in each year beginning in FY06, but rate cannot increase by more than 5% per year.
 - Investment returns are assumed as follows:

Total Portfolio Investment Return Under Each Scenario

Year Ending June 30	Base Case	Growth	Prolonged Recession
2004	17.00%	17.00%	17.00%
2005	8.25%	10.00%	-3.50%
2006	8.25%	10.00%	-3.50%
2007	8.25%	9.50%	2.10%
2008	8.25%	9.00%	7.75%
2009	8.25%	8.25%	7.75%
2010	8.25%	8.25%	7.75%
2011	8.25%	8.25%	7.75%
2012	8.25%	8.25%	7.75%
2013	8.25%	8.25%	7.75%
2014	8.25%	8.25%	7.75%
2015	8.25%	8.25%	7.75%
2016	8.25%	8.25%	7.75%
2017	8.25%	8.25%	7.75%
2018	8.25%	8.25%	7.75%
2019	8.25%	8.25%	7.75%
2020	8.25%	8.25%	7.75%
2021	8.25%	8.25%	7.75%
2022	8.25%	8.25%	7.75%
2023	8.25%	8.25%	7.75%
2024	8.25%	8.25%	7.75%
2025	8.25%	8.25%	7.75%
2026	8.25%	8.25%	7.75%
2027	8.25%	8.25%	7.75%
2028	8.25%	8.25%	7.75%

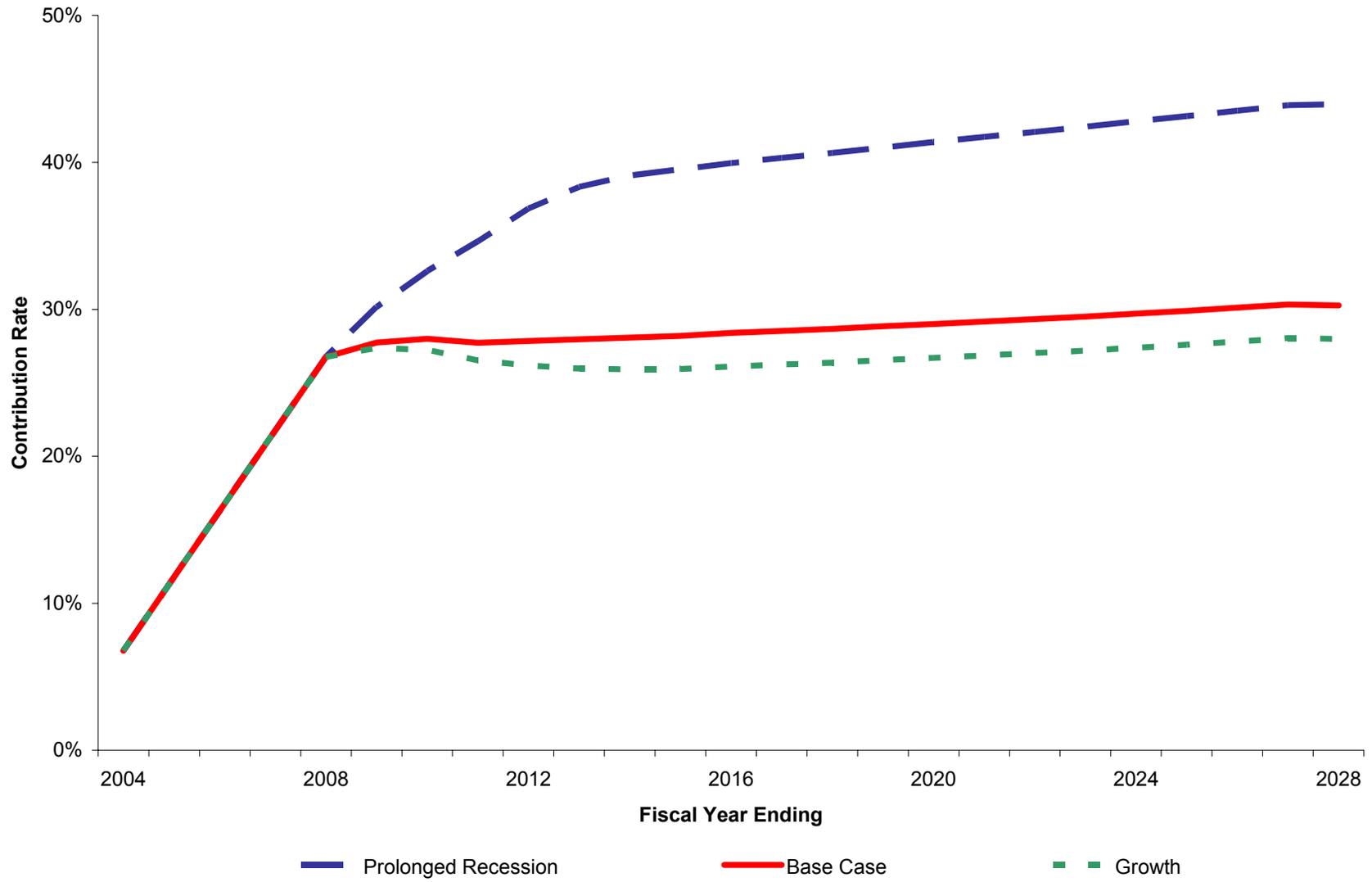
1.5(c) Actuarial Projections – Effect of Economic Scenarios *(continued)*

Observations

- System funding improves except under a prolonged recession; it improves more rapidly under the growth scenario
- Actuarially calculated rates escalate much more rapidly under a recessionary scenario

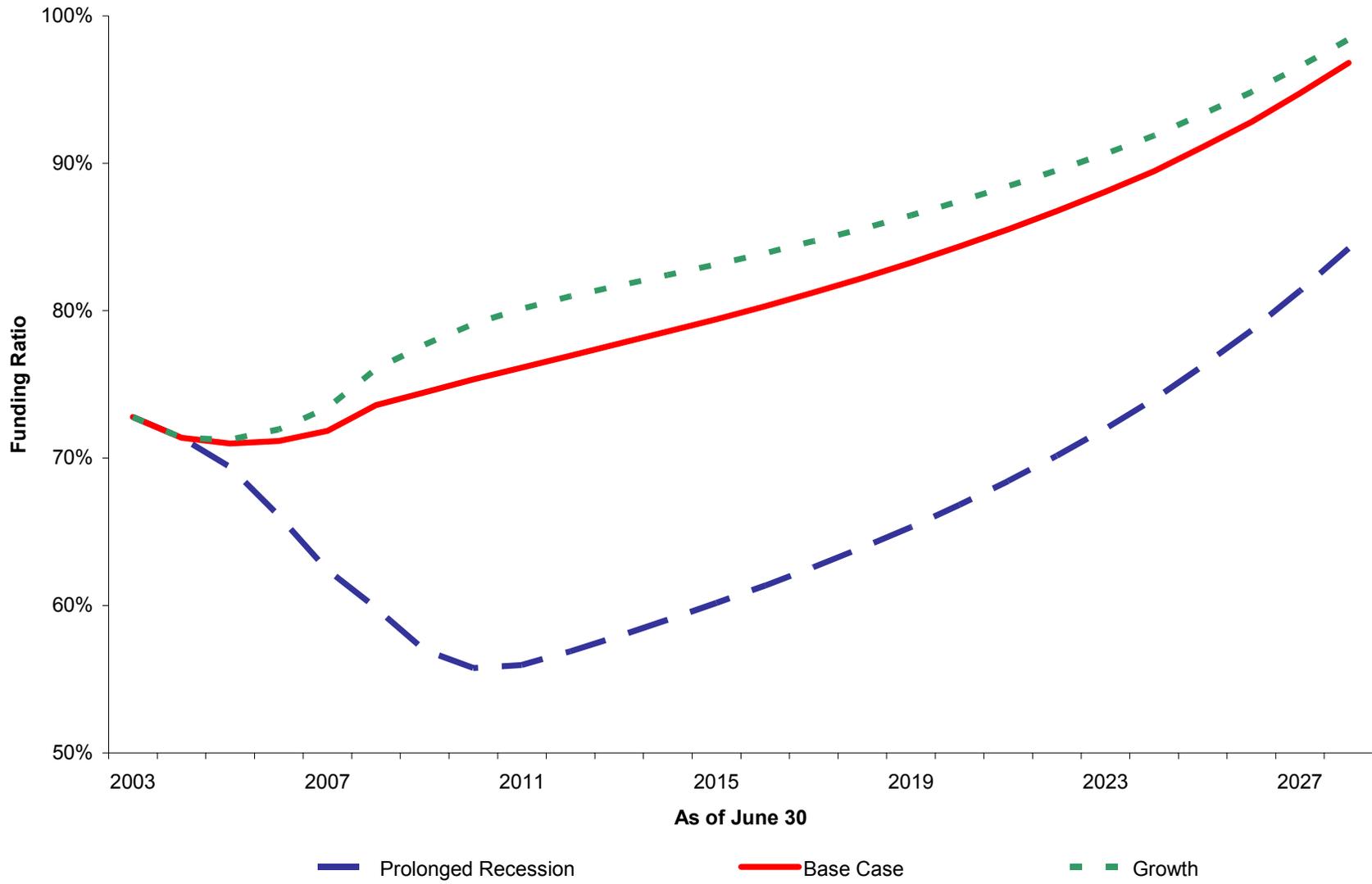
1.5(c) Actuarial Projections – Effect of Economic Scenarios (continued)

