

# State of Alaska Public Employees' Retirement System

Actuarial Valuation Report as of June 30, 2005



Submitted By: Buck Consultants 1200 Seventeenth Street, Suite 1200 Denver, CO 80202



September 15, 2006

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, 2005 by Buck Consultants. The purposes of the report include:

- (1) a presentation of the valuation results of the Plan as of June 30, 2005;
- (2) a review of experience under the Plan for the year ended June 30, 2005;
- (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, 2008; 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)

Alaska Retirement Management Board September 15, 2006 Page 2

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. This data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to the Board in October 2000 and adopted in December 2000. Actuarial methods, medical cost trend, and assumed blended medical premiums were reviewed and revised in January 2003 and for 2004. For this valuation, we are recommending additional changes to the assumptions used to value medical benefit liabilities and we reflect corrections to differences between plan provisions and certain calculations included in the prior valuation.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY06 and a fixed 25-year level percentage of payroll amortization of the initial unfunded accrued liability and subsequent gains/losses. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. Over time, the contribution rate is expected to remain relatively constant as a percentage of payroll. The ratio of valuation assets to liabilities decreased from 70.2% to 65.7% 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:

- 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 27.



Alaska Retirement Management Board September 15, 2006 Page 3

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 W. Aluskowsky

David H. Slishinsky, A.S.A., E.A. Principal, Consulting Actuary

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Michelle Reding DeLange, F.S.A., E.A. 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 his qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Leonard C. "Trey" Sarsfield, A.S.A., M.A.A.A. Senior Consultant, Health & Welfare



## Contents

<b>Report High</b>	lights	2
Analysis of	the Valuation	2
Section 1:	Valuation Results	2
1.1(a)	Statement of Net Assets	2
1.1(b)	Statement of Changes in Net Assets	
1.1(c)	Actuarial Value of Assets	
1.2(a)	Actuarial Present Values - Peace Officer/Firefighter	2
1.2(b)	Actuarial Present Values - Others	2
1.2(c)	Actuarial Present Values – All Members	. 15
1.3(a)	Average Employer Contribution Rate – FY08 Peace Officer/Firefighter	
1.3(b)	Average Employer Contribution Rate – FY08 Others	
1.3(c)	Average Employer Contribution Rate – FY08 All Members	
1.4	Development of Actuarial Gain/(Loss) for FY05	2
1.5(a)	Actuarial Projections – Projections at Calculated Rate	
	Based on DB Only Payroll After July 1, 2006	2
1.5(b)	Actuarial Projections – Projections at Calculated Rate	
	Based on Total DB and DC Payroll After July 1, 2006	. 30
1.5(c)	Actuarial Projections – Projections at Current Rate	~ 4
1.5(1)	Based on DB Only Payroll After July 1, 2006	. 34
1.5(d)	Actuarial Projections – Projections at Current Rate	20
1.5()	Based on Total DB and DC Payroll After July 1, 2006	. 38
1.5(e)	Actuarial Projections – Effect of Economic Scenarios	2
	Based on DB Only Payroll After July 1, 2006	2
Section 2:	Basis of the Valuation	2
2.1	Summary of the Alaska Public Employees' Retirement System	2
2.2(a)	Participant Census Information – Total PERS	
2.2(b)	Additional Information – Active Participants	
2.2(c)	Distribution of Active Participants – Peace Officer/Firefighter	
2.2(d)	Schedule of Active Member Valuation Data – Peace Officer/Firefighter	
2.2(e)	Distribution of Active Participants – Others	
2.2(f)	Schedule of Active Member Valuation Data - Others	
2.2(g)	Statistics on New Benefit Recipients – Peace Officer/Firefighter	2
2.2(h)	Schedule of Average Benefit Payments – New Benefit Recipients – Peace Officer/Firefighter	2
2.2(i)	Statistics on New Benefit Recipients – Others	2
2.2(j)	Schedule of Average Benefit Payments - New Benefit Recipients - Others	2
2.2(k)	Statistics on All Benefit Recipients	2
2.2(1)	Distribution of Annual Benefits for Benefit Recipients - Peace Officer/Firefighter	2
2.2(m)	Schedule of Benefit Recipients by Type of Benefit and Option Selected – Peace	
	Officer/Firefighter	
2.2(n)	Distribution of Annual Benefits for Benefit Recipients - Others	
2.2(o)	Schedule of Benefit Recipients by Type of Benefit and Option Selected - Others	2
2.2(p)	Schedule of Benefit Recipients Added to and Removed from Rolls – Peace Officer/Firefighter	2
2.2(q)	Schedule of Benefit Recipients Added to and Removed from Rolls – Others	
2.3	Summary of Actuarial Assumptions, Methods and Procedures	

Section 3:	Other Historical Information	2
3.1	Analysis of Financial Experience	2
3.2(a)	Summary of Accrued and Unfunded Accrued Liabilities - Peace Officer/Firefighter	
3.2(b)	Summary of Accrued and Unfunded Accrued Liabilities – Others	2
3.2(c)	Schedule of Employer Contributions	. 89
3.2(d)	Actuarial Assumptions, Method and Additional Information	. 89
3.3	Solvency Test	



## **Report Highlights**

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

- (1) Present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 2005;
- (2) Review experience under the plan for the year ended June 30, 2005;
- (3) Determine the appropriate contribution rate for each employer in the System; and
- (4) Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 2005 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:

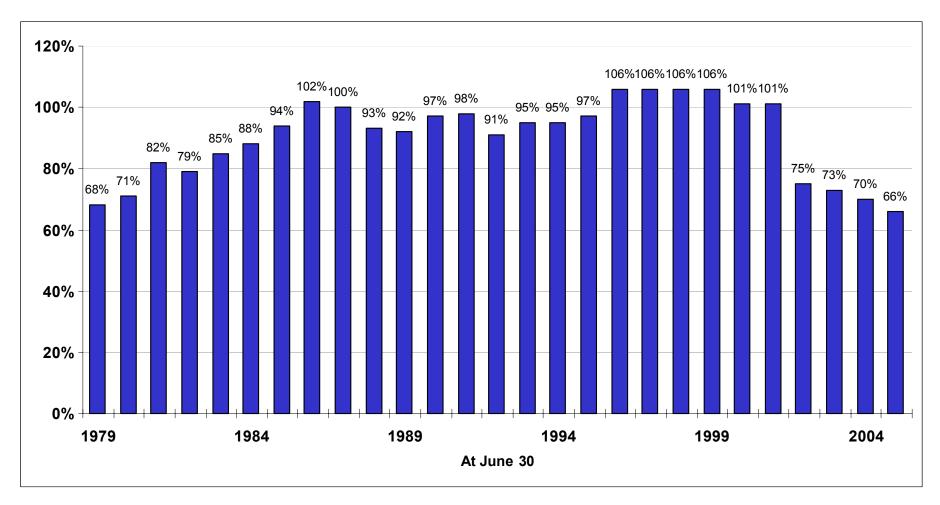
Funding	J Status as of June 30	2004	2005
(a)	Valuation Assets <sup>1</sup>	\$ 8,030,414	\$ 8,442,919
(b)	Accrued Liability <sup>1</sup>		
	i) Non-medical benefits	\$ 6,711,507	\$ 7,087,191
	ii) Total benefits (including medical)	11,443,916	12,844,841
(c)	Funding Ratio based on Valuation Assets, $(a) \div (b)$	70.2%	65.7%
(d)	Market value of assets	\$ 8,177,306	\$ 8,590,752
(e)	Funding Ratio based on Market Assets, $(d) \div (b)$	71.5%	66.9%

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

## Report Highlights (continued)

## **PERS Funding Ratio History**

(Based on Valuation Assets)





## Report Highlights (continued)

Emp	oloyer Contribution Rates for Fiscal Year:	2007	2008
(a)	Consolidated Normal Cost Rate	13.32%	14.48%
(b)	Average Past Service Rate	14.87%	18.03%
(c)	Average Employer Contribution Rate $(a) + (b)$	28.19%	32.51%
(d)	Board Adopted Average Employer Contribution		
	Rate	21.77%	39.76%



## Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2005 has decreased from 70.2% to 65.7%, a decrease of 4.5%. The average calculated employer contribution rate has increased from 28.19% of payroll for FY07 to 32.51% for FY08, an increase of 4.32% 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%

As you can see from the above table, the monthly retiree medical premium for the January 1, 2006 to December 31, 2006 time period has increased to \$876.00. Although this represents only a 3% increase 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 20%. Also, over the last ten years, the increase in the premium rate has been about 9.6% compounded annually.

Effective June 30, 2002, the Board adopted a health cost trend assumption which varies by year, declining to an ultimate rate equal to inflation plus 1.5%, or 5.0% for FY16 and later. If the long-term assumption remains reasonable, short-term gains and losses from the annually determined medical premium rate will offset each other over time.

To help avoid the volatility in the funding and solvency of the System from bringing large health-related gains and losses into the System every year, 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 2005 valuation, we updated claim cost and Medicare offset analyses using additional claims and enrollment information and the same methodology as used for 2004. We are recommending re-initializing healthcare trend and retired member contribution rate trend assumptions used for 2004. Methods and assumptions for valuing medical benefits are described in more detail in Section 2.3.

The 2004 and current valuations also reflect the impact of the Medicare Part D subsidy in the projection of the prescription drug benefits. Based on the prior actuary's and our understanding and interpretation of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA) at the time of the 2004 valuation and this valuation, the prescription drug benefits appear to meet the actuarial equivalence requirements and will qualify to receive the federal Part D subsidy.



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.

The combined impact of our recommended method and assumption changes, together with the projected impact of Medicare changes, results in a decrease of 1.3% to the funding ratio, and an increase of 1.49% to the actuarial contribution rate.

#### (2) Investment Experience

The approximate FY05 investment return based on market values was 8.55% compared to the expected investment return of 8.25%. This resulted in a gain of approximately \$24 million to the System from investment experience. The asset valuation method recognizes 20 percent of this gain (\$4.8 million) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY03 investment loss and 20 percent of the FY04 investment gain were recognized this year. The net result was a slight investment gain which increased the funding ratio by 0.03% and decreased the average employer contribution rate by 0.02%.

#### (3) Salary Increase

During the period from June 30, 2004 to June 30, 2005, salary increases were less than anticipated in the valuation assumptions. Lower accrued liabilities caused the funding ratio to increase by 0.21%. The net effect of lower normal cost was a decrease of 0.32% in the average employer contribution rate.

#### (4) Demographic Experience

Section 2.2 provides statistics on active participants. The number of active participants increased 0.4%, from 33,612 at June 30, 2004 to 33,730 at June 30, 2005. The average age of active participants increased from 44.64 to 44.82 and average credited service increased from 8.70 to 8.72 years.

The number of benefit recipients increased 5.8%, from 19,572 to 20,703, and their average age increased from 64.99 to 65.21. There was a 2.3% increase in the number of vested terminated participants, from 5,965 to 6,105. Their average age increased from 48.13 to 48.46.

The overall effect of these participant data changes was an actuarial loss to the System, resulting in an increase in the average employer contribution rate equal to 0.01% of total payroll.



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

As of June 30, 2004 the average employer calculated rate was 28.19% for FY07 employer contributions. Since average employer contribution rates are determined two years prior to the fiscal year, the June 30, 2002 average employer rate of 11.77% was contributed during FY05. The difference between the two calculated rates, 28.19% and 11.77%, created a contribution shortfall to the System. This shortfall increased the average employer contribution rate by 0.98%.

#### (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 a 1% population growth until July 1, 2006, and 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. All of the projected new entrants before July 1, 2006, will be covered under the provisions of Tier 3 so that the ultimate effect on plan liabilities can be anticipated. No new plan entrants are anticipated after July 1, 2006. As you can see in Section 1.5, based on the actuarial assumptions and asset valuation method, contributions are expected to increase in the future.



### Summary

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

1.	Last year's average employer contribution rate	28.19%
2.	Change due to revaluation of plan liabilities as of June 30, 2004	2.18%
3.	Change due to:	
	a. Contribution shortfall compared to average employer contribution rate	0.98%
	b. Investment experience	(0.02)%
	c. Salary increases	(0.32)%
	d. Demographic experience	0.01%
	e. Medical assumptions and methodology	1.49%
4.	Average employer contribution rate this year	32.51%



### 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 FY05 and investment return during FY05.
- 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 FY08.
- Section 1.3(b) Average employer contribution rate for Others for FY08.
- Section 1.3(c) Average employer contribution rate for all members for FY08.
- Section 1.4 Development of actuarial gain or loss for FY05.
- Section 1.5(a) Actuarial Projections Projections at Calculated Rate Based on DB Only Payroll After July 1, 2006
- Section 1.5(b) Actuarial Projections –Projections at Calculated Rate Based on Total DB and DC Payroll After July 1, 2006
- Section 1.5(c) Actuarial Projections Projections at Current Rate Based on DB Only Payroll After July 1, 2006
- Section 1.5(d) Actuarial Projections Projections at Current Rate Based on Total DB and DC Payroll After July 1, 2006
- Section 1.5(e) Actuarial Projections Effect of Economic Scenarios Based on DB Only Payroll After July 1, 2006



## 1.1(a) Statement of Net Assets

As of June 30, 2005 (in thousands)	Pension	stemployment Healthcare	M	Total arket Value
Cash and Cash Equivalents	\$ 407	\$ 247	\$	654
Domestic Equity Pool	2,828,626	467,654		3,296,280
Domestic Fixed Income Pool	1,188,353	722,022		1,910,375
International Equity Pool	832,084	505,559		1,337,643
Real Estate Pool	514,772	312,766		827,538
International Fixed Income Pool	198,622	120,679		319,301
Private Equity Pool	236,282	143,561		379,843
Emerging Markets Equity Pool	83,402	50,674		134,076
Absolute Return Pool	131,012	79,601		210,613
High Yield Pool	86,119	52,325		138,444
Other Investments Pool	19,758	12,005		31,763
Loans and Mortgages (Net of Reserves)	8	4		12
Net Accrued Receivables	2,619	1,591		4,210
Net Assets	\$ 6,122,064	\$ 2,468,688	\$	8,590,752



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

	al Year 2005 (in thousands) Net Assets, June 30, 2004	Pension	Postemployment Healthcare	Total Market Value
(1)	(market value)	\$ 5,880,443	\$ 2,296,863	\$ 8,177,306
(2)	Additions:			
	(a) Plan Member Contributions	71,312	43,328	114,640
	(b) Employer Contributions	110,853	67,352	178,205
	(c) Interest and Dividend Income	164,860	100,165	265,025
	(d) Net Appreciation in Fair Value of Investments	285,594	173,522	459,116
	(e) Other	9	5	14
	(f) Total Additions	\$ 632,628	\$ 384,372	\$ 1,017,000
(3)	Deductions:			
	(a) Medical Benefits	0	192,349	192,349
	(b) Retirement Benefits	357,763	0	357,763
	(c) Refunds of Contributions	10,318	6,269	16,587
	(d) Investment Expenses	19,812	12,037	31,849
	(e) Administrative Expenses	3,114	1,892	5,006
	(f) Total Deductions	\$ 391,007	\$ 212,547	\$ 603,554
(4)	Net Assets, June 30, 2005 (market value)	\$ 6,122,064	\$ 2,468,688	\$ 8,590,752
	roximate Market Value Investment R 95, Net of Expenses	leturn Rate Duri	ng	8.55%



