

## State of Alaska Public Employees' Retirement System

Actuarial Valuation Report as of June 30, 2006



Submitted By:
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October 11, 2007

State of Alaska
Alaska Retirement Management 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, 2006 by Buck Consultants. The purposes of the report include:

- (1) a presentation of the valuation results of the Plan as of June 30, 2006;
- (2) a review of experience under the Plan for the year ended June 30, 2006;
- (3) a determination of the appropriate contribution rate for each employer in the System which will be applied for the fiscal year ending June 30, 2009; and
- (4) 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 in the financial statements audited by KPMG LLP, to determine a sound value for the System liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to and adopted by the Board in October 2006. Actuarial methods, medical cost trend, and assumed blended medical premiums were also reviewed and revised during the experience analysis.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY07 and a fixed 25-year amortization as level percentage of payroll 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. The ratio of valuation assets to liabilities decreased from 65.7% to 62.8% during the year. This report provides an analysis of the factors that led to the decrease. This report also provides a history of the funding ratio 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, are fully qualified to provide actuarial services to the State of Alaska, and are available to answer questions regarding this report.

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 43.



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,

David H. Slishinsky, ASA, ÉA, MAAA

Principal, Consulting Actuary

Michelle Reding DeLange FSA, EA, MAAA

Director, Consulting Actuary

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Krumholz, ASA, MAAA Senior Consultant, Health & Welfare

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### **Report Highlights**

This report has been prepared by Buck Consultants for the State of Alaska Public Employees' Retirement System to:

- Present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 2006;
- Review experience under the plan for the year ended June 30, 2006; (2)
- Determine the appropriate contribution rate for each employer in the System; and
- 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 2006 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	g Status as of June 30	2005	2006
(a)	Valuation Assets <sup>1</sup>	\$ 8,442,919	\$ 9,040,908
(b)	Accrued Liability <sup>1</sup>	\$ 12,844,841	\$ 14,388,413
(c)	Unfunded Accrued Liability	\$ 4,401,922	\$ 5,347,505
(d)	Funding Ratio based on Valuation Assets, $(a) \div (b)$	65.7%	62.8%
(e)	Market Value of Assets	\$ 8,590,752	\$ 9,379,471
(f)	Funding Ratio based on Market Assets, $(e) \div (b)$	66.9%	65.2%

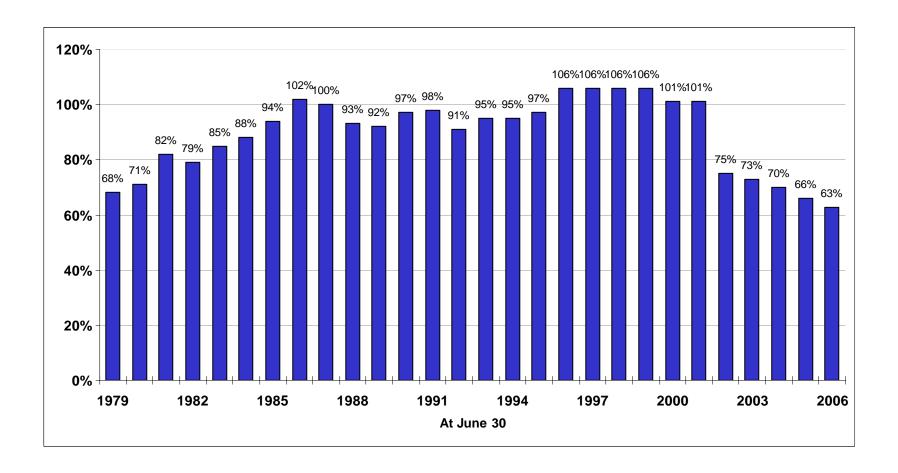
<sup>&</sup>lt;sup>1</sup> In thousands.



### Report Highlights (continued)

## **PERS Funding Ratio History**

(Based on Valuation Assets)



## Report Highlights (continued)

Total	<b>Employer Contribution Rates for Fiscal Year:</b>	2008	2009
(a)	Consolidated Employer Normal Cost Rate	14.48%	13.72%
(b)	Average Past Service Rate	18.03%	21.50%
(c)	Average Employer Contribution Rate $(a) + (b)$	32.51%	35.22%
(d)	Board Adopted Average Employer Contribution Rate	32.51%	35.22%
Empl	oyer Contribution Rates for Pension for Fiscal Year:	2008	2009
(e)	Consolidated Employer Normal Cost Rate	4.57%	3.82%
(f)	Average Past Service Rate	4.38%	7.09%
(g)	Average Employer Contribution Rate $(a) + (b)$	8.95%	10.91%
(h)	Board Adopted Average Employer Contribution Rate	8.95%	10.91%
	oyer Contribution Rates for employment Healthcare for Fiscal Year:	2008	2009
(i)	Consolidated Normal Cost Rate	9.91%	9.90%
(j)	Average Past Service Rate	13.65%	14.41%
(k)	Average Employer Contribution Rate $(a) + (b)$	23.56%	24.31%
(1)	Board Adopted Average Employer Contribution Rate	23.56%	24.31%

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, postemployment healthcare liabilities are gross of the retiree drug subsidy and are calculated with a discount rate for a partially funded plan.

### **Analysis of the Valuation**

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2006 has decreased from 65.7% to 62.8%, a decrease of 2.9%. The average calculated employer contribution rate has increased from 32.51% of payroll for FY08 to 35.22% for FY09, an increase of 2.71% of payroll. The reasons for the change in the funded status and average contribution rate are explained below.

#### (1) Retiree Medical Costs and Assumptions

The following table summarizes the monthly premium per benefit recipient since 1977.

Time Period	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Change	Average Compound Annual Increase Since FY78
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%
1/1/05-12/31/05	850.00	5%	10%
1/1/06-12/31/06	876.00	3%	10%
1/1/07-12/31/07	876.00	0%	10%

As you can see from the above table, the monthly retiree medical premium for the January 1, 2007 to December 31, 2007 time period remained at \$876.00. Although this represents no change over the previous year's medical premium, our expectation is that medical costs will increase at higher rates in the future. The health cost trend used for this valuation is described in Section 2.3. Over the last 10 years, annual premium rate changes have ranged from no change to up to 20%. Also, over the last ten years, the increase in the premium rate has been about 9.1% compounded annually.



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, the health cost trend assumption was being used 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.

Effective with the 2004 valuation, the assumptions used to value liabilities for retiree medical benefits were changed. The revised methods and assumptions more accurately measured retiree medical liabilities and incorporated the expected impact on System liabilities of changes in the Medicare program. In particular, changes were made to the following elements in calculating medical liabilities:

- Claims cost methodology and development
- Offset for Medicare
- Aging factors
- Trend rates

An analysis of medical costs was completed based on claims information provided by Aetna and enrollment data provided by the Division of Retirement and Benefits. Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs. An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Average medical claims were then distributed across the population based on expected increases in medical expenses that occur with age.

For the 2006 valuation, we updated claim cost and Medicare offset analyses using additional claims and enrollment information, and the same methodology as used for the 2005 Experience Analysis. This methodology differs from that used for the 2005 valuation to better reflect Medicare offsets based on eligibility for Medicare Parts A and B. We developed assumptions regarding the number of members with Medicare Part A coverage and associated claims costs. A lower average claims cost was applied to retirees assumed to be covered by both Medicare Part A and B vs. retirees assumed to be covered only by Medicare Part B. The assumed lag used to adjust claims data from a paid to incurred basis was changed from 3 months to 2 months, per our June 30, 2006 lag study for retiree healthcare. The trend assumption varies by year, declining to an ultimate rate equal to inflation (3.5%) plus 1.5%, or 5%, for FY15 and later. We recommend no changes to the healthcare trend assumption set used for 2005. Retired member contribution rate trend assumptions have been updated for the 2006 valuation to better reflect recent and anticipated Board action regarding retiree contribution rates.

Since 2004 the valuation also reflects the impact of the Medicare Part D subsidy in the projection of the prescription drug benefits. Based on our understanding and interpretation of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA), the prescription drug benefits appear to meet the actuarial equivalence requirements and will qualify to receive the federal Part D subsidy. As noted above, Part D subsidies are not reflected for accounting purposes under GASB No. 43.

These opinions do not constitute full actuarial attestations. A full actuarial attestation of the plan's actuarial equivalence status based on final regulations and guidance will need to be included with a subsidy application to the Centers for Medicare and Medicaid Services, which must be submitted no later than 90 days prior to the start of each plan year to be eligible to receive a subsidy for that plan year.

There were no changes to the methods and assumptions for healthcare since the 2005 Experience Analysis except for updating the trend rate table for the retiree medical contributions and changing the assumed lag between medical claims incurred and paid dates from 3 months to 2 months.

### (2) Investment Experience

The approximate FY06 investment return based on market values was 11.36% compared to the expected investment return of 8.25%. This resulted in a gain of approximately \$267 million to the System from investment experience. The asset valuation method recognizes 20 percent of this gain (\$53.4 million) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY03 investment loss, 20 percent of the FY04 investment gain and 20% of the FY05 investment gain were recognized this year. The net result was an investment gain which increased the funding ratio by 0.37% and decreased the average employer contribution rate by 0.29%.

### (3) Salary Increase

During the period from June 30, 2005 to June 30, 2006, salary increases for continuing active members were more than anticipated in the valuation assumptions. Higher accrued liabilities caused the funding ratio to decrease by 0.01%. The net effect of higher normal cost was an increase of 0.02% in the average employer contribution rate.

#### (4) Demographic Experience

Section 2.2 provides statistics on active participants. The number of active participants increased 1.0%, from 33,730 at June 30, 2005 to 34,071 at June 30, 2006. The average age of active participants increased from 44.82 to 45.04 and average credited service increased from 8.72 to 8.92 years.

The number of benefit recipients increased 5.8%, from 20,703 to 21,901, and their average age increased from 65.21 to 65.40. There was a 1.9% increase in the number of vested terminated participants, from 6,105 to 6,219. Their average age increased from 48.46 to 48.76.

The overall effect of these participant data changes, along with the healthcare experience, was an actuarial gain to the System, resulting in a decrease in the average employer contribution rate equal to 3.01% of total payroll. The gain/loss by decrement on the accrued liability is shown on the summary page.



#### (5) Contribution Shortfall Compared to Average Employer Calculated Rate

As of June 30, 2005 the average employer calculated rate was 32.51% for FY08 employer contributions. Since average employer contribution rates are determined two years prior to the fiscal year, the June 30, 2003 average employer rate of 16.77% was contributed during FY06. The difference between the two calculated rates, 32.51% and 16.77%, created a contribution shortfall to the System. This shortfall increased the average employer contribution rate by 1.01%.

#### (6) Actuarial Projections

At the Fall 1991 Board Meetings, the PERS Board approved the use of an enhanced actuarial projection system. The same actuarial cost method is used, but the enhanced system projects the associated liabilities 30 years into the future. By also projecting plan assets, this report in effect produces an actuarial valuation for each of the next 30 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. No new plan entrants are anticipated. As you can see in Section 1.5, based on the actuarial assumptions and asset valuation method, contribution rates are expected to decrease going forward.

#### (7) Changes in Methods from the Prior Valuation

The actuarial cost method was changed from Projected Unit Credit to Entry Age Normal effective with the June 30, 2006 valuation.

#### (8) Changes in Assumptions from the Prior Valuation

Effective for the June 30, 2006 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary based on the results of an experience analysis performed on the population experience from June 30, 2001 through June 30, 2005. The changes in assumptions were adopted by the Board during the October 2006 Board meeting. Additionally, the trend rate table for the retiree medical contributions was updated and the assumed lag between the medical claims incurred and paid dates was changed from 3 months to 2 months.

### **Summary**

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

			<u>Pension</u>	<b>Healthcare</b>	<u>Total</u>
1.	La	st year's average employer contribution rate	8.95%	23.56%	32.51%
2.	Ch	ange due to:			
	a.	New assumptions and methods	1.51%	3.47%	4.98%
	b.	Contribution shortfall compared to average employer contribution rate	(0.81)%	1.82%	1.01%
	c.	Investment experience	0.19%	(0.48)%	(0.29)%
	d.	Salary increases	0.02%	0.00%	0.02%
	e.	Demographic and medical experience	1.05%	(4.06)%	(3.01)%
3.	Av	verage employer contribution rate this year	10.91%	24.31%	35.22%

The following table shows the gain/(loss) on total accrued liability (in thousands):	<u>Amount</u>
- Retirement Experience	\$ (201)
- Termination Experience	(13,747)
- Mortality Experience	(8,218)
- Disability Experience	(534)
- Other Demographic Experience	(9,909)
- Salary Increases	(20,209)
- Medical Experience	601,238
- Total	\$ 548,420

### Valuation Results

### 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 FY06 and investment return during FY06.
Section 1.1(c)	Actuarial value of assets.
Section 1.2(a)	Actuarial present values for Peace Officer/Firefighter.
Section 1.2(b)	Actuarial present values for Others.
Section 1.2(c)	Actuarial present values for All Members.
Section 1.3(a)	Average employer contribution rate for Peace Officer/Firefighter for FY09.
Section 1.3(b)	Average employer contribution rate for Others for FY09.
Section 1.3(c)	Average employer contribution rate for all members for FY09.
Section 1.4	Development of actuarial gain or loss for FY06.
Section 1.5(a)	Actuarial Projections –Projections at Calculated Rate. Based on Total DB and DC Payroll.
Section 1.5(b)	Actuarial Projections – Projections at Current Rate. Based on Total DB and DC Payroll.
Section 1.5(c)	Actuarial Projections – Effect of Economic Scenarios.  Based on Total DB and DC Payroll.

## 1.1(a) Statement of Net Assets

As of June 30, 2006 (in thousands)	Pension	Postemployme Pension Healthcare			nt Total Market Value		
Cash and Cash Equivalents	\$ 336	\$	224	\$	560		
Domestic Equity Pool	3,091,953		487,950		3,579,903		
Domestic Fixed Income Pool	1,214,397		811,660		2,026,057		
International Equity Pool	855,180		571,572		1,426,752		
Real Estate Pool	563,987		376,949		940,936		
International Fixed Income Pool	117,676		78,651		196,327		
Private Equity Pool	338,860		226,483		565,343		
Emerging Markets Equity Pool	108,084		72,240		180,324		
Absolute Return Pool	143,332		95,798		239,130		
High Yield Pool	87,688		58,608		146,296		
Other Investments Pool	42,577		28,457		71,034		
Loans and Mortgages (Net of Reserves)	3		1	4			
Net Accrued Receivables	4,077		2,728		6,805		
Net Assets	\$ 6,568,150	\$	2,811,321	\$	9,379,471		

## 1.1(b) Statement of Changes in Net Assets

Fisc	al Year 2006 (in thousands)	Pe	ension		mployment althcare	Mar	Total ket Value
(1)	Net Assets, June 30, 2005						
	(market value)	\$ 6	6,122,064	\$ 2	2,468,688	\$ 8	8,590,752
(2)	Additions:						
	(a) Plan Member Contributions	\$	71,666	\$	47,900	\$	119,566
	(b) Employer Contributions		163,243		109,106		272,349
	(c) Interest and Dividend Income		171,344		114,520		285,864
	(d) Net Appreciation in Fair Value of Investments		424,780		283,908		708,688
	(e) Other <sup>1</sup>		22,141		14,798		36,939
	(f) Total Additions	\$	853,174	\$	570,232	\$	1,423,406
(3)	Deductions:						
	(a) Medical Benefits	\$	0	\$	210,613	\$	210,613
	(b) Retirement Benefits		381,672		0		381,672
	(c) Refunds of Contributions		8,429		5,634		14,063
	(d) Investment Expenses		13,510		9,028		22,538
	(e) Administrative Expenses		<u>3,477</u>		2,324		<u>5,801</u>
	(f) Total Deductions	\$	407,088	\$	227,599	\$	634,687
(4)	Net Assets, June 30, 2006						
( )	(market value)	\$ 6	6,568,150	\$ 2	2,811,321	\$ 9	9,379,471
App	oroximate Market Value Investment R	eturn	Rate Durin	ıg			
	06, Net of All Expenses			-			11.4%

 $^{1}$  Includes the transfer of \$34,635 in from Retiree Health Fund



## 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.

		In Thousands
(1) Det	Ferral of Investment Return for FY06	
(a)	Market Value, June 30, 2005	\$ 8,590,752
(b)	Contributions for FY06	391,915
	- Weighted for Timing	195,958
(c)	Benefit Payments for FY06 <sup>1</sup>	571,713
	- Weighted for Timing	285,857
(d)	Investment Return (net of expenses)	968,517
(e)	Expected Return Rate (net of expenses)	8.25%
(f)	Expected Return - Weighted for Timing $[(a. + b c.) \times e.]$	701,320
(g)	Investment Gain/(Loss) for the Year $(df.)$	267,197
(h)	Deferred Investment Return <sup>2</sup>	338,563
(2) Act	uarial Value, June 30, 2006	
(a)	Market Value, June 30, 2006	\$ 9,379,471
(b)	2006 Deferred Investment Return	338,563
(c)	Preliminary Actuarial Value, June 30, 2006 (a b.)	9,040,908
(d)	Upper Limit: 120% of Market Value, June 30, 2006	11,255,365
(e)	Lower Limit: 80% of Market Value, June 30, 2006	7,503,577
(f)	Actuarial Value, June 30, 2006 (c. limited by d. and e.)	\$ 9,040,908
(g)	Ratio of Actuarial Valuation of Assets to Market Value of Assets	96.39%
(h)	Pension Actuarial Value of Assets	6,331,065
(i)	Healthcare Actuarial Value of Assets	2,709,843

<sup>&</sup>lt;sup>2</sup> The table below shows the development of gain/(loss) to be recognized in the current year.