Contribution Rate



1.5(c) Actuarial Projections – Effect of Economic Scenarios (continued)

Funding Ratio



Section 2

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, 2003. 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. Chapter 4, 1996 Session Laws of Alaska created a third tier. Members who were first hired after June 30, 1996 have a 10-year requirement for system paid health benefits and non-Police/Fire members have a different Final Average Earnings calculation 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 adopts 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 160 employers participating in the PERS, including the State of Alaska and 159 political subdivisions and public organizations.

(4) Membership

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 employer 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.

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

(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);
- 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;
- leave without pay service after June 13, 1987, while receiving Workers' Compensation;
- Village Public Safety Officer service; and
- service as a temporary employee of the legislature before July 1, 1979, but this service must be claimed no later than July 1, 2003, or by the date of retirement, if sooner (not more than 10 years may be claimed).

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.

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

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.

At the election of certain PERS members, certain service may be credited in the same fashion as members in the State of Alaska Teachers' Retirement System (TRS).

Members employed as dispatchers or within a state correctional facility may, at retirement, elect to convert their dispatcher or correctional facility service from "all other" service to police/fire service and retire under the 20 year retirement option. Members pay the full actuarial cost of conversion.

(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 payments that are level as a percentage of pay over fixed 25-year periods. Effective June 30, 1996, funding surpluses are amortized over 25 years.

(7) Member Contributions

Mandatory Contributions: Police/Fire members are required to contribute 7.5% of their compensation; all Others contribute 6.75%. Those all Others who have elected to have their service calculated under the Teachers' Retirement System rules contribute 9.6% of their compensation. 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.

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

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.

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 60⁵, 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;

⁵ *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)*

- (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;
 - (iv) two years of paid-up PERS service and they are vested in the Teachers' Retirement System; or
 - (v) two years of paid-up PERS service and a minimum three years of TRS service to qualify for a public service benefit.
- (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 elect an early retirement or a joint and survivor option. Members who entered the PERS prior to July 1, 1986 may also select a level income option. Under these options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

Benefit Calculations: 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 five highest (three highest for Police/Fire members or members hired prior to July 1, 1996) consecutive payroll years. Members must earn at least 115 days of credit in the last year worked to include it in the AMC 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 Others 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%.

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

Indebtedness: Members who terminate and refund 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, if a member is otherwise eligible to retire, 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. A member who retired with a normal retirement benefit can elect to waive payment of PERS contributions. The waiver allows the member to continue receiving the retirement benefit during the period of reemployment. Members who elect the waiver option do not earn additional PERS service. The Waiver Option is not available to members who retired early or under the Retirement Incentive Programs (RIPs).

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 150% of the benefits that they received for state and political subdivision members, and 110% for school district employees, under the 1996-2000 RIP, which may include costs for health insurance, excluding amounts that they paid to participate for the 1986 and 1989 RIPs. Under prior RIPs, the penalty is 110% of the benefits received; 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.

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

(10) Postemployment Healthcare Benefits

Major medical benefits are provided to retirees by the PERS for all employees hired before July 1, 1986. Employees hired after June 30, 1986 with five years of credited service (or ten years of credited service for those first hired after June 30, 1996) must pay the full monthly premium if they are under age sixty and will receive benefits paid by the PERS if they are over age sixty. In addition, peace officers with twenty-five years of peace officer service and other employees with thirty years of membership service receive benefits paid by the PERS, regardless of their age or date of hire.

(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. Police/Fire members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

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.

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

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. Survivors of Police/Fire members receive the greater of 50% of the member's gross monthly compensation on the date of death or disability, or 75% of the member's monthly normal retirement benefit (including service projected to Normal Retirement).

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 and the member's last benefit check. If the member selected a survivor option at retirement, the eligible spouse receives continuing, lifetime monthly benefits.

(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.

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

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

In a year where an ad hoc PRPA is granted, eligible recipients will receive the higher of the two calculations.

(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 first entered the PERS before July 1, 1986, and their survivors;
- (b) members who first entered 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	1998	1999	2001	2002	2003
Active Members					
(1) Number	31,910	32,214	32,441	33,242	34,065
(2) Average Age	43.32	43.55	43.75	43.99	44.23
(3) Average Credited Service	8.51	8.53	8.49	8.47	8.51
(4) Average Annual Earnings	\$ 38,716	\$ 39,844	\$ 41,935	\$ 42,196	\$ 42,882
(5) Number Vested	19,134	19,035	18,569	18,569	18,108
(6) Percent Who Are Vested	60.0%	59.1%	57.2%	56.1%	53.2%
Retirees and Beneficiaries					
(1) Number	13,101	14,185	16,274	17,215	18,431
(2) Average Age	64.43	64.67	64.55	64.70	64.81
(3) Average Monthly Benefit:					
Base	\$ 994	\$ 1,031	\$ 1,083	\$ 1,110	\$ 1,139
C.O.L.A.	70	73	76	77	79
P.R.P.A.	209	199	214	231	221
Adjustment	0	0	1	1	1
Total	1,273	1,303	1,374	1,419	1,440
Vested Terminations					
(1) Number	5,143	5,395	6,187	5,702	5,841
(2) Average Age	46.20	46.69	47.54	47.86	47.85
(3) Average Monthly Benefit	\$ 717	\$ 749	\$ 867	\$ 796	\$ 772
Non-Vested Terminations With Account Balances					
(1) Number	6,571	7,500 ⁶	11,403 ⁶	11,301 ⁶	10,798 ⁶
(2) Average Account Balance	\$ 3,138	\$ 4,631	\$ 2,649	\$ 4,188	\$ 3,618

⁶ Includes deceased participants with account balances.