## 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
erral of Investment Return for FY05		
Market Value, June 30, 2004	\$	8,177,306
Contributions for FY05		292,845
- Weighted for Timing		146,423
Benefit Payments for FY05		566,699
- Weighted for Timing		283,350
Investment Return (net of expenses)		687,300
Expected Return Rate (net of expenses)		8.25%
Expected Return - Weighted for Timing [(a. + b c.) x e.]		663,331
Investment Gain/(Loss) for the Year $(df.)$		23,969
Deferred Investment Return <sup>2</sup>		147,833
uarial Value, June 30, 2005		
Market Value, June 30, 2005		8,590,752
2005 Deferred Investment Return		147,833
Preliminary Actuarial Value, June 30, 2005 (a b.)		8,442,919
Upper Limit: 120% of Market Value, June 30, 2005		10,308,902
Lower Limit: 80% of Market Value, June 30, 2005		6,872,602
Actuarial Value, June 30, 2005 (c. limited by d. and e.)	\$	8,442,919
	Contributions for FY05 - Weighted for Timing Benefit Payments for FY05 - Weighted for Timing Investment Return (net of expenses) Expected Return Rate (net of expenses) Expected Return - Weighted for Timing $[(a. + b c.) x e.]$ Investment Gain/(Loss) for the Year $(d f.)$ Deferred Investment Return <sup>2</sup> uarial Value, June 30, 2005 Market Value, June 30, 2005 2005 Deferred Investment Return Preliminary Actuarial Value, June 30, 2005 (a b.) Upper Limit: 120% of Market Value, June 30, 2005 Lower Limit: 80% of Market Value, June 30, 2005	Market Value, June 30, 2004\$Contributions for FY05- Weighted for TimingBenefit Payments for FY05- Weighted for TimingInvestment Return (net of expenses)Expected Return Rate (net of expenses)Expected Return - Weighted for Timing $[(a. + b c.) x e.]$ Investment Gain/(Loss) for the Year $(d f.)$ Deferred Investment Return <sup>2</sup> uarial Value, June 30, 2005Market Value, June 30, 20052005 Deferred Investment ReturnPreliminary Actuarial Value, June 30, 2005 $(a b.)$ Upper Limit: 120% of Market Value, June 30, 2005Lower Limit: 80% of Market Value, June 30, 2005

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

Plan Year Ended	Asse	t Gain/(Loss)	ss) Recognized Prior Years	n/(Loss) ed This Year	ss) Deferred to ure Years
6/30/2003	\$	(369,782)	\$ (147,912)	\$ (73,956)	\$ (147,914)
6/30/2004	\$	460,952	\$ 92,190	\$ 92,190	\$ 276,572
6/30/2005	\$	23,969	\$ 0	\$ 4,794	\$ 19,175
Total	\$	115,139	\$ (55,722)	\$ 23,028	\$ 147,833



As of June 30, 2005 (in thousands	)	Normal Cost	Accrued Liability
Active Members			
Retirement Benefits		\$ 20,997	\$ 309,889
Termination Benefits		1,589	13,791
Disability Benefits		518	11,872
Death Benefits		431	11,190
Return of Contributions		585	2,597
Medical Benefits		14,804	181,506
Indebtedness		0	(7,131)
Subtotal		38,924	523,714
Inactive Members			
Not Vested			\$ 1,288
Vested Terminations	- Retirement Benefits		14,742
	- Medical Benefits		34,774
	- Indebtedness		(574)
Retirees & Beneficiaries	- Retirement Benefits		873,331
	- Medical Benefits		438,132
Subtotal			1,361,693
Totals		\$ 38,924	\$ 1,885,407

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



## 1.2(b) Actuarial Present Values - Others

As of June 30, 2005 (in thousands	)	Normal Cost	Accrued Liability
Active Members			
Retirement Benefits		\$ 126,298	\$ 1,864,780
Termination Benefits		18,215	197,920
Disability Benefits		2,219	36,589
Death Benefits		2,601	51,735
Return of Contributions		7,734	28,072
Medical Benefits		142,401	1,536,553
Indebtedness		0	(61,580)
Subtotal		299,468	 3,654,069
Inactive Members			
Not Vested			\$ 47,608
Vested Terminations	- Retirement Benefits		414,484
	- Medical Benefits		1,035,702
	- Indebtedness		(11,144)
Retirees & Beneficiaries	- Retirement Benefits		3,287,732
	- Medical Benefits		2,530,983
Subtotal			7,305,365
Totals		\$ 299,468	\$ 10,959,434



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

As of June 30, 2005 (in thousands	)	Normal Cost	Accrued Liability
Active Members			
Retirement Benefits		\$ 147,295	\$ 2,174,669
Termination Benefits		19,804	211,711
Disability Benefits		2,737	48,461
Death Benefits		3,032	62,925
Return of Contributions		8,319	30,669
Medical Benefits		157,205	1,718,059
Indebtedness		0	(68,711)
Subtotal		338,392	4,177,783
Inactive Members			
Not Vested			\$ 48,896
Vested Terminations	- Retirement Benefits		429,226
	- Medical Benefits		1,070,476
	- Indebtedness		(11,718)
Retirees & Beneficiaries	- Retirement Benefits		4,161,063
	- Medical Benefits		2,969,115
Subtotal			8,667,058
Totals		\$ 338,392	\$ 12,844,841



## 1.3(a) Average Employer Contribution Rate – FY08 Peace Officer/Firefighter

Con	solidated Normal Cost Rate	In Thousands		
(1)	Total Normal Cost	\$	38,924	
(2)	Total Salaries		182,848	
(3)	Normal Cost Rate for Peace Officer/Firefighter, $(1) \div (2)$		21.29%	
(4)	Member Contribution Rate (Peace Officer/Firefighter)		7.50%	
(5)	Consolidated Employer Normal Cost Rate For Peace Officer/Firefighter, $(3) - (4)$		13.79%	

#### Past Service Rate

(1)	Accrued Liability	\$ 1,885,407
(2)	Valuation Assets	1,239,279 <sup>3</sup>
(3)	Unfunded Liability, (1) – (2)	646,128
(4)	Past Service Cost Amortization Payment	42,074
(5)	Total Salaries	182,848
(6)	Past Service Rate, $(4) \div (5)$	23.01%

#### **Average Employer Contribution Rate**

36.80%

<sup>&</sup>lt;sup>3</sup> Allocated between Peace Officer/Firefighter and Others in proportion to accrued liability.



### 1.3(a) Average Employer Contribution Rate – FY08 Peace Officer/Firefighter (continued)

	Amortizati	on Period	Balances					
Charge	Date Created	Years Left	Initial Outstanding		tstanding	Beg	inning-of-Year Payment	
Initial Unfunded								
Liability	6/30/2002	22	\$	404,908	\$	422,381	\$	28,104
FY03 Loss	6/30/2003	23		17,917		18,460		1,195
FY04 Loss	6/30/2004	24		90,690		92,129		5,810
FY05 Loss	6/30/2005	25		113,158		113,158		6,965
Total					\$	646,128	\$	42,074

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

	Amortization Period		Ва	alances		
Credit	Date Created	Years Left	Initial	Ou	tstanding	nning-of-Year Payment
Total				\$	0	\$ 0
Total				\$	646,128	\$ 42,074

The amortization factor for 25 years is 16.246963. The weighted average amortization factor is 15.356943.



## 1.3(b) Average Employer Contribution Rate – FY08 Others

Con	solidated Normal Cost Rate	In Thousands		
(1)	Total Normal Cost	\$	299,469	
(2)	Total Salaries		1,404,043	
(3)	Normal Cost Rate for Others, $(1) \div (2)$		21.33%	
(4)	(4) Member Contribution Rate (Other)			
(5) Consolidated Employer Normal Cost Rate For Others, $(3) - (4)$				

#### **Past Service Rate**

(1)	Accrued Liability	\$ 10,959,434
(2)	Valuation Assets	7,203,640 <sup>4</sup>
(3)	Unfunded Liability, $(1) - (2)$	3,755,794
(4)	Past Service Cost Amortization Payment	244,001
(5)	Total Salaries	1,404,043
(6)	Past Service Rate, $(4) \div (5)$	17.38%

#### **Average Employer Contribution Rate**

31.96%

<sup>&</sup>lt;sup>4</sup> Allocated between Peace Officer/Firefighter and Others in proportion to accrued liability.



## **1.3(b)** Average Employer Contribution Rate – FY08 Others (continued)

	Amortizati	Amortization Period			Balances		Balances				
Charge	Date Created	Years Left		Initial	0	utstanding	Begi	nning-of-Year Payment			
Initial Unfunded											
Liability	6/30/2002	22	\$	2,239,042	\$	2,335,653	\$	155,408			
FY03 Loss	6/30/2003	23		170,540		175,712		11,372			
FY04 Loss	6/30/2004	24		407,220		413,684		26,089			
FY05 Loss	6/30/2005	25		830,745		830,745		51,132			
Total					\$	3,755,794	\$	244,001			
	Amortizati	on Period		Bala	nces						
							Begi	nning_of_Year			

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

	Amortization Period		Balances				
Credit	Date Created	Years Left	Initial	O	utstanding		inning-of-Year Payment
Total				\$	0	\$	0
Total				\$	3,755,794	\$	244,001

The amortization factor for 25 years is 16.246963. The weighted average amortization factor is 15.392535.



## 1.3(c) Average Employer Contribution Rate – FY08 All Members

Con	solidated Normal Cost Rate	In Thousands			
(1)	Total Normal Cost	\$ 338,392			
(2)	Total Salaries	1,586,891			
(3)	Normal Cost Rate All Members, $(1) \div (2)$	21.32%			
(4)	Member Contribution Rate	6.84%			
(5)	Consolidated Employer Normal Cost Rate For All Members, $(3) - (4)$	14.48%			

#### Past Service Rate

Ave	32.51%	
(6)	Past Service Rate, $(4) \div (5)$	18.03%
(5)	Total Salaries	1,586,891
(4)	Past Service Cost Amortization Payment	286,075
(3)	Total Unfunded Liability, $(1) - (2)$	4,401,922
(2)	Valuation Assets	8,442,919
(1)	Accrued Liability	\$ 12,844,841



## **1.3(c)** Average Employer Contribution Rate – FY08 All Members (continued)

	Amortizati	on Period		Bala	nces			
Charge	Date Created	Years Left		Initial	0	utstanding	Beg	ginning-of-Year Payment
Initial Unfunded Liability	6/30/2002	22	\$	2,643,950	\$	2,758,034	\$	102 510
FY03 Loss	6/30/2003	22	Ψ	2,043,950 188,457	Ψ	194,172	Ψ	183,512 12,567
FY04 Loss	6/30/2004	24		497,910		505,813		31,899
FY05 Loss	6/30/2005	25		943,903		943,903		58,097
Total					\$	4,401,922	\$	286,075
	Amortization Period			Bala	nces			
Credit	Date Created	Years Left		Initial	0	utstanding	Beg	ginning-of-Year Payment
Total					\$	0	\$	0

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

#### Total

#### **\$ 4,401,922 \$ 286,075**

The amortization factor for 25 years is 16.246963. The weighted average amortization factor is 15.387301.



			In Thousands				
(1)	Exp	ected Actuarial Accrued Liability					
	(a)	Accrued Liability, June 30, 2004	\$	11,443,916			
	(b)	Normal Cost for FY05		296,486			
	(c)	Interest on (a) and (b) at 8.25%		968,583			
	(d)	Benefit Payments for FY05		550,112			
	(e)	Refund of Contributions for FY05		16,587			
	(f)	Interest on (d) and (e) at 8.25% for one-half year		23,376			
	(g)	Expected Accrued Liability as of June 30, 2005, (a) + (b) + (c) - (d) - (e) - (f)		12,118,910			
(2)	Act	ual Accrued Liability, June 30, 2005		12,844,841			
(3)	Lia	bility Gain/(Loss), <i>(1)(g) – (2)</i>	\$	(725,931)			
(4)	Exp	ected Actuarial Asset Value					
	(a)	Actuarial Asset Value, June 30, 2004		8,030,414			
	(b)	Interest on (a) at 8.25%		662,509			
	(c)	Employee Contributions for FY05		114,640			
	(d)	Employer Contributions for FY05		178,205			
	(e)	Interest on (c) and (d) at 8.25% for one-half year		12,080			
	(f)	Benefit Payments for FY05		550,112			
	(g)	Refund of Contributions for FY05		16,587			
	(h)	Interest on (f) and (g) at 8.25% for one-half year		23,376			
	(i)	Expected Actuarial Asset Value, June 30, 2005, (a) + (b) + (c) + (d) + (e) - (f) - (g) - (h)		8,407,773			
(5)	Act	uarial Asset Value, June 30, 2005		8,442,919			
(6)	Act	uarial Asset Gain/(Loss), <i>(5) – (4)(i)</i>	\$	35,146			
(7)	Act	uarial Gain/(Loss), <i>(3)</i> + <i>(6)</i>	\$	(690,785)			
(8)	Sho	ortfall Between Actuarial and Actual Contributions	\$	(253,118)			
(9)	FY	05 Gain/(Loss) to be Amortized, <i>(7)</i> + <i>(8)</i>	\$	(943,903)			

## 1.4 Development of Actuarial Gain/(Loss) for FY05

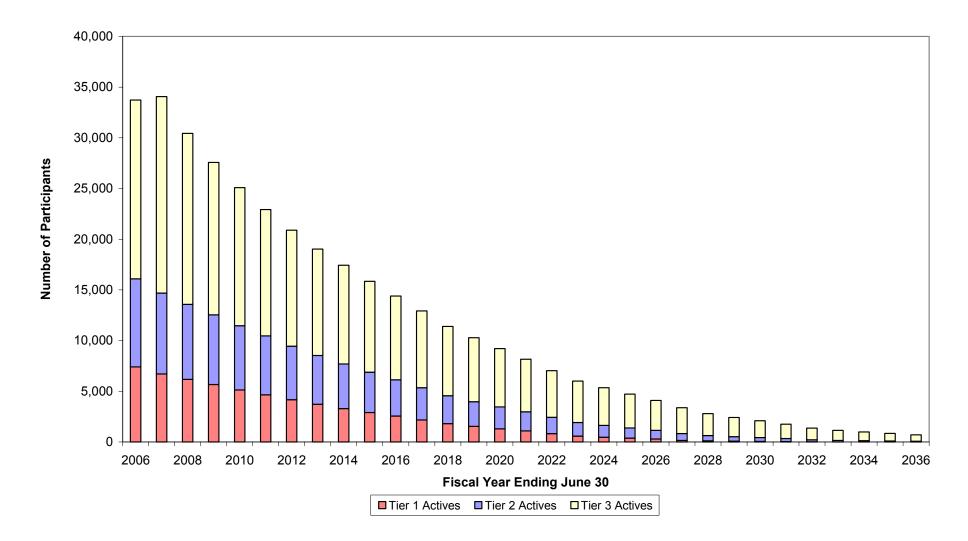
## 1.5(a) Actuarial Projections – Projections at Calculated Rate Based on DB Only Payroll After July 1, 2006