Plan Year Ended	Plan Year Ended Asset Gain/(Loss)		Gain/(Loss) Recognized in Prior Years		n/(Loss) ed This Year	Gain/(Loss) Deferred to Future Years		
6/30/2003	\$	(369,782)	\$	(221,868)	\$ (73,956)	\$	(73,958)	
6/30/2004	\$	460,952	\$	184,380	\$ 92,190	\$	184,382	
6/30/2005	\$	23,969	\$	4,794	\$ 4,794	\$	14,381	
6/30/2006	\$	267,197	\$	0	\$ 53,439	\$	213,758	
Total	\$	382,336	\$	(32,694)	\$ 76,467	\$	338,563	



<sup>&</sup>lt;sup>1</sup> Net of transfer in from Retiree Health Fund.

## 1.2(a) Actuarial Present Values - Peace Officer/Firefighter

As of June 30, 2006 (in thousan	ds)		Normal Cost	Accrued Liability
Active Members				
Retirement Benefits		\$	18,534	\$ 368,357
<b>Termination Benefits</b>			2,682	10,259
Disability Benefits			1,019	8,083
Death Benefits			636	5,390
Return of Contributions			1,484	(3,400)
Medical and Prescription	Drug Benefits		16,616	237,648
Medicare Part D Subsidy			(1,047)	(13,975)
Indebtedness			N/A	(7,243)
Subtotal		\$	39,924	\$ 605,119
nactive Members				
Not Vested				\$ 1,641
<b>Vested Terminations</b>	- Retirement Benefits			15,288
	- Medical and Prescription	Drug Ben	efits	30,149
	- Medicare Part D Subsidy			(1,358)
	- Indebtedness			(629)
Retirees & Beneficiaries	- Retirement Benefits			905,812
	- Medical and Prescription	Drug Ben	efits	444,730
	- Medicare Part D Subsidy			(31,784)
Subtotal				\$ 1,363,849
Γotal		\$	39,924	\$ 1,968,968
Total Pension		\$	24,355	\$ 1,303,558
Fotal Medical, Net of Part D Su	bsidy	\$	15,569	\$ 665,410

## 1.2(a) Actuarial Present Values – Peace Officer/Firefighter (continued)

As of June 30, 2006 (in thousands)		Normal Cost		Accrued Liabilities
By Tier				
Tier 1				
- Pension	\$	3,660	\$	1,015,367
- Medical, Net of Part D Subsidy		2,142		477,974
Tier 2				
- Pension		7,719		211,321
- Medical, Net of Part D Subsidy		3,469		123,243
Tier 3				
- Pension		12,976		76,870
- Medical, Net of Part D Subsidy	<del>-</del>	9,958	_	64,193
Total	\$	39,924	\$	1,968,968

## 1.2(b) Actuarial Present Values - Others

As of June 30, 2006 (in thousan	ds)		Normal Cost		Accrued Liability	
Active Members						
<b>Retirement Benefits</b>		\$	102,391	\$	2,694,566	
<b>Termination Benefits</b>			24,913		149,848	
Disability Benefits			3,446		49,168	
Death Benefits			1,605		23,869	
Return of Contributions			21,950		(74,299)	
Medical and Prescription	Drug Benefits		160,620		2,236,464	
Medicare Part D Subsidy			(10,265)		(155,969)	
Indebtedness			N/A		(64,164)	
Subtotal		\$	304,660	\$	4,859,483	
Inactive Members						
Not Vested				\$	53,218	
<b>Vested Terminations</b>	- Retirement Benefits				423,778	
	- Medical and Prescription Dr	ug B	Senefits		1,171,768	
	- Medicare Part D Subsidy				(65,497)	
	- Indebtedness				(11,894)	
Retirees & Beneficiaries	- Retirement Benefits				3,546,395	
	- Medical and Prescription Dr	ug B	Senefits		2,704,375	
	- Medicare Part D Subsidy				(262,181)	
Subtotal				\$	7,559,962	
Total		\$	304,660	\$	12,419,445	
<b>Total Pension</b>		\$	154,305	\$	6,790,485	
Total Medical, Net of Part D Su	otal Medical, Net of Part D Subsidy \$ 150,355					

## **1.2(b)** Actuarial Present Values - Others (continued)

As of June 30, 2006 (in thousands)		Normal Cost	Accrued Liabilities
By Tier			
Tier 1			
- Pension	\$	40,642	\$ 5,128,890
- Medical, Net of Part D Subsidy		37,543	3,750,914
Tier 2			
- Pension		40,406	1,244,966
- Medical, Net of Part D Subsidy		30,463	1,284,861
Tier 3			
- Pension		73,257	416,629
- Medical, Net of Part D Subsidy	-	82,349	 593,185
Total	\$	304,660	\$ 12,419,445

## 1.2(c) Actuarial Present Values – All Members

As of June 30, 2006 (in thousan	ds)		Normal Cost	Accrued Liability
Active Members				
Retirement Benefits		\$	120,925	\$ 3,062,923
<b>Termination Benefits</b>			27,595	160,107
Disability Benefits			4,465	57,251
Death Benefits			2,241	29,259
Return of Contributions			23,434	(77,699)
Medical and Prescription	Drug Benefits		177,236	2,474,112
Medicare Part D Subsidy			(11,312)	(169,944)
Indebtedness			N/A	(71,407)
Subtotal		\$	344,584	\$ 5,464,602
Inactive Members				
Not Vested				\$ 54,859
<b>Vested Terminations</b>	- Retirement Benefits			439,066
	- Medical and Prescription I	Drug E	Benefits	1,201,917
	- Medicare Part D Subsidy			(66,855)
	- Indebtedness			(12,523)
Retirees & Beneficiaries	- Retirement Benefits			4,452,207
	- Medical and Prescription I	Drug E	Benefits	3,149,105
	- Medicare Part D Subsidy			(293,965)
Subtotal				\$ 8,923,811
Total		\$	344,584	\$ 14,388,413
<b>Total Pension</b>		\$	178,660	\$ 8,094,043
Total Medical, Net of Part D Su	bsidy	\$	165,924	\$ 6,294,370

## **1.2(c)** Actuarial Present Values – All Members (continued)

As of June 30, 2006 (in thousands)		Normal Cost	Accrued Liabilities
By Tier			
Tier 1			
- Pension	\$	44,302	\$ 6,144,256
- Medical, Net of Part D Subsidy		39,686	4,228,887
Tier 2			
- Pension		48,125	1,456,288
- Medical, Net of Part D Subsidy		33,932	1,408,104
Tier 3			
- Pension		86,233	493,499
- Medical, Net of Part D Subsidy	-	92,306	 657,379
Total	\$	344,584	\$ 14,388,413

# 1.3(a) Average Employer Contribution Rate – FY09 Peace Officer/Firefighter (in thousands)

Consolidated Normal Cost Rate	Pe	ension	Hea	Healthcare		Total
(1) Total Normal Cost	\$	24,355	\$	15,569	\$	39,924
(2) Total Salaries		191,335		191,335		191,335
(3) Normal Cost Rate for Peace Officer/Firefighter, $(1) \div (2)$		12.73%		8.14%		20.87%
(4) Member Contribution Rate (Peace Officer/Firefighter)		7.50%		0.00%		7.50%
<ul><li>(5) Consolidated Employer Normal Cost Rate For Peace Officer/Firefighter,</li><li>(3) – (4)</li></ul>		5.23%		8.14%		13.37%
Past Service Rate						
(1) Accrued Liability	\$	1,303,558	\$	665,410	\$	1,968,968
(2) Valuation Assets <sup>1</sup>		1,019,628		286,471		1,306,099
(3) Unfunded Liability, $(1) - (2)$		283,930		378,939		662,869
(4) Past Service Cost Amortization Payment*		19,135		26,160		45,295
(5) Total Salaries		191,335		191,335		191,335
(6) Past Service Rate, $(4) \div (5)$		10.00%		13.67%		23.67%
Average Employer Contribution Rate		15.23%		21.81%		37.04%
Normal Cost Rate by Tier						
Tier 1		13.59%		7.95%		21.54%
Tier 2		12.44%		5.59%		18.03%
Tier 3		12.68%		9.73%		22.41%

<sup>\*</sup>Amortized as a level percent of pay.

<sup>&</sup>lt;sup>1</sup> Allocated between Peace Officer/Firefighters and Others in proportion to accrued liability.



## 1.3(a) Average Employer Contribution Rate – FY09 Peace Officer/Firefighter (continued)

### Schedule of Past Service Cost Amortizations – Peace Officer/Firefighter

	Amortizati	on Period	Balances					
	Date Created	Years Left		Initial	Outstanding		Beg	inning-of-Year Payment
Initial Unfunded								
Liability	6/30/2002	21	\$	404,908	\$	426,805	\$	29,858
FY03 Loss	6/30/2003	22		17,917		18,689		1,270
FY04 Loss	6/30/2004	23		90,690		93,440		6,183
FY05 Loss	6/30/2005	24		113,158		114,954		7,418
FY06 Loss	6/30/2006	25		9,098		9,098		573
Change in Assumptions/	0/00/000			44.4-				<b>(-</b> )
Methods	6/30/2006	25		(117)		(117)		(7)
Total					\$	662,869	\$	45,295

The amortization factor for 25 years is 15.864073. The weighted average amortization factor is 14.634485. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 22 years.

## 1.3(b) Average Employer Contribution Rate – FY09 Others (in thousands)

Consolidated Normal Cost Rate	Pension	Healthcare	Total	
(1) Total Normal Cost	\$ 154,305	\$ 150,355	\$ 304,660	
(2) Total Salaries	1,484,983	1,484,983	1,484,983	
(3) Normal Cost Rate for Others, $(1) \div (2)$	10.39%	10.13%	20.52%	
(4) Member Contribution Rate (Others)	6.75%	0.00%	6.75%	
(5) Consolidated Employer Normal Cost				
Rate For Others, $(3) - (4)$	3.64%	10.13%	13.77%	
Past Service Rate				
(1) Accrued Liability	\$ 6,790,485	\$ 5,628,960	\$ 12,419,445	
(2) Valuation Assets <sup>1</sup>	5,311,437	2,423,372	7,734,809	
(3) Unfunded Liability, $(1) - (2)$	1,479,048	3,205,588	4,684,636	
(4) Past Service Cost Amortization				
Payment*	99,680	215,416	315,096	
(5) Total Salaries	1,484,983	1,484,983	1,484,983	
(6) Past Service Rate, $(4) \div (5)$	6.71%	14.51%	21.22%	
Average Employer Contribution Rate	10.35%	24.64%	34.99%	
Normal Cost Rate by Tier				
Tier 1	10.93%	10.10%	21.03%	
Tier 2	10.13%	7.64%	17.77%	
Tier 3	10.25%	11.53%	21.78%	

<sup>\*</sup>Amortized as a level percent of pay.

<sup>&</sup>lt;sup>1</sup> Allocated between Peace Officer/Firefighter and Others in proportion to accrued liability.



## 1.3(b) Average Employer Contribution Rate – FY09 Others (continued)

#### Schedule of Past Service Cost Amortizations - All Others

	Amortizati	on Period	Balances					
	Date Created	Years Left		Initial	Outstanding		Beg	inning-of-Year Payment
Initial Unfunded								
Liability	6/30/2002	21	\$	2,239,042	\$	2,360,115	\$	165,108
FY03 Loss	6/30/2003	22		170,540		177,898		12,093
FY04 Loss	6/30/2004	23		407,220		419,572		27,765
FY05 Loss	6/30/2005	24		830,745		843,931		54,462
Change in Assumptions/								
Methods	6/30/2006	25		1,261,396		1,261,396		79,512
FY06 Gain	6/30/2006	25		(378,276)		(378,276)		(23,844)
Total					\$	4,684,636	\$	315,096

The amortization factor for 25 years is 15.864073. The weighted average amortization factor is 14.867329. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 22 years.

## 1.3(c) Average Employer Contribution Rate – FY09 All Members (in thousands)

Consolidated Normal Cost Rate	Pension		Н	ealthcare	Total		
(1) Total Normal Cost	\$	178,660	\$	165,924	\$	344,584	
(2) Total Salaries		1,676,318		1,676,318		1,676,318	
(3) Normal Cost Rate for All							
Members, $(1) \div (2)$		10.66%		9.90%		20.56%	
(4) Member Contribution Rate		6.84%		0.00%		6.84%	
(5) Consolidated Employer Normal Cost Rate For All Members, (3) – (4)		3.82%		9.90%		13.72%	
Past Service Rate							
(1) Accrued Liability	\$	8,094,043	\$	6,294,370	\$ 1	4,388,413	
(2) Valuation Assets		6,331,065		2,709,843		9,040,908	
(3) Total Unfunded Liability, $(1) - (2)$		1,762,978		3,584,527		5,347,505	
(4) Past Service Cost Amortization							
Payment*		118,815		241,576		360,391	
(5) Total Salaries		1,676,318		1,676,318		1,676,318	
(6) Past Service Rate, $(4) \div (5)$		7.09%		14.41%		21.50%	
Average Employer Contribution Rate		10.91%		24.31%		35.22%	
Normal Cost Rate by Tier							
Tier 1		11.12%		9.95%		21.07%	
Tier 2		10.45%		7.36%		17.81%	
Tier 3		10.56%		11.30%		21.86%	

<sup>\*</sup>Amortized as a level percent of pay.

## 1.3(c) Average Employer Contribution Rate – FY09 All Members (continued)

#### Schedule of Past Service Cost Amortizations – All Members

	Amortizati	on Period	Balances							
	Date Created	Years Left		Initial Outstanding		Initial Outstand		Outstanding		inning-of-Year Payment
Initial Unfunded										
Liability	6/30/2002	21	\$	2,643,950	\$	2,786,920	\$	194,966		
FY03 Loss	6/30/2003	22		188,457		196,587		13,363		
FY04 Loss	6/30/2004	23		497,910		513,012		33,948		
FY05 Loss	6/30/2005	24		943,903		958,885		61,880		
Change in Assumptions/										
Methods	6/30/2006	25		1,261,279		1,261,279		79,505		
FY06 Gain	6/30/2006	25		(369,178)		(369,178)		(23,271)		
Total					\$	5,347,505	\$	360,391		

The amortization factor for 25 years is 15.864073. The weighted average amortization factor is 14.838065. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 22 years.

