# ANCHORAGE POLICE AND FIRE RETIREMENT SYSTEM

ACTUARY'S REPORT (As of January 1, 2008)





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March 26, 2008

Retirement Board Anchorage Police and Fire Retirement System 3650A E. Tudor Road P.O. Box 196650 Anchorage, Alaska 99519-6650

Dear Members of the Board:

At your request, we have completed an actuarial valuation of the Anchorage Police and Fire Retirement System as of January 1, 2008. Our findings are discussed in Section 1.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, and employee data. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. We also relied on the financial statements supplied by the Mellon Bank which have not yet been audited. The asset information appears to be reasonable for the purpose of this report. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

All assumptions have been selected by the Board and should represent a best estimate of anticipated experience under the Plan. A thorough examination of all of the methods and assumptions was last performed for the 2007 Experience Analysis. For the 2008 valuation, we have used all of the actuarial assumptions recommended in the 2007

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Experience Analysis. Although we believe these assumptions to be reasonable, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

Milliman's work product was prepared exclusively for the Anchorage Police and Fire Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the System's operations, and uses the System's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

Any distribution of the enclosed report must be in its entirety including this cover letter, unless prior written consent is obtained from Milliman.

We respectfully submit the following report, and we look forward to discussing it with you. We are consulting actuaries for Milliman, Inc. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

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# Actuarial Valuation as of January 1, 2008

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Actuarial Valuation as of January 1, 2008

# Section 1 Discussion of the Findings

#### **SCOPE OF THE REPORT**

This report presents the results of the Actuarial Valuation of the Anchorage Police and Fire Retirement System as of January 1, 2008. The last Actuarial Valuation of the System was performed as of January 1, 2007.

The purpose of this actuarial valuation is to analyze the resources needed to meet the current and future obligations of the three Plans.

A summary of the findings and an analysis of the funding level are presented in this Section. Tables 1 though 6 of Section 2 document the calculations that led to our findings.

All of the calculations were carried out using certain assumptions as to the future experience in matters affecting the actuarial cost. Section 3 summarizes these assumptions and describes the actuarial methods used to calculate costs.

Section 4 outlines the provisions of each Plan that were used in this report. The membership data included in this valuation is summarized in Section 5.

Section 6 shows the allocation of the various Reserves as of December 31, 2007.



## Actuarial Valuation as of January 1, 2008

We have utilized the Pension Administration System database to generate the census for this valuation. We performed a significant amount of review to ensure the accuracy of the data, including tests for reasonableness and consistency. We believe the data was sufficient and reliable for the purposes of our calculations.

The tables on this and the next few pages summarize the census data. The first table is a reconciliation of the members' change in status for the year.

	Plan I	Plan II	Plan III	System
Total on January 1, 2007	213	124	443	780
Active Members				
Total on January 1, 2007	5	11	104	120
Reinstatements Vested Terminations Service Retirements Disability Retirements Deaths with Survivor Deaths w/o Survivor	(2) - - -	(2)	(10) - (1) 	(14) - (1) 
Total on January 1, 2008	3	9	93	105
Police Officers Firefighters	1 2	8 1	59 34	68 37
Terminated Members				
Total on January 1, 2007	-	2	10	12
Reinstatements New Terminations Retirements Total on January 1, 2008	- - 		- - <u>-</u> 10	- <u>(1)</u> 11
Service Retirees				
Total on January 1, 2007	102	70	271	443
Adjustment to Count Service Retirements Occ. Disability Conversions Deaths with Survivor Deaths w/o Survivor Total on January 1, 2008	2 (1) - - 103	3 - - - 73	10 - (1) <u>(2)</u> 278	15 (1) (1) (2) 454
Non-Occupational Disability Retirees				
Total on January 1, 2007	13	8	8	29
Adjustment to Count Non-Occ. Disability Retirements	-	-	-	-
Occ. Disability Conversions Deaths with Survivor Deaths w/o Survivor Total on January 1, 2008	- - - 13	- - - 8	- - - 8	- - <u>-</u> 29



## Actuarial Valuation as of January 1, 2008

Occupational Disability Retirees				
Total on January 1, 2007	54	24	22	100
Adjustment to Count Occ. Disability Retirements	-	-	-	-
Occ. Disability Conversions Deaths with Survivor	1 -	-	-	1 -
Deaths w/o Survivor	<u> </u>	<u> </u>		
Total on January 1, 2008	55	24	22	101
Survivors				
Total on January 1, 2007	39	9	10	58
Adjustment to Count	-	-	- 2	- 2
Deaths with Survivor Deaths w/o Survivor	- <u>(1)</u>	<u>-</u>	_ <del>_</del> -	<u>(1)</u>
Total on January 1, 2008	38	9	12	59
Children's Benefits				
Total on January 1, 2007	-	-	18	18
Adjustment to Count	-	-	-	-
Benefits Started Benefits Ended	-	-	- (4)	- (4)
Total on January 1, 2008	-	-	14	14
Total on January 1, 2008	212	124	437	773

The next tables show the number of Alternate Payees and Installment Option Annuitants currently being paid. Note we have not included them in the previous table.

	Plan I	Plan II	Plan III	System
Alternate Payees (not included a	bove)			
Total on January 1, 2007	19	3	32	54
QDROs Established QDROs Terminated	- _ <del>-</del>	- <u>-</u> -	3 (1)	3 _(1)
Total on January 1, 2008	19	3	34	56
Installment Option Annuitants (not included above)	<u>Plan I</u>	<u>Plan II</u>	<u>Plan III</u>	System
Total on January 1, 2007	-	-	-	-
Adjustment to Count Expiration of Benefits	-	2 -	-	2 -
Total on January 1, 2008	-	2	-	2

# Anchorage Police and Fire Retirement System Actuarial Valuation as of January 1, 2008

The key demographic characteristics of the active members are shown in the next table.

	Plan I	Plan II	Plan III
January 1, 2007			
Average Salary Average Age Average Years Employed	\$104,416 56.4 32.6	\$106,690 51.4 24.5	\$83,288 46.1 16.9
January 1, 2008			
Average Salary Average Age Average Years Employed	\$110,261 58.3 35.0	\$115,219 51.6 25.0	\$86,902 46.6 17.5
Changes for the Year			
Average Salary	5.6%	8.0%	4.3%
Average Salary increase for Members active in both valuations	9.7%	6.9%	4.1%
Average Age Average Years Employed	1.9 yr. 2.4 yr.	0.2 yr. 0.5 yr.	0.5 yr. 0.6 yr.

## Actuarial Valuation as of January 1, 2008

The following table shows the distribution of active members by age and years of service.