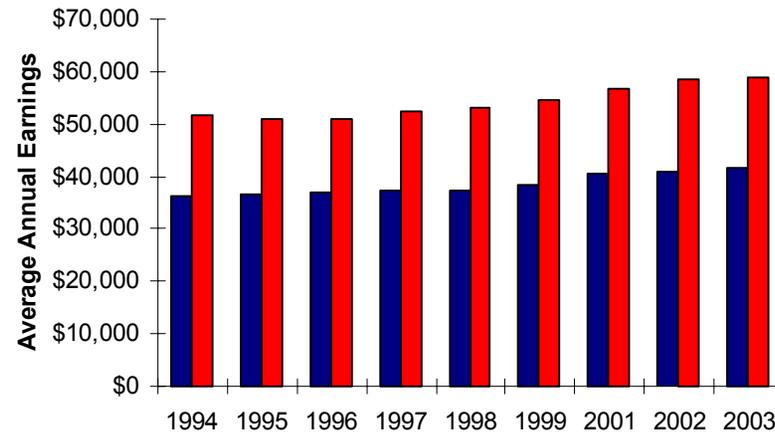
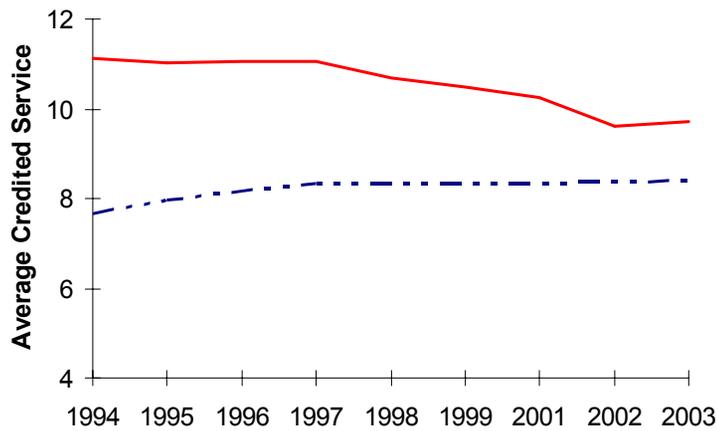
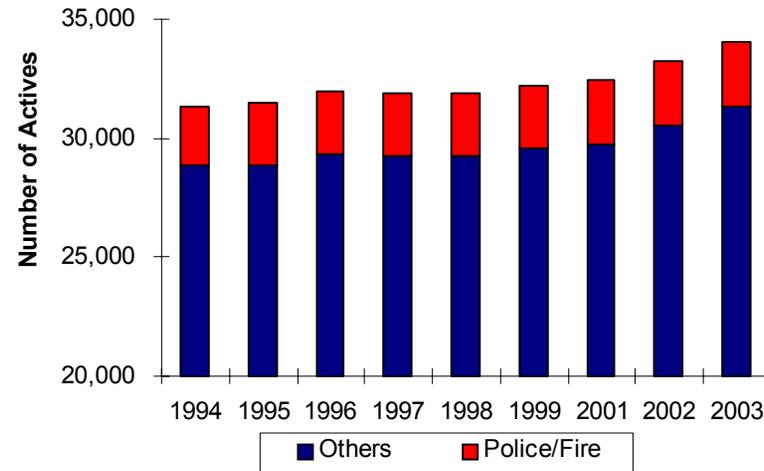
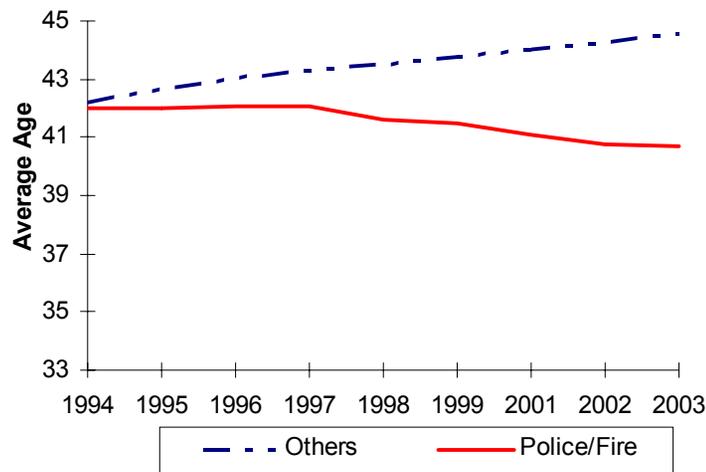
2.2(a) Participant Census Information – Total PERS (continued)

As of June 30, 2003	Tier 1	Tier 2	Tier 3	Total
Retirees and Beneficiaries				
(1) Number	16,737	1,646	48	18,431
(2) Average Age	65.06	62.49	57.47	64.81
(3) Average Monthly Benefit:				
Base	\$ 1,189	\$ 647	\$ 666	\$ 1,139
C.O.L.A.	85	23	32	79
P.R.P.A.	241	24	7	221
Adjustment	1	0	0	1
Total	1,516	694	705	1,440

2.2(b) Additional Information – Active Participants

As of June 30	1998	1999	2001	2002	2003
Police/Fire					
(1) Number	2,617	2,624	2,683	2,695	2,727
(2) Average Age	41.62	41.51	41.11	40.77	40.72
(3) Average Credited Service	10.68	10.50	10.26	9.60	9.70
(4) Average Annual Earnings	\$ 52,982	\$ 54,437	\$ 56,542	\$ 58,490	\$ 58,945
(5) Number Vested	1,799	1,781	1,814	1,715	1,739
(6) Percent Who Are Vested	68.7%	67.9%	67.6%	63.6%	63.8%
Others					
(1) Number	29,293	29,590	29,758	30,547	31,338
(2) Average Age	43.47	43.73	43.99	44.27	44.53
(3) Average Credited Service	8.32	8.35	8.33	8.37	8.41
(4) Average Annual Earnings	\$ 37,442	\$ 38,550	\$ 40,618	\$ 40,759	\$ 41,484
(5) Number Vested	17,335	17,254	16,755	16,944	16,369
(6) Percent Who Are Vested	59.2%	58.3%	56.3%	55.5%	52.2%

2.2(b) Additional Information – Active Participants (continued)



2.2(c) Distribution of Active Participants – Police/Fire

Annual Earnings by Age				Annual Earnings by Credited Service			
Age	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	167	\$ 6,961,166	\$ 41,684
20 – 24	81	3,754,017	46,346	1	252	12,062,089	47,865
25 – 29	300	16,056,271	53,521	2	174	9,004,543	51,750
30 – 34	513	29,640,063	57,778	3	188	10,422,875	55,441
35 – 39	442	26,626,446	60,241	4	182	10,230,903	56,214
40 – 44	433	26,849,968	62,009	0 – 4	963	48,681,576	50,552
45 – 49	428	25,929,579	60,583	5 – 9	666	40,832,135	61,310
50 – 54	341	20,728,663	60,788	10 – 14	388	24,310,711	62,656
55 – 59	150	8,859,355	59,062	15 – 19	404	25,811,179	63,889
60 – 64	35	2,079,449	59,413	20 – 24	232	15,821,538	68,196
65 – 69	3	153,965	51,322	25 – 29	64	4,606,541	71,977
70 – 74	0	0	0	30 – 34	6	406,130	67,688
75+	1	64,810	64,810	35 – 39	4	272,776	68,194
				40+	0	0	0
Total	2,727	\$160,742,586	\$ 58,945	Total	2,727	\$160,742,586	\$ 58,945

Years of Credited Service by Age

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	80	1	0	0	0	0	0	0	0	81
25 – 29	247	52	1	0	0	0	0	0	0	300
30 – 34	274	200	38	1	0	0	0	0	0	513
35 – 39	152	165	89	36	0	0	0	0	0	442
40 – 44	106	96	91	105	33	2	0	0	0	433
45 – 49	56	72	68	122	97	12	1	0	0	428
50 – 54	33	57	61	85	69	34	2	0	0	341
55 – 59	13	16	29	48	25	15	2	2	0	150
60 – 64	2	6	9	6	8	1	1	2	0	35
65 – 69	0	0	2	1	0	0	0	0	0	3
70 – 74	0	0	0	0	0	0	0	0	0	0
75+	0	1	0	0	0	0	0	0	0	1
Total	963	666	388	404	232	64	6	4	0	2,727

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

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2003	2,727	\$ 160,743	\$ 58,945	0.8%	160
June 30, 2002	2,695	157,632	58,490	3.4%	161
June 30, 2001	2,683	151,701	56,542	3.9%	158
June 30, 1999	2,624	142,843	54,437	2.7%	148
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

2.2(e) Distribution of Active Participants – Others

Annual Earnings by Age

Age	Number of People	Total Annual Earnings	Average Annual Earnings
0 – 19	69	\$ 1,875,327	\$ 27,179
20 – 24	1,074	30,868,317	28,741
25 – 29	2,008	67,879,833	33,805
30 – 34	2,796	103,360,257	36,967
35 – 39	3,554	137,211,434	38,608
40 – 44	5,336	215,668,226	40,418
45 – 49	6,550	286,418,855	43,728
50 – 54	5,693	265,749,671	46,680
55 – 59	2,843	129,906,494	45,693
60 – 64	1,107	48,473,306	43,788
65 – 69	238	10,398,007	43,689
70 – 74	51	1,647,689	32,308
75+	19	583,364	30,703
Total	31,338	\$1,300,040,780	\$ 41,484