## 1.4 Development of Actuarial Gain/(Loss) for FY06 In Thousands

				Pension	Н	ealthcare		Total
(1)	Expected Actuarial Accrued Liability							
	(a)	Accrued Liability, June 30, 2005	\$	7,087,191	\$	5,757,650	\$1	2,844,841
	(b)	Normal Cost for FY06		181,187		157,205		338,392
	(c)	Interest on (a) and (b) at 8.25%		599,641		487,976	•	1,087,617
	(d)	Benefit Payments for FY06 <sup>1</sup>		360,912		196,738		557,650
	(e)	Refund of Contributions for FY06		8,429		5,634		14,063
	(f)	Interest on (d) and (e) at 8.25% for one-half year		15,235		8,348		23,583
	(g)	Change in Assumptions and Methods		(557,782)		(703,497)	('	1,261,279)
	(h)	Expected Accrued Liability as of June 30, 2006 $(a) + (b) + (c) - (d) - (e) - (f) - (g)$		8,041,225		6,895,608	14	4,936,833
(2)	Actı	ual Accrued Liability, June 30, 2006		8,094,043		6,294,370		4,388,413
(3)		bility Gain/(Loss), $(1)(h) - (2)$	\$	(52,818)	\$	601,238	\$	548,420
(4)		ected Actuarial Asset Value		, ,	·	,	•	,
	(a)	Actuarial Asset Value, June 30, 2005	\$	6,016,713	\$	2,426,206	\$ 8	3,442,919
	(b)	Interest on (a) at 8.25%		496,379		200,162		696,541
	(c)	Employee Contributions for FY06		71,666		47,900		119,566
	(d)	Employer Contributions for FY06		163,243		109,106		272,349
	(e)	Interest on (c) and (d) at 8.25% for one-half year		9,690		6,476		16,166
	(f)	Benefit Payments for FY06		360,912		196,738		557,650
	(g)	Refund of Contributions for FY06		8,429		5,634		14,063
	(h)	Interest on (f) and (g) at 8.25% for one-half year		15,235		8,348		23,583
	(i)	Expected Actuarial Asset Value, June 30, 2006 $(a) + (b) + (c) + (d) + (e) - (f) - (g) - (h)$		6,373,115		2,579,130	{	8,952,245
(5)	Actı	uarial Asset Value, June 30, 2006	(	6,331,065		2,709,843	ç	9,040,908
<b>(6)</b>	Act	uarial Asset Gain/(Loss), $(5) - (4)(i)$	\$	(42,050)	\$	130,713	\$	88,663
<b>(7)</b>	Act	uarial Gain/(Loss), $(3) + (6)$	\$	(94,868)	\$	731,951	\$	637,083
(8)	•	ortfall) Between Actuarial and Actual	_		_			
		atributions	\$	216,579	\$	(484,484)	\$	(267,905)
<b>(9)</b>	FY(	Of Gain/(Loss) to be Amortized, $(7) + (8)$	\$	121,711	\$	247,467	\$	369,178

<sup>&</sup>lt;sup>1</sup> Net of transfer of \$34,635 in from Retiree Health Fund.



## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll

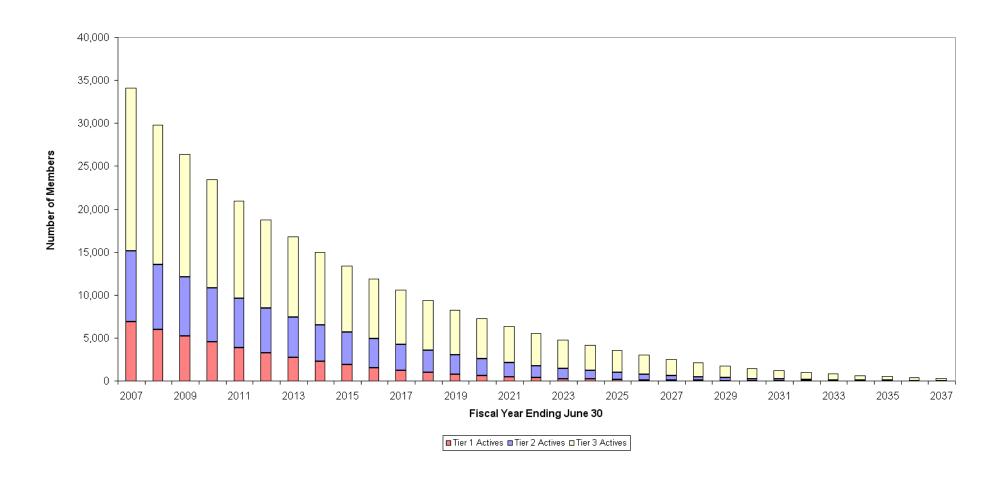
### **Key Assumptions**

- 8.25% investment return in all years.
- Actuarial assumptions and methods as described in Section 2.3.
- The actuarially calculated contribution rate with a two-year lag is adopted each year.
- No new DB Plan entrants into Tiers 1, 2 and 3.



## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll (continued)

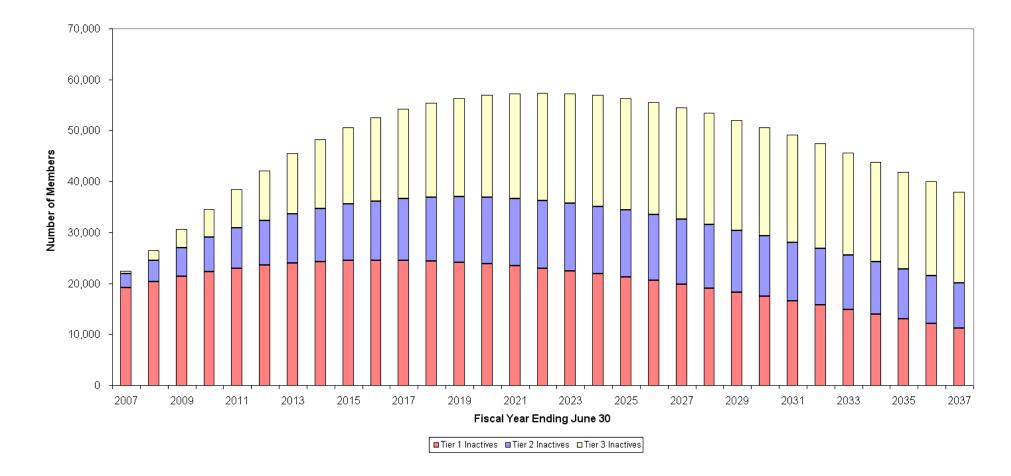
## **Projected Active Member Count**





## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll (continued)

## **Projected Inactive Member Count**





## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll

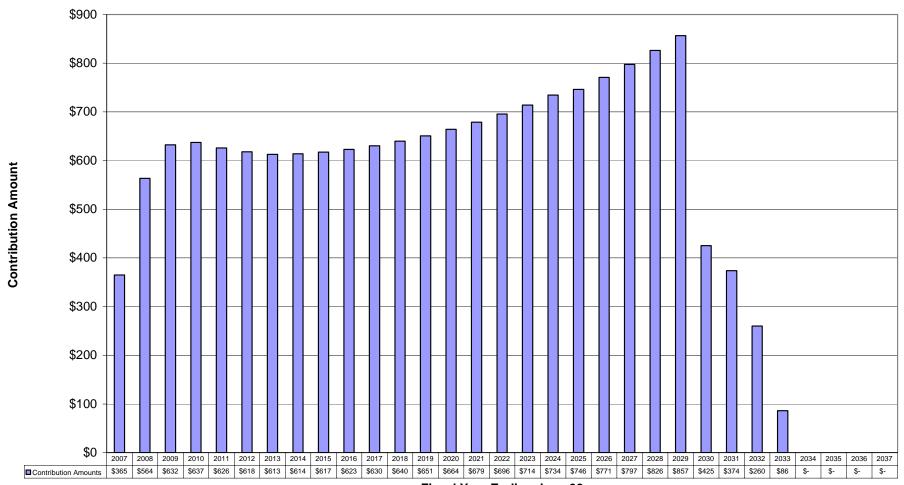
#### **Observations**

- Contribution amounts have been shown instead of rates. The actual contribution amount provides a more meaningful illustration of the contributions due.
- Contribution amounts decrease slightly after FY10 and then start to steadily increase from FY14 through FY29, before dropping off significantly upon completion of 25-year amortization of recent losses.



## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll (continued)

### **Projected Contribution Amounts**

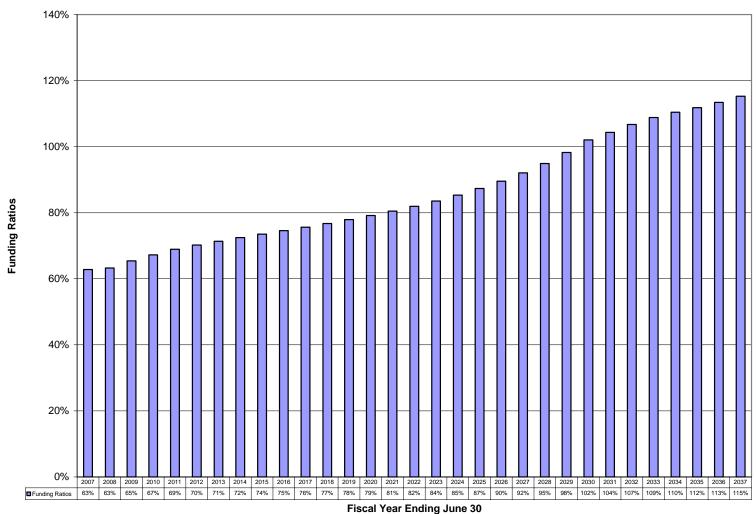






## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll (continued)

### **Projected Funding Ratios**



## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll (continued)

Investment Beturn: 78 25%

#### State of Alaska PERS Financial Projections (in Thousands)

	· ·	Investment Return: Yaluation Amo					Flow	Amounts During	Eollowing 12 M	onthe			Recognized	Ending
As of June 30	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Emploger Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Pagments	Net Contribs	Investment Earnings	Asset Gain	Actuarial Assets
2007	\$9,040,908	\$14,388,413	62.83%	(\$5,347,505)	\$1,676,318	21.77%	\$364,934	\$114,660	\$479,594	\$701,894	(\$222,300)	\$764,818	\$76,467	\$9,659,893
2008	9,659,893	15,266,206	63.28%	(5,606,312)	1,733,313	32.51%	563,500	106,746	670,246	766,374	(96,128)	814,677	150,424	10,528,866
2009	10,528,867	16,096,720	65.41%	(5,567,853)	1,795,173	35.22%	632,260	99,787	732,047	835,487	(103,440)	873,662	58,233	11,357,323
2010	11,357,323	16,889,750	67.24%	(5,532,427)	1,860,399	34.26%	637,407	93,485	730,892	909,019	(178,127)	934,186	53,439	12,166,821
2011	12,166,821	17,642,484	68.96%	(5,475,663)	1,927,893	32.46%	625,739	87,461	713,200	986,360	(273,160)	992,718	0	12,886,379
2012	12,886,379	18,350,227	70.22%	(5,463,848)	1,999,110	30.92%	618,072	81,864	699,936	1,065,777	(365,841)	1,048,334	0	13,568,872
2013	13,568,872	19,009,865	71.38%	(5,440,993)	2,073,858	29.54%	612,684	76,409	689,093	1,143,078	(453,985)	1,101,076	0	14,215,963
2014	14,215,963	19,618,698	72.46%	(5,402,735)	2,153,122	28.52%	613,966	71,182	685,148	1,217,073	(531,925)	1,151,310	0	14,835,348
2015	14,835,348	20,178,625	73.52%	(5,343,277)	2,236,936	27.60%	617,493	66,241	683,734	1,286,982	(603,248)	1,199,525	0	15,431,626
2016	15,431,626	20,692,854	74.57%	(5,261,228)	2,324,644	26.80%	622,927	61,417	684,344	1,353,613	(669,269)	1,246,049	0	16,008,405
2017	16,008,405	21,162,709	75.64%	(5,154,304)	2,417,310	26.08%	630,345	56,849	687,194	1,416,485	(729,291)	1,291,206	0	16,570,320
2018	16,570,320	21,589,851	76.75%	(5,019,530)	2,514,636	25.45%	639,944	52,414	692,358	1,476,870	(784,511)	1,335,332	0	17,121,140
2019	17,121,140	21,972,666	77.92%	(4,851,525)	2,616,898	24.87%	650,791	48,073	698,864	1,539,419	(840,555)	1,378,508	0	17,659,094
2020	17,659,094	22,307,748	79.16%	(4,648,655)	2,724,927	24.37%	664,120	43,970	708,090	1,597,966	(889,876)	1,420,895	0	18,190,113
2021	18,190,113	22,596,114	80.50%	(4,406,000)	2,837,797	23.92%	678,908	39,932	718,840	1,654,333	(935,492)	1,462,860	0	18,717,481
2022	18,717,481	22,837,437	81.96%	(4,119,956)	2,956,894	23.53%	695,657	36,134	731,791	1,713,885	(982,095)	1,504,484	0	19,239,870
2023	19,239,870	23,023,919	83.56%	(3,784,049)	3,082,096	23.17%	714,149	32,422	746,571	1,769,867	(1,023,296)	1,545,915	0	19,762,489
2024	19,762,489	23,156,010	85.34%	(3,393,520)	3,212,959	22.86%	734,433	28,911	763,345	1,824,919	(1,061,574)	1,587,483	0	20,288,398
2025	20,288,398	23,230,624	87.33%	(2,942,226)	3,350,720	22.27%	746,270	25,624	771,894	1,876,258	(1,104,364)	1,629,140	0	20,813,175
2026	20,813,175	23,243,315	89.54%	(2,430,140)	3,495,447	22.06%	770,955	22,523	793,478	1,924,676	(1,131,198)	1,671,350	0	21,353,326
2027	21,353,326	23,196,333	92.05%	(1,843,007)	3,647,567	21.86%	797,396	19,668	817,064	1,966,365	(1,149,300)	1,715,180	0	21,919,206
2028	21,919,206	23,090,871	94.93%	(1,171,665)	3,808,207	21.70%	826,211	17,082	843,293	2,003,696	(1,160,403)	1,761,416	0	22,520,219
2029	22,520,219	22,924,024	98.24%	(403,804)	3,976,655	21.54%	856,638	14,760	871,397	2,036,653	(1,165,256)	1,810,804	0	23,165,767
2030	23,165,767	22,696,292	102.07%	469,475	4,153,816	10.24%	425,161	12,684	437,845	2,062,466	(1,624,620)	1,845,488	0	23,386,635
2031	23,386,635	22,411,352	104.35%	975,283	4,339,755	8.61%	373,740	10,822	384,563	2,086,661	(1,702,099)	1,860,577	0	23,545,113
2032	23,545,113	22,067,382	106.70%	1,477,732	4,534,803	5.73%	259,942	9,137	269,079	2,102,050	(1,832,971)	1,868,360	0	23,580,503
2033	23,580,503	21,668,807	108.82%	1,911,696	4,739,689	1.82%	86,124	7,634	93,759	2,111,825	(2,018,066)	1,863,796	0	23,426,232
2034	23,426,232	21,218,252	110.41%	2,207,980	4,953,486	-1.89%	0	6,293	6,293	2,112,805	(2,106,512)	1,847,492	0	23,167,212
2035	23,167,212	20,721,661	111.80%	2,445,551	5,177,905	-3.16%	0	5,144	5,144	2,104,265	(2,099,120)	1,826,422	0	22,894,514
2036	22,894,514	20,186,911	113.41%	2,707,602	5,412,788	-3.28%	0	4,134	4,134	2,086,025	(2,081,891)	1,804,621	0	22,617,244
2037	22,617,244	19,621,356	115.27%	2,995,888	5,658,650	-3.35%	0	3,260	3,260	2,064,296	(2,061,036)	1,782,590	0	22,338,798

## 1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll

### **Key Assumptions**

• All assumptions and methods are the same as Section 1.5(a), except adopted contribution rate is maintained at the FY09 level for all future years.