Age		Years of Service by Age								
Group	<u>&lt; 10</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u> 30 +</u>	<u>Total</u>			
Plan I										
30-34							0			
35-39							0			
40-44							0			
45-49							0			
50-54							0			
55-59						3	3			
60 & up							0			
Total	0	0	0	0	0	3	3			
Plan II										
30-34							0			
35-39							0			
40-44							0			
45-49				1	1		2			
50-54			1	2	3		6			
55-59					1		1			
60 & up							0			
Total	0	0	1	3	5	0	9			
Plan III										
30-34							0			
35-39		3	4				7			
40-44		9	17	1			27			
45-49		13	23	3			39			
50-54		2	4	1	2		9			
55-59			2	2	3	2	9			
60 & up			1		1		2			
Total	0	27	51	7	6	2	93			

### Actuarial Valuation as of January 1, 2008

#### **ACTUARIAL METHODS AND ASSUMPTIONS**

The actuarial methods and assumptions have been chosen on the basis of experience of the Plans and on current expectations as to future economic conditions. The assumptions are intended to estimate the future experience of the members of the Plans and of the Plans themselves in areas that impact projected benefits and anticipated investment earnings. Variations in future experience from that expected by the assumptions may result in corresponding changes in the estimated liabilities for future benefits, or the expected assets available to fund them.

A thorough examination of all of the methods and assumptions was last performed for the 2007 Experience Analysis. For the 2008 valuation, Milliman has used all assumptions and methods as stated in the 2007 Experience Analysis.

All comparisons of 2007 and 2008 results in this report are based on the 2007 results after changing to the assumptions developed in the 2007 Experience Analysis.

#### **ACTUARIAL METHODS**

Actuarial Cost Method: Modified Aggregate Actuarial Cost Method

Valuation Assets: Fair Market Value of Assets

**ACTUARIAL ASSUMPTIONS** 

Economic Assumptions: Investment Return: 8% per year, net of all investment and

administrative expenses

Interest on Member Accounts Balances: 4% per year

**Inflation:** 3.0% per year, so that Plan III retirement allowances will increase at the rate of 0.75% per year after the 20th anniversary of hire, and 1.50% after the 25th anniversary.

Future Salary Growth: 3.5% per year

**Demographic Assumptions:** The following assumptions were developed to reflect the

emerging experience of each Plan:

• Mortality (before and after retirement)

Service Retirement

Disablement (Occupational and Non-Occupational)

Other Terminations of Membership

Cause of Death



### Actuarial Valuation as of January 1, 2008

#### **DETERMINATION OF THE PROJECTED LIABILITY**

All future benefit payments from the System are projected for current members and beneficiaries. The level of benefits currently being paid is known, but assumptions are needed to estimate how long they will be paid, and the amount and timing of the payment of future benefits for active and inactive members who are not currently receiving payments. The summation of the discounted values to the valuation date, at the valuation interest rate, of the projected benefit payments for all current members and benefit recipients is called the Projected Liability.

(\$000)	_	Plan I	_	Plan II	_	Plan III	_	System		
January 1, 2007 Experience Analysis										
Active Members Retirement Benefits Disability Benefits Death Benefits Termination Benefits Active Members	\$ 	4,899 0 7 0 4,906	\$ 	7,350 1,055 68 13 8,486	\$ - \$	48,240 3,185 661 70 52,156	\$ _ \$	60,489 4,240 736 83 65,548		
Inactive										
Members Service Retirees Disabled Members Surviving Beneficiaries Terminated Members Inactive Members	\$  \$	53,741 24,370 12,243 0 90,354	\$ 	40,083 14,372 4,511 555 59,521	\$ _ \$	138,623 11,656 7,894 1,585 159,758	\$ _ \$	232,447 50,398 24,648 2,140 309,633		
Total Projected Liability	\$	95,260	\$	68,007	\$	211,914	\$	375,181		
January 1, 2008 Actuarial  Active Members  Retirement Benefits Disability Benefits Death Benefits Termination Benefits Active Members	<b>Valuat</b> \$  \$	3,247 0 0 0 0 3,247	\$ 	6,493 936 66 12 7,507	\$ - \$	45,591 2,735 598 21 48,945	\$ _ \$	55,330 3,671 664 33 59,698		
Inactive Members Service Retirees Disabled Members Surviving Beneficiaries Terminated Members Inactive Members	\$	54,462 24,647 11,729 0 90,838	\$ \$	41,559 14,226 4,569 236 60,590	\$ _ \$	143,331 11,760 9,484 1,974 166,549	\$ \$	239,352 50,633 25,782 2,210 317,977		
Total Projected Liability	\$	94,085	\$	68,097	\$	215,494	\$	377,675		

## Actuarial Valuation as of January 1, 2008

#### **DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

The next step in the actuarial process is to calculate the Actuarial Value of Assets that will be used to determine the Funding Status of each Plan. The table below shows the Fair Market Value of Assets for each Plan as reported to us by the System's staff from reports generated from the Mellon Bank database. Although not final audited figures, we believe this information is sufficient for purposes of this report.

2007 Activity (\$000)	Plan I	Plan II	Plan III	System
Actual Earnings				
Beginning Balance at Mellon	\$ 110,131	\$ 76,385	\$ 233,338	\$ 419,854
Net Investment Income	5,263	3,654	11,195	20,112
Contributions – Municipality	0	0	0	0
Contributions- Members	0	0	1	1
Regular Benefit Payments	(8,406)	(5,274)	(12,483)	(26,163)
Ending Balance at Mellon	\$ 106,988	\$ 74,765	\$ 232,051	\$ 413,804
Estimated Rate of Return (net of all expenses)	4.97%	4.96%	4.93%	4.94%
Expected Earnings				
Beginning Balance at Mellon	\$ 110,131	\$ 76,385	\$ 233,338	\$ 419,854
Net Investment Income 8%	8,474	5,900	18,167	32,541
Contributions – Municipality	0	0	0	0
Contributions – Members	0	0	1	1
Regular Benefit Payments	(8,406)	(5,274)	(12,483)	(26,163)
Ending Balance at Mellon	\$ 110,199	\$ 77,011	\$ 239,023	\$ 426,233
Investment Gain (Loss)	\$ (3,211)	\$ (2,246)	\$ (6,972)	\$ (12,429)

**Surplus Benefit Accounts:** We have excluded the Trust assets held in the Surplus Benefit Accounts from this valuation unless an installment option payout was elected by the member.

**Estimated Rate of Return:** The estimated return of 4.9% was calculated assuming uniform cash flows throughout the year. In addition, these returns represent earnings <u>after</u> all investment and administrative expenses. The System's investment advisor generally presents gross rates of return <u>before</u> expenses.



#### Actuarial Valuation as of January 1, 2008

#### **FUNDED STATUS**

The Funded Status is the difference between the Projected Liability and the Actuarial Value of Assets. The Funded Ratio is equal to the Value of Assets divided by the Projected Liability. The following chart shows the Funded Status of the System as of January 1, 2007, and 2008. As previously noted, the assets and liabilities exclude the individual supplemental accounts unless being paid under an installment option.

(\$000)	Plan I	Plan II	Plan III	System
January 1, 2007 Experience	e Analysis			
Projected Liability Actuarial Value of Assets	\$ 95,260 110,131	\$ 68,007 <u>76,385</u>	\$ 211,914 233,338	\$ 375,181 419,854
Funded Status	\$ (14,871)	\$ (8,378)	\$ (21,424)	\$ (44,673)
Funded Ratio	116%	112%	110%	112%
January 1, 2008 Actuarial V	/aluation			
Projected Liability Actuarial Value of Assets	\$ 94,085 <u>106,988</u>	\$ 68,097 <u>74,765</u>	\$ 215,494 	\$ 377,675 413,804
Funded Status	\$ (12,903)	\$ (6,668)	\$ (16,557)	\$ (36,128)
Funded Ratio	114%	110%	108%	110%

As of January 1, 2007, Plans I, II, and III each had an Actuarial Surplus. As of January 1, 2008, all three Plans continue to have an Actuarial Surplus, however, the amount of Actuarial Surplus has been reduced, primarily due to unfavorable investment performance during 2007. The Funded Ratio for all three plans decreased this past year.