Annual Earnings by Credited Service

Years of Service	Number of People	Total Annual Earnings	Average Annual Earnings
0	3,891	\$ 124,467,819	\$ 31,989
1	3,327	105,488,122	31,707
2	2,688	91,661,417	34,100
3	2,207	80,211,174	36,344
4	1,907	72,487,843	38,011
0 – 4	14,020	474,316,375	33,831
5 – 9	6,399	261,285,123	40,832
10 – 14	4,763	223,111,852	46,843
15 – 19	3,052	158,495,085	51,932
20 – 24	2,085	120,117,527	57,610
25 – 29	892	54,285,636	60,858
30 – 34	116	7,657,877	66,016
35 – 39	11	771,305	70,119
40+	0	0	0
Total	31,338	\$1,300,040,780	\$ 41,484

Years of Credited Service by Age

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35- 39	40+	
0 – 19	69	0	0	0	0	0	0	0	0	69
20 – 24	1,067	7	0	0	0	0	0	0	0	1,074
25 – 29	1,809	197	2	0	0	0	0	0	0	2,008
30 – 34	2,050	613	127	6	0	0	0	0	0	2,796
35 – 39	2,021	880	501	143	9	0	0	0	0	3,554
40 – 44	2,308	1,222	990	552	251	13	0	0	0	5,336
45 – 49	2,080	1,443	1,207	886	693	237	4	0	0	6,550
50 – 54	1,440	1,132	1,035	856	740	437	53	0	0	5,693
55 – 59	739	614	607	413	281	145	37	7	0	2,843
60 – 64	324	233	235	161	86	45	19	4	0	1,107
65 – 69	77	49	47	32	19	12	2	0	0	238
70 – 74	25	8	7	3	4	3	1	0	0	51
75+	11	1	5	0	2	0	0	0	0	19
Total	14,020	6,399	4,763	3,052	2,085	892	116	11	0	31,338

2.2(f) Schedule of Active Member Valuation Data – Others

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2003	31,338	\$ 1,300,041	\$ 41,484	1.8%	160
June 30, 2002	30,547	1,245,055	40,759	0.3%	161
June 30, 2001	29,758	1,208,700	40,618	5.4%	158
June 30, 1999	29,590	1,140,706	38,550	3.0%	148
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

2.2(g) Statistics on New Benefit Recipients – Police/Fire

During the Year Ending June 30	1998	1999	2000/2001	2002	2003
Service					
(1) Number	147	142	275	128	114
(2) Average Age at Commencement	51.71	52.47	51.49	51.17	51.72
(3) Average Monthly Benefit	\$ 2,696	\$ 2,410	\$ 2,562	\$ 2,681	\$ 2,835
Survivor (including surviving spouse and QDROs)					
(1) Number	14	14	36	26	19
(2) Average Age at Commencement	51.50	55.79	52.79	52.78	56.54
(3) Average Monthly Benefit	\$ 1,265	\$ 1,088	\$ 1,256	\$ 1,435	\$ 1,265
Disability					
(1) Number	3	7	17	3	10
(2) Average Age at Commencement	43.40	45.37	48.90	43.30	49.86
(3) Average Monthly Benefit	\$ 2,056	\$ 2,725	\$ 1,697	\$ 1,684	\$ 1,945
Total					
(1) Number	164	163	328	157	143
(2) Average Age at Commencement	51.54	52.45	51.50	51.28	52.23
(3) Average Monthly Benefit	\$ 2,562	\$ 2,310	\$ 2,374	\$ 2,456	\$ 2,564

2.2(h) Schedule of Average Benefit Payments – New Benefit Recipients – Police/Fire

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/02 - 6/30/03:							
Average Monthly Benefit	\$ 1,594	\$ 697	\$ 1,131	\$ 2,043	\$ 3,013	\$ 4,079	\$ 4,313
Number of Recipients	1	9	20	20	79	11	3
Period 7/1/01 - 6/30/02:							
Average Monthly Benefit	\$ 1,903	\$ 466	\$ 1,056	\$ 1,561	\$ 2,567	\$ 3,447	\$ 5,996
Number of Recipients	1	6	12	19	85	32	2
Period 7/1/99 - 6/30/01:							
Average Monthly Benefit	\$ 1,416	\$ 927	\$ 1,249	\$ 1,704	\$ 2,824	\$ 2,892	\$ 2,702
Number of Recipients	2	13	34	61	143	57	18
Period 7/1/98 - 6/30/99:							
Average Monthly Benefit	\$ 1,879	\$ 698	\$ 1,214	\$ 1,808	\$ 2,849	\$ 3,713	\$ 4,097
Number of Recipients	22	8	23	29	61	17	3
Period 7/1/97 - 6/30/98:							
Average Monthly Benefit	\$ 1,472	\$ 723	\$ 1,177	\$ 2,091	\$ 3,199	\$ 3,548	\$ 3,380
Number of Recipients	13	8	13	40	64	22	4
Period 7/1/96 - 6/30/97:							
Average Monthly Benefit	\$ 1,263	\$ 592	\$ 957	\$ 1,719	\$ 2,811	\$ 3,545	\$ 4,733
Number of Recipients	10	12	18	40	68	15	3
Period 7/1/95 - 6/30/96:							
Average Monthly Benefit	\$ 1,938	\$ 757	\$ 1,708	\$ 1,852	\$ 2,916	\$ 3,375	\$ 3,870
Number of Recipients	3	6	5	11	39	10	2
Period 7/1/94 - 6/30/95:							
Average Monthly Benefit	\$ 0	\$ 893	\$ 851	\$ 1,608	\$ 3,002	\$ 3,107	\$ 0
Number of Recipients	0	8	10	18	42	10	0
Period 7/1/93 - 6/30/94:							
Average Monthly Benefit	\$ 417	\$ 748	\$ 1,054	\$ 1,532	\$ 2,748	\$ 3,825	\$ 0
Number of Recipients	1	7	9	13	32	9	0

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

2.2(i) Statistics on New Benefit Recipients – Others

During the Year Ending June 30	1998	1999	2000/2001	2002	2003
Service					
(1) Number	1,098	921	2,031	942	1,247
(2) Average Age at Commencement	56.59	56.07	56.20	56.58	56.85
(3) Average Monthly Benefit	\$ 1,443	\$ 1,450	\$ 1,389	\$ 1,481	\$ 1,525
Survivor (including surviving spouse and QDROs)					
(1) Number	85	97	214	144	136
(2) Average Age at Commencement	61.68	63.58	61.10	62.12	63.24
(3) Average Monthly Benefit	\$ 710	\$ 837	\$ 845	\$ 842	879
Disability					
(1) Number	36	35	97	49	62
(2) Average Age at Commencement	48.21	48.24	48.31	49.55	49.53
(3) Average Monthly Benefit	\$ 1,421	\$ 1,263	\$ 1,258	\$ 1,445	\$ 1,396
Total					
(1) Number	1,219	1,053	2,342	1,135	1,445
(2) Average Age at Commencement	56.70	56.50	56.32	56.98	57.10
(3) Average Monthly Benefit	\$ 1,391	\$ 1,388	\$ 1,334	\$ 1,398	\$ 1,457