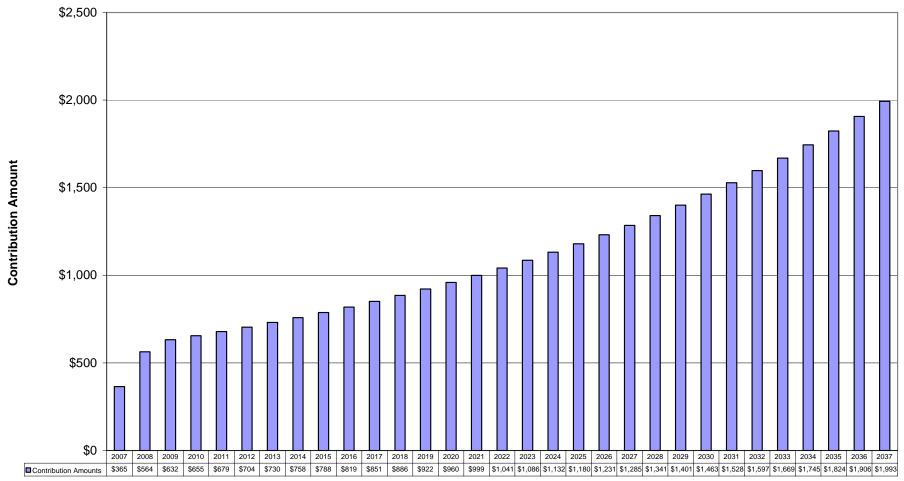
#### **Observations**

- Contribution amounts increase through the projection period.
- Funded ratios improve through the projection period.



## 1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll (continued)

#### **Contribution Amounts**

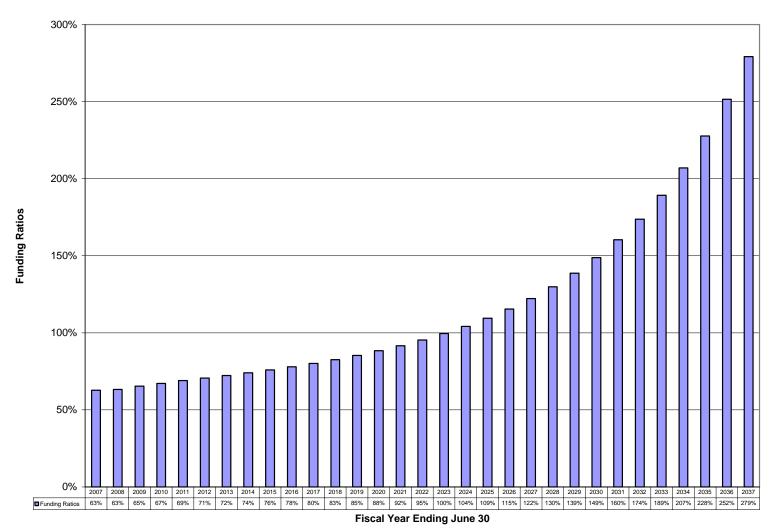






## 1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll (continued)

### **Funding Ratio**



## 1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll (continued)

#### State of Alaska PERS Financial Projections (in Thousands)

Investment Return: 78.25% Flow Amounts During Following 12 Months Valuation Amounts on July 1 Recognized Ending As of Actuarial Surplus Total Employer Employer Benefit Net Investment Actuarial Accrued Funding Asset June 30 Assets Liability Ratio (Deficit) Salaries Ctb Rate Contribs Contribs Contribs Contribs Gain Assets Payments Earnings \$9.040.908 \$14,388,413 62.83% (\$5,347,505)\$1,676,318 21.77% \$364,934 \$114,660 \$479,594 \$701.894 (\$222,300)\$764,818 \$76,467 \$9,659,893 2007 9,659,893 15,266,206 63.28% 1,733,313 32.51% 563,500 106,746 766,374 814,677 150,424 10,528,866 2008 (5,606,312) 670,246 (96,128)35.22% 99,787 835,487 873,662 58,233 2003 10,528,867 16,096,720 65.41% (5,567,853) 1,795,173 632,260 732,047 (103,440) 11,357,323 2010 11,357,323 16,889,750 67.24% (5,532,427) 1,860,399 35.22% 655,233 93,485 748,717 909,019 (160,302)934,906 53,439 12,185,367 12,185,367 17,642,484 69.07% (5,457,117) 1,927,893 35.22% 679,004 87,461 766,465 986,360 (219,895)996,402 0 12,961,874 2011 12,961,874 18,350,227 70.64% (5,388,353) 1,999,110 35.22% 704,087 81,864 785,950 1,065,777 (279,827)1,058,040 Π 13,740,087 2012 2,073,858 730,413 806,822 0 13,740,087 19,009,865 72.28% (5,269,777)35.22% 76,409 1,143,078 (336,256)1,119,961 14,523,793 2013 2014 14,523,793 19,618,698 74.03% (5,094,906)2,153,122 35.22% 758,330 71,182 829,511 1,217,073 (387,561)1,182,543 0 15,318,774 15,318,774 20,178,625 75.92% (4,859,851) 2,236,936 35.22% 787,849 66,241 854,090 1,286,982 (432,892)1,246,296 0 16,132,178 2015 (4,560,676) 35.22% 61,417 16,132,178 20,692,854 77.96% 2,324,644 818,740 880,157 1,353,613 (473,456)1,311,762 0 16,970,483 2016 16,970,483 80.19% 2,417,310 35.22% 377, 851 56,849 908,225 1,416,485 (508, 259)1,379,515 0 21,162,709 (4,192,226)17,841,738 2017 2018 17,841,738 21,589,851 82.64% (3,748,112)2,514,636 35.22% 885,655 52,414 938,069 1,476,870 (538,800)1,450,158 0 18,753,096 18,753,096 21,972,666 85.35% (3,219,570)2,616,898 35.22% 921,671 48.073 969,745 1,539,419 (569,674) 1.524,097 0 19,707,519 2019 88.34% 2,724,927 959,719 1,003,689 19,707,519 22,307,748 (2,600,229)35.22% 43,970 1,597,966 (594,277) 1,601,842 Π 20,715,085 2020 2021 20,715,085 22,596,114 91.68% (1,881,029)2,837,797 35.22% 999,472 39,932 1,039,404 1,654,333 (614,928) 1,684,131 0 21,784,288 21,784,288 22,837,437 95.39% (1,053,150)2,956,894 35.22% 1,041,418 36,134 1,077,552 1,713,885 (636,333)1,771,475 0 22,919,430 2022 2023 22,919,430 23,023,919 99.55% (104,490)3,082,096 35.22% 1,085,514 32,422 1,117,937 1,769,867 (651,930) 1.864.494 0 24,131,993 24,131,993 23,156,010 104.21% 975,984 3,212,959 35.22% 1,131,604 28,911 1,160,515 1,824,919 (664,404) 1,964,026 0 25,431,615 2024 2,200,992 35.22% 25,624 1,876,258 2,070,998 2025 25,431,615 23,230,624 109.47% 3,350,720 1,180,124 1,205,748 (670,510) 0 26,832,103 26,832,103 23,243,315 115.44% 3,588,789 3,495,447 35.22% 1,231,096 22,523 1,253,619 1,924,676 (671,057) 2,186,516 0 28,347,562 2026 28,347,562 23,196,333 122.21% 5,151,229 3,647,567 35.22% 1,284,673 19,668 1,304,341 1,966,365 (662,024) 2,311,907 0 29,997,445 2027 29,997,445 23,090,871 129.91% 6,906,574 3,808,207 35.22% 1,341,251 17,082 1,358,332 2,003,696 (645,363) 2,448,695 Π 31,800,777 2028 8,876,754 3,976,655 1,400,578 14,760 2,036,653 2,598,443 0 31,800,777 22,924,024 138.72% 35.22% 1,415,338 (621,316) 33,777,904 2023 2030 33,777,904 22,696,292 148.83% 11,081,613 4,153,816 35.22% 1,462,974 12,684 1,475,658 2,062,466 (586,807) 2,762,951 0 35,954,048 35,954,048 22,411,352 160.43% 13,542,696 4,339,755 35.22% 1,528,462 10,822 1,539,284 2,086,661 (547,377) 2,944,077 0 38,350,748 2031 22,067,382 4,534,803 35.22% 38,350,748 173,79% 16,283,366 1,597,158 9,137 1,606,295 2,102,050 (495,755) 3,143,892 0 40,998,885 2032 19,330,078 4,739,689 35.22% 7,634 1,676,953 2,111,825 3,364,825 0 40,998,885 21,668,807 189.21% 1,669,318 (434,872)43,928,838 2033 2034 43,928,838 21,218,252 207.03% 22,710,586 4,953,486 35.22% 1,744,618 6,293 1,750,910 2,112,805 (361,895)3,609,497 0 47,176,440 5,177,905 47,176,440 20,721,661 227.67% 26,454,779 35.22% 1,823,658 5.144 1,828,802 2,104,265 (275,462)3,880,919 0 50,781,897 2035 251.56% 5,412,788 35.22% 4,134 1,910,518 0 50,781,897 20,186,911 30,594,985 1,906,384 2,086,025 (175,507)4,182,410 54,788,800 2036 n 2037 54,788,800 19,621,356 279.23% 35,167,444 5,658,650 35.22% 1,992,977 3,260 1,996,237 2,064,296 (68,059)4,517,324 59,238,065

## 1.5(c) Actuarial Projections – Effect of Economic Scenarios Based on Total DB and DC Payroll

#### **Key Assumptions**

• All assumptions and methods are the same as Section 1.5(a) except investment returns are assumed as follows:

Base Case: 8.25% for all future years Optimistic: 9.00% for all future years Pessimistic: 7.50% for all future years

■ In all cases, liabilities have been projected using 8.25% as the discount rate for future benefit payments. These scenarios are intended to illustrate the impact if investment rates are different than the 8.25% assumed investment return. They do not illustrate the effect of changing the assumed investment return for determining liabilities.

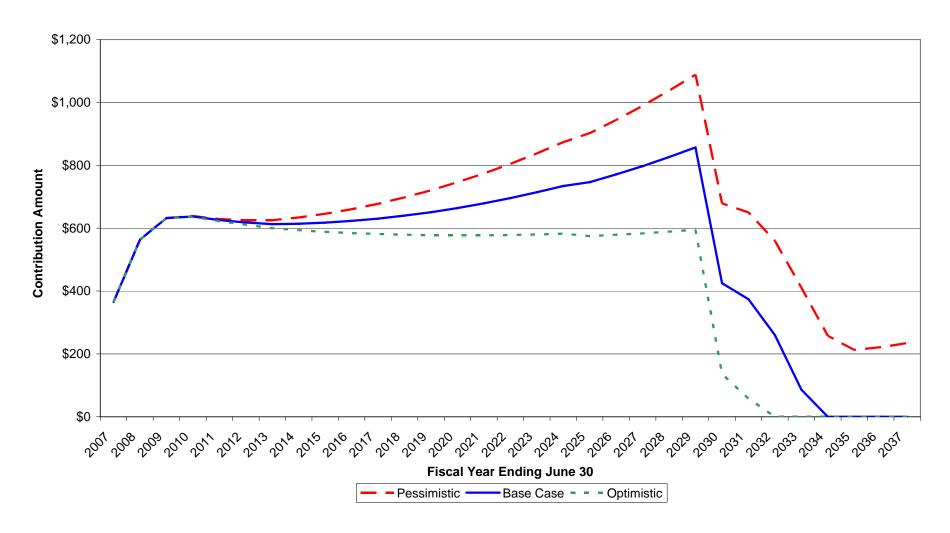
#### **Observations**

- As expected, lower investment returns would yield higher contribution requirements and higher investment returns would yield lower contribution requirements.
- In all scenarios, contribution amounts decrease towards end of the projection period upon completion of 25-year amortizations of recent losses.



# 1.5(c) Actuarial Projections – Projections at Calculated Rate Effect of Economic Scenarios Based on Total DB and DC Payroll (continued)

#### **Contribution Amounts**



#### 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.



#### (1) Effective Date

January 1, 1961, with amendments through June 30, 2006. 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-Peace Officer/Firefighter 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 Attorney General represents the system in legal proceedings.

Prior to June 30, 2005, the Public Employees' Retirement Board prescribed policies and adopted regulations and performed other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division was responsible for investing PERS funds.

On July 27, 2005, Senate Bill 141, enacted as Chapter 9, 2005 Session laws of Alaska, replaced the Public Employees' Retirement Board and the Alaska State Pension Investment Board with the Alaska Retirement Management Board.

#### (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.

Senate Bill 141, signed into law on July 27, 2005, closes the Plan effective July 1, 2006, to new members first hired on or after July 1, 2006.



#### (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 whose survivors are receiving occupational death benefits continue to earn PERS credit while occupational survivor benefits are being paid.

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 have been 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.



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 Peace Officer/Firefighter 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 on the consolidated normal cost and their past service rates.

The consolidated normal cost rate is a uniform rate for all participating employers (less the value of members' contributions).

The past service rate is determined separately for each employer to amortize their unfunded past service liability with payments that are a level percentage of pay amount over fixed 25-year periods.

Employer rates cannot be less than the consolidated normal cost rate.

#### (7) Member Contributions

Mandatory Contributions: Peace Officer/Firefighter 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 9.76% of their compensation. Members' contributions are deducted from gross wages before federal income taxes are withheld.

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



<u>Voluntary Contributions:</u> Members may voluntarily contribute up to 5% of their salary on an after-tax basis. 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.

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

<u>Refund of Contributions:</u> 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 prior to July 1, 2010. 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 60<sup>1</sup>, 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;

<sup>&</sup>lt;sup>1</sup> Members participating before July 1, 1986 are eligible for normal retirement at age 55 or early retirement at age 50.



- 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 Peace Officer/Firefighter service; or
  - (ii) 30 paid-up years of PERS "all other" or "elected official" service.

<u>Benefit Type</u>: 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 66-2/3 last survivor option and 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 Peace Officer/Firefighter 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 Peace Officer/Firefighter 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%.



<u>Indebtedness</u>: 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 and retiree healthcare 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 first became effective July 1, 2005 and applies to reemployment periods after that date. The Waiver Option is not available to members who retired early or under the Retirement Incentive Programs (RIPs). The Waiver Option is no longer available after June 30, 2009.

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.

Employers make contributions to the unfunded liability of the plan on behalf of rehired retired members at the rate the employer is making contributions to the unfunded liability of the plan for other members.



#### (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. Peace Officer/Firefighter members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

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

#### (12) Death Benefits

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



Occupational Death: When an active member (vested or nonvested) 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 Peace Officer/Firefighter 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).

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

<u>Nonoccupational Death:</u> 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.

<u>Lump Sum Nonoccupational Death Benefit:</u> 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.

<u>Death After Retirement:</u> 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.



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 funding ratio is at least 105%.

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.

#### **Changes in Plan Provisions Since the Prior Valuation**

There have been no changes in plan provisions since the prior valuation.



### 2.2(a) Member Census Information – Total PERS

As of June 30		2002		2003		2004		2005		2006
Active Members										
(1) Number		33,242		34,065		33,612		33,730		34,071
(2) Average Age		43.99		44.23		44.64		44.82		45.04
(3) Average Credited Service		8.47		8.51		8.7		8.72		8.92
(4) Average Annual Earnings	\$	42,196	\$	42,882	\$	43,823	\$	44,860	\$	46,688
(5) Number Vested		18,569		18,108		18,337		19,349		19,032
(6) Percent Who Are Vested		56.1%		53.2%		54.6%		57.4%		55.9%
Detives and Deneficiaries										
Retirees and Beneficiaries (1) Number		17,215		18,431		19,572		20,703		21,901
(2) Average Age		64.7		64.81		64.99		65.21		65.40
(3) Average Monthly Benefit:		0 1		01.01		01.00		00.21		00.10
Base	\$	1,110	\$	1,139	\$	1,163	\$	1,193	\$	1,217
COLA	Ψ	77	Ψ	79	Ψ	80	Ψ	82	Ψ	83
P.R.P.A.		231		221		224		221		222
Adjustment		1		1		1		1		1
Total	\$	1,419	\$	1,440	\$	1,468	\$	1,497	\$	1,523
Total	Ψ	1,410	Ψ	1,770	Ψ	1,400	Ψ	1,407	Ψ	1,020
Vested Terminations (vested at	tim	e of termir	nati	on, not ref	unde	ed contrib	utic	ons or con	nme	enced benefits)
(1) Number		5,702		5,841		5,965		6,105		6,219
(2) Average Age		47.86		47.85		48.13		48.46		48.76
(3) Average Monthly Benefit	\$	796	\$	772	\$	779	\$	582	\$	590
Non-Vested Terminations With	Acc	ount Balaı	nce	s (not ves	ted a	nt terminat	ion	, not refur	ided	d contributions
(1) Number <sup>1</sup>		11,301		10,798		11,860		12,761		14,155
(2) Average Account Balance	\$	4,188	\$	3,618	\$	3,766	\$	3,832	\$	3,876

<sup>1</sup> Includes deceased participants with account balances.