### **Key Assumptions**

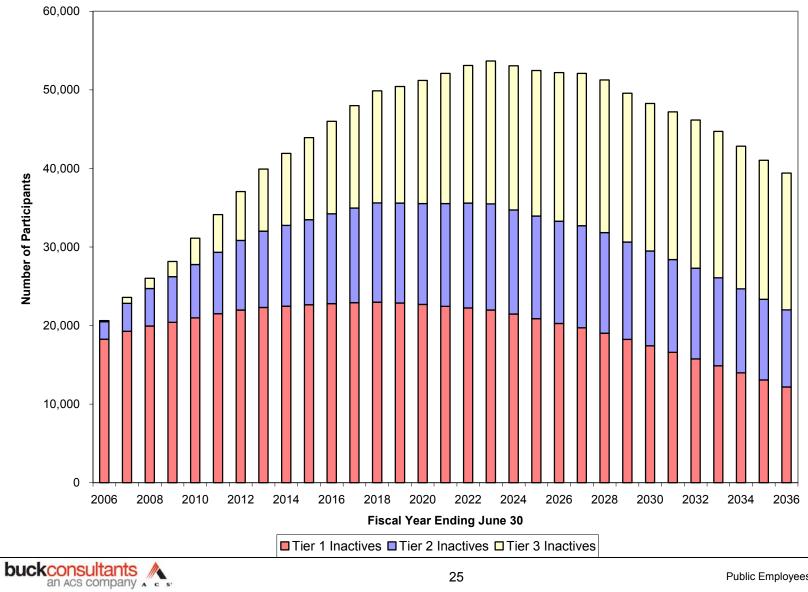
- 8.25% investment return in all years
- Actuarial assumptions and methods as described in Section 2.3, except no payroll growth assumption is used to amortize the unfunded actuarial accrued liability beginning with the June 30, 2006 valuation.
- The actuarially calculated contribution rate with a two-year lag is adopted each year beginning in FY08
- Annual active population increases 1% until July 1, 2006. No new DB Plan entrants into Tiers 1, 2 and 3 after that date
- Profiles of new entrants to System are based on average new entrant profiles from the prior year



## **Projected Active Participant Count**







## **Projected Inactive Participant Count**

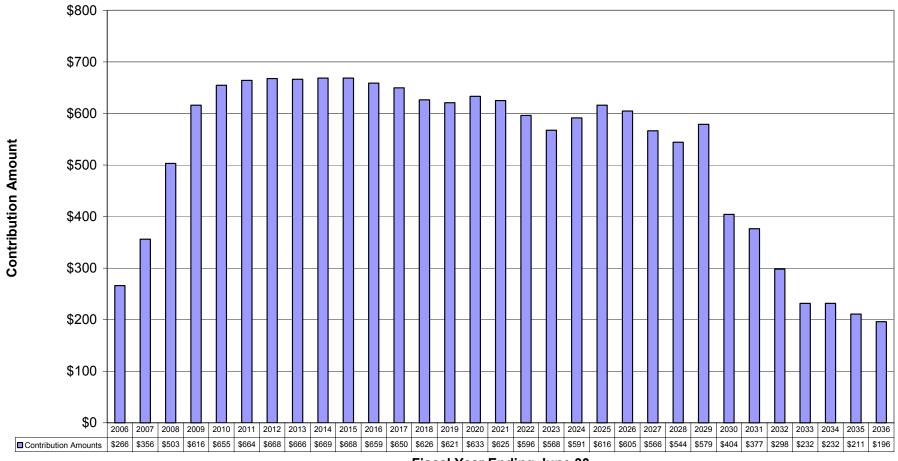
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### Observations

- Contribution amounts have been shown instead of rates because as the payroll declines, the rates are many multiples of pay. The actual contribution amount provides a more meaningful illustration of the contributions due
- Contribution amounts increase to over \$600 million by FY09
- Contribution amounts increase through FY14 before declining
- Contribution amounts significantly decline towards end of the projection period upon completion of 25-year amortization of recent losses
- Funding ratios improve if the calculated contribution rate is paid



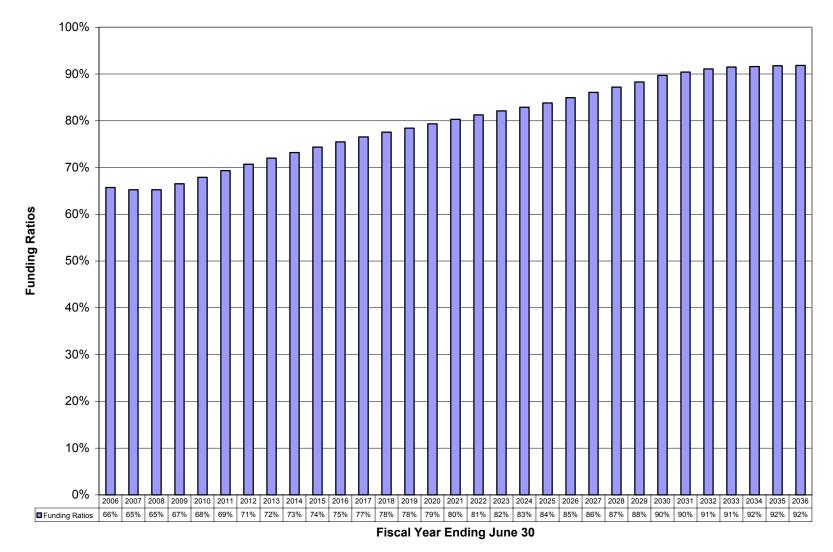
### **Projected Contribution Amounts**



Fiscal Year Ending June 30



## **Projected Funding Ratios**





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

	Investment Return: 8.25% Valuation Amounts on July 1				Flow Amounts During Following 12 Months							Recognized	Ending	
As of June 30	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Asset Gain	Actuarial Assets
2006	8,442,919	 12,844,841	65.73%	(4,401,922)	1,586,891	16.77%	266,122	108,543	374,664	675,453	(300,789)	684,379	23,028	8,849,537
2007	8,849,537	13,566,188	65.23%	(4,716,650)	1,635,324	21.77%	356,010	111,856	467,866	715,217	(247,351)	720,086	23,028	9,345,300
2008	9,345,301	14,326,864	65.23%	(4,981,563)	1,547,025	32.51%	502,938	105,817	608,754	769,590	(160,836)	764,484	96,984	10,045,934
2009	10,045,934	15,094,371	66.55%	(5,048,437)	1,478,011	41.68%	616,035	101,096	717,131	830,574	(113,443)	824,203	4,794	10,761,487
2010	10,761,487	15,850,074	67.90%	(5,088,586)	1,412,624	46.35%	654,751	96,623	751,375	892,196	(140,822)	882,129	0	11,502,794
2011	11,502,794	16,592,771	69.32%	(5,089,976)	1,350,899	49.17%	664,237	92,401	756,639	962,789	(206,150)	940,645	0	12,237,289
2012	12,237,289	17,309,818	70.70%	(5,072,529)	1,285,898	51.93%	667,767	87,955	755,722	1,036,828	(281,106)	998,211	0	12,954,394
2013	12,954,394	17,993,891	71.99%	(5,039,497)	1,223,927	54.44%	666,306	83,717	750,022	1,109,038	(359,015)	1,054,222	0	13,649,601
2014	13,649,601	18,649,600	73.19%	(5,000,000)	1,168,933	57.20%	668,630	79,955	748,585	1,184,839	(436,254)	1,108,453	0	14,321,800
2015	14,321,800	19,263,674	74.35%	(4,941,874)	1,105,656	60.46%	668,480	75,627	744,106	1,240,975	(496,869)	1,161,459	0	14,986,390
2016	14,986,390	19,855,068	75.48%	(4,868,678)	1,044,006	63.12%	658,977	71,410	730,387	1,316,089	(585,702)	1,212,696	0	15,613,383
2017	15,613,383	20,399,190	76.54%	(4,785,807)	973,612	66.73%	649,691	66,595	716,286	1,400,396	(684,109)	1,260,444	0	16,189,718
2018	16,189,718	20,875,392	77.55%	(4,685,674)	890,139	70.37%	626,391	60,886	687,276	1,471,580	(784,303)	1,303,940	0	16,709,355
2019	16,709,355	21,302,457	78.44%	(4,593,102)	832,314	74.60%	620,906	56,930	677,837	1,512,105	(834,269)	1,344,790	0	17,219,876
2020	17,219,876	21,706,783	79.33%	(4,486,907)	773,650	81.86%	633,310	52,918	686,228	1,581,361	(895,133)	1,384,447	0	17,709,190
2021	17,709,190	22,055,745	80.29%	(4,346,555)	712,411	87.74%	625,069	48,729	673,798	1,669,454	(995,655)	1,420,751	0	18,134,286
2022	18,134,286	22,317,863	81.25%	(4,183,577)	630,262	94.59%	596,165	43,110	639,275	1,758,693	(1,119,419)	1,450,818	0	18,465,685
2023	18,465,685	22,487,021	82.12%	(4,021,337)	557,005	101.90%	567,588	38,099	605,687	1,801,713	(1,196,026)	1,475,061	0	18,744,720
2024	18,744,720	22,614,968	82.89%	(3,870,249)	515,316	114.77%	591,428	35,248	626,676	1,846,503	(1,219,828)	1,497,119	0	19,022,011
2025	19,022,011	22,694,378	83.82%	(3,672,368)	468,096	131.64%	616,202	32,018	648,219	1,911,463	(1,263,243)	1,518,240	0	19,277,007
2026	19,277,007	22,698,295	84.93%	(3,421,287)	419,664	144.09%	604,694	28,705	633,399	1,991,764	(1,358,365)	1,535,431	0	19,454,073
2027	19,454,073	22,599,174	86.08%	(3,145,101)	353,981	160.01%	566,405	24,212	590,617	2,024,994	(1,434,377)	1,546,965	0	19,566,662
2028	19,566,662	22,443,648	87.18%	(2,876,986)	304,767	178.55%	544,161	20,846	565,008	2,059,789	(1,494,781)	1,553,812	0	19,625,692
2029	19,625,692	22,229,099	88.29%	(2,603,407)	270,752	213.83%	578,949	18,519	597,468	2,095,927	(1,498,459)	1,558,533	0	19,685,766
2030	19,685,766	21,951,229	89.68%	(2,265,463)	241,888	167.12%	404,243	16,545	420,788	2,130,426	(1,709,637)	1,554,951	0	19,531,079
2031	19,531,079	21,605,578	90.40%	(2,074,498)	210,318	179.02%	376,511	14,386	390,897	2,170,726	(1,779,829)	1,539,351	0	19,290,601
2032	19,290,601	21,176,975	91.09%	(1,886,374)	169,734	175.60%	298,053	11,610	309,663	2,182,193	(1,872,531)	1,515,763	0	18,933,834
2033	18,933,834	20,694,787	91.49%	(1,760,953)	146,333	158.26%	231,587	10,009	241,596	2,190,240	(1,948,644)	1,483,253	0	18,468,442
2034	18,468,442	20,159,939	91.61%	(1,691,497)	129,437	178.99%	231,679	8,853	240,533	2,185,464	(1,944,931)	1,445,008	0	17,968,519
2035	17,968,519	19,581,506	91.76%	(1,612,987)	113,397	185.89%	210,794	7,756	218,550	2,180,890	(1,962,340)	1,403,060	0	17,409,240
2036	17,409,240	18,955,940	91.84%	(1,546,701)	97,864	200.40%	196,119	6,694	202,813	2,181,060	(1,978,247)	1,356,277	0	16,787,269



## 1.5(b) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll After July 1, 2006

### **Key Assumptions**

• All assumptions and methods are the same as Section 1.5(a), except a payroll growth assumption of 4.25% per year is used to amortize the unfunded actuarial accrued liability throughout the projection period.

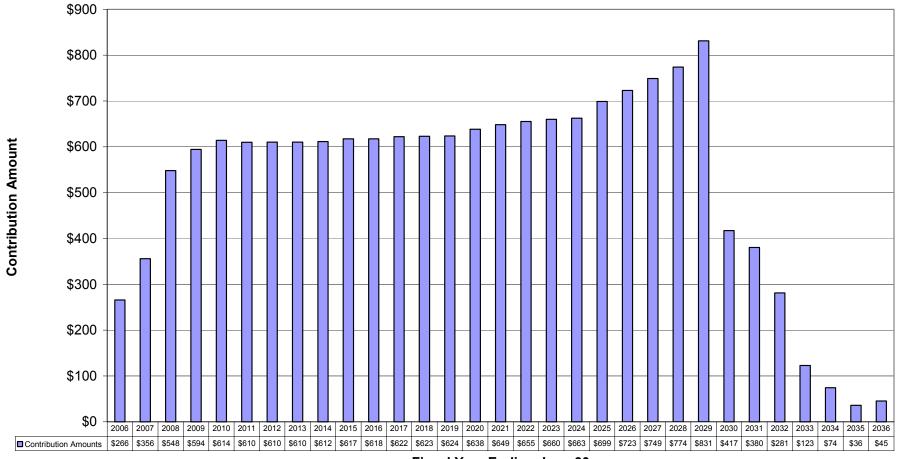
### Observations

- Contribution amounts have been shown instead of rates. The actual contribution amount provides a more meaningful illustration of the contributions due
- Contribution amounts increase to almost \$600 million by FY09
- Funded ratios steadily increase
- Contribution amounts only begin to decline towards end of the projection period upon completion of 25-year amortization of recent losses
- Contribution amounts increase to over \$800 million before declining