Funded Ratio	Plan I	Plan II	Plan III
January 1, 1998	172%	154%	114%
January 1, 1999	180%	164%	127%
January 1, 2000	193%	174%	135%
January 1, 2001	126%	122%	116%
January 1, 2002	110%	109%	103%
January 1, 2003	93%	92%	86%
January 1, 2004	108%	103%	98%
January 1, 2005	112%	107%	104%
January 1, 2006	112%	108%	103%
January 1, 2007*	116%	112%	110%
January 1, 2008	114%	110%	108%

<sup>\*</sup>After assumption changes recommended by the 2007 Experience Analysis



### Actuarial Valuation as of January 1, 2008

#### **ACTUARIAL GAINS AND LOSSES**

Actuarial gains are produced from experience that emerged more favorably than we assumed in the previous valuation. On the other hand, actuarial losses are produced from experience that emerged less favorably than we assumed. The most important of these gains and losses are shown below and described in the paragraphs that follow.

(\$000)	Plan I	_	Plan II	-	Plan III	_	System
Actuarial (Gains) and Losses							
Funded Status as reported January 2007	\$ (17,049)	\$	(9,487)	\$	(18,722)	\$	(45,258)
Change due to 2007 Experience Analysis	\$ 2,178	\$	1,109	\$	(2,702)	\$	585
Funded Status January, 2007	\$ (14,871)	\$	(8,378)	\$	(21,424)	\$	(44,673)
Expected Funded Status January, 2008	\$ (16,061)	\$	(9,048)	\$	(23,138)	\$	(48,247)
Actual Funded Status January, 2008	\$ (12,903)	\$	(6,668)	\$	(16,557)	\$	(36,128)
Actuarial (Gains) and Losses	\$ 3,158	\$	2,380	\$	6,581	\$	12,119
(Gains) and Losses by Source							
All Liability Experience (Gain) or Loss	\$ (53)	\$	134	\$	(391)	\$	(310)
As a percent of Liabilities	(0.1)%		(0.2)%		(0.2)%		(0.1)%
Investment Return (Gain) or Loss	\$ 3,211	\$	2,246	\$	6,972	\$	12,429
As a percent of Assets	3.0%		3.0%		3.0%		3.0%
Total Actuarial (Gains) and Losses	\$ 3,158	\$	2,380	\$	6,581	\$	12,119

• **2007 Experience Analysis:** Based on the 2007 Experience Analysis, we changed several actuarial assumptions.

#### **Economic Assumptions**

The two major economic assumptions are net investment return and wage growth and each is affected by the underlying assumed rate of inflation. Based on past experience and future expectations, we made the following changes.

- The assumed future rate of inflation was reduced from 3.50% to 3.00% per annum. This is a building block for the other assumptions, and also applies directly to the projection of future cost of living increases in Plan III.
- We did not change the assumed rate of real wage growth of 0.50%, and therefore decreased the total wage growth assumption from 4.00% to 3.50% per annum.



#### Actuarial Valuation as of January 1, 2008

 We increased the assumed real rate of investment return from 4.50% to 5.00% per annum. Therefore, the total net investment return assumption remained at 8.00%.

#### **Demographic Assumptions**

The following list shows the demographic assumptions we reviewed, all of which are based on the experience of the membership. We changed all three of these assumptions.

- Benefits upon termination prior to retirement
- Plan III service retirement
- Mortality

The net impact of all of these economic and demographic assumption changes was an increase in the projected liability for Plan I of approximately \$2.2 million, an increase in the projected liability for Plan II of approximately \$1.1 million, and a decrease in the projected liability for Plan III of approximately \$2.7 million. For a complete description of these changes see our 2007 Experience Analysis Report dated October 4, 2007.

- Investment Return: The actual investment return for 2007 was about 4.9% as calculated from the Mellon Bank financial statements. Since the assumed rate of return is 8.0% net of all expenses, there were losses due to investment performance. We estimated the dollar amount of the losses based on a uniform timing of the cash flow.
- **Demographic & Economic Experience:** For the most part, the gains and losses due to all non-investment experience during 2007 were relatively minor as a percentage of the expected Projected Liability. This is an indication that the actuarial assumptions are reasonable in the aggregate.



# Anchorage Police and Fire Retirement System Actuarial Valuation as of January 1, 2008

#### **CALCULATION OF RECOMMENDED CONTRIBUTIONS**

The Retirement Board has adopted an actuarial method that allows for the amortization of gains and losses past the expected working life of the active members. The Governmental Accounting Standards Board recognizes this situation for mature closed groups and allows an amortization of gains and losses over a fixed period of years.

The Retirement Board adopted a Modified Aggregate Actuarial Cost Method designed to produce stable contribution patterns. The Unfunded Projected Liability, if any, and future actuarial gains and losses will be amortized as a level dollar amount over a fixed 15-year period beginning one year after the valuation date.

All three Plans were in a surplus position on January 1, 2008. Therefore, no member or Municipality contributions are due for 2008. The following table summarizes the calculations if this method adopted in 2003 for the 2004 contributions is used in the future.

The Board has the authority to change this method at its discretion.

	(\$000)	Plan I	Plan II	Plan III
(1)	Projected Liability	\$ 94,085	\$ 68,097	\$215,494
(2)	Actuarial Value of Assets	<u>106,988</u>	<u>74,765</u>	232,051
(3)	Unfunded Projected Liability (1) – (2)	\$ (12,903)	\$ (6,668)	\$ (16,557)
(4)	Expected 2008 Contribution discounted to 1/1/2008 at 8.00% interest	0	0	0
(5)	Remaining Unfunded Projected Liability (3) – (4), but not less than zero	0	0	0
(6)	Amortization Period	15 years	15 years	15 years
(7)	Amortization Payment for 2008	\$ 0	\$ 0	\$ 0

Member contributions, if needed, are calculated to be 40% of the Municipality contributions (ratio of 2.5:1) subject to a maximum level of 6% of salary.



### Actuarial Valuation as of January 1, 2008

#### **ALLOCATION OF RESERVES**

The Retirement Board has established a procedure to allocate Actuarial Gains and Losses between the Benefit Enhancement Reserve and the Additional Contingency Reserve. The following is a description of each step used to determine the amount of the reserves as of the valuation date. This description, based on our current understanding of the procedures to calculate the allocation of reserves, represents a change in calculation method from our prior actuarial report.

- 1. Each Plan maintains a Contingency Reserve equal to 16% of the Projected Liability. Regardless of the experience that emerged during the previous year, the Contingency Reserve has first priority and will be funded each year at the 16% level.
- 2. The Surplus Assets are determined. Surplus Assets are equal to Plan Assets less the sum of the Projected Liability and the Contingency Reserve.
- 3. The Surplus Assets are allocated to the Additional Contingency Reserve (25%) and the Benefit Enhancement Reserve (75%).