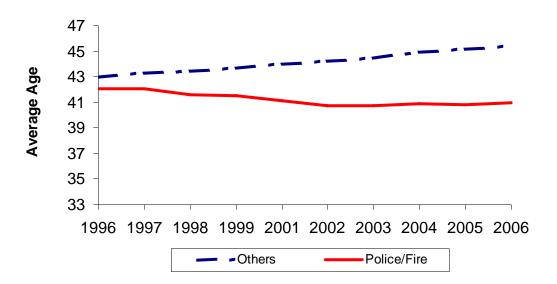
## 2.2(a) Member Census Information – Total PERS (continued)

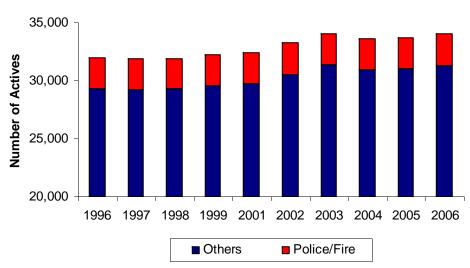
As of June 30, 2006		Tier 1	Tier 2	Tier 3		Total	
Retirees and Beneficiaries							
(1) Number		19,106	2,590	205	2	21,901	
(2) Average Age		65.65	63.89	61.77		65.40	
(3) Average Monthly Benefit:							
Base	\$	1,289	\$ 731	\$ 616	\$	1,217	
COLA		91	24	25		83	
P.R.P.A.		249	41	16		222	
Adjustment		1	0	0		1	
Total	\$	1,630	\$ 796	\$ 657	\$	1,523	

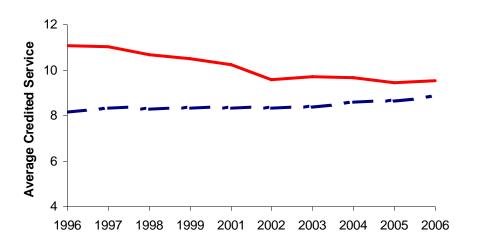
## 2.2(b) Additional Information – Active Members

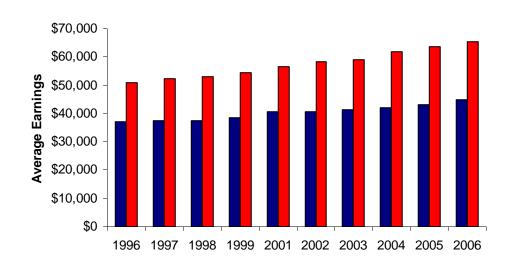
As of June 30	2002	2003	2004	2005	2006
Peace Officer/Firefighter					
_	2 605	2,727	2,705	2 722	2 705
(1) Number	2,695			2,733	2,785
(2) Average Age	40.77	40.72	40.89	40.82	40.94
(3) Average Credited Service	9.60	9.70	9.68	9.46	9.54
(4) Average Annual Earnings	\$ 58,490	\$ 58,945	\$ 61,855	\$ 63,723	\$ 65,289
(5) Number Vested	1,715	1,739	1,730	1,799	1,811
(6) Percent Who Are Vested	63.6%	63.8%	64.0%	65.8%	65.0%
Others					
(1) Number	30,547	31,338	30,907	30,997	31,286
(2) Average Age	44.27	44.53	44.97	45.17	45.40
(3) Average Credited Service	8.37	8.41	8.61	8.65	8.86
(4) Average Annual Earnings	\$ 40,759	\$ 41,484	\$ 42,245	\$ 43,197	\$ 45,032
(5) Number Vested	16,944	16,369	16,607	17,550	17,221
(6) Percent Who Are Vested	55.5%	52.2%	53.7%	56.6%	55.0%
Total					
(1) Number	33,242	34,065	33,612	33,730	34,071
(2) Average Age	43.99	44.22	44.64	44.82	45.04
(3) Average Credited Service	8.47	8.51	8.7	8.72	8.92
(4) Average Annual Earnings	\$ 42,196	\$ 42,882	\$ 43,823	\$ 44,860	\$ 46,688
(5) Number Vested	18,659	18,108	18,337	19,349	19,032
(6) Percent Who Are Vested	56.1%	53.2%	54.6%	57.4%	55.9%

### **2.2(b)** Additional Information – Active Members (continued)









### 2.2(c) Distribution of Active Members – Peace Officer/Firefighter

#### **Annual Earnings by Age**

#### **Annual Earnings by Credited Service**

		Annual A		Average Annual		Years of		Total Annual		verage Annual
Age	Number	Earnings	Earnings			Service	Number	Earnings	Е	arnings
0 – 19	0	\$ 0	\$	0		0	216	\$ 5,622,287	\$	26,029
20 - 24	83	3,654,582		44,031		1	208	12,205,162		58,679
25 - 29	279	15,869,756		56,881		2	131	7,783,905		59,419
30 - 34	477	30,245,201		63,407		3	164	10,095,152		61,556
35 - 39	548	36,837,432		67,222		4	222	14,255,268		64,213
40 - 44	449	31,332,671		69,783	•	0 – 4	941	49,961,774		53,094
45 – 49	400	27,349,821		68,375		5 – 9	705	48,140,886		68,285
50 - 54	312	20,898,271		66,982		10 – 14	492	36,323,764		73,829
55 – 59	191	12,748,506		66,746		15 – 19	364	26,580,881		73,024
60 - 64	42	2,657,456		63,273		20 - 24	196	14,264,296		72,777
65 - 69	4	235,844		58,961		25 - 29	73	5,496,990		75,301
70 - 74	0	0		0		30 - 34	11	827,141		75,195
75+	0	0		0		35 - 39	3	233,808		77,936
_						40+	0	0		0
Total	2,785	\$ 181,829,540	\$	65,289		Total	2,785	\$ 181,829,540	\$	65,289

#### Years of Credited Service by Age

_	Years of Service           Age         0-4         5-9         10-14         15-19         20-24         25-29         30-34         35-39         40+         Total           0 - 19         0         0         0         0         0         0         0         0         0           20 - 24         83         0         0         0         0         0         0         0         83           25 - 29         220         59         0         0         0         0         0         0         0         279           30 - 34         217         195         65         0         0         0         0         0         0         477           35 - 39         163         194         144         44         3         0         0         0         0         548           40 - 44         107         111         113         98         20         0         0         0         0         449           45 - 49         72         75         68         94         72         19         0         0         0         0												
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total			
0 – 19	0	0	0	0	0	0	0	0	0	0			
20 - 24	83	0	0	0	0	0	0	0	0	83			
25 - 29	220	59	0	0	0	0	0	0	0	279			
30 - 34	217	195	65	0	0	0	0	0	0	477			
35 - 39	163	194	144	44	3	0	0	0	0	548			
40 - 44	107	111	113	98	20	0	0	0	0	449			
45 – 49	72	75	68	94	72	19	0	0	0	400			
50 - 54	49	40	57	53	69	40	4	0	0	312			
55 – 59	24	24	39	59	28	11	5	1	0	191			
60 - 64	6	7	5	14	4	2	2	2	0	42			
65 - 69	0	0	1	2	0	1	0	0	0	4			
70 - 74	0	0	0	0	0	0	0	0	0	0			
75+	0	0	0	0	0	0	0	0	0	0			
Total	941	705	492	364	196	73	11	3	0	2,785			

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.



## 2.2(d) Schedule of Active Member Valuation Data – Peace Officer/Firefighter

Valuation Date	Number	Annual Earnings (000's)		Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2006	2,785	\$ 181,830 <sup>1</sup>	\$	65,289	2.5%	160
June 30, 2005	2,733	174,155		63,723	3.0%	160
June 30, 2004	2,705	167,317		61,855	4.9%	161
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

<sup>&</sup>lt;sup>1</sup> Prior to June 30, 2006, unannualized earnings were used. Starting June 30, 2006, annualized earnings are used.



### 2.2(e) Distribution of Active Members – Others

#### **Annual Earnings by Age**

#### **Annual Earnings by Credited Service**

		Total Annual	Average Annual		ears of			Total Annual	verage Annual
Λ	N.L. una la la u					Nivenhau			
Age	Number	Earnings	Earnings	Sei	rvice	Number		Earnings	arnings
0 – 19	65	\$ 940,347	\$ 14,467		0	3,446	\$	68,597,375	\$ 19,906
20 - 24	1,008	25,709,834	25,506		1	3,022		116,435,751	38,529
25 - 29	2,123	72,995,900	34,383		2	2,229		87,944,603	39,455
30 - 34	2,579	104,149,165	40,384		3	2,324		96,270,837	41,425
35 - 39	3,267	137,138,107	41,977		4	2,202		94,908,273	43,101
40 - 44	4,579	201,678,451	44,044	0	<del>-</del> 4	13,223		464,156,839	35,102
45 – 49	6,000	282,915,461	47,153	5	<b>-</b> 9	7,094		325,523,760	45,887
50 – 54	6,165	309,810,908	50,253	10	<b>– 14</b>	4,325		221,819,865	51,288
55 – 59	3,715	187,788,998	50,549	15	<b>–</b> 19	3,272		184,060,388	56,253
60 - 64	1,354	65,882,981	48,658	20	- 24	2,073		128,274,966	61,879
65 - 69	348	16,312,274	46,874	25	- 29	1,129		73,189,305	64,827
70 - 74	61	2,760,671	45,257	30 -	- 34	146		9,998,436	68,482
75+	22	780,013	35,455	35	- 39	23		1,775,179	77,182
<del>-</del>		·	<u> </u>	4	0+	1		64,372	64,372
Total	31,286	\$1,408,863,110	\$ 45,032	To	otal	31,286	\$1	,408,863,110	\$ 45,032

## Years of Credited Service by Age

					Years of	Service				
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	65	0	0	0	0	0	0	0	0	65
20 - 24	998	10	0	0	0	0	0	0	0	1,008
25 - 29	1,894	228	1	0	0	0	0	0	0	2,123
30 - 34	1,726	734	115	4	0	0	0	0	0	2,579
35 - 39	1,791	969	383	119	5	0	0	0	0	3,267
40 - 44	1,963	1,232	711	512	149	12	0	0	0	4,579
45 – 49	1,935	1,342	990	839	617	267	10	0	0	6,000
50 - 54	1,443	1,354	1,093	942	757	524	52	0	0	6,165
55 – 59	924	775	715	621	382	236	51	11	0	3,715
60 - 64	350	347	249	186	119	73	20	9	1	1,354
65 - 69	102	83	58	40	38	15	9	3	0	348
70 - 74	22	14	9	6	5	1	4	0	0	61
75+	10	6	1	3	1	1	0	0	0	22
Total	13,223	7,094	4,325	3,272	2,073	1,129	146	23	1	31,286

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.



### 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, 2006	31,286	\$ 1,408,863 <sup>1</sup>	\$ 45,032	4.2%	160
June 30, 2005	30,997	1,338,962	43,197	2.3%	160
June 30, 2004	30,907	1,305,670	42,245	1.8%	161
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

<sup>&</sup>lt;sup>1</sup> Prior to June 30, 2006, unannualized earnings were used. Starting June 30, 2006, annualized earnings are used.



### 2.2(g) Statistics on New Benefit Recipients – Peace Officer/Firefighter

During the Year Ending June 30		2002		2003	2004	2005	2006
Service							
(1) Number		128		114	150	121	91
(2) Average Age at Commencement		51.17		51.72	52.43	52.98	54.50
(3) Average Monthly Benefit	\$	2,681	\$	2,835	\$ 2,761	\$ 2,435	\$ 2,415
Survivor (including surviving spo	use	and QDF	ROs)				
(1) Number		26	ŕ	19	19	12*	22*
(2) Average Age at							
Commencement		52.78		56.54	57.46	49.41	56.72
(3) Average Monthly Benefit	\$	1,435	\$	1,265	\$ 1,544	\$ 876	\$ 993
Disability							
(1) Number		3		10	5	12	5
(2) Average Age at Commencement		43.30		49.86	47.50	47.42	47.21
(3) Average Monthly Benefit	\$	1,684	\$	1,945	\$ 1,938	\$ 1,691	\$ 2,032
Total							
(1) Number		157		143	174	145	118
(2) Average Age at Commencement		51.29		52.22	52.84	52.23	54.61
(3) Average Monthly Benefit	\$	2,456	\$	2,564	\$ 2,604	\$ 2,244	\$ 2,134

<sup>\*</sup> Does not include new beneficiaries that were retirees or disabled retirees as of the prior valuation date.

### 2.2(h) Schedule of Average Benefit Payments – New Benefit Recipients – Peace Officer/Firefighter

	Years of Credited Service												
		0 - 4	;	5 - 9	1	0 - 14	1:	5 - 19	2	0 - 24	2	5 - 29	30+
Period 7/1/05 - 6/30/06: * Average Monthly Benefit Number of Recipients	\$	1,556 5	\$	748 11	\$	1,280 9	\$	2,236 26	\$	2,931 29	\$	3,595 13	\$ 4,190 3
Period 7/1/04 - 6/30/05: * Average Monthly Benefit Number of Recipients	\$	277 1	\$	700 14	\$	1,209 20	\$	1,823 23	\$	2,852 66	\$	3,804 13	\$ 3,846 3
Period 7/1/03 - 6/30/04: Average Monthly Benefit Number of Recipients Period 7/1/02 - 6/30/03:	\$	1,644 4	\$	2,392 78	\$	2,298 46	\$	2,093 43	\$	2,435 61	\$	2,895 30	\$ 2,546 8
Average Monthly Benefit Number of Recipients Period 7/1/01 - 6/30/02:	\$	1,594 1	\$	697 9	\$	1,131 20	\$	2,043 20	\$	3,013 79	\$	4,079 11	\$ 4,313 3
Average Monthly Benefit Number of Recipients Period 7/1/00 - 6/30/01:	\$	1,903 1	\$	466 6	\$	1,056 12	\$	1,561 19	\$	2,567 85	\$	3,447 32	\$ 5,996 2
Average Monthly Benefit Number of Recipients Period 7/1/98 - 6/30/00:	\$	1,416 2	\$	927 13	\$	1,249 34	\$	1,704 61	\$	2,824 143	\$	2,892 57	\$ 2,702 18
Average Monthly Benefit Number of Recipients Period 7/1/97 - 6/30/98:	\$	1,879 22	\$	698 8	\$	1,214 23	\$	1,808 29	\$	2,849 61	\$	3,713 17	\$ 4,097 3
Average Monthly Benefit Number of Recipients Period 7/1/96 - 6/30/97:	\$	1,472 13	\$	723 8	\$	1,177 13	\$	2,091 40	\$	3,199 64	\$	3,548 22	\$ 3,380 4
Average Monthly Benefit Number of Recipients	\$	1,263 10	\$	592 12	\$	957 18	\$	1,719 40	\$	2,811 68	\$	3,545 15	\$ 4,733 3

<sup>\*</sup>Does not include new beneficiaries that were retirees or disabled retirees as of the prior valuation date.



<sup>&</sup>quot;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		2002		2003	2004	2005	2006
Service							
(1) Number		942		1,247	1,155	1,200	1,308
(2) Average Age at Commencement		56.58		56.85	57.16	57.09	57.41
(3) Average Monthly Benefit	\$	1,481	\$	1,525	\$ 1,526	\$ 1,524	\$ 1,539
Survivor (including surviving spo	use	and QDF	ROs)				
(1) Number		144		136	151	43*	155*
(2) Average Age at Commencement		62.12		63.24	60.54	55.11	62.33
(3) Average Monthly Benefit	\$	842	\$	879	\$ 758	\$ 602	\$ 852
Disability							
(1) Number		49		62	40	44	31
(2) Average Age at Commencement		49.55		49.53	43.22	50.26	49.93
(3) Average Monthly Benefit	\$	1,445	\$	1,396	\$ 1,268	\$ 1,354	\$ 1,222
Total							
(1) Number		1,135		1,445	1,346	1,287	1,494
(2) Average Age at Commencement		56.98		57.10	57.12	56.79	57.77
(3) Average Monthly Benefit	\$	1,398	\$	1,457	\$ 1,432	\$ 1,487	\$ 1,461



<sup>\*</sup>Does not include new beneficiaries that were retirees or disabled retirees as of the prior valuation date.