### 1.5(b) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

### **Projected Contribution Amounts**



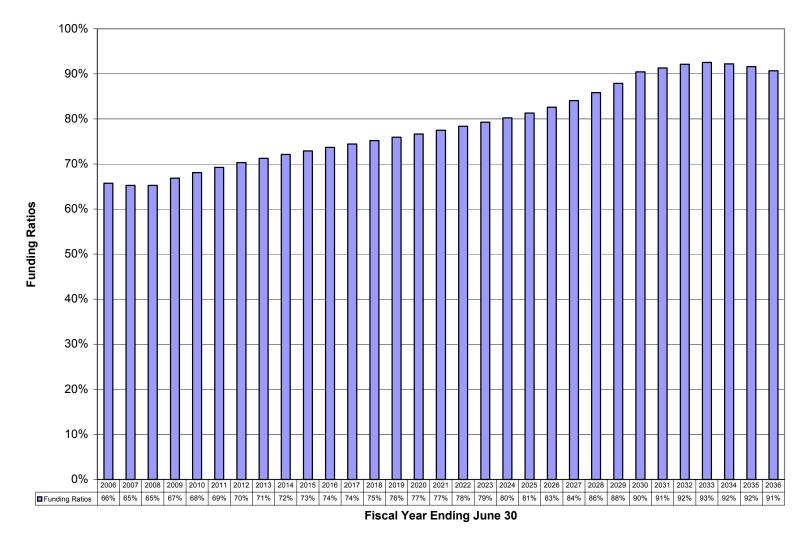
Fiscal Year Ending June 30



Valuation Results

1.5(b) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

### **Projected Funding Ratios**





#### 1.5(b) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

#### State of Alaska PERS

		Investment Return:	8 25%											
		Valuation Amou					Flo	w Amounts During	Following 12 Mor	nths			Recognized	Ending
As of June 30	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs 	Benefit Payments 	Net Contribs	Investment Earnings	Asset Gain	Actuaria Assets
2006	8,442,919	12,844,841	65.73%	(4,401,922)	1,586,714	16.77%	266,092	108,543	374,634	675,453	(300,819)	684,378	23,028	8,849,50
2007	8,849,506	13,566,188	65.23%	(4,716,681)	1,635,324	21.77%	356,010	111,856	467,866	715,217	(247,351)	720,083	23,028	9,345,26
2008	9,345,268	14,326,864	65.23%	(4,981,596)	1,685,926	32.51%	548,095	105,817	653,911	769,590	(115,679)	766,307	96,984	10,092,8
2009	10,092,880	15,094,371	66.87%	(5,001,491)	1,736,522	34.22%	594,238	101,096	695,334	830,574	(135,241)	827,195	4,794	10,789,6
2010	10,789,628	15,850,074	68.07%	(5,060,446)	1,781,807	34.46%	614,042	96,623	710,666	892,196	(181,531)	882,805	0	11,490,9
2011	11,490,902	16,592,771	69.25%	(5,101,869)	1,823,999	33.44%	610,002	92,401	702,404	962,789	(260,385)	937,471	0	12,167,9
2012	12,167,988	17,309,818	70.30%	(5,141,830)	1,863,922	32.74%	610,256	87,955	698,212	1,036,828	(338,616)	990,168	0	12,819,5
2013	12,819,540	17,993,891	71.24%	(5,174,351)	1,904,246	32.04%	610,216	83,717	693,932	1,109,038	(415,106)	1,040,828	0	13,445,2
2014	13,445,263	18,649,600	72.09%	(5,204,338)	1,945,787	31.43%	611,503	79,955	691,458	1,184,839	(493,381)	1,089,285	0	14,041,1
2015	14,041,167	19,263,674	72.89%	(5,222,507)	1,981,744	31.15%	617,396	75,627	693,022	1,240,975	(547,953)	1,136,241	0	14,629,4
2016	14,629,455	19,855,068	73.68%	(5,225,613)	2,017,215	30.61%	617,517	71,410	688,927	1,316,089	(627,162)	1,181,572	0	15,183,8
2017	15,183,866	20,399,190	74.43%	(5,215,325)	2,049,207	30.36%	622,239	66,595	688,834	1,400,396	(711,562)	1,223,899	0	15,696,2
2018	15,696,202	20,875,392	75.19%	(5,179,190)	2,071,796	30.07%	622,973	60,886	683,859	1,471,580	(787,721)	1,263,087	0	16,171,5
2019	16,171,568	21,302,457	75.91%	(5,130,889)	2,106,494	29.61%	623,654	56,930	680,585	1,512,105	(831,520)	1,300,534	0	16,640,5
2020	16,640,582	21,706,783	76.66%	(5,066,202)	2,138,594	29.85%	638,447	52,918	691,365	1,581,361	(889,996)	1,336,863	0	17,087,4
2021	17,087,449	22,055,745	77.47%	(4,968,297)	2,167,065	29.93%	648,560	48,729	697,289	1,669,454	(972,164)	1,370,407	0	17,485,6
2022	17,485,691	22,317,863	78.35%	(4,832,172)	2,175,736	30.11%	655,222	43,110	698,332	1,758,693	(1,060,362)	1,399,696	0	17,825,0
2023	17,825,026	22,487,021	79.27%	(4,661,995)	2,189,423	30.14%	659,869	38,099	697,968	1,801,713	(1,103,745)	1,425,937	0	18,147,2
2024	18,147,218	22,614,968	80.24%	(4,467,750)	2,221,388	29.83%	662,536	35,248	697,784	1,846,503	(1,148,720)	1,450,700	0	18,449,1
2025	18,449,198	22,694,378	81.29%	(4,245,180)	2,247,792	31.11%	699,181	32,018	731,199	1,911,463	(1,180,264)	1,474,338	0	18,743,2
2026	18,743,272	22,698,295	82.58%	(3,955,022)	2,272,151	31.82%	722,988	28,705	751,693	1,991,764	(1,240,070)	1,496,181	0	18,999,3
2027	18,999,383	22,599,174	84.07%	(3,599,791)	2,288,918	32.72%	748,938	24,212	773,150	2,024,994	(1,251,844)	1,516,834	0	19,264,3
2028	19,264,372	22,443,648	85.83%	(3,179,276)	2,317,651	33.39%	773,962	20,846	794,809	2,059,789	(1,264,980)	1,538,164	0	19,537,5
2029	19,537,556	22,229,099	87.89%	(2,691,543)	2,354,678	35.30%	831,112	18,519	849,632	2,095,927	(1,246,295)	1,561,457	0	19,852,7
2030	19,852,718	21,951,229	90.44%	(2,098,511)	2,390,886	17.45%	417,220	16,545	433,766	2,130,426	(1,696,660)	1,569,249	0	19,725,3
2031	19,725,307	21,605,578	91.30%	(1,880,271)	2,424,089	15.69%	380,219	14,386	394,605	2,170,726	(1,776,122)	1,555,525	0	19,504,7
2032	19,504,710	21,176,975	92.10%	(1,672,265)	2,445,918	11.50%	281,363	11,610	292,972	2,182,193	(1,889,221)	1,532,752	0	19,148,2
2033	19,148,242	20,694,787	92.53%	(1,546,545)	2,479,514	4.95%	122,816	10,009	132,825	2,190,240	(2,057,415)	1,496,543	0	18,587,3
2034	18,587,370	20,159,939	92.20%	(1,572,569)	2,516,606	2.96%	74,375	8,853	83,229	2,185,464	(2,102,235)	1,448,459	0	17,933,5
2035	17,933,595	19,581,506	91.58%	(1,647,911)	2,554,358	1.41%	36,043	7,756	43,800	2,180,890	(2,137,090)	1,393,113	0	17,189,6
2036	17,189,618	18,955,940	90.68%	(1,766,322)	2,590,907	1.75%	45,400	6,694	52,094	2,181,060	(2,128,966)	1,332,064	0	16,392,7



33

Valuation Results

## 1.5(c) Actuarial Projections – Projections at Current Rate Based on DB Only Payroll After July 1, 2006

## **Key Assumptions**

• All assumptions and methods are the same as Section 1.5(a), except adopted contribution rate is maintained at the FY08 level for all future years

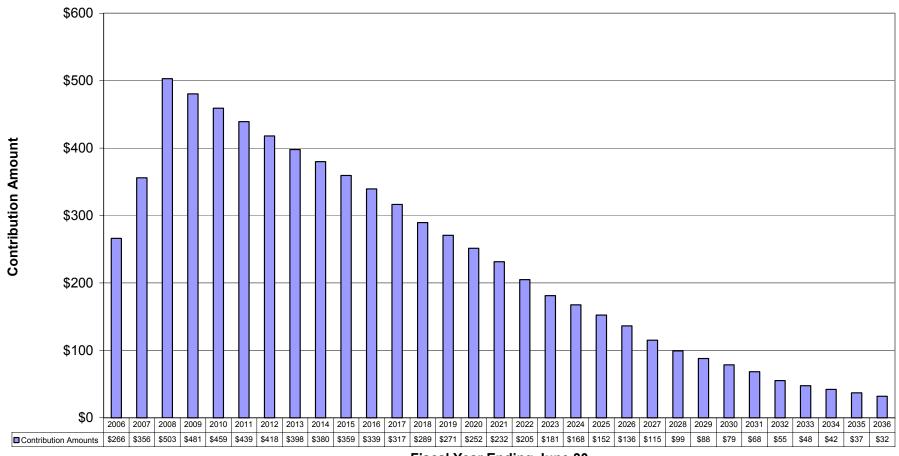
#### Observations

- System funding deteriorates rapidly
- System runs out of assets by 2032



### **1.5(c)** Actuarial Projections – Projections at Current Rate Based on DB Only Payroll After July 1, 2006 (continued)

## **Contribution Amounts**

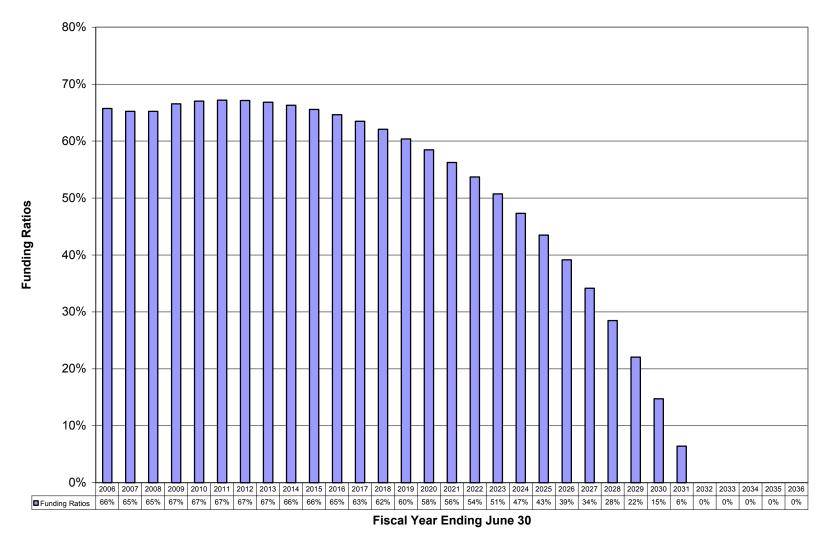


Fiscal Year Ending June 30



### **1.5(c)** Actuarial Projections – Projections at Current Rate Based on DB Only Payroll After July 1, 2006 (continued)

## **Funding Ratio**





#### **1.5(c)** Actuarial Projections – Projections at Current Rate Based on DB Only Payroll After July 1, 2006 (continued)

					Financia	I Projections (in Th	ousands)							
		Investment Return: Valuation Amou			Flow Amounts During Following 12 Months									Ending
As of June 30	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Asset Gain	Actuarial Assets
2006	 8,442,919	 12,844,841	65.73%	(4,401,922)	1,586,891	16.77%	266,122	108,543	374,665	675,453	(300,788)	684,379	23,028	8,849,538
2007	8,849,538	13,566,188	65.23%	(4,716,650)	1,635,324	21.77%	356,010	111,856	467,866	715,217	(247,351)	720,086	23,028	9,345,301
2008	9,345,301	14,326,864	65.23%	(4,981,563)	1,547,025	32.51%	502,938	105,817	608,754	769,590	(160,836)	764,484	96,984	10,045,934
2009	10,045,934	15,094,371	66.55%	(5,048,437)	1,478,011	32.51%	480,501	101,096	581,597	830,574	(248,977)	818,723	4,794	10,620,474
2010	10,620,474	15,850,074	67.01%	(5,229,600)	1,412,624	32.51%	459,244	96,623	555,868	892,196	(336,329)	862,590	0	11,146,735
2011	11,146,735	16,592,771	67.18%	(5,446,035)	1,350,899	32.51%	439,177	92,401	531,579	962,789	(431,210)	902,171	0	11,617,696
2012	11,617,696	17,309,818	67.12%	(5,692,122)	1,285,898	32.51%	418,045	87,955	506,001	1,036,828	(530,827)	936,997	0	12,023,866
2013	12,023,866	17,993,891	66.82%	(5,970,025)	1,223,927	32.51%	397,899	83,717	481,615	1,109,038	(627,423)	966,601	0	12,363,044
2014	12,363,044	18,649,600	66.29%	(6,286,556)	1,168,933	32.51%	380,020	79,955	459,975	1,184,839	(724,864)	990,643	0	12,628,824
2015	12,628,824	19,263,674	65.56%	(6,634,850)	1,105,656	32.51%	359,449	75,627	435,076	1,240,975	(805,900)	1,009,293	0	12,832,217
2016	12,832,217	19,855,068	64.63%	(7,022,851)	1,044,006	32.51%	339,406	71,410	410,816	1,316,089	(905,272)	1,022,055	0	12,949,000
2017	12,949,000	20,399,190	63.48%	(7,450,190)	973,612	32.51%	316,521	66,595	383,116	1,400,396	(1,017,279)	1,027,161	0	12,958,882
2018	12,958,882	20,875,392	62.08%	(7,916,510)	890,139	32.51%	289,384	60,886	350,270	1,471,580	(1,121,310)	1,023,770	0	12,861,342
2019	12,861,342	21,302,457	60.37%	(8,441,115)	832,314	32.51%	270,585	56,930	327,516	1,512,105	(1,184,590)	1,013,165	0	12,689,917
2020	12,689,917	21,706,783	58.46%	(9,016,866)	773,650	32.51%	251,514	52,918	304,431	1,581,361	(1,276,930)	995,289	0	12,408,277
2021	12,408,277	22,055,745	56.26%	(9,647,469)	712,411	32.51%	231,605	48,729	280,334	1,669,454	(1,389,120)	967,517	0	11,986,674
2022	11,986,674	22,317,863	53.71%	(10,331,189)	630,262	32.51%	204,898	43,110	248,008	1,758,693	(1,510,685)	927,820	0	11,403,808
2023	11,403,808	22,487,021	50.71%	(11,083,214)	557,005	32.51%	181,082	38,099	219,181	1,801,713	(1,582,532)	876,828	0	10,698,105
2024	10,698,105	22,614,968	47.31%	(11,916,864)	515,316	32.51%	167,529	35,248	202,777	1,846,503	(1,643,727)	816,133	0	9,870,512
2025	9,870,512	22,694,378	43.49%	(12,823,867)	468,096	32.51%	152,178	32,018	184,196	1,911,463	(1,727,267)	744,479	0	8,887,724
2026	8,887,724	22,698,295	39.16%	(13,810,570)	419,664	32.51%	136,433	28,705	165,138	1,991,764	(1,826,626)	659,382	0	7,720,480
2027	7,720,480	22,599,174	34.16%	(14,878,693)	353,981	32.51%	115,079	24,212	139,292	2,024,994	(1,885,703)	560,696	0	6,395,473
2028	6,395,473	22,443,648	28.50%	(16,048,175)	304,767	32.51%	99,080	20,846	119,926	2,059,789	(1,939,863)	449,193	0	4,904,803
2029	4,904,803	22,229,099	22.06%	(17,324,296)	270,752	32.51%	88,021	18,519	106,541	2,095,927	(1,989,386)	324,210	0	3,239,627
2030	3,239,627	21,951,229	14.76%	(18,711,602)	241,888	32.51%	78,638	16,545	95,183	2,130,426	(2,035,243)	184,979	0	1,389,363
2031	1,389,363	21,605,578	6.43%	(20,216,215)	210,318	32.51%	68,374	14,386	82,760	2,170,726	(2,087,966)	30,201	0	0
2032	0	21,176,975	0.00%	(21,176,975)	169,734	32.51%	55,181	11,610	66,790	2,182,193	(2,115,403)	0	0	0
2033	0	20,694,787	0.00%	(20,694,787)	146,333	32.51%	47,573	10,009	57,582	2,190,240	(2,132,658)	0	0	0
2034	0	20,159,939	0.00%	(20,159,939)	129,437	32.51%	42,080	8,853	50,933	2,185,464	(2,134,530)	0	0	0
2035	0	19,581,506	0.00%	(19,581,506)	113,397	32.51%	36,865	7,756	44,622	2,180,890	(2,136,268)	0	0	0
2036	0	18,955,940	0.00%	(18,955,940)	97,864	32.51%	31,816	6,694	38,509	2,181,060	(2,142,551)	0	0	0

State of Alaska PERS



### 1.5(d) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll After July 1, 2006

### **Key Assumptions**

 All assumptions and methods are the same as Section 1.5(a), except adopted contribution rate is maintained at the FY08 level for all future years, and a payroll growth assumption of 4.25% per year is used to amortize the unfunded actuarial accrued liability throughout the projection period.