The ending balances, including the distribution of the Surplus Assets to the Additional Contingency Reserve and the Benefit Enhancement Reserve, are summarized below.

(\$000)	Plan I	Plan II	Plan III	System <u>Total</u>
Projected Liability	\$ 94,085	\$ 68,097	\$ 215,494	\$ 377,675
Actuarial Value of Assets	106,988	74,765	232,051	413,804
Unfunded Projected Liability	\$ (12,903)	\$ (6,668)	\$ (16,557)	\$ (36,128)
Contingency Reserve	\$ 15,054	\$ 10,896	\$ 34,478	\$ 60,428
Additional Contingency Reserve	(538)	(1,057)	(4,480)	(6,075)
Benefit Enhancement Reserve	(1,613)	(3,171)	(13,441)	(18,225)
Total Reserves	\$ 12,903	\$ 6,668	\$ 16,557	\$ 36,128

## Actuarial Valuation as of January 1, 2008

# Section 2 Actuarial Valuation Results

The following tables document the findings of the actuarial valuation.

TABLE 1	Actuarial Present Value of Projected Benefits
TABLE 2	Actuarial Value of Assets
TABLE 3	Actuarial Balance Sheet
TABLE 4	Determination of Contribution Rates
TABLE 5	Disclosure Information - GASB Statement No. 25
TABLE 6	Disclosure Information - GASB Statement No. 50



Actuarial Valuation as of January 1, 2008

# TABLE 1 ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS

			Plan I		Plan II	Plan III
Active	e Members					
(1)	Retirement Benefits	\$	3,247,161	\$	6,493,613	\$ 45,590,994
(2)	Termination Benefits		0		11,672	21,115
(3)	Occupational Disability Benefits		0		877,446	2,315,532
(4)	Non-Occupational Disability Benefits		0		58,543	329,861
(5)	Occupational Death Benefits		0		55,520	458,191
(6)	Non-Occupational Death Benefits		0		10,414	110,039
(7)	Children's Benefit	_	0	_	0	118,902
(8)	Subtotal Present Value of Benefits	\$	3,247,161	\$	7,507,208	\$ 48,944,634
Inacti	ve Members					
(9)	Service Retirees	\$	54,462,244	\$	41,559,539	\$143,330,914
(10)	Disabilities		24,646,807		14,225,668	11,760,350
(11)	Surviving Beneficiaries		11,728,645		4,569,095	9,483,768
(12)	Vested Terminations	_	0	_	235,726	1,974,165
(13)	Subtotal Present Value of Benefits	\$	90,837,696	\$	60,590,028	\$ 166,549,197
(14)	Total Present Value of Benefits (8) + (13)	\$	94,084,857	\$	68,097,236	\$ 215,493,831

Actuarial Valuation as of January 1, 2008

# TABLE 2 ACTUARIAL VALUE OF ASSETS

		Plan I	Plan II	Plan III
(1)	As Reported in Prior Valuation	\$110,130,822	\$ 76,384,759	\$233,337,613
(2)	Net Investment Income	5,263,096	3,654,353	11,195,893
(3)	Contributions – Municipality	0	0	0
(4)	Contributions – Member	0	0	1,279*
(5)	Benefit Distributions	(8,406,234)	(5,273,690)	(12,483,495)
(6)	Ending Balance at Mellon Bank included in this Valuation	\$106,987,684	\$ 74,765,422	\$ 232,051,290

The table above shows the Fair Market Value of Assets for each Plan based on financial statements supplied by the Mellon Bank. Although not final audited figures, we believe this information is sufficient for purposes of this report.



<sup>\*</sup> This amount is a 'buy-back' for a period of military leave during 2004 and 2005 when member contributions to Plan III were required.

## Actuarial Valuation as of January 1, 2008

# TABLE 3 ACTUARIAL BALANCE SHEET

#### **RESOURCES**

		Plan I	Plan II	Plan III			
(1)	Actuarial Value of Assets	\$106,987,684	\$ 74,765,422	\$232,051,290			
(2)	Actuarial Present Value of Future Contributions	(12,902,827)	(6,668,186)	(16,557,459)			
(3)	Total Resources	\$ 94,084,857	\$ 68,097,236	\$ 215,493,831			
(4)	REQUIREMENTS  (4) Actuarial Present Value of Projected Benefits						
	(a) Retired or Disabled Members and Beneficiaries	\$ 90,837,696	\$ 60,354,302	\$ 164,575,032			
	(b) Vested Terminated and Inactive Members	0	235,726	1,974,165			
	(c) Active Members' Municipality- Provided Pension	2,870,556	6,605,408	45,931,450			

(d) Active Members' Contributions

**Total Requirements** 

(5)

3,013,184

\$215,493,831

376,605

\$ 94,084,857

901,800

\$ 68,097,236

Actuarial Valuation as of January 1, 2008

# Table 4 Determination of Contribution Rates

#### **BASED ON 15-YEAR AMORTIZATION PERIOD**

		PI	an I		Plan II	F	Plan III
(1)	Actuarial Present Value of Benefits	\$ 94,0	084,857	\$ 6	8,097,236	\$21	5,493,831
(2)	Actuarial Value of Assets	<u>\$106,9</u>	987,684	\$ 7	4,765,422	<u>\$23</u>	<u>2,051,290</u>
(3)	Unfunded Projected Liability (1) – (2)	(12,9	902,827)	(	6,668,186)	(1	6,557,459)
(4)	Expected 2008 Contributions, discounted to 1/1/2008 at 8% interest	\$	0	\$	0	\$	0
(5)	Remaining Unfunded Projected Liability (3) – (4)	(12,9	902,827)	(	6,668,186)	(1	6,557,459)
(6)	Amortization Period	15 <u>y</u>	years	1	5 years	1	5 years
	One-Year Deferred Amortization Factor at 8% Interest (present value of \$1 per year for period)	8.2	3840	8	3.23840	8	3.23840
(7)	Total Annual Contribution for 2008 $((5) \div (6))$ , but not less than zero	\$	0	\$	0	\$	0
	Determination of Member Portion						
(8)	Projected Payroll in 2008 (based on current actuarial assumptions)	Ν	J/A		N/A		N/A
(9)	Member Share (7) ÷ 3.5	N	I/A		N/A		N/A
(10)	Calculated Member Rate (9) ÷ (8)	N	I/A		N/A		N/A
(11)	Actual Member Rate (subject to maximum; rounded down)	0	.00%		0.00%		0.00%

**Actuarial Valuation as of January 1, 2008** 

# TABLE 5 DISCLOSURE INFORMATION - GASB STATEMENT No. 25

#### Plan I

#### SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollar Amounts in Thousands)

Year Ending	Annual Required Contribution	Amount Contributed	Percentage Contributed
December 31, 1992	0	0	100%
December 31, 1993	0	0	100%
December 31, 1994	0	0	100%
December 31, 1995	0	0	100%
December 31, 1996	0	0	100%
December 31, 1997	0	0	100%
December 31, 1998	0	0	100%
December 31, 1999	0	0	100%
December 31, 2000	0	0	100%
December 31, 2001	0	0	100%
December 31, 2002	0	0	100%
December 31, 2003	0	0	100%
December 31, 2004	752	752	100%
December 31, 2005	0	0	100%
December 31, 2006	0	0	100%
December 31, 2007	0	0	100%

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27. Therefore, the contributions transmitted to the System in the year following the Actuarial Valuation are equal to the Annual Required Contribution (ARC), and there is no Net Pension Obligation (NPO) necessary to amortize any unmade contributions.