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

	Years of Credited Service												
	0	- 4	5	5 - 9	1	0 - 14	1	5 - 19	2	0 - 24	2	5 - 29	30+
Period 7/1/05 - 6/30/06: * Average Monthly Benefit Number of Recipients	\$	519 72	\$	536 319	\$	950 271	\$	1,464 246	\$	2,212 197	\$	3,247 184	\$ 3,837 50
Period 7/1/04 - 6/30/05: * Average Monthly Benefit Number of Recipients	\$	423 40	\$	516 363	\$	1,008 266	\$	1,571 211	\$	2,249 213	\$	3,176 118	\$ 3,369 76
Period 7/1/03 - 6/30/04: Average Monthly Benefit Number of Recipients	\$	659 28	\$	745 300	\$	806 231	\$	968 218	\$	917 234	\$	1,163 109	\$ 1,488 58
Period 7/1/02 - 6/30/03: Average Monthly Benefit Number of Recipients	\$	984 202	\$	678 379	\$	1,022 290	\$	1,601 219	\$	2,201 179	\$	3,116 99	\$ 4,004 77
Period 7/1/01 - 6/30/02: Average Monthly Benefit Number of Recipients	\$	488 15	\$	500 283	\$	886 246	\$	1,428 227	\$	2,020 198	\$	2,663 94	\$ 3,653 72
Period 7/1/00 - 6/30/01: Average Monthly Benefit Number of Recipients	\$	602 8	\$	577 174	\$	791 289	\$	1,129 594	\$	1,392 542	\$	1,771 438	\$ 1,949 297
Period 7/1/98 - 6/30/00: Average Monthly Benefit Number of Recipients	\$	653 55	\$	518 237	\$	894 249	\$	1,477 225	\$	2,129 157	\$	2,853 86	\$ 3,813 44
Period 7/1/97 - 6/30/98: Average Monthly Benefit Number of Recipients	\$	943 107	\$	511 246	\$	935 281	\$	1,512 282	\$	2,090 175	\$	3,007 86	\$ 3,700 42
Period 7/1/96 - 6/30/97: Average Monthly Benefit Number of Recipients	\$	905 43	\$	481 254	\$	872 223	\$	1,507 191	\$	2,086 112	\$	2,821 54	\$ 3,308 27

<sup>\*</sup>Does not include new beneficiaries that were retirees or disabled retirees as of the prior valuation date.

<sup>&</sup>quot;Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.



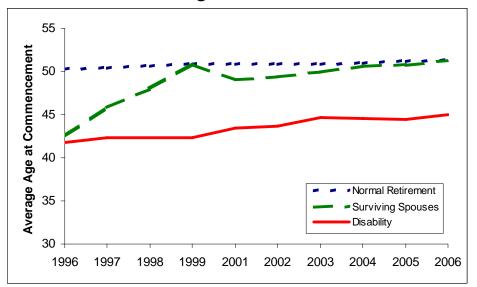
### 2.2(k) Statistics on All Benefit Recipients

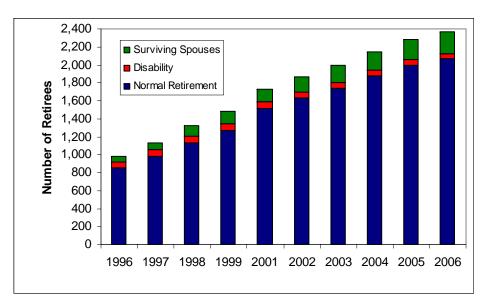
	_	Peace Officer/ Firefighter		Others
Service Retirements				
(1) Number, June 30, 2005		1,995		16,438
(2) Net Change During FY06		73		1,024
(3) Number, June 30, 2006		2,068		17,462
(3) Average Age At Commencement		51.32		56.58
(4) Average Current Age		60.78		66.16
(5) Average Monthly Benefit	\$	2,634	\$	1,359
(3) Average Monthly Delicit	Ψ	2,00 :	Ψ	1,000
Survivors (including surviving spouses and QDROs)				
(1) Number, June 30, 2005		222		1,620
(2) Net Change During FY06		21		102
(3) Number, June 30, 2006		243		1,722
(4) Average Age At		54.04		F7.00
Commencement		51.34		57.86 67.40
(5) Average Current Age	Φ.	59.05	Ф	67.40
(6) Average Monthly Benefit	\$	1,373	\$	838
Disabilities				
(1) Number, June 30, 2005		63		365
(2) Net Change During FY06		(6)		(16)
(3) Number, June 30, 2006		57		349
(4) Average Age At Commencement		45.01		45.17
(5) Average Current Age		51.30		51.78
(6) Average Monthly Benefit	\$	1,728	\$	1,378
(b) Average Monthly Benefit	Ψ	1,720	Ψ	1,070
Total				
(1) Number, June 30, 2005		2,280		18,423
(2) Net Change During FY06		88		1,110
(3) Number, June 30, 2006		2,368		19,533
(4) Average Age At				
Commencement		51.17		56.49
(5) Average Current Age		60.37		66.01
(6) Average Monthly Benefit	\$	2,483	\$	1,313

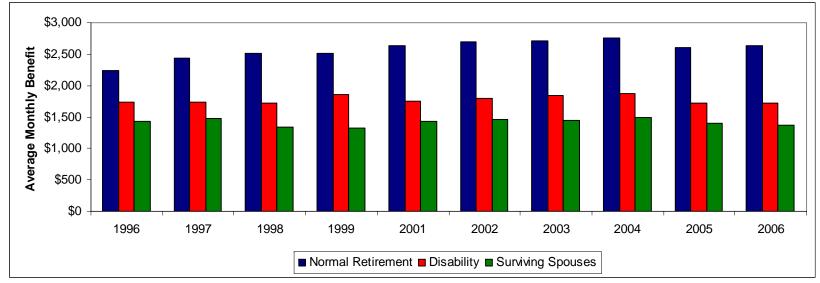


#### 2.2(k) Statistics on All Benefit Recipients (continued)

### **Peace Officer/Firefighter**



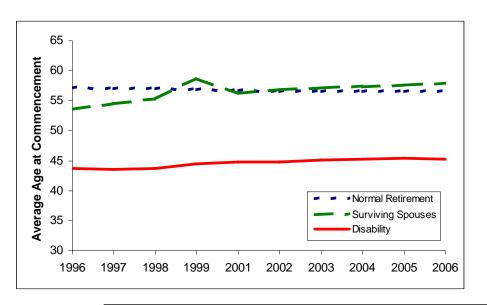


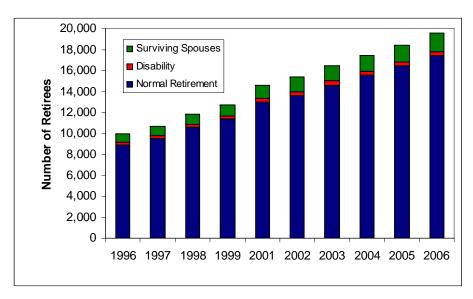


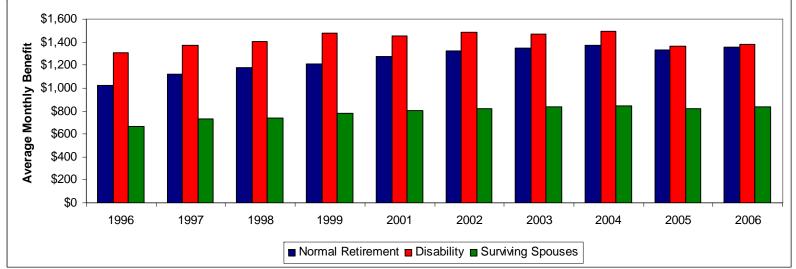


#### 2.2(k) Statistics on All Benefit Recipients (continued)

#### **Others**









## 2.2(I) Distribution of Annual Benefits for Benefit Recipients – Peace Officer/Firefighter

#### **Annual Benefit by Age**

#### **Annual Benefit by Years Since Commencement**

		Total	Average	Years Since		Total	Average
		Annual	Annual			Annual	Annual
Age	Number	Benefit	Benefit	Commencement	Number	Benefit	Benefit
0 – 19	0	\$ 0	\$ 0	0	120	\$ 3,092,638	\$ 25,772
20 - 24	0	0	0	1	157	4,157,143	26,479
25 - 29	0	0	0	2	181	5,146,606	28,434
30 - 34	1	22,838	22,838	3	132	3,755,363	28,450
35 - 39	4	75,603	18,901	4	165	4,450,562	26,973
40 - 44	24	588,879	24,537	0 – 4	755	20,602,312	27,288
45 - 49	175	5,334,932	30,485	5 – 9	806	23,597,158	29,277
50 - 54	416	12,829,506	30,840	10 – 14	293	9,018,140	30,779
55 – 59	630	19,775,477	31,390	15 – 19	328	11,280,116	34,391
60 - 64	521	15,126,450	29,033	20 – 24	113	4,002,975	35,425
65 - 69	309	8,680,358	28,092	25 – 29	55	1,602,901	29,144
70 - 74	155	4,560,697	29,424	30 - 34	17	415,139	24,420
75+	133	3,548,538	26,681	35 – 39	1	24,537	24,537
			<u> </u>	40+	0	0	0
Total	2,368	\$ 70,543,278	\$ 29,790	Total	2,368	\$ 70,543,278	\$ 29,790

#### Years Since Benefit Commencement by Age

				Years Sir	nce Comm	encement				
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0
30 - 34	1	0	0	0	0	0	0	0	0	1
35 - 39	1	3	0	0	0	0	0	0	0	4
40 – 44	20	2	2	0	0	0	0	0	0	24
45 – 49	132	38	5	0	0	0	0	0	0	175
50 – 54	230	160	18	5	2	0	1	0	0	416
55 – 59	234	256	89	44	4	2	1	0	0	630
60 - 64	98	233	85	91	10	1	3	0	0	521
65 - 69	24	80	71	106	20	5	3	0	0	309
70 – 74	6	25	20	55	37	11	1	0	0	155
75+	9	9	3	27	40	36	8	1	0	133
Total	755	806	293	328	113	55	17	1	0	2.368

### 2.2(m) Schedule of Benefit Recipients by Type of Benefit and Option Selected – Peace Officer/Firefighter

Amount of				Number of	Тур	e of Benefit			Optio	n Selecte	ed	
M	Monthly Benefit		enefit	Recipients	1	2	3	1	2	3	4	5
\$	1 -	-	\$ 300	45	28	17	0	23	8	3	1	10
3	301 -	-	600	126	87	35	4	50	37	17	9	13
6	501 -	-	900	115	76	35	4	64	31	6	10	4
g	901 -	-	1,200	155	110	42	3	71	30	23	8	23
1,2	201 -	-	1,500	141	116	19	6	56	38	18	15	14
1,5	501 -	-	1,800	144	115	20	9	56	36	24	15	13
1,8	301 -	-	2,100	189	145	27	17	77	69	22	13	8
2,1	101 -	-	2,400	192	169	14	9	55	77	29	14	17
2,4	401 -	-	2,700	260	244	13	3	56	133	38	19	14
2,7	701 -	-	3,000	211	201	9	1	55	104	26	14	12
3,0	001 -	-	3,300	179	175	4	0	38	93	21	16	11
3,3	301 -	-	3,600	164	161	2	1	39	76	25	16	8
3,6	501 -	-	3,900	149	147	2	0	26	87	14	13	9
3,9	901 -	-	4,200	95	94	1	0	10	56	13	9	7
Ove	er \$ 4,2	200		203	200	3	0	45	113	21	15	9
Tot	tals			2,368	2,068	243	57	721	988	300	187	172

#### **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**

		Total	Average	Years		Total	Average
		Annual	Annual	Since		Annual	Annual
Age	Number	Benefit	Benefit	Commencement	Number	Benefit	Benefit
0 – 19	1	\$ 25,046	\$ 25,046	0	1,462	\$ 26,235,383	\$ 17,945
20 - 24	0	0	0	1	1,398	24,294,978	17,378
25 - 29	0	0	0	2	1,336	22,083,787	16,530
30 - 34	2	12,416	6,208	3	1,325	21,333,658	16,101
35 - 39	15	162,530	10,835	4	1,147	18,371,393	16,017
40 - 44	45	533,213	11,849	0 – 4	6,668	112,319,199	16,845
45 – 49	148	1,988,404	13,435	5 – 9	5,427	88,406,903	16,290
50 - 54	1,225	19,769,448	16,138	10 – 14	2,585	36,276,813	14,034
55 – 59	4,284	76,539,576	17,866	15 – 19	2,879	43,394,401	15,073
60 - 64	4,421	72,516,465	16,403	20 – 24	1,196	17,106,949	14,303
65 - 69	3,471	51,031,364	14,702	25 – 29	621	8,193,552	13,194
70 - 74	2,554	37,804,288	14,802	30 - 34	155	2,116,273	13,653
75+	3,367	47,492,287	14,105	35 – 39	1	24,801	24,801
				40+	1	36,146	36,146
Total	19,533	\$307,875,037	\$ 15,762	Total	19,533	\$ 307,875,037	\$ 15,762

#### Years Since Benefit Commencement by Age

				Years Sir	ice Comm	encement				
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	1	0	0	0	0	0	0	0	0	1
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0
30 - 34	2	0	0	0	0	0	0	0	0	2
35 - 39	8	4	2	1	0	0	0	0	0	15
40 - 44	20	17	6	2	0	0	0	0	0	45
45 – 49	84	36	20	6	1	1	0	0	0	148
50 – 54	1,030	123	42	25	5	0	0	0	0	1,225
55 – 59	2,995	1,224	35	17	6	7	0	0	0	4,284
60 - 64	1,543	2,151	570	141	7	8	1	0	0	4,421
65 - 69	611	1,081	960	776	25	13	5	0	0	3,471
70 – 74	212	553	547	976	241	17	6	1	1	2,554
75+	162	238	403	935	911	575	143	0	0	3,367
Total	6 668	5 427	2 585	2 879	1 196	621	155	1	1	19 533

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

	Amo	oun	t of	Number of	Тур	oe of Benef	fit		Opti	on Selec	ted	
Mo	onth	ly B	Benefit	Recipients	1	2	3	1	2	3	4	5
\$	1 .	_	\$ 300	1,966	1,595	359	12	878	404	280	83	321
30	01	_	600	3,681	3,211	429	41	1,733	913	571	220	244
6	01	_	900	3,081	2,705	327	49	1,444	757	451	226	203
90	01	_	1,200	2,558	2,297	215	46	1,112	695	392	181	178
1,2	01	_	1,500	1,902	1,681	157	64	796	531	296	110	169
1,50	01	_	1,800	1,508	1,378	86	44	575	449	243	127	114
1,8	01	_	2,100	1,165	1,067	51	47	423	383	188	81	90
2,10	01	_	2,400	874	813	38	23	299	286	160	61	68
2,4	01	_	2,700	668	637	23	8	223	226	119	50	50
2,7	01	_	3,000	559	537	17	5	149	220	109	41	40
3,0	01	_	3,300	405	393	10	2	131	147	59	32	36
3,3	01	_	3,600	326	319	3	4	98	146	45	21	16
3,60	01	_	3,900	225	220	3	2	62	97	42	14	10
3,9	01	_	4,200	187	184	2	1	52	85	31	11	8
Over	r \$ 4	,200	)	428	425	2	1	123	175	66	43	21
Tota	als			19,533	17,462	1,722	349	8,098	5,514	3,052	1,301	1,568

## **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 – Peace Officer/Firefighter

	Ad	Added to Rolls		Removed from Rolls		- End of Year	Percent	
Year Ended	No.¹	Annual Benefits <sup>1</sup>	No.¹	Annual Benefits <sup>1</sup>	No.	Annual Benefits	Increase in Annual Benefits	Average Annual Benefit
June 30, 2006	118	\$ 3,289,370	30	\$ 209,287	2,368	\$ 70,543,278	4.6%	\$ 29,790
June 30, 2005	145	3,904,737	5	3,332,357	2,280	67,463,195	0.9%	29,589
June 30, 2004	174	6,388,270	25	904,310	2,140	66,890,815	8.9%	31,257
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%	29,968
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 <sup>2</sup>	9	372,984 <sup>2</sup>	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

<sup>&</sup>lt;sup>2</sup> Includes additional benefits to current retirees from a one time retroactive ad hoc Post-Retirement Pension Adjustment



<sup>&</sup>lt;sup>1</sup> Numbers are estimated, and include other internal transfers.