2.2(j) Schedule of Average Benefit Payments – New Benefit Recipients – Others

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/02 - 6/30/03:							
Average Monthly Benefit	\$ 984	\$ 678	\$ 1,022	\$ 1,601	\$ 2,201	\$ 3,116	\$ 4,004
Number of Recipients	202	379	290	219	179	99	77
Period 7/1/01 - 6/30/02:							
Average Monthly Benefit	\$ 488	\$ 500	\$ 886	\$ 1,428	\$ 2,020	\$ 2,663	\$ 3,653
Number of Recipients	15	283	246	227	198	94	72
Period 7/1/99 - 6/30/01:							
Average Monthly Benefit	\$ 602	\$ 577	\$ 791	\$ 1,129	\$ 1,392	\$ 1,771	\$ 1,949
Number of Recipients	8	174	289	594	542	438	297
Period 7/1/98 - 6/30/99:							
Average Monthly Benefit	\$ 653	\$ 518	\$ 894	\$ 1,477	\$ 2,129	\$ 2,853	\$ 3,813
Number of Recipients	55	237	249	225	157	86	44
Period 7/1/97 - 6/30/98:							
Average Monthly Benefit	\$ 943	\$ 511	\$ 935	\$ 1,512	\$ 2,090	\$ 3,007	\$ 3,700
Number of Recipients	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 Recipients	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 Recipients	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 Recipients	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 Recipients	17	149	169	136	60	17	19

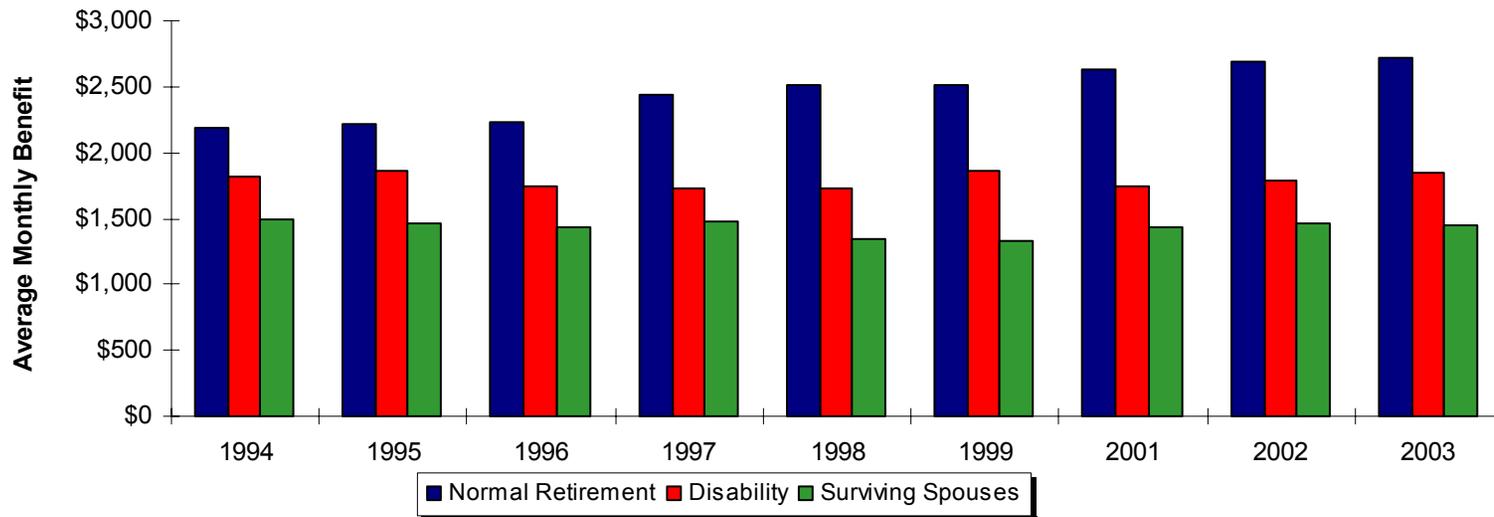
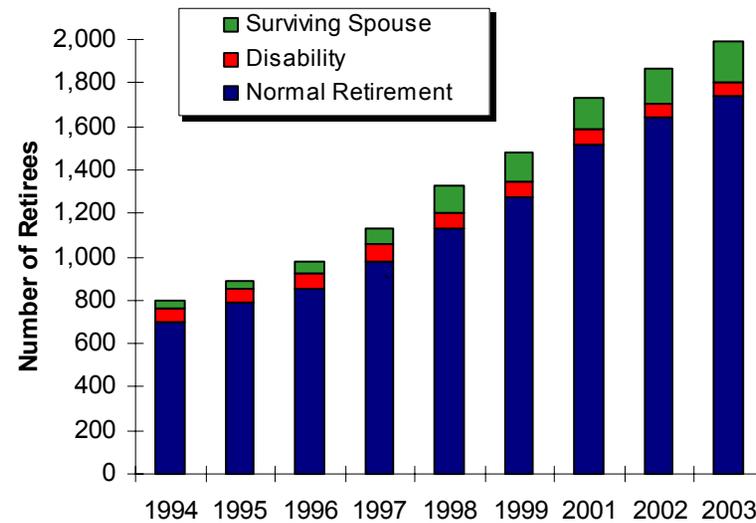
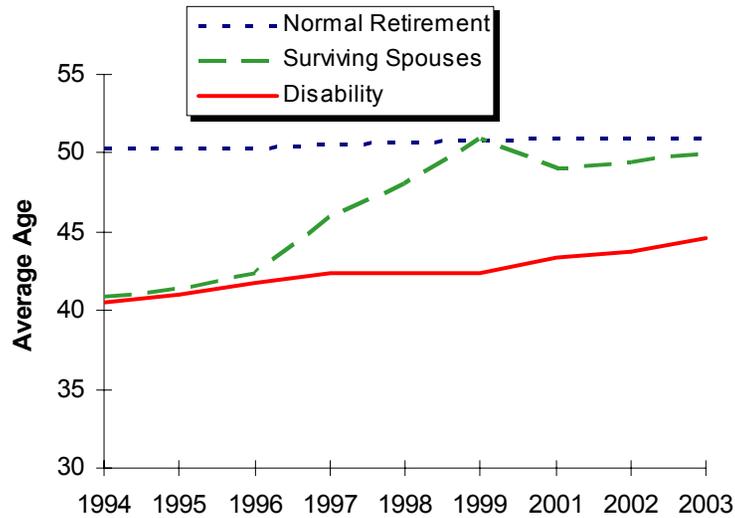
“Average Monthly Benefit” includes post-retirement pension adjustments and cost-of-living increases.

2.2(k) Statistics on All Benefit Recipients

	<u>Police/Fire</u>	<u>Others</u>
Service Retirements		
(1) Number, June 30, 2002	1,637	13,619
(2) Net Change During FY03	104	985
(3) Number, June 30, 2003	1,741	14,604
(4) Average Age At Commencement	50.92	56.58
(5) Average Age Now	59.40	65.81
(6) Average Monthly Benefit	\$ 2,717	\$ 1,345
Survivors (including surviving spouses and QDROs)		
(1) Number, June 30, 2002	169	1,347
(2) Net Change During FY03	17	93
(3) Number, June 30, 2003	186	1,440
(4) Average Age At Commencement	49.99	57.25
(5) Average Age Now	57.26	66.73
(6) Average Monthly Benefit	\$ 1,449	\$ 840
Disabilities		
(1) Number, June 30, 2002	63	380
(2) Net Change During FY03	1	16
(3) Number, June 30, 2003	64	396
(4) Average Age At Commencement	44.63	45.14
(5) Average Age Now	50.66	50.63
(6) Average Monthly Benefit	\$ 1,842	\$ 1,468
Total Number of Benefit Recipients	1,991	16,440