**Actuarial Valuation as of January 1, 2008** 

# TABLE 5 DISCLOSURE INFORMATION - GASB STATEMENT No. 25 (CONTINUED)

#### Plan II

#### SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollar Amounts in Thousands)

Year Ending	Annual Required Contribution	Amount Contributed	Percentage Contributed
December 31, 1992	\$ 698	\$ 698	100%
December 31, 1993	237	237	100%
December 31, 1994	0	0	100%
December 31, 1995	0	0	100%
December 31, 1996	0	0	100%
December 31, 1997	0	0	100%
December 31, 1998	0	0	100%
December 31, 1999	0	0	100%
December 31, 2000	0	0	100%
December 31, 2001	0	0	100%
December 31, 2002	0	0	100%
December 31, 2003	0	0	100%
December 31, 2004	547	547	100%
December 31, 2005	0	0	100%
December 31, 2006	0	0	100%
December 31, 2007	0	0	100%

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27. Therefore, the contributions transmitted to the System in the year following the Actuarial Valuation are equal to the Annual Required Contribution (ARC), and there is no Net Pension Obligation (NPO) necessary to amortize any unmade contributions.



Actuarial Valuation as of January 1, 2008

# TABLE 5 DISCLOSURE INFORMATION - GASB STATEMENT No. 25 (CONTINUED)

#### Plan III

#### SCHEDULE OF EMPLOYER CONTRIBUTIONS

(Dollar Amounts in Thousands)

Year Ending	Annual Required Contribution	Amount Contributed	Percentage Contributed
December 31, 1992	\$ 2,387	\$ 2,387	100%
December 31, 1993	2,390	2,390	100%
December 31, 1994	2,236	1,204	54%
December 31, 1995	1,947	0	0%
December 31, 1996	2,340	0	0%
December 31, 1997	750	0	0%
December 31, 1998	0	0	100%
December 31, 1999	0	0	100%
December 31, 2000	0	0	100%
December 31, 2001	0	0	100%
December 31, 2002	0	0	100%
December 31, 2003	0	0	100%
December 31, 2004	2,519	2,519	100%
December 31, 2005	11	11	100%
December 31, 2006	0	0	100%
December 31, 2007	0	0	100%

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27. Therefore, the contributions transmitted to the System in the year following the Actuarial Valuation are equal to the Annual Required Contribution (ARC). However, Ordinance AO 94-95 ceased contributions to Plan III on July 24, 1994.



Actuarial Valuation as of January 1, 2008

# TABLE 6 DISCLOSURE INFORMATION - GASB STATEMENT No. 50

#### Plan I

#### SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Entry Age (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) ÷ c)
January 1, 2008	\$106,988	\$94,085	\$(12,903)	113.7%	\$336	-3,834.8%

This schedule is Required Supplementary Information under paragraph 6 of GASB 50. Plans that use the aggregate method for funding are required to present this schedule using the Entry Age actuarial cost method as a surrogate for the funding progress of the plan.



Actuarial Valuation as of January 1, 2008

# Table 6 Disclosure Information - GASB Statement No. 50 (Continued)

#### Plan II

## SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Entry Age (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) ÷ c)
January 1, 2008	\$74,765	\$67,463	\$(7,302)	110.8%	\$1,055	-692.3%

This schedule is Required Supplementary Information under paragraph 6 of GASB 50. Plans that use the aggregate method for funding are required to present this schedule using the Entry Age actuarial cost method as a surrogate for the funding progress of the plan.



Actuarial Valuation as of January 1, 2008

# Table 6 Disclosure Information - GASB Statement No. 50 (Continued)

#### Plan III

# SCHEDULE OF FUNDING PROGRESS

(Dollar Amounts in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Entry Age (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) ÷ c)
January 1, 2008	\$232,051	\$207,442	\$(24,609)	111.9%	\$8,132	-302.6%

This schedule is Required Supplementary Information under paragraph 6 of GASB 50. Plans that use the aggregate method for funding are required to present this schedule using the Entry Age actuarial cost method as a surrogate for the funding progress of the plan.



#### Actuarial Valuation as of January 1, 2008

# Section 3 ACTUARIAL METHODS AND ASSUMPTIONS

This section of the report describes the actuarial methods and assumptions used in this valuation. The actuarial methods and assumptions have been chosen on the basis of recent experience of the Plans and on current expectations as to future economic conditions. The assumptions are intended to estimate the future experience of the members of the Plans and of the Plans themselves in areas that affect the projected benefits and anticipated investment earnings. Any variations in future experience from that expected from the assumptions will result in corresponding changes in the estimated liabilities for future benefits.

A thorough examination of all of the methods and assumptions was last performed for the 2007 Experience Analysis. For the 2008 valuation, Milliman has used all assumptions and methods as stated in the 2007 Experience Analysis valuation report. For a detailed description of the development of the assumptions refer to our 2007 Experience Analysis report dated October 4, 2007.

#### STANDARDS OF PRACTICE

- ♦ The economic assumptions have been developed in accordance with Actuarial Standard of Practice No. 27, Selection of Economic Assumptions for Measuring Pension Obligations.
- ◆ The demographic assumptions have been developed in accordance with Actuarial Standard of Practice No. 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations.
- We relied on the membership data furnished by the System. Although we did not audit this data, we compared the data for this and prior reports and tested for reasonableness. Based on these tests, we believe the data to be sufficiently accurate for the purposes of our calculations. Our review of the data was performed in accordance with the Actuarial Standard of Practice No. 23, Data Quality.
- ♦ Methods and assumptions have been developed in conformance with the Actuarial Standard of Practice No. 4, *Recommendations for Measuring Pension Obligations.*

#### **RECORDS AND DATA**

The data used in the valuation consist of financial information and records of age, service and income of contributing members, former contributing members and their survivors. All of the data were supplied by the Municipality and are accepted for valuation purposes without audit.



#### Actuarial Valuation as of January 1, 2008

#### **ACTUARIAL COST METHOD**

The accruing costs of all benefits under each Plan are measured by a Modified Aggregate Actuarial Cost Method.

The difference between the Actuarial Present Value of Projected Benefits and the Actuarial Value of Assets is called the Unfunded Projected Liability. Under an Unmodified Aggregate Actuarial Cost Method, the Unfunded Projected Liability is allocated on a level basis over the future earnings or service of the active population. At the request of the Board, we have employed a Modified Aggregate Actuarial Cost Method in which the Unfunded Projected Liability is amortized over a fixed amortization period (15 years for Plans I, II, and III).