#### Basis of the Valuation

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

A		ded to Rolls	Rem	oved from Rolls	Rolls -	End of Year	- Percent		
Year Ended	No. <sup>1</sup>	Annual Benefits <sup>1</sup>	No. <sup>1</sup>	Annual Benefits <sup>1</sup>	No.	Annual Benefits	Increase in Annual Benefits	Average Annual Benefit	
June 30, 2006	1,494	\$ 26,193,750	384	\$ 2,265,651	19,533	\$307,875,037	8.4%	\$ 15,762	
June 30, 2005	1,287	22,966,842	296	17,019,851	18,423	283,946,938	2.1%	15,413	
June 30, 2004	1,346	27,617,383	354	6,823,010	17,432	277,999,947	8.1%	15,948	
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%	15,071	
June 30, 2001	2,342	46,880,694	506	10,128,792	14,543	216,466,228	20.5%	14,885	
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%	13,100	
June 30, 1997	830	23,255,081 <sup>2</sup>	101	2,829,835 <sup>2</sup>	10,672	139,808,955	7.2%	13,101	
June 30, 1996	702	8,803,872	40	501,645	9,943	119,383,182	7.5%	12,007	



Numbers are estimated, and include other internal transfers.
 Includes additional benefits to current retirees from a one-time retroactive ad hoc Post-Retirement Pension Adjustment.

The demographic and economic assumptions used in the June 30, 2006 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in October 2006. These assumptions were the result of an experience study performed as of June 30, 2005. The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

#### Valuation of Liabilities

#### (A) Actuarial Method – Entry Age Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percent of pay. Payroll is assumed to increase 4.0% per year for this purpose. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.

Projected pension and postemployment healthcare benefits were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for pension benefits (constant dollar amount for healthcare benefits), from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.



#### **Changes in Methods from the Prior Valuation**

The actuarial cost method was changed from Projected Unit Credit to Entry Age Normal effective with the June 30, 2006 valuation.

#### (B) 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 financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

#### (C) Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for the State of Alaska Public Employees' Retirement System postemployment healthcare plan. Note that methodology is greatly revised from the prior valuation and reflects the results of our Experience Study for the period July 1, 2001 to June 30, 2005.

Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods, i.e., medical claims, prescription drug claims, administrative costs, etc. Separate analysis is limited by the availability and credibility of cost and enrollment data for each component of cost. This valuation reflects non-prescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription drug costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes, as described below. Analysis to date on Medicare Part A coverage is limited since Part A coverage is not available by individual, nor is this status incorporated into historical claims data.

We analyzed Aetna management-level reporting for calendar 2003 through fiscal 2006 and derived recommended base claims cost rates as described in the following steps:

- 1. Based on analysis described in our Experience Study, dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation.
- 2. Available reporting does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups. We used summary statistics provided to split claims and enrollment into Medicare and non-Medicare buckets each year.
- 3. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed



group. Medicare was applied to State employment for all employees hired after March 31, 1986. For these "no-Part A" individuals, the State is the primary payer for hospital bills and other Part A services. Thus, claims costs are higher for the no-Part A group. To date, claims and enrollment experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. Therefore, higher no-Part A claims are spread across the entire retired population and have been applied to future claims of current active employees projected to retire in the future. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate and will be lower. The larger the no-Part A population, the more accrued liabilities will decrease.

Current retiree census does not include date of hire, although the Tier indicator does imply that Tier I PERS retirees should probably be considered as no-Part A retirees. After analysis of active employee data, and accounting for retirees who return to work and therefore pay Medicare taxes, we assume that 7.5% of the active and inactive workforce will not qualify for free Part A coverage when they retire. Similarly, we assume 7.5% of the current retiree population does not receive Part A coverage.

We are working with the State to compile census records for no-Part A members to build an historic claims database isolating no-Part A members.

Due to data constraints, we were unable to establish credible rates for Medicare A&B and Medicare B only. We therefore conservatively set Medicare A&B rates relatively close to aggregate Medicare rates previously established and then set Medicare B only rates to reflect a reasonable no-Part A cost to the State's plan. To the extent future data specific to Medicare subgroups becomes credible, we can modify this conservative assumption.

4. The steps above result in separate paid claims cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past four calendar years. Medical claims cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription drug claims cost rates reflect differing average ages. We converted paid claims data to incurred cost rates projected from each historical data period to the valuation year and developed weighted average incurred claims cost rates. The assumed lag between medical claim incurred and paid dates is 2 months. This "trend and blend" methodology differs mechanically from the prior method that essentially averaged three years of paid claims before projecting forward to an incurred basis for the valuation year. During transition to a trended blended average basis, we recommend weighting each year's data in the 4-year experience period at 25% and further averaging such results with expected claims cost rates based on prior valuation methodology. Because prior methodology produces significantly greater claims costs for Medicare members we have assumed that resulting per capita claims cost rates are sufficient to cover administrative costs. In the future, we will incorporate actual administrative costs and may recommend weighting recent experience more heavily and/or reducing the experience period analyzed back to a 3year period.

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

#### June 30, 2006 Valuation - FY 2007 Claims Cost Rates

				Medical					
	P	re-Medicare		Medicare A&B	IV	ledicare B Only	Р	rescription Drugs	Total
Calendar 2003 Paid Claims	\$	123,938,420	\$	4,006,301	\$	1,087,554	\$	57,596,427	\$ 186,628,703
Membership		31,619		15,748		1,277		48,644	48,644
Paid Claims Cost Rate	\$	3,920	\$	254	\$	852	\$	1,184	\$ 3,837
Trend to FY2007		1.383		1.383		1.383		1.592	
FY 2007 Paid Cost Rate	\$	5,422	\$	352	\$	1,178	\$	1,885	
Paid to Incurred Factor**		1.015		1.015		1.015		1.007	
FY 2007 Incurred Cost Rate	\$	5,503	\$	357	\$	1,196	\$	1,899	
Calendar 2004 Paid Claims	\$	139,793,036	\$	7,336,033	\$	1,379,219	\$	69,523,105	\$ 218,031,393
Membership		32,858		17,096		1,386		51,340	51,340
Paid Claims Cost Rate	\$	4,254	\$	429	\$	995	\$	1,354	\$ 4,247
Trend to FY2007		1.252		1.252		1.252		1.385	
FY 2007 Paid Cost Rate	\$	5,326	\$	537	\$	1,246	\$	1,875	
Paid to Incurred Factor**		1.015		1.015		1.015		1.007	
FY 2007 Incurred Cost Rate	\$	5,405	\$	545	\$	1,264	\$	1,889	
Calendar 2005 Paid Claims	\$	163,066,241	\$	11,021,966	\$	1,863,519	\$	80,293,244	\$ 256,244,971
Membership		33,343		18,114		1,469		52,926	52,926
Paid Claims Cost Rate	\$	4,891	\$	608	\$	1,269	\$	1,517	\$ 4,842
Trend to FY2007		1.143		1.143		1.143		1.215	
FY 2007 Paid Cost Rate	\$	5,591	\$	696	\$	1,450	\$	1,843	
Paid to Incurred Factor**		1.015		1.015		1.015		1.007	
FY 2007 Incurred Cost Rate	\$	5,674	\$	706	\$	1,472	\$	1,856	
Fiscal 2006 Paid Claims	\$	166,902,156	\$	10,350,915	\$	1,660,228	\$	87,341,702	\$ 266,255,001
Membership		35,601		16,777		1,360		53,738	53,738
Paid Claims Cost Rate	\$	4,688	\$	617	\$	1,221	\$	1,625	\$ 4,955
Trend to FY2007		1.090		1.090		1.090		1.130	
FY 2007 Paid Cost Rate	\$	5,110	\$	672	\$	1,331	\$	1,837	
Paid to Incurred Factor**		1.015		1.015		1.015		1.007	
FY 2007 Incurred Cost Rate	\$	5,186	\$	682	\$	1,350	\$	1,850	
Weighted Average 7/2006 – 6/2007	Incur	red Claims C	Cost	Rates					
At average age	\$	5,442	\$	573	\$	1,320	\$	1,873	
At age 65*	\$	9,112	\$	395	\$	793	\$	2,635	
Prior Methodology FY2007 Incurred	d Cos	t Rates (6/20	05	valuation wit	h tre	end):			
At age 65*	\$	9,078	\$	1,528	\$	3,056	\$	2,193	 
Final Base Cost Rates at age 65	\$	9,095	\$	962	\$	1,924	\$	2,414	

<sup>\*</sup> Final Medicare rates are adjusted so that net plan cost for members with Parts A & B are one-half of net plan costs for members with Part B only. Also, prior methodology did not include separate Part B only analysis; applicable rates above are determined so that the composite Medicare rate equates to separate A&B and B only rates based on the 7.5% of membership assumed to lack Part A.

<sup>\*\*</sup> As data specific to Medicare and Pre-Medicare retirees is provided, lag factors specific to Medicare status will be reflected.



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

Following the development of total projected costs, a distribution of per capita claims cost was developed. This was accomplished by allocating total projected costs to the population census used in the valuation. The allocation was done separately for each of prescription drugs and medical costs for the Medicare eligible and pre-Medicare populations. The allocation weights were developed using participant counts by age and assumed morbidity and aging factors. Results were tested for reasonableness based on historical trend and external benchmarks for costs paid by Medicare.

Below are the results of this analysis:

# Distribution of Per Capita Claims Cost by Age for the Period July 1, 2006 through June 30, 2007

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug and Medicare Retiree Drug Subsidy
45	\$ 5,037	\$ 5,037	\$ 1,273
50	5,699	5,699	1,512
55	6,448	6,448	1,796
60	7,658	7,658	2,082
65	962	1,924	1,898
70	1,170	2,341	2,045
75	1,390	2,779	2,181
80	1,497	2,994	2,236

## (D) Actuarial Assumptions

Investment Return / Discount Rate	8.25% per year, compounded annually, net of expenses.				
Salary Scale	Inflation – 3.5% per year				
	Peace Officer/Firefighter:				
	Merit – $2.5\%$ per year for the first 6 years of employment, $0.5\%$				
	thereafter.				
	Productivity – 0.5% per year				
	Others:				
	Merit $-5.5\%$ per year grading down to 1.5% after 5 years; for more than 6 years of service, 1.0% grading down to 0%.				
	Productivity – 0.5% per year				
Payroll Growth	4.0% 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.				
Mortality (Pre-retirement)	Peace Officer/Firefighters: 1994 Group Annuity Mortality Basic Table for males and females, 1994 Base Year.				
	Others: Based upon the 2001-2005 actual mortality experience (see Table 1). 42% of the 1994 Group Annuity Table, 1994 Base Year for males and females.				
	Deaths are assumed to be occupational 75% of the time for Peace Officer/Firefighter, 50% of the time for Others.				
Mortality (Post-retirement)	1994 Group Annuity Mortality Basic Table for males and females, 1994 Base Year.				
Total Turnover	Based upon the 2001-2005 actual withdrawal experience. (See Table 2).				
Disability	Incidence rates based upon the 2001-2005 actual experience, in accordance with Table 3. Post-disability mortality in accordance with the 1974 Pension Benefit Guaranty Corporation Disability Mortality Table to reflect mortality of those receiving disability benefits under Social Security. Disabilities are assumed to be occupational 75% of the time for Peace Officer/ Firefighter, 50% of the time for Others.				
Retirement	Retirement rates based upon the 2001-2005 actual experience in accordance with Tables 4 and 5. Deferred vested members are assumed to retire at their earliest retirement date.				
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 80% of male members and 70% of female members are assumed to be married.				
Dependent Children	Benefits to dependent children have been valued assuming members who are married and between the ages of 25 and 45 have two dependent children.				
Contribution Refunds	15% if terminated members are assumed to have their contributions refunded.				

#### (D) Actuarial Assumptions

COLA	Of those benefit recipients who are eligible for the COLA, 60% are assumed to remain in Alaska and receive the COLA.					
Post-Retirement Pension Adjustment	50% and 75% of assumed inflation, or 1.75% and 2.625% respectively, is valued for the annual automatic Post-Retirement Pension Adjustment (PRPA) as specified in the statute.					
Expenses	All expenses are included	in the investme	nt return assumption.			
Part-Time Status	Part-time employees are assumed to earn 1.00 years of credited service per year for Peace Officer/Firefighters and 0.65 years of credited service per year for Other members.					
Per Capita Claims Cost	Sample claims cost rates for FY07 medical and prescription are shown below:					
		Medical	Prescription Drugs			
	Total	\$ 9,095	95 \$ 2,414			
	Medicare Parts A & B	\$ 8,133	N/A			
	Medicare Part B Only \$ 7,171		N/A			
	Medicare Part D	N/A	\$ 516			
Health Cost Trend			Prescription			

Health Cost Trend			Prescription
		Medical	Drugs
	FY07	9.0%	13%
	FY08	8.5%	12%
	FY09	8.0%	11%
	FY10	7.5%	10%
	FY11	7.0%	9%
	FY12	6.5%	8%
	FY13	6.0%	7%
	FY14	5.5%	6%
	FY15	5.0%	5%
	FY16	5.0%	5%
	FY17 and later	5.0%	5%

For the June 30, 2005 valuation, graded Healthcare Cost Trend Rates (HCCTR) were reinitialized. A survey of healthcare trends in the past year has revealed a general lowering of HCCTR. No reinitialization is required this year, so the trend rates will follow the same pattern as for the 2005 valuation.

#### (D) Actuarial Assumptions

Aging Factors	Age	Medical	Prescription Drugs
	0-44	2.0%	4.5%
	45-54	2.5%	3.5%
	55-64	3.5%	3.0%
	65-74	4.0%	1.5%
	75-84	1.5%	0.5%
	85+	0.5%	0.0%

Retired Member Contributions for Medical Benefits

Currently contributions are required for PERS members who are under age 60 and have less than 30 years of service (25 for Peace Officer/Firefighter). Eligible Tier 1 members are exempt from contribution requirements. Annual FY07 contributions based on monthly rates shown below for calendar 2006 and 2007 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members assumed to retire prior to age 60 with less than 30 years of service.

Coverage Category	FY07 Annual Contribution	Calendar 2007 Monthly Contribution	Calendar 2006 Monthly Contribution
Retiree Only	\$ 7,080	\$ 590	\$ 590
Retiree and Spouse	\$ 14,148	\$ 1,179	\$ 1,179
Retiree and Child(ren)	\$ 9,996	\$ 883	\$ 883
Retiree and Family	\$ 17,076	\$ 1,423	\$ 1,423
Composite	\$ 10,512	\$ 876	\$ 876
Trend Rate for Retired Member Medical	FY08	8.0%	
Contributions	FY09	7.7%	
	FY10	7.3%	
	FY11	7.0%	
	FY12	6.7%	
	FY13	6.3%	
	FY14	6.0%	
	FY15	5.7%	
	FY16	5.3%	
	FY17 and later	5.0%	

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2005 valuation. A study of the required contribution history along with assumptions related to the impact of recent accounting regulations leads us to recommend the new rates above for the contribution trends. Note that actual FY07 retired member medical contributions are reflected in the valuation so trend on such contribution during FY07 is not applicable.