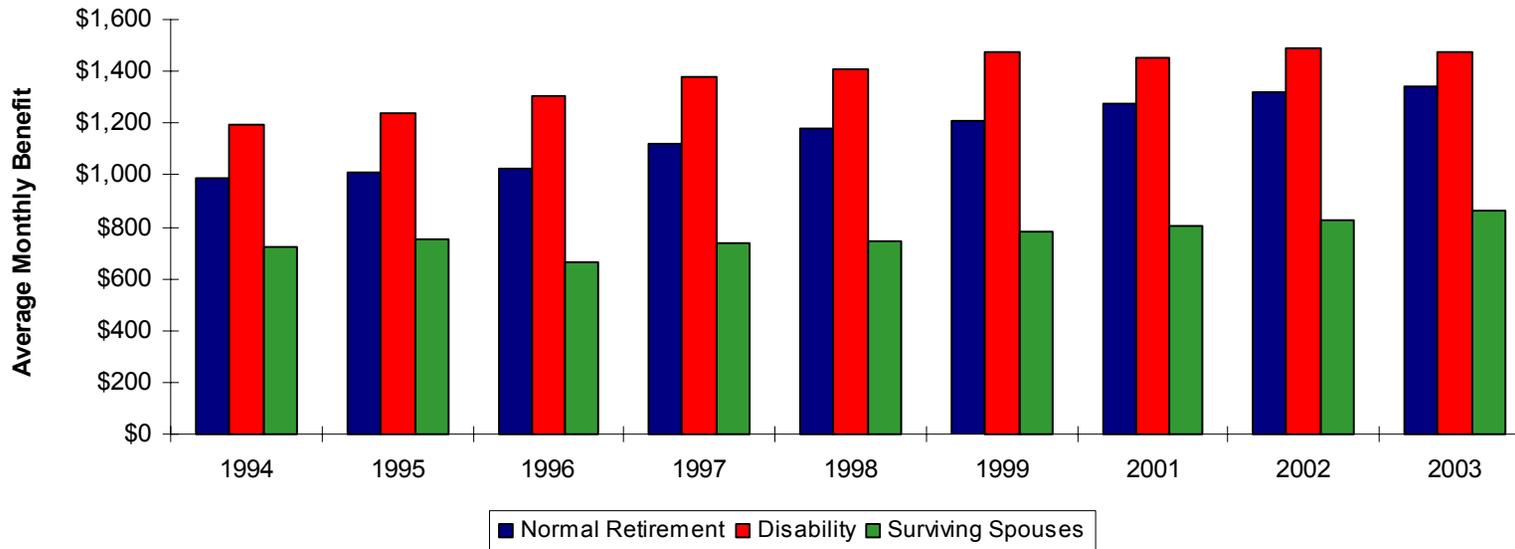
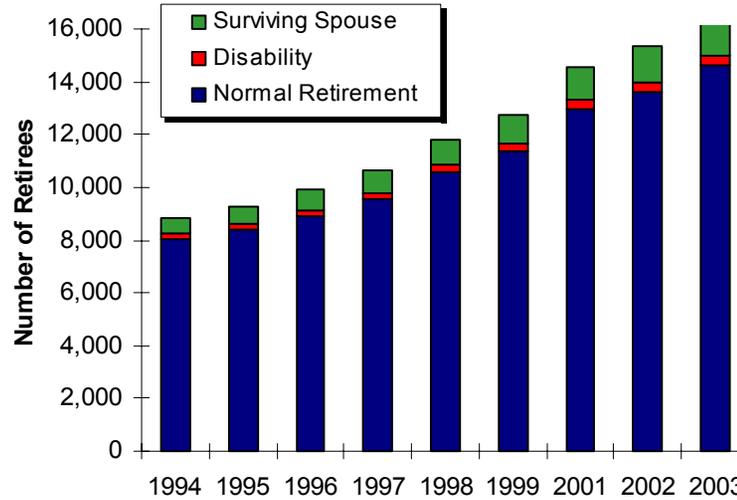
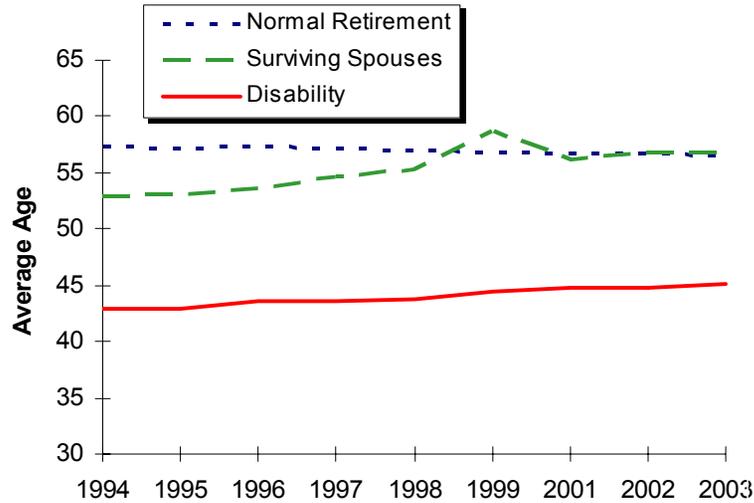
2.2(k) Statistics on All Benefit Recipients (continued)

Police/Fire



2.2(k) Statistics on All Benefit Recipients (continued)

Others



2.2(I) Distribution of Annual Benefits for Benefit Recipients – Police/Fire

Annual Benefit by Age

Age	Number of People	Total Annual Benefit	Average Annual Benefit
0 – 19	0	\$ 0	\$ 0
20 – 24	0	0	0
25 – 29	1	22,838	22,838
30 – 34	1	17,079	17,079
35 – 39	3	76,430	25,477
40 – 44	33	850,013	25,758
45 – 49	185	6,088,799	32,912
50 – 54	381	12,753,445	33,474
55 – 59	517	16,797,831	32,491
60 – 64	429	12,535,243	29,220
65 – 69	237	6,746,807	28,468
70 – 74	109	3,275,032	30,046
75+	95	2,243,338	23,614

Annual Benefit by Years Since Commencement

Years Since Commencement	Number of People	Total Annual Benefit	Average Annual Benefit
0	78	\$2,394,257	\$ 30,696
1	157	4,635,558	29,526
2	147	4,519,580	30,745
3	133	4,053,636	30,478
4	161	4,265,449	26,493
0 – 4	676	19,868,480	29,391
5 – 9	644	20,056,538	31,144
10 – 14	286	8,360,047	29,231
15 – 19	248	9,302,146	37,509
20 – 24	83	2,459,263	29,630
25 – 29	48	1,212,424	25,259
30 – 34	6	147,957	24,660
35 – 39	0	0	0
40+	0	0	0

Total 1,991 \$61,406,855 \$30,842

Total 1,991 \$61,406,855 \$ 30,842

Years Since Benefit Commencement by Age

Age	Years of Service										Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
0 – 19	0	0	0	0	0	0	0	0	0	0	0
20 – 24	0	0	0	0	0	0	0	0	0	0	0
25 – 29	1	0	0	0	0	0	0	0	0	0	1
30 – 34	1	0	0	0	0	0	0	0	0	0	1
35 – 39	1	2	0	0	0	0	0	0	0	0	3
40 – 44	28	3	2	0	0	0	0	0	0	0	33
45 – 49	141	32	9	2	1	0	0	0	0	0	185
50 – 54	216	141	18	3	1	2	0	0	0	0	381
55 – 59	190	206	74	40	3	4	0	0	0	0	517
60 – 64	70	189	97	65	5	1	2	0	0	0	429
65 – 69	21	57	60	78	15	5	1	0	0	0	237
70 – 74	4	9	19	43	28	6	0	0	0	0	109
75+	3	5	7	17	30	30	3	0	0	0	95
Total	676	644	286	248	83	48	6	0	0	0	1,991

2.2(m) Schedule of Benefit Recipients by Type of Benefit and Option Selected – Police/Fire

Amount of Monthly Benefit		Number of Recipients	Type of Benefit			Option Selected				
			1	2	3	1	2	3	4	5
\$ 1	\$ 300	29	18	11	0	14	9	1	0	5
301	– 600	103	75	27	1	40	27	16	8	12
601	– 900	101	66	30	5	58	24	5	7	7
901	– 1,200	129	102	22	5	52	24	18	8	27
1,201	– 1,500	113	92	18	3	45	31	10	15	12
1,501	– 1,800	121	91	17	13	47	31	15	14	14
1,801	– 2,100	141	107	20	14	58	46	15	12	10
2,101	– 2,400	167	141	12	14	50	69	18	14	16
2,401	– 2,700	199	182	10	7	48	91	33	14	13
2,701	– 3,000	152	144	8	0	31	76	22	14	9
3,001	– 3,300	157	154	2	1	33	78	20	17	9
3,301	– 3,600	141	138	3	0	29	72	23	10	7
3,601	– 3,900	123	121	1	1	21	60	13	17	12
3,901	– 4,200	105	105	0	0	19	60	8	11	7
Over \$ 4,200		210	205	5	0	46	121	23	12	8
Totals		1,991	1,741	186	64	591	819	240	173	168