#### **VALUATION ASSETS**

Asset values were supplied by the Anchorage Police and Fire System and were accepted without audit. The Actuarial Value of Assets is equal to the Fair Market Value.

#### **INVESTMENT EARNINGS**

The future investment earnings of the assets of the plan are assumed to accrue at an annual rate of 8%, compounded annually, net of investment and administrative expenses.

#### INTEREST ON MEMBER CONTRIBUTIONS

Interest on member contributions is assumed to accrue at a net annual rate of 4%, compounded annually through December 31, 1993, and compounded bi-weekly thereafter.

#### POST-RETIREMENT BENEFIT INCREASES

It is assumed that the Consumer Price Index will increase at a rate of 3.0% per year, so that Plan III retirement allowances will increase at the rate of 0.75% per year for present retirees and after retirement for current active members and their beneficiaries for payments after their 20th anniversary of hire, and 1.50% after their 25th anniversary of hire. The cost-of-living adjustments are assumed to begin immediately for disabled participants and beneficiaries.

#### **FUTURE SALARIES**

The total annual rate of salary increase was assumed to be 3.5% per annum.



## Actuarial Valuation as of January 1, 2008

#### **SERVICE RETIREMENT**

The rates of retirement used in this valuation are shown below.

Plans I and II		Plan III	
Service	Rates	Service	Rates
20	27.5%	15	17.5%
21 – 22	12.5%	16 – 18	7.5%
23+	20.0%	19	7.5%
		20	15.0%
Age 57 & 5 Years		21 – 22	15.0%
of Service	100.0%	23 – 24	15.0%
		25 & Up	15.0%
		Age 60 & 5 Years of	
		Service	100.0%

#### **DISABLEMENT**

The rates of disablement used in this valuation are shown below. However, the service retirement benefit is assumed payable if it is projected to be greater than the disability benefit.

Age	Occupational Disability	Non-Occupational Disability
Plans I and II		
20 to 29	0.1%	0.1%
30 to 34	1.6%	0.1%
35 to 39	1.6%	0.1%
40 to 44	1.6%	0.4%
45 to 49	2.0%	1.0%
50 to 54	6.0%	2.0%
55+	10.0%	5.0%

Age	Occupational Disability	Non-Occupationa Disability	
Plan III			
20 to 29	0.2%	0.1%	
30 to 39	0.2%	0.2%	
40 to 44	0.5%	0.3%	
45 to 49	1.5%	0.4%	
50 to 54	5.0%	0.0%	
55+	6.0%	0.0%	



### Actuarial Valuation as of January 1, 2008

#### **MORTALITY**

The probabilities of mortality for healthy lives are based on the UP-1994 Table, set back one year for males and females. Disabled mortality was assumed to follow the UP-1984 Table set forward two years.

#### **CAUSE OF DEATH**

When a Heart/Lung presumption is in effect, 80% of deaths are assumed to be Occupational and when a Heart/Lung presumption is not in effect, 20% of deaths are assumed to be Occupational. An Occupational death is a death that results in an Occupational Death Benefit being payable to the survivor of the deceased member under the terms of Plan I, Plan II, or Plan III.

#### OTHER TERMINATIONS OF EMPLOYMENT

The rates of assumed future withdrawal from active service for reasons other than death, disability or retirement are shown below. All members terminating before retirement, death, or disability are assumed to receive a distribution of their account balance in lieu of a deferred pension.

Member's Service	Rate of Termination	
1 <sup>st</sup> Year	8%	
2 <sup>nd</sup> –3 <sup>rd</sup> Years	3%	
4 <sup>th</sup> – 7 <sup>th</sup> Years	2%	
8 <sup>th</sup> or Later Years	1%	

#### **FAMILY COMPOSITION**

Reported marital status and the reported number of dependents are assumed to remain unchanged in the future. Wives are assumed to be four years younger than their husbands. Dependent children were assumed to have the following years left until their 18th birthday:

Member's Age	Years Until Age 18
20-39	18
40-44	9
45-49	5
50+	0



#### **Actuarial Valuation as of January 1, 2008**

# Section 4 Summary of Plan Provisions

#### Plan I

#### **EFFECTIVE DATE**

Plan I became effective as of July 1, 1968.

#### **MEMBERSHIP**

Enrollment in the Plans is closed for all new police officers and firefighters. In the Spring of 1984, an open enrollment allowed Plan I Members to switch into Plan III.

#### **CREDITED SERVICE**

Credited Service is the total period of regular full-time employment with the Municipality as a police officer or firefighter.

#### **BREAK IN SERVICE**

If a Member terminates employment prior to becoming eligible for a retirement benefit and subsequently is reemployed, all Credited Service accumulated prior to the date of termination will be reinstated once the Member makes a contribution to the Plan equal to the amount of the refund paid upon the earlier termination, including interest until the date of repayment. However, the contribution must be made within two years after reemployment. Membership will resume in the same plan the Member participated in at the time of termination, or the Member may elect to participate in the plan being offered to new Members, unless the Member previously elected not to participate. Benefit levels and entitlements are those in effect upon the date of reemployment.

#### **AVERAGE MONTHLY COMPENSATION**

Total compensation during three consecutive calendar years of Credited Service which yield the highest average monthly compensation (total compensation during period divided by number of months included). Compensation means that remuneration paid by the Municipality of Anchorage for personal services rendered during the period considered as credited service. This includes compensation reported on federal W-2 forms, temporary disability benefits and excludes meal and clothing allowances and annual leave cash-in.



#### **Actuarial Valuation as of January 1, 2008**

#### **MEMBER CONTRIBUTIONS**

Plan I Members will make contributions not to exceed 6% compensation. If the plan is determined to be in a significant actuarial surplus position, no Member contributions will be required.

#### **VOLUNTARY RETIREMENT BENEFIT**

**Eligibility:** The earlier of the completion of 20 years of total Credited Service, or the attainment of age 55 with a minimum of 5 years of Credited Service.

**Benefit:** 2.5% of Average Monthly Compensation times the number of years of Credited Service

#### **TERMINATION BENEFIT**

A Member who terminates employment before completing five years of Credited Service will receive all of the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly. Payment is made upon application or age 62.

A vested Member who terminates employment prior to being eligible for the voluntary retirement benefit may elect one of the following two benefits:

- (a) Withdrawal of all the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly.
- (b) A lifetime benefit beginning at age 55 equaling 2.5% of Average Monthly Compensation times the number of years of total Credited Service.

#### **OCCUPATIONAL DISABILITY**

#### **Definition:**

- (a) Any injury received while performing official duties for the Municipality of Anchorage, or
- (b) Any heart, lung, or respiratory system illnesses occurring before or after retirement, or which renders a Member incapable of performing normal assigned duties. Heart, lung or respiratory system illness or injury shall be construed as an illness contracted or injury received in the performance of official duty.

**Benefit:** A monthly pension of 66-2/3% of the Member's gross monthly compensation at the time of disability, payable for life or until the Member is capable of resuming similar duty with any police or fire department.