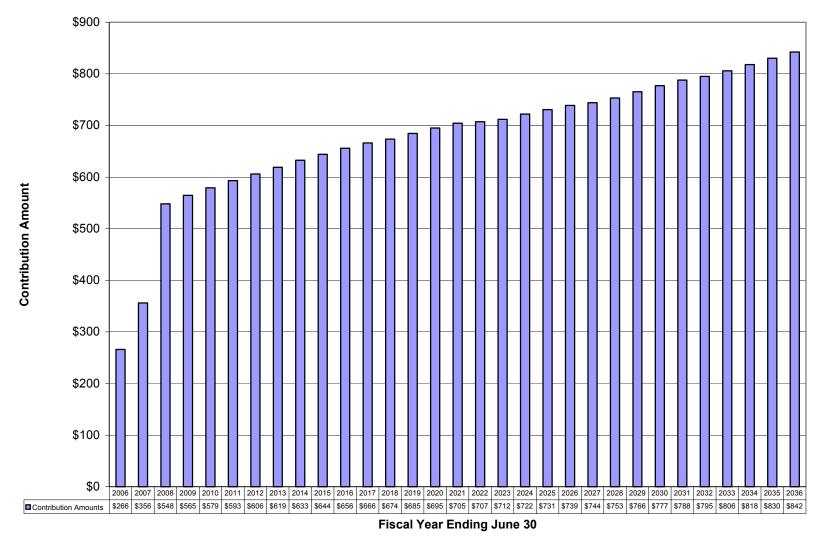
### Observations

- Contribution amounts steadily increase throughout the projection period
- Funding ratios improve and full funding is reached by 2032



### 1.5(d) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

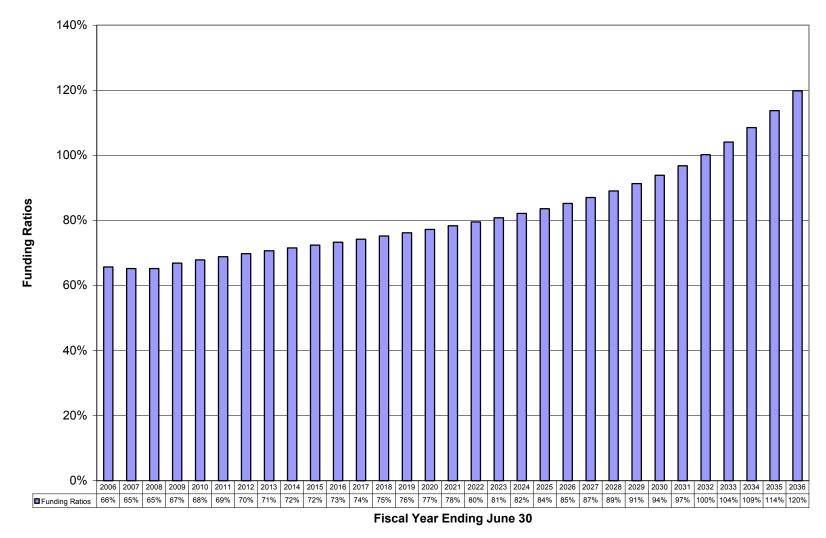
## **Contribution Amounts**





### 1.5(d) Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

## **Funding Ratio**





### **1.5(d)** Actuarial Projections – Projections at Current Rate Based on Total DB and DC Payroll After July 1, 2006 (continued)

						tate of Alaska PER Projections (in Th								
		Investment Return:	8 25%		Financial	Projections (in Th	iousanus)							
		Valuation Amo					Flo	ow Amounts During	Following 12 Mor	nths			Recognized	Ending
As of June 30	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer Ctb Rate	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Asset Gain	Actuarial Assets
2006	 8,442,919	 12,844,841	65.73%	(4,401,922)	 1,586,714	16.77%	266,092	108,543	374,635	675,453	(300,818)	684,378	23,028	 8,849,507
2007	8,849,507	13,566,188	65.23%	(4,716,681)	1,635,324	21.77%	356,010	111,856	467,866	715,217	(247,351)	720,083	23,028	9,345,268
2008	9,345,268	14,326,864	65.23%	(4,981,596)	1,685,926	32.51%	548,095	105,817	653,911	769,590	(115,679)	766,307	96,984	10,092,880
2009	10,092,880	15,094,371	66.87%	(5,001,491)	1,736,522	32.51%	564,543	101,096	665,639	830,574	(164,935)	825,994	4,794	10,758,733
2010	10,758,733	15,850,074	67.88%	(5,091,341)	1,781,807	32.51%	579,265	96,623	675,889	892,196	(216,307)	878,850	0	11,421,275
2011	11,421,275	16,592,771	68.83%	(5,171,495)	1,823,999	32.51%	592,982	92,401	685,384	962,789	(277,405)	931,039	0	12,074,909
2012	12,074,909	17,309,818	69.76%	(5,234,909)	1,863,922	32.51%	605,961	87,955	693,916	1,036,828	(342,911)	982,315	0	12,714,313
2013	12,714,313	17,993,891	70.66%	(5,279,579)	1,904,246	32.51%	619,070	83,717	702,787	1,109,038	(406,251)	1,032,505	0	13,340,567
2014	13,340,567	18,649,600	71.53%	(5,309,033)	1,945,787	32.51%	632,575	79,955	712,530	1,184,839	(472,308)	1,081,500	0	13,949,759
2015	13,949,759	19,263,674	72.41%	(5,313,915)	1,981,744	32.51%	644,265	75,627	719,892	1,240,975	(521,084)	1,129,786	0	14,558,461
2016	14,558,461	19,855,068	73.32%	(5,296,607)	2,017,215	32.51%	655,797	71,410	727,207	1,316,089	(588,882)	1,177,263	0	15,146,842
2017	15,146,842	20,399,190	74.25%	(5,252,348)	2,049,207	32.51%	666,197	66,595	732,792	1,400,396	(667,604)	1,222,622	0	15,701,860
2018	15,701,860	20,875,392	75.22%	(5,173,532)	2,071,796	32.51%	673,541	60,886	734,426	1,471,580	(737,153)	1,265,598	0	16,230,305
2019	16,230,305	21,302,457	76.19%	(5,072,152)	2,106,494	32.51%	684,821	56,930	741,751	1,512,105	(770,354)	1,307,853	0	16,767,805
2020	16,767,805	21,706,783	77.25%	(4,938,979)	2,138,594	32.51%	695,257	52,918	748,175	1,581,361	(833,186)	1,349,656	0	17,284,274
2021	17,284,274	22,055,745	78.37%	(4,771,471)	2,167,065	32.51%	704,513	48,729	753,242	1,669,454	(916,212)	1,388,908	0	17,756,970
2022	17,756,970	22,317,863	79.56%	(4,560,893)	2,175,736	32.51%	707,332	43,110	750,442	1,758,693	(1,008,252)	1,424,184	0	18,172,902
2023	18,172,902	22,487,021	80.82%	(4,314,119)	2,189,423	32.51%	711,781	38,099	749,881	1,801,713	(1,051,832)	1,456,736	0	18,577,806
2024	18,577,806	22,614,968	82.15%	(4,037,162)	2,221,388	32.51%	722,173	35,248	757,421	1,846,503	(1,089,083)	1,488,635	0	18,977,358
2025	18,977,358	22,694,378	83.62%	(3,717,020)	2,247,792	32.51%	730,757	32,018	762,775	1,911,463	(1,148,688)	1,519,188	0	19,347,858
2026	19,347,858	22,698,295	85.24%	(3,350,437)	2,272,151	32.51%	738,676	28,705	767,381	1,991,764	(1,224,382)	1,546,693	0	19,670,169
2027	19,670,169	22,599,174	87.04%	(2,929,005)	2,288,918	32.51%	744,127	24,212	768,340	2,024,994	(1,256,655)	1,571,979	0	19,985,493
2028	19,985,493	22,443,648	89.05%	(2,458,155)	2,317,651	32.51%	753,468	20,846	774,314	2,059,789	(1,285,474)	1,596,828	0	20,296,847
2029	20,296,847	22,229,099	91.31%	(1,932,252)	2,354,678	32.51%	765,506	18,519	784,025	2,095,927	(1,311,902)	1,621,446	0	20,606,391
2030	20,606,391	21,951,229	93.87%	(1,344,838)	2,390,886	32.51%	777,277	16,545	793,822	2,130,426	(1,336,604)	1,645,985	0	20,915,773
2031	20,915,773	21,605,578	96.81%	(689,805)	2,424,089	32.51%	788,071	14,386	802,457	2,170,726	(1,368,269)	1,670,229	0	21,217,732
2032	21,217,732	21,176,975	100.19%	40,757	2,445,918	32.51%	795,168	11.610	806,778	2,182,193	(1,375,416)	1,694,851	0	21,537,168
2033	21,537,168	20,694,787	104.07%	842,381	2,479,514	32.51%	806,090	10,009	816,099	2,190,240	(1,374,141)	1,721,256	0	21,884,283
2034	21,884,283	20,159,939	108.55%	1,724,344	2,516,606	32.51%	818,149	8,853	827,002	2,185,464	(1,358,461)	1,750,527	0	22,276,349
2035	22,276,349	19,581,506	113.76%	2,694,843	2,554,358	32.51%	830,422	7,756	838,178	2,180,890	(1,342,712)	1,783,509	0	22,717,146
2036	22,717,146	18,955,940	119.84%	3,761,206	2,590,907	32.51%	842,304	6,694	848,998	2,181,060	(1,332,063)	1,820,306	0	23,205,390

Valuation Results

## 1.5(e) Actuarial Projections – Effect of Economic Scenarios Based on DB Only Payroll After July 1, 2006

#### **Key Assumptions**

- All assumptions and methods are the same as Section 1.5(a) except
  - The actuarially calculated contribution rate with a two-year lag is adopted in each year beginning in FY08
  - 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

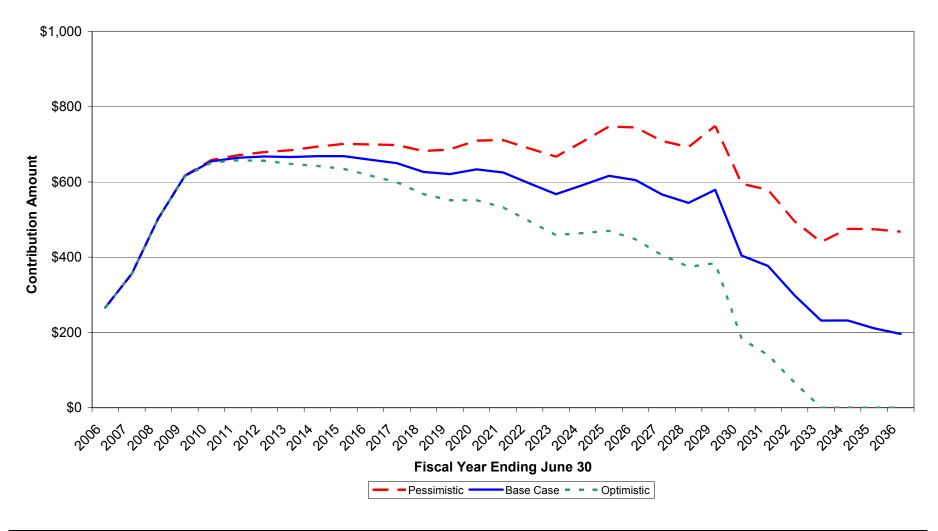
#### Observations

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.



1.5(e) Actuarial Projections – Projections at Calculated Rate Effect of Economic Scenarios Based on DB Only Payroll After July 1, 2006 (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, 2005. 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.

For the Fiscal Year ending 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.

Subsequent to the date of this valuation, 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.

### (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 level as a percentage of pay over fixed 25-year periods.

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

### (7) Member Contributions

<u>Mandatory Contributions:</u> 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 9.6% 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.

Interest: 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.

<u>Reinstatement of Contributions:</u> 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  $60^5$ , 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>5</sup> Members participating before July 1, 1986 are eligible for normal retirement at age 55 or early retirement at age 50.



- (iii) 80 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired under the PERS after May 29, 1987;
- (iv) two years of paid-up PERS service and they are vested in the Teachers' Retirement System; or
- (v) two years of paid-up PERS service and a minimum three years of TRS service to qualify for a public service benefit.
- (b) Members may retire at any age when they have:
  - (i) 20 paid-up years of PERS 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.

<u>Benefit Calculations:</u> 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.

<u>Occupational Disability</u>: 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 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.

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

<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.



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

As of June 30		2001		2002	2003	2004	2005
Active Members							
(1) Number		32,441		33,242	34,065	33,612	33,730
(2) Average Age		43.75		43.99	44.23	44.64	44.82
(3) Average Credited Service		8.49		8.47	8.51	8.70	8.72
(4) Average Annual Earnings	\$	41,935	\$	42,196	\$ 42,882	\$ 43,823	\$ 44,860
(5) Number Vested		18,569		18,569	18,108	18,337	19,349
(6) Percent Who Are Vested		57.2%		56.1%	53.2%	54.6%	57.4%
Retirees and Beneficiaries							
(1) Number		16,274		17,215	18,431	19,572	20,703
(2) Average Age		64.55		64.70	64.81	64.99	65.21
(3) Average Monthly Benefit:							
Base	\$	1,083	\$	1,110	\$ 1,139	\$ 1,163	\$ 1,193
COLA		76		77	79	80	82
P.R.P.A.		214		231	221	224	221
Adjustment		1		1	1	1	1
Total		1,374		1,419	1,440	1,468	1,497
Vested Terminations							
(1) Number		6,187		5,702	5,841	5,965	6,105
(2) Average Age		47.54		47.86	47.85	48.13	48.46
(3) Average Monthly Benefit	\$	867	\$	796	\$ 772	\$ 779	\$ 582
Non-Vested Terminations With	Acc	ount Bala	nce	S			
(1) Number <sup>6</sup>		11,403		11,301	10,798	11,860	12,761
(2) Average Account Balance	\$	2,649	\$	4,188	\$ 3,618	\$ 3,766	\$ 3,832

<sup>6</sup> Includes deceased participants with account balances.