Table 1
Alaska PERS Others
Mortality Table (Preretirement)

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	.0229%	.0128%
21	.0239	.0129
22	.0251	.0131
23	.0266	.0131
24	.0282	.0131
25	.0299	.0131
26	.0315	.0133
27	.0328	.0136
28	.0341	.0142
29	.0352	.0150
30	.0362	.0158
31	.0371	.0168
32	.0379	.0179
33	.0383	.0191
34	.0383	.0202
35	.0384	.0216
36	.0389	.0231
37	.0402	.0249
38	.0424	.0270
39	.0452	.0294
40	.0484	.0320
41	.0522	.0347
42	.0565	.0373
43	.0611	.0396
44	.0659	.0417
45	.0713	.0439
46	.0778	.0467
47	.0858	.0502
48	.0949	.0545
49	.1050	.0591
50	.1165	.0645
51	.1297	.0708
52	.1451	.0783
53	.1619	.0861
54	.1797	.0941
55	.1998	.1036
56	.2235	.1157
57	.2252	.1318
58	.2845	.1517
59	.3202	.1745
60	.3602	.2005

# Table 2 Alaska PERS Total Turnover Assumptions

Select Rates of Turnover During the First 5 Years of Employment Ultimate Rates of Turnover After the First 5 Years of Employment

#### **Peace Officer/Firefighter:**

Year of Employment	Male	Female	Age	Male	Female
1	11%	12%	20	4.57%	5.76%
2	9	10	25	4.54	5.75
3	7	8	30	4.49	5.71
4	6	7	35	4.46	5.66
5	5	6	40	4.39	5.56
			45	4.20	5.38
			50	3.88	5.09
			55	3.24	4.51
			60	1.74	2.94
			65+	4.80	6.00

#### Others:

Age at Hire 20-34 Year of 35+ **Employment** Male **Female** Male **Female** Male **Female** Age 1 25% 26% 15% 16% 20 12.01% 13.68% 2 23 24 15 16 25 11.99 13.67 3 20 21 13 11.97 14 30 13.66 4 17 12 12 9.89 16 35 8.66 5 15 16 11 11 40 6.42 7.35 45 5.24 6.04 50 5.09 5.94 55 4.80 5.74 4.19 5.23 60 5.50 6.25 65 +

Table 3 Alaska PERS Disability Table

	,					
	Peace Officer/	Other Me	<b>Other Member Rate</b>			
<u>Age</u>	Firefighter Rate	Male	<u>Female</u>			
20	.088%	.032%	.029%			
21	.089	.032	.02970			
22						
	.090	.033	.031			
23	.091	.033	.031			
24	.093	.035	.032			
25	.094	.035	.032			
26	.095	.035	.032			
27	.098	.036	.033			
28	.100	.037	.034			
29	.103	.038	.035			
30	.105	.039	.036			
31	.108	.039	.036			
32	.110	.040	.037			
33	.113	.041	.038			
34	.116	.043	.039			
35	.120	.044	.040			
36	.124	.046	.042			
37	.129	.047	.043			
38	.134	.050	.045			
39	.139	.051	.045			
40	.144	.053	.048			
41	.150	.055	.050			
42	.159	.059	.054			
43	.170	.062	.057			
44	.185	.068	.062			
45	.203	.075	.068			
46	.220	.081	.074			
47	.239	.087	.080			
48	.259	.096	.087			
49	.279	.102	.094			
50	.300	.110	.101			
51	.325	.120	.109			
52	.353	.131	.120			
53	.398	.146	.133			
54	.444	.163	.149			
55	.500	.184	.168			
56	.574	.212	.193			
57	.668	.246	.225			
58	.763	.240	.223			
56 59						
	.900	.331	.302			
60	1.054	.388	.354			

Table 4
Alaska PERS Peace Officer/Firefighter
Retirement Table

Age at	Retirement Rate						
Retirement	Red	uced	Unr	educed			
	Male	Female	Male	Female			
< 50	N/A	N/A	10.40%	10.40%			
50	10.50%	6.30%	40.00	40.00			
51	14.80	10.00	27.50	27.50			
52	15.00	10.00	27.50	27.50			
53	19.70	10.00	25.00	25.00			
54	19.60	10.00	25.00	25.00			
55	8.80	15.60	30.00	30.00			
56	9.60	13.00	22.75	22.75			
57	13.00	13.00	22.75	22.75			
58	12.70	13.00	15.60	15.60			
59	13.00	13.00	15.60	15.60			
60	N/A	N/A	25.00	25.00			
61	N/A	N/A	25.00	25.00			
62	N/A	N/A	26.00	26.00			
63	N/A	N/A	25.00	25.00			
64	N/A	N/A	25.00	25.00			
65	N/A	N/A	100.00	100.00			

Table 5
Alaska PERS Others
Retirement Table

Age at	Retirement Rate					
Retirement	Red	uced	Unre	educed		
	Male	Female	Male	Female		
< 50	N/A	N/A	7.10%	7.20%		
50	6.00%	7.30%	20.00	20.00		
51	6.20	7.50	17.50	20.00		
52	7.50	7.50	20.00	15.00		
53	7.50	8.90	18.00	24.00		
54	6.00	5.40	30.00	21.00		
55	7.90	8.20	30.00	30.00		
56	9.50	9.20	17.50	17.50		
57	9.60	9.10	17.50	17.50		
58	9.50	9.10	15.00	17.50		
59	4.70	3.80	15.00	17.50		
60	N/A	N/A	20.00	21.00		
61	N/A	N/A	17.50	15.00		
62	N/A	N/A	30.00	18.75		
63	N/A	N/A	22.50	18.75		
64	N/A	N/A	26.25	18.75		
65	N/A	N/A	27.00	25.00		
66	N/A	N/A	27.00	25.00		
67	N/A	N/A	27.00	25.00		
68	N/A	N/A	30.00	25.00		
69	N/A	N/A	30.00	30.00		
70	N/A	N/A	100.00	100.00		

# **Changes in Actuarial Assumptions Since the Prior Valuation**

	June 30, 2005	June 30, 2006
Salary Scale  Payroll Growth	Based on actual experience from 1997 to 1999 4.25%	Others: Based on actual experience from 2001 to 2005. Peace Officer/Firefighter: Rates are increased for the first 6 years. Based on actual experience 2001 to 2005. 4.0%
Preretirement Mortality	1994 GAM table, 1994 base year	Peace Officer/Firefighter: No change. Others: 42% of the 1994 GAM table, 1994 base year.
Turnover	Based on actual experience from 1997 to 1999	Rates adjusted based on actual experience from 2001 to 2005.
Disability	Based on actual experience from 1991 to 1995	Peace Officer/Firefighter: No change. Others: Male/Female rates increased by 5% based on actual experience from 2001-2005.
Retirement	Based on actual experience from 1997 to 1999	Rates were adjusted based on actual experience from 2001 to 2005.
Marriage and Age Difference	If married as of the valuation date, remain married until retirement; same if single.  Males 4 years older.	Male 80% / Female 70%. Males 3 years older.
Dependent Children	Married members will always have one dependent child	Married members have two dependent children from age 25 through 45.
Contribution Refunds	100% for those vested and under age 35 and nonvested, 0% otherwise	15% for all ages and vested statuses.
COLA	Of those benefit recipients who are eligible for the COLA, 68% are assumed to remain in Alaska and receive the COLA.	Of those benefit recipients who are eligible for the COLA, 60% are assumed to remain in Alaska and receive the COLA.
Part-time Status	Part-time employees are assumed to earn 0.60 years of credited service per year.	Part-time employees are assumed to earn 0.65 years of credited service per year. All Peace Officer/Firefighters are assumed to be full-time.
Occupational Death and Disability	Others: 35% Peace Officer/Firefighters: 85%	Others: 50% Peace Officer/Firefighters: 75%
Healthcare	Aggregate post-65 claims cost rate. Trend rates for retiree medical contributions started at 10.2% and graded down to 5.0%.	Included effect of Medicare Part A & B vs. Medicare Part B only. Active employees hired after April 1, 1986 are assumed to be covered by Medicare Parts A & B. 7.5% of current retirees are assumed to be covered by Part B only. Changed assumed lag between medical claim incurred and paid dates from 3 months to 2 lag months. Changed trend rate table for the retiree medical contributions to start at 8.0% and graded down to 5.0%.

# Other Historical Information

## **Section 3**

Section 3.1	Analysis of financial experience.
Section 3.2(a)	Summary of accrued and unfunded accrued liabilities – Total.
Section 3.2(b)	Schedule of Employer Contributions.
Section 3.2(c)	Actuarial Assumptions, Method and Additional Information.
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

						2006		
Туре	of Gain or Loss	2002	2003	2004	2005	Pension	Healthcare	Total
(1)	Health Experience	3.68%	0.00%	0.00%	1.49%	N/A	(4.06)%	(4.06)%
(2)	Salary Experience	(0.20)%	(0.19)%	0.08%	(0.32)%	0.02%	N/A	0.02%
(3)	Investment Experience	7.24%	0.31%	0.02%	(0.02)%	0.19%	(0.48)%	(0.29)%
(4)	Demographic Experience	1.21%	0.40%	0.54%	0.01%	1.05%	N/A	1.05%
(5)	Contribution Shortfall	0.00%	1.10%	0.89%	0.98%	(0.81)%	1.82%	1.01%
(6)	(Gain) or Loss During Year From Experience,	11.93%	1.62%	1.53%	2.14%	0.45%	(2.72)%	(2.27)%
	(1) + (2) + (3) + (4) + (5)							
Non-	recurring Changes							
(7)	Asset Valuation Method	4.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(8)	Past Service Amortization Change	(5.06)%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(9)	Assumption and Method Changes	6.98%	0.00%	1.03%	0.00%	1.51%	3.47%	4.98%
(10)	System Benefit Changes	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(11)	Addition of 102% Target Funding Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(12)	Elimination of 102% Target Funding Ratio	0.00%	(0.90)%	0.00%	0.00%	0.00%	0.00%	0.00%
(13)	Ad hoc PRPA	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(14)	Change due to revaluation of plan liabilities as of June 30, 2004	0.00%	0.00%	0.00%	2.18%	0.00%	0.00%	0.00%
(15)	Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10) + (11) + (12) + (13) + (14)	18.14%	0.72%	2.56%	4.32%	1.96%	0.75%	2.71%
(16)	Beginning Average Employer Contribution Rate	6.77%	24.91%	25.63%	28.19%	8.95%	23.56%	32.51%
(17)	Ending Average Employer Contribution Rate, $(15) + (16)$	24.91%	25.63%	28.19%	32.51%	10.91%	24.31%	35.22%
(18)	Fiscal Year Above Rate is Applied	FY05	FY06	FY07	FY08	FY09	FY09	FY09



## 3.2(a) Summary of Accrued and Unfunded Accrued Liabilities – Total

The exhibit below shows the pension disclosure under GASB No. 25.

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, 2006	\$ 8,094,043	\$ 6,331,065	78.2%	\$ 1,762,978	\$ 1,590,693	110.8%

The exhibit below shows the post employment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43.

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, 2006	\$ 11,455,015	\$ 2,709,843	23.7%	\$ 8,745,172	\$ 1,590,693	549.8%

For illustration, the exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy discounted at 8.25% and at 4.50% per annum under GASB No. 43. These values show the minimum and maximum accrued liability amounts depending on the portion of ARC actually contributed.

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, 2006 – 8.25%	\$ 6,825,134	\$ 2,709,843	39.7%	\$ 4,115,291	\$ 1,590,693	258.7%
June 30, 2006 – 4.50%	\$ 11,455,015	\$ 2,709,843	23.7%	\$ 8,745,172	\$ 1,590,693	549.8%



# 3.2(a) Summary of Accrued and Unfunded Accrued Liabilities – Total (continued)

The exhibit below shows the combined pension and post employment healthcare disclosure under GASB No. 25, prior to 2006.

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, 2005	\$ 12,844,841	\$ 8,442,919	65.7%	\$ 4,401,922	\$ 1,513,117	290.9%
June 30, 2004 <sup>2 3</sup>	11,443,916	8,030,414	70.2%	3,413,502	1,472,987	231.7%
June 30, 2003	10,561,653	7,687,281	72.8%	2,874,372	1,460,783	196.8%
June 30, 2002 123	9,859,591	7,412,833	75.2%	2,446,758	1,402,687	174.4%
June 30, 2001	7,868,574	7,941,756	100.9%	N/A	1,360,401	N/A
June 30, 2000 <sup>2 3</sup>	7,376,912	7,454,758	101.1%	N/A	1,324,278	N/A
June 30, 1999	6,648,673	7,016,340	105.5%	N/A	1,279,359	N/A
June 30, 1998 123	6,203,991	6,571,562	105.9%	N/A	1,232,488	N/A
June 30, 1997	5,534,116	5,885,488	106.3%	N/A	1,227,795	N/A

<sup>&</sup>lt;sup>1</sup> Change in Asset Valuation Method



<sup>&</sup>lt;sup>2</sup> Change of Assumptions <sup>3</sup> Change in Methods

# 3.2(b) Schedule of Employer Contributions

The exhibit below shows the combined pension and post employment healthcare disclosure under GASB No. 25.

Fiscal Year Ended June 30	Total Annual Required Contribution	Total Percentage Contributed
2006	\$ 416,237	65.4%
2005	376,754	47.3%
2004	105,585	100.0%
2003	89,934	110.3%
2002	92,098	102.9%
2001	91,628	105.3%
2000	89,084	105.2%
1999	97,197	100.0%
1998	95,217	100.0%
1997	144,863	100.0%
1996	147,640	100.0%

## 3.2(c) Actuarial Assumptions, Method and Additional Information

Valuation Date	June 30, 2006
Actuarial Cost Method	Entry Age Normal, Level Percentage of Pay for Pension; Level Dollar for Healthcare.
Amortization Method	Level dollar, closed
Equivalent Single Amortization Period	22 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment rate of return*	8.25% for pension, 4.50% for healthcare
Projected salary increases	Peace Officer/Firefighter: Merit – 2.5% per year for the first 6 years of employment, 0.5% thereafter.
	Productivity – 0.5% per year
	Others: Merit - 5.5% per year grading down to 1.5% after 5 years; for more than 6 years of service, 1.0% grading down to 0%.  Productivity - 0.5% per year
*Includes inflation at	3.5%
Cost-of-living adjustment	Post-retirement Pension Adjustment as described in Section 2.1, item (13)

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

The State of Alaska Public Employees' Retirement System's retiree healthcare benefits are partially funded. GASB outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of assumed plan and employer asset returns on 1) the funded ratio and 2) the percentage of the annual required contribution (ARC) actually being contributed to the plan. The State of Alaska has utilized the second methodology to develop a discount rate of 4.50% as of June 30, 2006, to be used for fiscal 2007 disclosure.

The development of the discount rate used for the healthcare liabilities valuation is summarized below:

#### **Investment Returns**

Plan A	ssets (Long-Term Return)	=	8.25%
Emplo	yer Assets (Estimated Short-Term Return)	=	4.50%
D 1	an Damanda an af ADC Canda landa la		
Basea	on Percentage of ARC Contributed*		
1.	Contribution Allocated to Healthcare	=	4.80%
2.	Annual Required Contribution, Funding Assumptions	=	15.80%
3.	Pay-as-you-go Contribution	=	6.72%
4.	Portion of ARC Contributed: [(1-3) / (2-3)]	=	0.00%
5.	Multiplied by long-term investment return	=	0.00%
6.	Portion of ARC not Contributed: 100% - (4)	=	100.00%
7.	Multiplied by short-term investment return	=	4.50%
8	Total: $(5) + (7)$	=	4 50%

<sup>\*</sup>It is assumed that fiscal 2003 contributions allocated to healthcare ARC for funding purposes and pay-as-you-go contributions are used to derive the GASB 43 discount rate applied to the June 30, 2004 valuation (fiscal 2005), which in turn drives the fiscal 2007 GASB 43 ARC.

Using the GASB 43 discount rate determined above and disregarding future Medicare Part D payments, the fiscal 2007 employer ARC rate for accounting purposes is 37.25% of pay for healthcare benefits and 45.72% of pay for healthcare and pension benefits combined.



#### 3.3 **Solvency Test**

#### **Aggregate Accrued Liability For:**

#### **Portion of Accrued Liabilities Covered by Assets**

	(1)		(2)	A	(3) ctive Members	_	-			
Valuation Date	Active Member Contributions (000's)	Inactive Members (000's)		(Employer- Financed Portion) (000's)		Valuation Assets (000's)		(1)	(2)	(3)
June 30, 2006 <sup>23</sup>	\$ 1,157,755	\$	8,923,811	\$	4,306,847	\$	9,040,908	100%	88.3%	0.0%
June 30, 2005	1,104,821		8,667,058		3,072,962		8,442,919	100%	84.7%	0.0%
June 30, 2004 <sup>2</sup>	1,070,268		7,650,156		2,723,492		8,030,414	100%	91.0%	0.0%
June 30, 2003	1,026,730		6,860,834		2,674,089		7,687,281	100%	97.1%	0.0%
June 30, 2002 <sup>1 2 3</sup>	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 <sup>23</sup>	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 <sup>123</sup>	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%

<sup>&</sup>lt;sup>1</sup> Change in Asset Valuation Method <sup>2</sup> Change of Assumptions <sup>3</sup> Change in Methods