#### Actuarial Valuation as of January 1, 2008

#### **NON-OCCUPATIONAL DISABILITY**

**Eligibility:** Five years of Credited Service prior to the date of disability.

**Definition:** Any non-occupational disability which renders a Member incapable of performing the Member's assigned duties. This definition excludes elective surgery not required for the preservation of the Member's health.

**Benefit:** A monthly pension of 50% of gross compensation at the time of disability, payable for life or until the Member is capable of resuming similar duties with any police or fire department.

#### **OCCUPATIONAL DEATH BENEFIT**

**Definition:** The death of an active Member or retired Member caused by an accident occurring during the performance of official duties for the Municipality of Anchorage, or by any heart, lung, or respiratory system illness.

**Benefit:** A monthly pension of 66-2/3% of the Member's monthly compensation, payable as designated by the Member to the surviving spouse or the surviving children until the surviving children reach the age of 18. The Member may designate the portion of the benefit paid to the surviving spouse and the portion paid to surviving children. The surviving spouse is entitled to receive at least 50% of the retirement benefits the Member was entitled to receive at death. In the event the participant makes no designation, then the surviving beneficiaries will receive the benefit in the following priority:

- (a) surviving spouse,
- (b) surviving children under the age of 18,
- (c) disabled children, regardless of age,
- (d) dependent parents.
- (e) dependent siblings under the age of 18.

#### **NON-OCCUPATIONAL DEATH BENEFIT**

**Benefit:** A monthly pension of 50% of the Member's monthly compensation payable in the same manner as the occupational death benefit described above. However, in the event of the death of a retired member, the amount of the monthly non-occupational death benefit may not exceed the amount of the monthly retirement benefit the retiree was receiving while alive.

#### **OPTIONAL FORM OF BENEFIT**

Members of Plan I may elect to participate in the Actuarial DROP program when they would otherwise be eligible for normal or early retirement. The DROP period must be between two and five years. DROP participation periods must be in full year increments. For every year served in the DROP, the member may elect to receive five percent (5%) of the monthly pension benefit calculated at the time of retirement in a lump sum form. The lump sum is computed to be actuarially equivalent to the DROP percentage of the member's monthly pension.



## Actuarial Valuation as of January 1, 2008

#### SUMMARY OF PLAN PROVISIONS

#### Plan II

#### **EFFECTIVE DATE**

Plan II became effective as of July 1, 1977.

#### **MEMBERSHIP**

Enrollment in the Plan is closed for all new police officers and firefighters. In the Spring of 1984, an open enrollment allowed Plan II Members to switch into Plan III.

#### **CREDITED SERVICE**

Credited Service is the total period of regular full-time employment with the Municipality as a police officer or firefighter.

#### **BREAK IN SERVICE**

If a Member terminates employment prior to becoming eligible for a retirement benefit and subsequently is reemployed, all Credited Service accumulated prior to the date of termination will be reinstated once the Member makes a contribution to the Plan equal to the amount of the refund paid upon the earlier termination, including interest until the date of repayment. However, the contribution must be made within two years after reemployment. Membership will resume in the same plan the Member participated in at the time of termination, or the Member may elect to participate in the plan being offered to new Members, unless the Member previously elected not to participate. Benefit levels and entitlements are those in effect upon the date of reemployment.

#### **AVERAGE MONTHLY COMPENSATION**

Total compensation during three consecutive calendar years of Credited Service which yield the highest average monthly compensation (total compensation during period divided by number of months included). Compensation means that remuneration paid by the Municipality of Anchorage for personal services rendered during the period considered as credited service. This includes compensation reported on federal W-2 forms, temporary disability benefits and excludes meal and clothing allowances and annual leave cash-in.



### Actuarial Valuation as of January 1, 2008

#### **MEMBER CONTRIBUTIONS**

Plan II Members will make contributions not to exceed 6% compensation. If the plan is determined to be in a significant actuarial surplus position, no Member contributions will be required.

#### **VOLUNTARY RETIREMENT BENEFIT**

**Eligibility:** The earlier of the completion of 20 years of total Credited Service, or the attainment of age 55 with a minimum of 5 years of Credited Service.

**Benefit:** 2.5% of Average Monthly Compensation times the number of years of Credited Service.

#### **TERMINATION BENEFIT**

A Member who terminates employment before completing five years of Credited Service will receive all of the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly. Payment is made upon application or age 62.

A vested Member who terminates employment prior to being eligible for the voluntary retirement benefit may elect one of the following two benefits:

- (a) Withdrawal of all the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly.
- (b) A lifetime benefit beginning at age 55 equaling 2.5% of Average Monthly Compensation times the number of years of total Credited Service.

#### **OCCUPATIONAL DISABILITY**

#### **Definition:**

- (a) Any injury received while performing official duties for the Municipality of Anchorage, or
- (b) Any heart, lung, or respiratory system illnesses occurring before or after retirement, or which renders a Member incapable of performing normal assigned duties. Plan II Members who retired under Voluntary Retirement or are receiving a Non-Occupational Disability Benefit are not eligible for conversion to occupational disability benefits after the seventh anniversary of retirement. Heart, lung or respiratory system illness or injury shall be construed as an illness contracted or injury received in the performance of official duty.

**Benefit:** A monthly pension of 66-2/3% of the Member's gross monthly compensation at the time of disability, payable for life or until the Member is capable of resuming similar duty with any police or fire department.



#### Actuarial Valuation as of January 1, 2008

#### **NON-OCCUPATIONAL DISABILITY**

**Eligibility:** Five years of Credited Service prior to the date of disability.

**Definition:** Any non-occupational disability which renders a Member incapable of performing the Member's assigned duties. This definition excludes elective surgery not required for the preservation of the Member's health.

**Benefit:** A monthly pension of 50% of gross compensation at the time of disability, payable for life or until the Member is capable of resuming similar duties with any police or fire department.

#### **OCCUPATIONAL DEATH BENEFIT**

**Definition:** The death of an active Member or retired Member caused by an accident occurring during the performance of official duties for the Municipality of Anchorage, or by any heart, lung, or respiratory system illness. Plan II Members who retired under Voluntary Retirement or are receiving a Non-Occupational Disability Benefit are not eligible for conversion to occupational death benefits after the seventh anniversary of retirement.

**Benefit:** A monthly pension of 66-2/3% of the Member's monthly compensation, payable as designated by the Member to the surviving spouse or the surviving children until the surviving children reach the age of 18. The Member may designate the portion of the benefit paid to the surviving spouse and the portion paid to surviving children. The surviving spouse is entitled to receive at least 50% of the retirement benefits the Member was entitled to receive at death. In the event the participant makes no designation, then the surviving beneficiaries will receive the benefit in the following priority:

- (a) surviving spouse,
- (b) surviving children under the age of 18,
- (c) disabled children, regardless of age,
- (d) dependent parents.
- (e) dependent siblings under the age of 18.

#### **NON-OCCUPATIONAL DEATH BENEFIT**

**Benefit:** A monthly pension of 50% of the Member's monthly compensation payable in the same manner as the occupational death benefit described above. However, in the event of the death of a retired member, the amount of the monthly non-occupational death benefit may not exceed the amount of the monthly retirement benefit the retiree was receiving while alive.