Type of Benefit

1. Normal retirement
2. Survivor payment
3. Disability

Option Selected

1. Whole Life Annuity
2. 75% Joint and Contingent Annuity
3. 50% Joint and Contingent Annuity
4. 66 2/3% Joint and Survivor Annuity
5. Level Income Option

2.2(n) Distribution of Annual Benefits for Benefit Recipients – Others

Annual Benefit by Age				Annual Benefit by Years Since Commencement			
Age	Number of People	Total Annual Benefit	Average Annual Benefit	Years Since Commencement	Number of People	Total Annual Benefit	Average Annual Benefit
0 – 19	0	\$ 0	\$ 0	0	694	\$ 13,614,801	\$ 19,618
20 – 24	0	0	0	1	1,224	20,063,275	16,392
25 – 29	0	0	0	2	1,125	18,124,516	16,111
30 – 34	4	56,000	14,000	3	963	14,489,211	15,046
35 – 39	18	223,087	12,394	4	1,429	25,161,760	17,608
40 – 44	53	616,954	11,641	0 – 4	5,435	91,453,563	16,827
45 – 49	169	2,398,271	14,191	5 – 9	4,274	71,177,273	16,654
50 – 54	1,205	18,444,334	15,307	10 – 14	2,724	36,366,909	13,351
55 – 59	3,276	59,820,853	18,260	15 – 19	2,393	37,396,201	15,627
60 – 64	3,628	60,199,257	16,593	20 – 24	1,023	13,372,726	13,072
65 – 69	2,955	43,360,256	14,674	25 – 29	526	6,555,660	12,463
70 – 74	2,224	32,607,462	14,662	30 – 34	61	790,437	12,958
75+	2,908	39,479,100	13,576	35 – 39	4	92,805	23,201
				40+	0	0	0
Total	16,440	\$257,205,574	\$ 15,645	Total	16,440	\$257,205,574	\$ 15,645

Years Since Benefit Commencement by Age

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	0	0	0	0	0	0	0	0	0	0
25 – 29	0	0	0	0	0	0	0	0	0	0
30 – 34	3	1	0	0	0	0	0	0	0	4
35 – 39	13	4	1	0	0	0	0	0	0	18
40 – 44	27	15	8	3	0	0	0	0	0	53
45 – 49	90	47	23	7	2	0	0	0	0	169
50 – 54	1,000	141	37	20	6	1	0	0	0	1,205
55 – 59	2,258	954	37	21	4	2	0	0	0	3,276
60 – 64	1,195	1,606	693	108	16	9	1	0	0	3,628
65 – 69	553	837	966	568	22	6	2	1	0	2,955
70 – 74	161	484	548	808	202	18	2	1	0	2,224
75+	135	185	411	858	771	490	56	2	0	2,908
Total	5,435	4,274	2,724	2,393	1,023	526	61	4	0	16,440

2.2(o) Schedule of Benefit Recipients by Type of Benefit and Option Selected – Others

Amount of Monthly Benefit		Number of Recipients	Type of Benefit			Option Selected				
			1	2	3	1	2	3	4	5
\$ 1	\$ 300	1,461	1,187	263	11	637	298	204	57	265
301	– 600	3,236	2,809	374	53	1,575	742	475	193	251
601	– 900	2,720	2,380	293	47	1,313	634	366	209	198
901	– 1,200	2,159	1,920	186	53	984	540	298	155	182
1,201	– 1,500	1,632	1,435	138	59	663	433	254	116	166
1,501	– 1,800	1,289	1,177	66	46	512	355	180	104	138
1,801	– 2,100	972	865	50	57	345	289	159	81	98
2,101	– 2,400	743	692	22	29	252	237	106	59	89
2,401	– 2,700	517	492	14	11	169	157	96	42	53
2,701	– 3,000	463	438	18	7	144	152	78	38	51
3,001	– 3,300	321	307	6	8	88	121	47	26	39
3,301	– 3,600	232	224	4	4	58	96	41	19	18
3,601	– 3,900	187	180	3	4	60	79	18	16	14
3,901	– 4,200	153	150	0	3	40	69	30	12	2
Over \$4,200		355	348	3	4	102	139	58	31	25
Totals		16,440	14,604	1,440	396	6,942	4,341	2,410	1,158	1,589

Type of Benefit

1. Normal retirement
2. Survivor payment
3. Disability

Option Selected

1. Whole Life Annuity
2. 75% Joint and Contingent Annuity
3. 50% Joint and Contingent Annuity
4. 66 2/3% Joint and Survivor Annuity
5. Level Income Option

2.2(p) Schedule of Benefit Recipients Added to and Removed from Rolls – Police/Fire

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Allowances	Average Annual Allowance
	No. ⁷	Annual Allowances ⁷	No. ⁷	Annual Allowances ⁷	No.	Annual Allowances		
June 30, 2003	143	\$ 4,923,581	21	\$ 802,499	1,991	\$61,406,855	7.2%	\$ 30,842
June 30, 2002	157	6,155,365	19	744,917	1,869	57,285,773	10.4%	30,650
June 30, 2001	328	12,637,854	75	2,889,753	1,731	51,875,325	23.1%	29,986
June 30, 1999	163	4,761,117	8	233,673	1,478	42,127,224	12.0%	28,503
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 ⁸	9	372,984 ⁸	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

⁷ Numbers are estimated, and include other internal transfers.

⁸ Includes additional benefits to current retirees from a one time retroactive ad hoc Post-Retirement Pension Adjustment

2.2(q) Schedule of Benefit Recipients Added to and Removed from Rolls – Others

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Allowances	Average Annual Allowance
	No. ⁹	Annual Allowances ⁹	No. ⁹	Annual Allowances ⁹	No.	Annual Allowances		
June 30, 2003	1,445	\$27,802,265	351	\$6,507,821	16,440	\$257,205,574	9.0%	\$15,645
June 30, 2002	1,135	27,484,388	332	8,039,486	15,346	235,911,130	9.0%	15,373
June 30, 2001	2,342	46,880,694	506	10,128,792	14,543	216,466,228	20.5%	15,071
June 30, 1999	1,053	19,402,623	124	2,284,829	12,707	179,714,326	10.5%	14,143
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 ¹⁰	101	2,829,835 ¹⁰	10,672	139,808,955	7.2%	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

⁹ Numbers are estimated, and include other internal transfers.

¹⁰ 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 Mercer Human Resource Consulting and were adopted at the Fall 2000 PERS Board Meeting. These assumptions were the result of an experience study performed in the Fall of 2000. The funding method used in this valuation was adopted June 30, 1985 and last reviewed by the Board in January 2003. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Valuation of Liabilities

(A) Actuarial Method – Projected Unit Credit

Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The initial unfunded accrued liability and future gains/losses are amortized over a 25-year fixed period level percentage of pay. However, in keeping with GASB requirements, the net amortization period for all gains and losses will not exceed 30 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 the 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 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

Investment Return	8.25% per year, compounded annually, net of expenses.	
Salary Scale	Inflation – 3.5% per year Police/Fire: Merit (first 5 years of employment) – 1.5% per year. Productivity – 1.0% per year Others: Merit (first 10 years of employment) – 1.5% per year. Productivity – 0.5% per year	
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.5% annually.	
Health Cost Trend	FY04	12.0%
	FY05	12.0%
	FY06	11.5%
	FY07	11.0%
	FY08	10.5%
	FY09	10.0%
	FY10	9.5%
	FY11	9.0%
	FY12	8.5%
	FY13	8.0%
	FY14	7.5%
	FY15	7.0%
	FY16	6.0%
	FY17 and later	5.0%
Mortality	1994 Group Annuity Mortality Basic Table for males and females, 1994 Base Year. Deaths are assumed to be occupational 85% of the time for Police/Fire, 35% of the time for Others.	