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

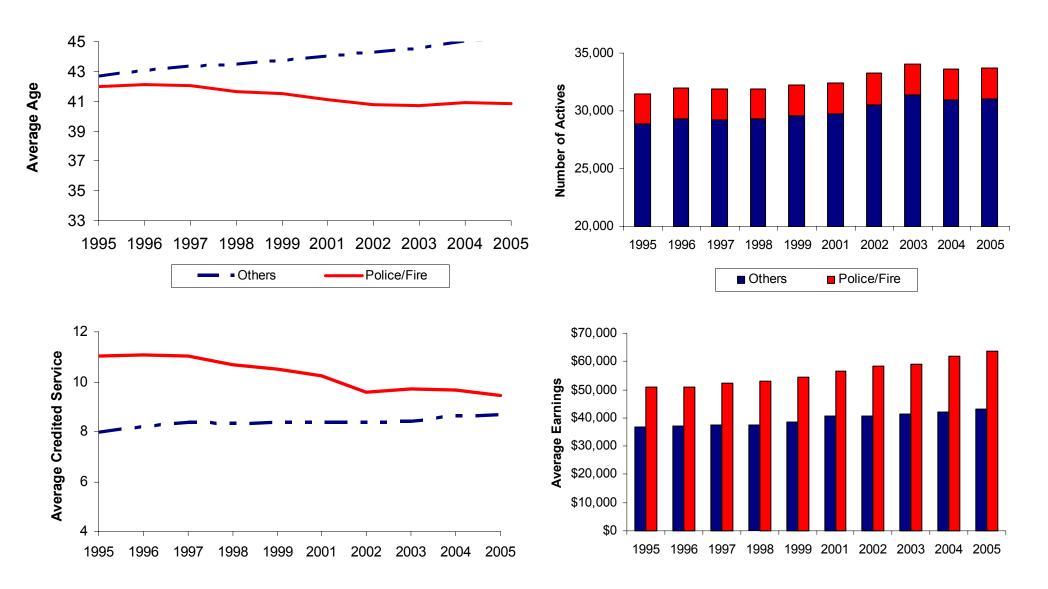
As of June 30, 2005	Tier 1		Tier 2		Tier 3		Total	
<b>Retirees and Beneficiaries</b>								
(1) Number		18,262		2,303	138		20,703	
(2) Average Age		65.41		63.62		60.26		65.18
(3) Average Monthly Benefit:								
Base	\$	1,259	\$	699	\$	646	\$	1,193
COLA		89		24		29		82
P.R.P.A.		246		37		14		221
Adjustment		1		0		0		1
Total		1,595		760		689		1,497



## 2.2(b) Additional Information – Active Participants

As of June 30	2001	2002	2003	2004	2005
Peace Officer/Firefighter					
(1) Number	2,683	2,695	2,727	2,705	2,733
(2) Average Age	41.11	40.77	40.72	40.89	40.82
(3) Average Credited Service	10.26	9.60	9.70	9.68	9.46
(4) Average Annual Earnings	\$ 56,542	\$ 58,490	\$ 58,945	\$ 61,855	\$ 63,723
(5) Number Vested	1,814	1,715	1,739	1,730	1,799
(6) Percent Who Are Vested	67.6%	63.6%	63.8%	64.0%	65.8%
Others					
(1) Number	29,758	30,547	31,338	30,907	30,997
(2) Average Age	43.99	44.27	44.53	44.97	45.17
(3) Average Credited Service	8.33	8.37	8.41	8.61	8.65
(1) Average Annual Fernings	\$ 40,618	\$ 40,759	\$ 41,484	\$ 42,245	\$ 43,197
(4) Average Annual Earnings	φ +0,010	φ 10,100	÷,.•.	ŧ ) =	. ,
<ul><li>(4) Average Annual Earnings</li><li>(5) Number Vested</li></ul>	¢ 40,010 16,755	16,944	16,369	16,607	17,550





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



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

	Number	Total	Average	Years	Number	Total	Average
	of	Annual	Annual	of	of	Annual	Annual
Age	People	Earnings	Earnings	Service	People	Earnings	Earnings
0 – 19	0	\$0	\$ 0	0	222	\$ 10,672,337	\$ 48,074
20 – 24	75	3,725,713	49,676	1	139	7,449,076	53,590
25 – 29	289	16,991,391	58,794	2	174	9,544,970	54,856
30 – 34	489	30,539,041	62,452	3	227	13,514,244	59,534
35 – 39	514	33,777,051	65,714	4	172	10,066,235	58,525
40 – 44	434	28,693,340	66,114	0 – 4	934	51,246,862	54,868
45 – 49	399	26,266,910	65,832	5 – 9	703	46,463,126	66,093
50 – 54	316	20,205,879	63,943	10 – 14	455	31,455,286	69,132
55 – 59	174	11,307,111	64,983	15 – 19	370	25,741,429	69,571
60 – 64	41	2,503,673	61,065	20 – 24	196	13,927,472	71,059
65 – 69	2	145,321	72,661	25 – 29	62	4,352,897	70,208
70 – 74	0	0	0	30 – 34	11	800,169	72,743
75+	0	0	0	35 – 39	2	168,189	84,095
-				40+	0	0	0
Total	2,733	\$174,155,430	\$ 63,723	Total	2,733	\$ 174,155,430	\$ 63,723

#### Annual Earnings by Age

#### Annual Earnings by Credited Service

#### Years of Credited Service by Age

_	Years of Service										
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total	
0 – 19	0	0	0	0	0	0	0	0	0	0	
20 – 24	75	0	0	0	0	0	0	0	0	75	
25 – 29	221	68	0	0	0	0	0	0	0	289	
30 – 34	217	217	55	0	0	0	0	0	0	489	
35 – 39	158	174	129	53	0	0	0	0	0	514	
40 – 44	117	103	98	96	20	0	0	0	0	434	
45 – 49	77	69	72	94	72	15	0	0	0	399	
50 – 54	46	42	61	62	72	29	4	0	0	316	
55 – 59	16	23	33	56	22	17	6	1	0	174	
60 – 64	6	7	7	9	9	1	1	1	0	41	
65 – 69	1	0	0	0	1	0	0	0	0	2	
70 – 74	0	0	0	0	0	0	0	0	0	0	
75+	0	0	0	0	0	0	0	0	0	0	
Total	934	703	455	370	196	62	11	2	0	2,733	



Valuation Date	Number	Annual Earnings (000's)	Annı Avera Earniı	age	In (De in J	Percent crease/ ecrease) Average arnings	Numb Particij Emplo	pating
June 30, 2005	2,733	\$ 174,155	\$ 63,	723		3.0%	16	60
June 30, 2004	2,705	167,317	61,8	355		4.9%	16	61
June 30, 2003	2,727	160,743	58,9	945		0.8%	16	60
June 30, 2002	2,695	157,632	58,4	490		3.4%	16	61
June 30, 2001	2,683	151,701	56,	542		3.9%	15	58
June 30, 1999	2,624	142,843	54,4	437		2.7%	14	48
June 30, 1998	2,617	138,653	52,9	982		1.0%	14	48
June 30, 1997	2,587	135,702	52,4	455		2.8%	15	56
June 30, 1996	2,634	134,362	51,0	011		0.2%	15	56
June 30, 1995	2,557	130,204	50,9	921		(1.7)%	15	53

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



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

				<i>,</i>				
	Number	Total	Average	Years	Number	Total	А	verage
	of	Annual	Annual	of	of	Annual		Annual
Age	People	Earnings	Earnings	Service	People	Earnings	E	arnings
0 – 19	83	\$ 1,893,293	\$ 22,811	0	3,642	\$ 106,523,600	\$	29,249
20 – 24	967	27,051,576	27,975	1	2,680	87,536,365		32,663
25 – 29	2,046	71,268,327	34,833	2	2,597	93,880,818		36,150
30 – 34	2,664	104,679,045	39,294	3	2,396	90,894,472		37,936
35 – 39	3,210	129,449,533	40,327	4	2,132	84,964,428		39,852
40 – 44	4,835	202,261,058	41,833	0 - 4	13,447	463,799,684		34,491
45 – 49	6,077	273,586,748	45,020	5 – 9	6,691	288,432,360		43,108
50 – 54	6,076	292,264,476	48,101	10 – 14	4,380	214,682,055		49,014
55 – 59	3,417	163,613,362	47,882	15 – 19	3,172	169,770,450		53,522
60 – 64	1,254	57,749,269	46,052	20 – 24	2,124	126,819,602		59,708
65 – 69	282	12,064,540	42,782	25 – 29	1,030	65,075,653		63,180
70 – 74	67	2,613,461	39,007	30 – 34	136	9,080,476		66,768
75+	19	467,752	24,619	35 – 39	17	1,302,161		76,598
-				40+	0	0		0
Total	30,997	\$1,338,962,440	\$ 43,197	Total	30,997	\$ 1,338,962,440	\$	43,197

#### Annual Earnings by Age

#### Annual Earnings by Credited Service

#### 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	83	0	0	0	0	0	0	0	0	83
20 – 24	955	12	0	0	0	0	0	0	0	967
25 – 29	1,849	195	2	0	0	0	0	0	0	2,046
30 – 34	1,863	695	104	2	0	0	0	0	0	2,664
35 – 39	1,765	903	403	130	9	0	0	0	0	3,210
40 – 44	2,126	1,193	784	535	187	11	0	0	0	4,836
45 – 49	1,945	1,334	1,090	820	635	247	6	0	0	6,077
50 – 54	1,484	1,309	1,016	885	821	512	48	1	0	6,076
55 – 59	892	712	682	562	331	176	54	7	0	3,416
60 – 64	362	272	230	184	117	64	20	5	0	1,254
65 – 69	85	52	57	45	19	16	4	4	0	282
70 – 74	28	11	9	8	3	4	4	0	0	67
75+	10	3	3	1	2	0	0	0	0	19
Total	13,447	6,691	4,380	3,172	2,124	1,030	136	17	0	30,997



## 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, 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
June 30, 1995	28,893	1,057,840	36,612	0.9%	153



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

During the Year Ending June 30		2001		2002		2003		2004	2005
Service									
(1) Number		275		128		114		150	121
(2) Average Age at Commencement		51.49		51.17		51.72		52.43	52.98
(3) Average Monthly Benefit	\$	2,562	\$	2,681	\$	2,835	\$	2,761	\$ 2,435
Survivor (including surviving spo	use	and QDF	ROs)						
(1) Number		36		26		19		19	12*
(2) Average Age at Commencement		52.79		52.78		56.54		57.46	49.41
(3) Average Monthly Benefit	\$	1,256	\$	1,435	\$	1,265	\$	1,544	\$ 876
Disability									
(1) Number		17		3		10		5	12
(2) Average Age at Commencement		48.90		43.30		49.86		47.50	47.42
(3) Average Monthly Benefit	\$	1,697	\$	1,684	\$	1,945	\$	1,938	\$ 1,691
Total									
(1) Number		328		157		143		174	145
(2) Average Age at Commencement	•	51.50	•	51.28	<b>•</b>	52.23	•	52.84	52.23
(3) Average Monthly Benefit	\$	2,374	\$	2,456	\$	2,564	\$	2,604	\$ 2,244



	Years of Credited Service												
		0 - 4	;	5 - 9	1	0 - 14	1	5 - 19	2	0 - 24	2	5 - 29	30+
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	\$	1,644 4	\$	2,392 78	\$	2,298 46	\$	2,093 43	\$	2,435 61	\$	2,895 30	\$ 2,546 8
Period 7/1/02 - 6/30/03: Average Monthly Benefit Number of Recipients	\$	1,594 1	\$	697 9	\$	1,131 20	\$	2,043 20	\$	3,013 79	\$	4,079 11	\$ 4,313 3
Period 7/1/01 - 6/30/02: Average Monthly Benefit Number of Recipients	\$	1,903 1	\$	466 6	\$	1,056 12	\$	1,561 19	\$	2,567 85	\$	3,447 32	\$ 5,996 2
Period 7/1/00 - 6/30/01: Average Monthly Benefit Number of Recipients	\$	1,416 2	\$	927 13	\$	1,249 34	\$	1,704 61	\$	2,824 143	\$	2,892 57	\$ 2,702 18
Period 7/1/98 - 6/30/99: Average Monthly Benefit Number of Recipients	\$	1,879 22	\$	698 8	\$	1,214 23	\$	1,808 29	\$	2,849 61	\$	3,713 17	\$ 4,097 3
Period 7/1/97 - 6/30/98: Average Monthly Benefit Number of Recipients	\$	1,472 13	\$	723 8	\$	1,177 13	\$	2,091 40	\$	3,199 64	\$	3,548 22	\$ 3,380 4
Period 7/1/96 - 6/30/97: Average Monthly Benefit Number of Recipients	\$	1,263 10	\$	592 12	\$	957 18	\$	1,719 40	\$	2,811 68	\$	3,545 15	\$ 4,733 3
Period 7/1/95 - 6/30/96: Average Monthly Benefit Number of Recipients	\$	1,938 3	\$	757 6	\$	1,708 5	\$	1,852 11	\$	2,916 39	\$	3,375 10	\$ 3,870 2

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

"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		2001		2002		2003		2004	2005
Service									
(1) Number		2,031		942		1,247		1,155	1,200
(2) Average Age at Commencement		56.20		56.58		56.85		57.16	57.09
(3) Average Monthly Benefit	\$	1,389	\$	1,481	\$	1,525	\$	1,526	\$ 1,524
Survivor (including surviving spo	use	and QDF	ROs)						
(1) Number		214		144		136		151	43*
(2) Average Age at Commencement		61.10		62.12		63.24		60.54	55.11
(3) Average Monthly Benefit	\$	845	\$	842	\$	879	\$	758	\$ 602
Disability									
(1) Number		97		49		62		40	44
(2) Average Age at Commencement		48.31		49.55		49.53		43.22	50.26
(3) Average Monthly Benefit	\$	1,258	\$	1,445	\$	1,396	\$	1,268	\$ 1,354
Total									
(1) Number		2,342		1,135		1,445		1,346	1,287
<ul><li>(2) Average Age at Commencement</li><li>(2) A verage Age at Commencement</li></ul>	•	56.32	•	56.98	•	57.10	•	57.12	56.79
(3) Average Monthly Benefit	\$	1,334	\$	1,398	\$	1,457	\$	1,432	\$ 1,487



	Years of Credited Service													
	0 - 4 5 - 9		- 9	10 - 14		15 - 19		20 - 24		25 - 29		30+		
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 - 6/30/99: 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
Period 7/1/95 - 6/30/96: Average Monthly Benefit Number of Recipients	\$	652 46	\$	483 179	\$	855 188	\$	1,385 143	\$	1,920 87	\$	2,624 35	\$	3,473 24

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

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



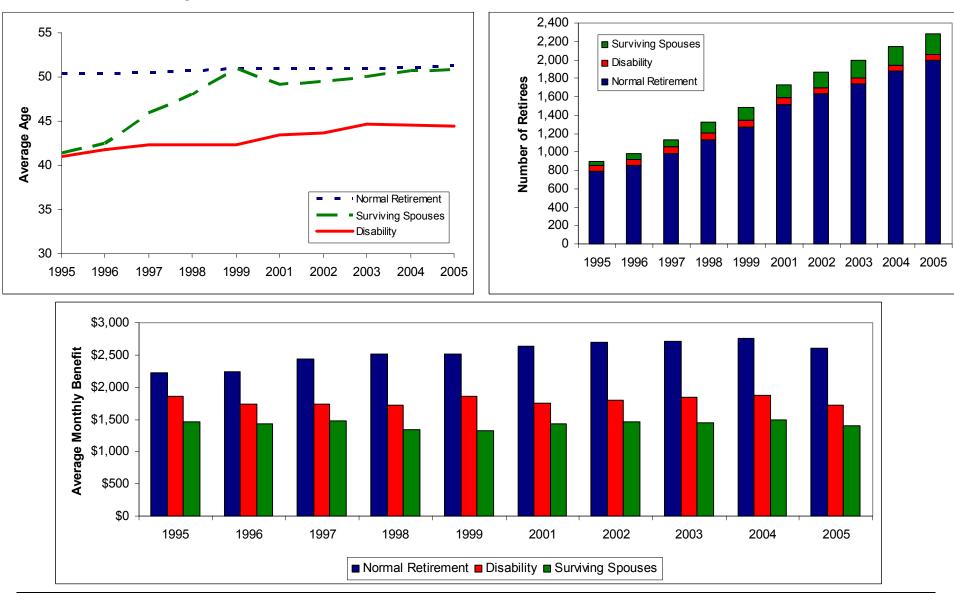
#### Basis of the Valuation

## 2.2(k) Statistics on All Benefit Recipients

		Peace Officer/Firefighter	Others
Service Retirements	-		
(1) Number, June 30, 2004		1,877	15,520
(2) Net Change During FY05		118	918
(3) Number, June 30, 2005		1,995	16,438
(3) Average Age At			
Commencement		51.19	56.57
(4) Average Current Age		60.15	66.05
(5) Average Monthly Benefit	\$	2,608	\$ 1,328
Survivors (including surviving spouses and QDROs)			
(1) Number, June 30, 2004		202	1,531
(2) Net Change During FY05		20	89
(3) Number, June 30, 2005		222	1,620
(4) Average Age At			
Commencement		50.83	57.62
(5) Average Current Age		58.26	67.17
(6) Average Monthly Benefit	\$	1,400	\$ 819
Disabilities			
(1) Number, June 30, 2004		61	381
(2) Net Change During FY05		2	(16)
(3) Number, June 30, 2005		63	365
(4) Average Age At			
Commencement		44.50	45.36
(5) Average Current Age		50.87	51.46
(6) Average Monthly Benefit	\$	1,721	\$ 1,368
Total Number of Benefit Recipients		2,280	18,423