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

(B) Actuarial Assumptions

Total Turnover	Based upon the 1997-99 actual withdrawal experience. (See Table 1).
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.
Retirement	Retirement rates based upon the 1997-99 actual experience in accordance with Table 3.
Spouse's Age	Wives are assumed to be four years younger than husbands.
Dependent Children	Benefits to dependent children have been valued assuming members who are not single have one dependent child.
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.
C.O.L.A.	Of those benefit recipients who are eligible for the C.O.L.A., 68% are assumed to remain in Alaska and receive the C.O.L.A.
New Entrants	Growth projections are made for the active PERS population under three scenarios: Pessimistic: 0% per year Median: 1% per year Optimistic: 2% per year
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.
Expenses	Expenses are covered in the investment return assumption.
Part-Time Status	Part-time employees are assumed to earn 0.600 years of credited service per year.

2.3 Summary of Actuarial Assumptions and Methods (continued)

(C) Valuation of Assets

Effective June 30, 2002, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over the next five 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 LLP.

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

(D) 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 FY04, the pre-65 monthly premium is \$1,016.04 and the post-65 premium is \$387.06, based on an assumed total blended premium of \$777.28. The assumed total blended premium for FY04 is the average of the 2003 and 2004 calendar year actual blended premiums. For the time period January 1, 2004 to December 31, 2004, the actual blended premium as provided by the State of Alaska, Division of Retirement and Benefits, is \$806.00.

2.3 Summary of Actuarial Assumptions and Methods (continued)

Table 1
Alaska PERS
Total Turnover Assumptions

<u>Select Rates of Turnover During the First 5 Years of Employment</u>			<u>Ultimate Rates of Turnover After the First 5 Years of Employment</u>	
Police/Fire:				
<u>Year of Employment</u>	<u>Rate</u>		<u>Age</u>	<u>Rate</u>
1	.12		20+	.03
2	.10			
3	.08			
4	.07			
5	.06			
 Others:				
<u>Year of Employment</u>	<u>----Age at Hire----</u>		<u>Age</u>	<u>Rate</u>
	<u>20-34</u>	<u>35+</u>		
1	.25	.15	20-34	.11
2	.23	.15	35-39	.08
3	.20	.13	40-44	.06
4	.16	.12	45+	.05
5	.15	.11		

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

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	.05
51	.10	.05
52	.10	.05
53	.05	.06
54	.05	.06
55	.20	.10
56	.13	.10
57	.13	.10
58	.13	.10
59	.13	.10
60	.20	.10
61	.25	.10
62	.25	.15
63	.25	.15
64	.25	.15
65	1.00	.20
66	1.00	.20
67	1.00	.20
68 & Up	1.00	1.00

Police/Fire members retiring at ages under 50 are assumed to retire immediately upon attaining 21 years of service.

Others members retiring at ages under 50 are assumed to retire immediately upon attaining 31 years of service.

Members currently under age 50 who have already attained 21 years of service (31 years for Others) are assumed to retire 1 year after the valuation date.

Section 3

- Section 3.1 Analysis of financial experience.
- Section 3.2(a) Summary of accrued and unfunded accrued liabilities for Police/Fire.
- Section 3.2(b) Summary of accrued and unfunded accrued liabilities for Others.
- Section 3.3 Solvency test.

3.1 Analysis of Financial Experience

**Change in Average Employer 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				
	1999	2000	2001	2002	2003
(1) Health Experience	0.00%	0.00%	0.00%	3.68%	0.00%
(2) Salary Experience	(0.23%)	0.00%	(1.03%)	(0.20%)	(0.19%)
(3) Investment Experience	(0.49%)	(0.12%)	0.11%	7.24%	0.31%
(4) Demographic Experience	0.21%	(0.81%)	0.77%	1.21%	0.40%
(5) Contribution Shortfall	0.00%	0.00%	0.00%	0.00%	1.10%
(6) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(0.51%)	(0.93%)	(0.15%)	11.93%	1.62%
Non-recurring Changes					
(7) Asset Valuation Method	0.00%	(2.67%)	0.00%	4.11%	0.00%
(8) Past Service Amortization Change	0.00%	0.00%	0.00%	(5.06%)	0.00%
(9) Assumption Changes	0.00%	3.09%	0.00%	6.98%	0.00%
(10) System Benefit Changes	0.00%	0.00%	0.17%	0.04%	0.00%
(11) Addition of 102% Target Funding Ratio	0.00%	0.00%	0.57%	0.00%	0.00%
(12) Elimination of 102% Target Funding Ratio	0.00%	0.00%	0.00%	0.00%	(0.90%)
(13) Ad hoc PRPA	0.04%	0.07%	0.06%	0.14%	0.00%
(14) Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10) + (11) + (12) + (13)	(0.47%)	(0.44%)	0.65%	18.14%	0.72%
(15) Beginning Average Employer Contribution Rate	7.03%	6.56%	6.12%	6.77%	24.91%
(16) Ending Average Employer Contribution Rate, (14) + (15)	6.56%	6.12%	6.77%	24.91%	25.63%
(17) Fiscal Year Above Rate is Applied	FY02	FY03	FY04	FY05	FY06

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, 2003	\$ 1,577,251	\$ 1,147,999	72.8%	\$ 429,252	\$ 160,742	267.0%
June 30, 2002 ⁽¹⁾⁽²⁾⁽³⁾	1,509,947	1,135,238	75.2%	374,709	157,632	237.7%
June 30, 2001	1,293,448	1,305,478	100.9%	N/A	151,701	N/A
June 30, 2000 ⁽²⁾⁽³⁾	1,196,821	1,209,451	101.1%	N/A	140,045	N/A
June 30, 1999	1,008,404	1,064,168	105.5%	N/A	142,843	N/A
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%

⁽¹⁾ Change in Asset Valuation Method

⁽²⁾ Change of Assumptions

⁽³⁾ Change in Methods

3.2(b) Summary of Accrued and Unfunded Accrued Liabilities – Others

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, 2003	\$ 8,984,402	\$ 6,539,282	72.8%	\$ 2,445,120	\$ 1,300,041	188.1%
June 30, 2002 ⁽¹⁾⁽²⁾⁽³⁾	8,349,644	6,277,595	75.2%	2,072,049	1,245,055	166.4%
June 30, 2001	6,575,126	6,636,278	100.9%	N/A	1,208,700	N/A
June 30, 2000 ⁽²⁾⁽³⁾	6,180,091	6,245,307	101.1%	N/A	1,181,435	N/A
June 30, 1999	5,640,269	5,952,172	105.5%	N/A	1,140,706	N/A
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%

⁽¹⁾ Change in Asset Valuation Method

⁽²⁾ Change of 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, 2003	\$ 1,026,730	\$ 6,860,834	\$ 2,674,089	\$ 7,687,281	100%	97.1%	0.0%
June 30, 2002 ⁽¹⁾⁽²⁾⁽³⁾	967,045	6,301,095	2,591,451	7,412,833	100%	100%	5.6%
June 30, 2001	920,702	5,059,386	1,888,486	7,941,756	100%	100%	100%
June 30, 2000 ⁽²⁾⁽³⁾	892,949	4,588,201	1,895,762	7,454,758	100%	100%	100%
June 30, 1999	854,497	3,961,063	1,833,113	7,016,340	100%	100%	100%
June 30, 1998 ⁽¹⁾⁽²⁾⁽³⁾	819,226	3,610,352	1,774,413	6,571,562	100%	100%	100%
June 30, 1997	795,170	3,020,608	1,716,338	5,885,488	100%	100%	100%
June 30, 1996 ⁽²⁾	754,679	2,511,953	1,713,326	5,271,253	100%	100%	100%
June 30, 1995	673,196	2,445,870	1,852,106	4,794,754	100%	100%	90.5%
June 30, 1994 ⁽¹⁾⁽²⁾	615,925	2,233,349	1,770,908	4,379,305	100%	100%	86.4%

⁽¹⁾ Change in Asset Valuation Method

⁽²⁾ Change of Assumptions

⁽³⁾ Change in Methods

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