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

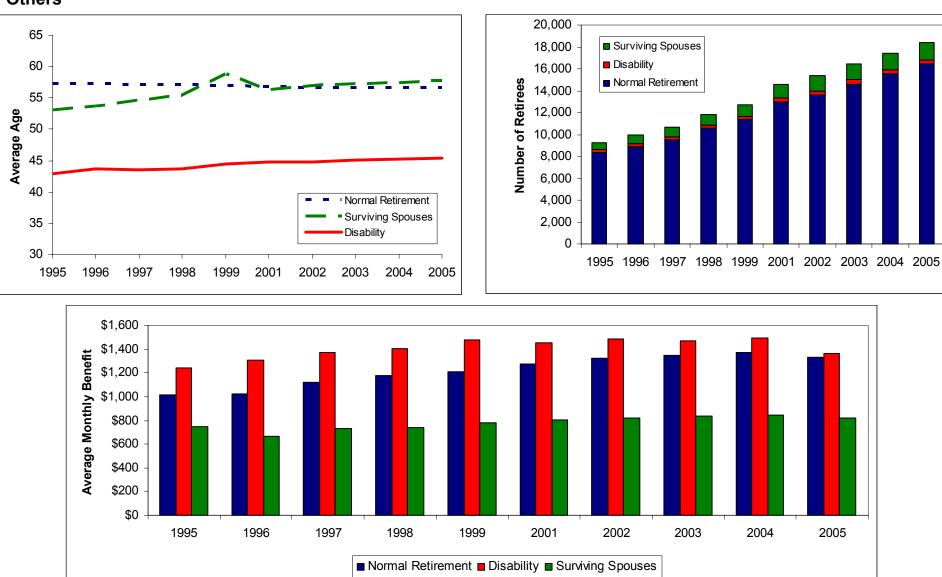


#### **Peace Officer/Firefighter**

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Basis of the Valuation

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



Others



Basis of the Valuation

Annual Benefit by Years Since Commencement

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

Annual Benefit by Age

	Number	Total	Average		Years	Number	Total	Average
	of	Annual	Annual		Since	of	Annual	Annual
Age	People	Benefit	Benefit		Commencement	People	Benefit	Benefit
0 – 19	0	\$ 0	\$ 0	-	0	157	\$ 4,190,058	\$ 26,688
20 – 24	0	0	0		1	182	5,160,798	28,356
25 – 29	0	0	0		2	133	3,765,448	28,312
30 – 34	2	40,395	20,197		3	166	4,450,213	26,809
35 – 39	3	56,835	18,945		4	153	4,419,060	28,883
40 – 44	36	862,873	23,969	-	0-4	791	21,985,578	27,795
45 – 49	196	5,963,184	30,424		5 – 9	718	20,854,352	29,045
50 – 54	427	13,371,631	31,315		10 – 14	330	9,890,363	29,971
55 – 59	589	18,597,969	31,575		15 – 19	288	10,210,053	35,452
60 – 64	499	14,112,359	28,281		20 – 24	85	2,815,212	33,120
65 – 69	286	7,914,791	27,674		25 – 29	56	1,384,553	24,724
70 – 74	131	3,754,312	28,659		30 - 34	12	323,085	26,924
75+	111	2,788,846	25,125		35 – 39	0	0	0
				_	40+	0	0	0
Total	2,280	\$67,463,195	\$ 29,589		Total	2,280	\$67,463,195	\$ 29,589

#### Years Since Benefit Commencement by Age

			•	Years Sin	ce Comm	nencemen	ıt			
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	1	0	0	0	0	0	0	0	2
35 – 39	2	1	0	0	0	0	0	0	0	3
40 – 44	31	3	2	0	0	0	0	0	0	36
45 – 49	149	39	6	1	1	0	0	0	0	196
50 – 54	257	142	23	4	0	1	0	0	0	427
55 – 59	223	232	83	42	4	3	2	0	0	589
60 – 64	91	208	112	79	7	0	2	0	0	499
65 – 69	26	71	77	89	16	5	2	0	0	286
70 – 74	4	14	24	49	32	7	1	0	0	131
75+	7	7	3	24	25	40	5	0	0	111
Total	791	718	330	288	85	56	12	0	0	2,280



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

Amount of	Number of	т	ype of Ben	əfit		Opti	on Selec	ted	
Monthly Benefit	Recipients	1	2	3	1	2	3	4	5
\$ 1 \$ 300	37	23	14	0	17	9	2	1	8
301 - 600	123	89	31	3	48	36	17	9	13
601 - 900	113	72	36	5	68	28	5	8	4
901 - 1,200	144	109	31	4	61	31	21	8	23
1,201 – 1,500	147	119	22	6	58	38	16	19	16
1,501 – 1,800	141	111	19	11	54	35	23	15	14
1,801 – 2,100	186	142	25	19	76	69	18	13	10
2,101 – 2,400	194	170	15	9	54	84	29	12	15
2,401 – 2,700	244	230	9	5	52	123	36	21	12
2,701 - 3,000	197	188	8	1	43	100	27	17	10
3,001 – 3,300	180	177	3	0	35	93	23	18	11
3,301 – 3,600	156	154	2	0	37	75	22	12	10
3,601 - 3,900	144	142	2	0	22	80	15	15	12
3,901 - 4,200	89	86	3	0	13	54	10	7	5
Over \$ 4,200	185	183	2	0	41	102	22	13	7
Totals	2,280	1,995	222	63	679	957	286	188	170

#### **Type of Benefit**

#### **Option Selected** *1. Whole Life Annuity*

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

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



Basis of the Valuation

Annual Benefit by Years Since Commencement

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

Annual Benefit by Age

		, ,			,		
	Number	Total	Average	Years	Number	Total	Average
	of	Annual	Annual	Since	of	Annual	Annual
Age	People	Benefit	Benefit	Commencement	People	Benefit	Benefit
0 – 19	1	\$ 24,692	\$ 24,692	0	1,352	\$ 23,864,565	\$ 17,651
20 – 24	0	0	0	1	1,346	22,173,131	16,473
25 – 29	0	0	0	2	1,342	21,521,627	16,037
30 – 34	4	46,998	11,750	3	1,166	18,492,149	15,859
35 – 39	14	136,710	9,765	4	1,014	14,993,818	14,787
40 – 44	48	557,583	11,616	0-4	6,220	101,045,290	16,245
45 – 49	166	2,382,952	14,355	5 – 9	5,162	83,542,867	16,184
50 – 54	1,237	18,914,707	15,291	10 – 14	2,729	37,611,273	13,782
55 – 59	3,956	69,629,313	17,601	15 – 19	2,497	37,127,662	14,869
60 – 64	4,197	67,828,191	16,161	20 – 24	1,119	15,595,770	13,937
65 – 69	3,238	46,456,156	14,347	25 – 29	607	7,831,498	12,902
70 – 74	2,427	35,038,263	14,437	30 - 34	87	1,132,914	13,022
75+	3,135	42,931,373	13,694	35 – 39	2	59,664	29,832
		· · ·	<u> </u>	40+	0	0	0
Total	18,423	\$283,946,938	\$ 15,413	Total	18,423	\$ 283,946,938	\$ 15,413

#### Years Since Benefit Commencement by Age

Years Since Commencement					
	Voare	Sinco	Comm	nnonnoi	ht h

					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	4	0	0	0	0	0	0	0	0	4
35 – 39	8	4	1	1	0	0	0	0	0	14
40 – 44	22	16	8	2	0	0	0	0	0	48
45 – 49	97	45	15	7	2	0	0	0	0	166
50 – 54	1,023	144	45	22	3	0	0	0	0	1,237
55 – 59	2,766	1,136	28	14	7	5	0	0	0	3,956
60 – 64	1,395	2,044	636	101	11	10	0	0	0	4,197
65 – 69	563	1,004	991	644	22	10	4	0	0	3,238
70 – 74	194	553	582	857	216	18	5	2	0	2,427
75+	147	216	423	849	858	564	78	0	0	3,135
Total	6,220	5,162	2,729	2,497	1,119	607	87	2	0	18,423



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

Amount of			of	Number of	Ту	be of Benefi	t		Opti	on Select	ted	
	Month	nly Be	enefit	Recipients	1	2	3	1	2	3	4	5
\$	1	\$	300	1,884	1,531	341	12	839	396	257	83	309
	301	-	600	3,540	3,081	409	50	1,688	849	538	213	252
	601	-	900	2,952	2,593	310	49	1,391	722	419	221	199
	901	-	1,200	2,441	2,181	210	50	1,092	640	364	174	171
	1,201	-	1,500	1,770	1,567	142	61	720	499	273	104	174
	1,501	-	1,800	1,450	1,320	84	46	533	431	236	125	125
	1,801	-	2,100	1,094	1,001	45	48	391	363	169	75	96
	2,101	-	2,400	796	746	29	21	267	255	137	62	75
	2,401	-	2,700	626	594	22	10	209	210	108	43	56
	2,701	-	3,000	512	491	15	6	147	190	95	42	38
	3,001	-	3,300	353	342	5	6	116	122	52	31	32
	3,301	-	3,600	290	283	3	4	82	129	44	16	19
	3,601	-	3,900	199	196	2	1	52	90	32	16	9
	3,901	-	4,200	154	153	1	0	37	73	26	11	7
(	Over \$ 4	,200		362	359	2	1	105	146	56	33	22
	Totals			18,423	16,438	1,620	365	7,669	5,115	2,806	1,249	1,584

#### **Type of Benefit**

#### **Option Selected** Whole Life Annuity

1.

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

- 2. 75% Joint and Contingent Annuity
- *3. 50% Joint and Contingent Annuity*
- 4. 66 2/3% Joint and Survivor Annuity
- 5. Level Income Option



	Ade	ded to Rolls	Remove	d from Rolls	Rolls – En	d of Year	Percent	
Year Ended	No. <sup>7</sup>	Annual Benefits <sup>7</sup>	No. <sup>7</sup>	Annual Benefits <sup>7</sup>	No.	Annual Benefits	Increase in Annual Benefits	Average Annual Benefit
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>8</sup>	9	372,984 <sup>8</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
June 30, 1995	95	2,697,924	3	85,198	892	23,099,253	12.8%	25,896

## 2.2(p) Schedule of Benefit Recipients Added to and Removed from Rolls – Peace Officer/Firefighter

<sup>&</sup>lt;sup>8</sup> Includes additional benefits to current retirees from a one time retroactive ad hoc Post-Retirement Pension Adjustment



<sup>&</sup>lt;sup>7</sup> Numbers are estimated, and include other internal transfers.

	Add	led to Rolls	Ren	nove	d from Rolls	Rolls –	End of Year	- Percent	
Year Ended	No. <sup>9</sup>	Annual Benefits <sup>9</sup>	No. <sup>9</sup>		Annual Benefits <sup>9</sup>	No.	Annual Benefits	Increase in Annual Benefits	Average Annual Benefit
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%	15,373
June 30, 2001	2,342	46,880,694	506		10,128,792	14,543	216,466,228	20.5%	15,071
June 30, 1999	1,053	19,402,623	124		2,284,829	12,707	179,714,326	10.5%	14,143
June 30, 1998	1,219	25,116,364	113		2,328,260	11,778	162,596,532	16.3%	13,805
June 30, 1997	830	23,255,081 <sup>10</sup>	101		2,829,835 <sup>10</sup>	10,672	139,808,955	7.2%	13,100
June 30, 1996	702	8,803,872	40		501,645	9,943	119,383,182	7.5%	12,007
June 30, 1995	561	8,327,484	123		850,316	9,281	111,080,955	7.2%	11,969

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

<sup>9</sup> Numbers are estimated, and include other internal transfers. <sup>10</sup> Includes additional benefits to current retirees from a one-time retroactive ad hoc Post-Retirement Pension Adjustment.



### Basis of the Valuation

## 2.3 Summary of Actuarial Assumptions, Methods and Procedures

The demographic and non-health economic assumptions used in the June 30, 2005 valuation are described below. Unless noted otherwise, these assumptions were recommended by Mercer Human Resource Consulting and were adopted at the Fall 2000 PERS Board Meeting. These assumptions were the result of an experience study performed in the Fall of 2000. For this valuation, Buck is recommending changes to the assumptions and methods used to value medical benefit liabilities. The funding method used in this valuation was adopted June 30, 1985 and last reviewed by the Board in January 2003. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

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 – Projected Unit Credit

Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The initial unfunded accrued liability and future gains/losses are amortized over a 25-year fixed period as a level percentage of pay based on a 4.25% payroll growth assumption. The payroll growth assumption will be reviewed next year to reflect plan changes that become effective after the valuation date. However, in keeping with GASB requirements, the net amortization period for all gains and losses will not exceed 30 years.

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

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

The <u>Unfunded Liability</u> at the valuation date is the excess of the accrued liability over the assets of the plan. The annual payment to be made over a stipulated number of years to amortize the unfunded liability is the <u>Past Service Cost.</u>

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

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



#### (B) Actuarial Assumptions

Investment Return / Discount Rate	8.25% per year, compounded annually, net of expenses.
Salary Scale	Inflation – 3.5% per year
	Peace Officer/Firefighter: Merit (first 5 years of employment) – 1.5% per year. Productivity – 1.0% per year
	Others: Merit (first 10 years of employment) – 1.5% per year. Productivity – 0.5% per year
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.5% annually.
Mortality	1994 Group Annuity Mortality Basic Table for males and females, 1994 Base Year. Deaths are assumed to be occupational 85% of the time for Peace Officer/Firefighter, 35% of the time for Others.
Total Turnover	Based upon the 1997-99 actual withdrawal experience. (See Table 1).
Disability	Incidence rates based upon the 1991-95 actual experience, in accordance with Table 2. Post-disability mortality in accordance with 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 85% of the time for Peace Officer/ Firefighter, 35% of the time for Others.
Retirement	Retirement rates based upon the 1997-99 actual experience in accordance with Table 3. Deferred vested members are assumed to retire at their earliest retirement date.
Spouse's Age	Wives are assumed to be four years younger than husbands.
Dependent Children	Benefits to dependent children have been valued assuming members who are married have one dependent child.
Contribution Refunds	100% of those terminating after age 35 who are vested will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.



COLA		Of those benefit recipients who are eligible for the COLA, 68% are assumed to remain in Alaska and receive the COLA						
Post-Retirement Pension Adjustment	respectively							
Expenses	Expenses a	Expenses are covered in the investment return assumption						
Part-Time Status	Part-time employees are assumed to earn 0.600 years of credited service per year.							
Per Capita Claims Cost	Sample clai		s for FY06 mec	lical and pres	scription			
		Med	lical	R	x			
		Total	Medicare	<u>Total</u>	Medicare			
			<b>A</b> < <b>A A A</b>	Φ1 02 C	¢ 1 1 1 *			
	Age 65	\$8,328	\$6,821	\$1,936	\$414*			
	*Represent	s FY06 value	e of Medicare F 7 1, 2006 as sul	Part D subsid	y. Rate is			
Health Cost Trend	*Represent not applied until then.	s FY06 value until January	e of Medicare F 7 1, 2006 as sul Medical	Part D subsid bsidy is not a <b>Rx</b>	y. Rate is			
Health Cost Trend	*Represent not applied until then.	s FY06 value	e of Medicare F 7 1, 2006 as sul	Part D subsid	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY	s FY06 value until January	e of Medicare F 7 1, 2006 as sul Medical	Part D subsid bsidy is not a <b>Rx</b>	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY	s FY06 value until January 706	e of Medicare F 7 1, 2006 as sul Medical 9.5%	Part D subsid bsidy is not a <b>Rx</b> 14%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY	s FY06 value until January 706 707	e of Medicare F 7 1, 2006 as sul Medical 9.5% 9.0%	Part D subsid bsidy is not a <b>Rx</b> 14% 13%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY	s FY06 value until January 706 707 708	e of Medicare F 7 1, 2006 as sul Medical 9.5% 9.0% 8.5%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY	s FY06 value until January 706 707 708 709 710	e of Medicare F 7 1, 2006 as sul Medical 9.5% 9.0% 8.5% 8.0%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12% 11%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY FY	s FY06 value until January 706 707 708 709 710 711	e of Medicare F 7 1, 2006 as sul Medical 9.5% 9.0% 8.5% 8.0% 7.5%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12% 11% 10%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY FY FY FY	s FY06 value until January 706 707 708 709 710 711	e of Medicare F 7 1, 2006 as sul 9.5% 9.0% 8.5% 8.0% 7.5% 7.0%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12% 11% 10% 9%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY FY FY FY FY	s FY06 value until January 706 707 708 709 710 711 712	e of Medicare F 7 1, 2006 as sul 9.5% 9.0% 8.5% 8.0% 7.5% 7.0% 6.5%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12% 11% 10% 9% 8%	y. Rate is			
Health Cost Trend	*Represent not applied until then. FY FY FY FY FY FY FY FY FY FY	s FY06 value until January 706 707 708 709 710 711 712 713	e of Medicare F 7 1, 2006 as sul 9.5% 9.0% 8.5% 8.0% 7.5% 7.0% 6.5% 6.0%	Part D subsid bsidy is not a <b>Rx</b> 14% 13% 12% 11% 10% 9% 8% 7%	y. Rate is			

#### (B) Actuarial Assumptions

Note, graded Health Cost Trend Rates were reinitialized for the June 30, 2005 valuation such that FY05 trend used in the June 30, 2004 valuation (9.5% for Medical and 14% for Rx) is assumed for FY06 in the current valuation. FY06 trend used in the prior valuation (9.0% for Medical and 13% for Rx) is assumed for FY07 in the current valuation, and so on. This conservative adjustment addresses concerns regarding claim costs and past trend rates derived from analysis of aggregate claim data versus potential results obtained if data disaggregated into pre-Medicare, Medicare A &B and Medicare B only categories were available.



Aging Factors	Age	Medical	<u>Rx</u>
	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	members who years of servic Eligible Tier 1 requirements. FY06 is assum	are under ag e (25 for Pea members ar An annual co red to be paid ed average co	e required for PERS ge 60 and have less than 30 ace Officer/Firefighter). re exempt from contribution ontribution of \$10,356 for d for those required, equal of \$850 and \$876 per month 6.
Trend Rate for Retired Member	FY06	6.9	9%
Medical Contributions	FY07	10.2	2%
	FY08	9.0	6%
	FY09	8.	9%
	FY10	8.	3%
	FY11	7.0	6%
	FY12	7.0	0%
	FY13	6	3%
	FY14	5.1	7%
	FY15	5.	0%
	FY16 and late	er 5	0%

#### (B) Actuarial Assumptions

Note, graded Trend Rates for Retired Member Medical Contributions were reinitialized for the June 30, 2005 valuation such that FY05 trend of 6.9% used in the June 30, 2004 valuation is assumed for FY06 in the current valuation. FY06 trend of 10.2% used in the prior valuation is assumed for FY07 in the current valuation, and so on. This conservative adjustment addresses concerns described above regarding aggregated claims data and also better reflects recent Retired Member Medical Contribution increases.



#### (C) Valuation of Assets

Effective June 30, 2002, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over the next five years. All assets are valued at market value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

#### **(D)** Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost for the State of Alaska Public Employees' Retirement System postemployment healthcare benefits.

The analysis is separated into two phases:

- Development of total projected claims cost; and
- Development of the distribution of per capita claims cost by age.

To determine total projected costs for the valuation period, an analysis of claims experience for the State of Alaska PERS and TRS was completed based on information provided by its administrators. This analysis is presented on the following page, "Detailed Development of Claims Cost."

Paid claims for the period from June 2002 through May 2005 were tabulated and an average annual amount determined. Next, three adjustments were applied:

- A participation adjustment to account for differences in exposures between the experience period and the current census.
- A factor to trend historical claims from the midpoint of the experience period to the midpoint of the valuation period.
- An adjustment to restate paid claims on an incurred basis, assuming that claims are paid on average three months after the date incurred for medical and vision benefits.

To this, estimated administrative costs were added. The result is total projected costs for the period July 1, 2005 to June 30, 2006.



	Medical	Rx
Paid Claims (6/02 – 5/03)	\$133,794,131	\$49,761,201
Paid Claims (6/03 – 5/04)	143,042,729	61,583,420
Paid Claims (6/04 – 5/05)	163,039,365	73,932,659
Estimated annual paid claims	\$146,625,408	\$61,759,093
Population Adjustment <sup>11</sup>	1.0935	1.0803
Trend Adjustment (25 months) <sup>12</sup>	1.2081	1.3139
Incurred Adjustment <sup>12</sup>	1.0229	1.0000
Projected incurred claims	\$198,146,866	\$87,657,508
Administrative costs <sup>13</sup>	9,685,363	0
Projected Plan Costs	\$207,832,229	\$87,657,508

Detailed Development of Claims Cost For the Period July 1, 2005 through June 30, 2006

<sup>&</sup>lt;sup>11</sup> Adjusts for exposure differences between the current census and the experience period from which the claims were derived. To calculate an appropriate per capita claims cost, the number of employees used below includes all actives, not just those eligible for retiree health care benefits

<i>Current census; retirees:</i> <i>Average enrollment during experience period:</i>	28,310 25,890	28,310 26,206
<sup>72</sup> Trend:	9.5%	14.0%
Months of Trend:	25.0	25.0
Incurred Adjustment:	3.0	0.0
<sup>73</sup> Administrative Fees:	\$28.51	\$0.00



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:

Age	Medical	Prescription Drug
45	\$4,612	\$ 1,021
50	5,218	1,213
55	5,904	1,441
60	7,012	1,670
65	1,507	1,936
70	1,833	2,086
75	2,231	2,247
80	2,403	2,304

# Distribution of Per Capita Claims Cost by Age for the Period July 1, 2005 through June 30, 2006



## Table 1 Alaska PERS Total Turnover Assumptions

Select Rates of Turnover During the First 5 Years of Employment		Ultimate Rates of Turnover After the First 5 Years of Employment			
Peace Officer/Firefi	ighter:				
Year of					
<b>Employment</b>	Rate	Age	Rate		
_					
1	.12	20+	.03		
2	.10				
3	.08				
4	.07				
5	.06				

#### **Others:**

Year of	Age a	t Hire		
<b>Employment</b>	20-34	<u>35+</u>	Age	Rate
1	.25	.15	20-34	.11
2	.23	.15	35-39	.08
3	.20	.13	40-44	.06
4	.16	.12	45+	.05
5	.15	.11		



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

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



### Table 3 Alaska PERS Retirement Rates

Age	Peace Officer/Firefighter Rate	Other Member Rate
50	.10	.05
51	.10	.05
52	.10	.05
53	.05	.06
54	.05	.06
55	.20	.10
56	.13	.10
57	.13	.10
58	.13	.10
59	.13	.10
60	.20	.10
61	.25	.10
62	.25	.15
63	.25	.15
64	.25	.15
65	1.00	.20
66	1.00	.20
67	1.00	.20
68 & Up	1.00	1.00

Peace Officer/Firefighter members retiring at ages under 50 are assumed to retire immediately upon attaining 21 years of service.

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



## Other Historical Information

## Section 3

Section 3.1	Analysis of financial experience.
Section 3.2(a)	Summary of accrued and unfunded accrued liabilities for Peace Officer/Firefighter.
Section 3.2(b)	Summary of accrued and unfunded accrued liabilities for Others.
Section 3.2(c)	Schedule of Employer Contributions.
Section 3.2(d)	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

		Change in Average Contribution Rate During Fiscal Year				
Туре	e of Gain or Loss	2001	2002	2003	2004	2005
(1)	Health Experience	0.00%	3.68%	0.00%	0.00%	1.49%
(2)	Salary Experience	(1.03)%	(0.20)%	(0.19)%	0.08%	(0.32)%
(3)	Investment Experience	0.11%	7.24%	0.31%	0.02%	(0.02)%
(4)	Demographic Experience	0.77%	1.21%	0.40%	0.54%	0.01%
(5)	Contribution Shortfall	0.00%	0.00%	1.10%	0.89%	0.98%
(6)	(Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(0.15)%	11.93%	1.62%	1.53%	2.14%
Non	recurring Changes					
(7)	Asset Valuation Method	0.00%	4.11%	0.00%	0.00%	0.00%
(8)	Past Service Amortization Change	0.00%	(5.06)%	0.00%	0.00%	0.00%
(9)	Assumption Changes	0.00%	6.98%	0.00%	1.03%	0.00%
(10)	System Benefit Changes	0.17%	0.04%	0.00%	0.00%	0.00%
(11)	Addition of 102% Target Funding Ratio	0.57%	0.00%	0.00%	0.00%	0.00%
(12)	Elimination of 102% Target Funding Ratio	0.00%	0.00%	(0.90)%	0.00%	0.00%
(13)	Ad hoc PRPA	0.06%	0.14%	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%	0.00%	2.18%
(15)	Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10) + (11) + (12) + (13) + (14)	0.65%	18.14%	0.72%	2.56%	4.32%
(16)	Beginning Average Employer Contribution Rate	6.12%	6.77%	24.91%	25.63%	28.19%
(17)	Ending Average Employer Contribution Rate, $(15) + (16)$	6.77%	24.91%	25.63%	28.19%	32.51%
(18)	Fiscal Year Above Rate is Applied	FY04	FY05	FY06	FY07	FY08

## 3.2(a) Summary of Accrued and Unfunded Accrued Liabilities – Peace Officer/Firefighter

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets <sup>14</sup> (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	\$ 1,885,407	\$ 1,239,279	65.7%	\$ 646,128	\$ 174,155	371.0%
June 30, 2004 <sup>16 17</sup>	1,763,711	1,237,630	70.2%	526,081	167,317	314.4%
June 30, 2003	1,577,251	1,147,999	72.8%	429,252	160,742	267.0%
June 30, 2002 <sup>15 16 17</sup>	1,509,947	1,135,238	75.2%	374,709	157,632	237.7%
June 30, 2001	1,293,448	1,305,478	100.9%	N/A	151,701	N/A
June 30, 2000 <sup>16 17</sup>	1,196,821	1,209,451	101.1%	N/A	142,843	N/A
June 30, 1999	1,008,404	1,064,168	105.5%	N/A	138,653	N/A
June 30, 1998 <sup>15 16 17</sup>	926,249	981,127	105.9%	N/A	135,702	N/A
June 30, 1997	811,651	863,184	106.3%	N/A	134,362	N/A
June 30, 1996	733,303	776,196	105.8%	N/A	130,204	N/A

 <sup>&</sup>lt;sup>14</sup> Assets were allocated to Peace Officer/Firefighter and Others based on accrued liability
 <sup>15</sup> Change in Asset Valuation Method
 <sup>16</sup> Change of Assumptions
 <sup>17</sup> Change in Methods

#### Other Historical Information

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

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets <sup>18</sup> (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	\$ 10,959,434	\$ 7,203,640	65.7%	\$ 3,755,794	\$ 1,338,962	280.5%
June 30, 2004 <sup>20 21</sup>	9,680,205	6,792,784	70.2%	2,887,421	1,305,670	221.1%
June 30, 2003	8,984,402	6,539,282	72.8%	2,445,120	1,300,041	188.1%
June 30, 2002 <sup>19 20 21</sup>	8,349,644	6,277,595	75.2%	2,072,049	1,245,055	166.4%
June 30, 2001	6,575,126	6,636,278	100.9%	N/A	1,208,700	N/A
June 30, 2000 <sup>20 21</sup>	6,180,091	6,245,307	101.1%	N/A	1,181,435	N/A
June 30, 1999	5,640,269	5,952,172	105.5%	N/A	1,140,706	N/A
June 30, 1998 <sup>19 20 21</sup>	5,277,742	5,590,435	105.9%	N/A	1,096,786	N/A
June 30, 1997	4,722,465	5,022,304	106.3%	N/A	1,093,433	N/A
June 30, 1996 <sup>20</sup>	4,246,655	4,495,057	105.8%	N/A	1,087,504	N/A



 <sup>&</sup>lt;sup>18</sup> Assets were allocated to Peace Officer/Firefighter and Others based on accrued liability
 <sup>19</sup> Change in Asset Valuation Method
 <sup>20</sup> Change of Assumptions
 <sup>21</sup> Change in Methods

## 3.2(c) Schedule of Employer Contributions

Year Ended June 30	Total Annual Required Contribution	Total Percentage Contributed
2005	\$ 337,829	52.7%
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%
1997		

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

Valuation Date	June 30, 2005					
Actuarial Cost Method	Projected Unit Credit					
Amortization Method	Level percentage of pay, closed					
Equivalent Single Amortization Period	23 years					
Asset Valuation Method	5-year smoothed market					
Actuarial Assumptions:						
Investment rate of return*	8.25%					
Projected salary increases	Peace Officer / Fire: 6.0% for first 5 years of service; 4.5% thereafter					
	Others: 5.5% for first 5 years of service; 4.0% thereafter					
*Includes inflation at	3.5%					
Cost-of-living adjustment	Post-retirement Pension Adjustment as described in Section 2.1, item (13)					



#### Solvency Test 3.3

Valuation Date	Aggregate Accrued Liability For:						Portion of Accrued Liabilities Covered by Assets			
	(1) Active Member Contributions (000's)		(2) Inactive Members (000's)		(3) Active Members (Employer- Financed Portion) (000's)		Valuation ssets (000's)	(1)	(2)	(3)
June 30, 2005	\$ 1,104,821	\$	8,667,058	\$	3,072,962	\$	8,442,919	100%	84.7%	0.0%
June 30, 2004 <sup>23</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>22 23 24</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 24</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>22 23 24</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%
June 30, 1996 <sup>23</sup>	754,679		2,511,953		1,713,326		5,271,253	100%	100%	100%



 <sup>&</sup>lt;sup>22</sup> Change in Asset Valuation Method
 <sup>23</sup> Change of Assumptions
 <sup>24</sup> Change in Methods