#### **OPTIONAL FORM OF BENEFIT**

Members of Plan II may elect to participate in the Actuarial DROP program when they would otherwise be eligible for normal or early retirement. The DROP period must be between two and five years. DROP participation periods must be in full year increments. For every year served in the DROP, the member may elect to receive five percent (5%) of the monthly pension benefit calculated at the time of retirement in a lump sum form. The lump sum is computed to be actuarially equivalent to the DROP percentage of the member's monthly pension.



# Actuarial Valuation as of January 1, 2008

#### **SUMMARY OF PLAN PROVISIONS**

#### Plan III

#### **EFFECTIVE DATE**

Plan III became effective April 17, 1984.

#### **M**EMBERSHIP

Enrollment in the Plan is closed to all new police officers and firefighters. In the Spring of 1984, an open enrollment allowed Plan I and 2 Members to switch into Plan III.

#### **CREDITED SERVICE**

Credited Service is the total period of regular full-time employment with the Municipality as a police officer or firefighter.

#### **BREAK IN SERVICE**

If a Member terminates employment prior to becoming eligible for a retirement benefit and subsequently is reemployed, all Credited Service accumulated prior to the date of termination will be reinstated after the Member makes a contribution to the Plan equal to the amount of the refund paid upon the earlier termination, including interest until the date of repayment. However, the contribution must be made within two years after reemployment.

#### FINAL AVERAGE COMPENSATION

Average compensation during the last 52 biweekly pay periods, or any two consecutive tax years, whichever is higher. Compensation means the sum of the basic hourly wage, longevity, holiday pay, shift differential and educational pay received by a Member from Anchorage.

#### **MEMBER CONTRIBUTIONS**

Plan III Members will make contributions not to exceed 6% compensation. If the plan is determined to be in a significant actuarial surplus position, no Member contributions will be required.

#### **NORMAL SERVICE RETIREMENT**

Eligibility: 20 years of Credited Service.

Benefit: 2.5% of Final Average Compensation times the number of years of Credited Service.



#### Actuarial Valuation as of January 1, 2008

#### **EARLY SERVICE RETIREMENT**

**Eligibility:** 15 years of Credited Service.

**Benefit:** 2.5% of Final Average Compensation times the number of years of Credited Service, payable for life. The cost-of-living adjustment is not available until 20 years total service would have been obtained.

#### **TERMINATION BENEFIT**

A Member who terminates employment before completing five years of Credited Service will receive all of the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly upon request or at age 62.

A vested Member who terminates employment prior to being eligible for service retirement may elect one of the following:

- (a) Withdrawal of all the Member's contributions to the Plan plus interest at the nominal annual rate of 4% compounded bi-weekly.
- (b) The accrued Service Retirement Benefit beginning at the earlier of age 55 or when the Member would have completed 20 years of service.

#### **OCCUPATIONAL DISABILITY**

**Definition:** Any injury received while performing official duties for the Municipality of Anchorage, or any heart, lung, or respiratory system illness are rebuttably presumed to be an occupational disability. Disability must occur prior to termination.

**Benefit:** A monthly pension of 50% of the Member's final average compensation at the time of disability. The benefit is payable for life or until the Member is capable of resuming assigned duties similar to their pre-disability assigned duties, with any police or fire department, and is offset by any other wage continuation benefits attributable to the Municipality.

#### **NON-OCCUPATIONAL DISABILITY**

**Eligibility:** Five years of Credited Service prior to the date of disability.

**Definition:** Any non-occupational disability which renders a Member incapable of performing assigned duties similar to their pre-disability assigned duties. This definition excludes elective surgery not required for the preservation of the Member's health.

**Benefit:** A monthly pension of 25% of final average compensation if the Member retires after more than 5 years but less than 10 years of credited service. For every additional year of credited service more than 10 years up to 20 years, the benefit is increased by 2.5% of final average compensation. The benefit is payable for life or until the Member is capable of resuming duties with any police or fire department.



#### **Actuarial Valuation as of January 1, 2008**

#### **OCCUPATIONAL DEATH BENEFIT**

The benefit is the greater of the following:

- (a) 100% of the occupational disability benefit to which the Member would have been entitled had the Member survived with a disability. For a retired member, this amount is computed as of retirement date and increased by the COLA accrued since retirement on the benefit actually received by the retired member while alive, or,
- (b) For an active member, 75% of the service retirement benefit to which the Member would have been entitled had the Member survived. For a retired member, 75% of the service retirement benefit, occupational disability benefit, or non-occupational disability benefit the member was receiving at the time of death, including the COLA accrued on the retired member's benefit at the time of death.

Where a Heart/Lung/Respiratory occupational presumption is not available, the survivor must prove that the member's death was due to an occupational cause in order to qualify for this benefit. There is no occupational presumption available subsequent to termination of employment as an active Plan III member.

#### Non-Occupational Death Benefit

The benefit is the greater of the following:

- (a) 100% of the non-occupational disability benefit to which the Member would have been entitled had the Member survived with a disability. For a retired member, this amount is computed as of retirement date and increased by the COLA accrued since retirement on the benefit actually received by the retired member while alive, or,
- (b) For an active member, 75% of the service retirement benefit to which the Member would have been entitled had the Member survived. For a retired member, 75% of the service retirement benefit, occupational disability benefit, or non-occupational disability benefit the member was receiving at the time of death, including the COLA accrued on the retired member's benefit at the time of death.

The Occupational and Non-Occupational death benefits are payable as designated by the Member to the surviving spouse or the surviving children until the surviving children reach the age of 18. The Member may designate the portion of the benefit paid to the surviving spouse and the portion paid to surviving children. The surviving spouse is entitled to receive at least 50% of the retirement benefits the Member was entitled to receive at death. In the event the participant makes no designation, then the surviving beneficiaries will receive the benefit in the following priority:

- (a) surviving spouse,
- (b) surviving children under the age of 18,
- (c disabled children, regardless of age,
- (d) dependent parents,
- (e) dependent siblings under the age of 18.



#### **Actuarial Valuation as of January 1, 2008**

#### **CHILDREN'S BENEFIT**

5% of final average compensation for each dependent child, up to 10%, is payable monthly with disability benefits and to surviving spouse's with dependent children until age 18.

#### **COST-OF-LIVING ADJUSTMENT**

All service retirees after 20 years from date of entry, disability, and survivor's and children's benefits are subject to an annual cost-of-living adjustment equal to the lesser of 3% or 25% of the CPI. Starting 25 years from date of hire, annual COLA is limited to 6% or 50% of the CPI. The CPI shall be the Anchorage CPI Urban Consumers Index or such other inflation index if the Anchorage CPI Urban Consumers Index ceases to exist. This adjustment is generally effective each July 1.

#### **OPTIONAL FORM OF BENEFIT**

Members of Plan III may elect to participate in the Actuarial DROP program when they would otherwise be eligible for normal or early retirement. The DROP period must be between two and five years. DROP participation periods must be in full year increments. For every year served in the DROP, the member may elect to receive five percent (5%) of the monthly pension benefit calculated at the time of retirement in a lump sum form. The lump sum is computed to be actuarially equivalent to the DROP percentage of the member's monthly pension, without the value of future Cost-of-Living adjustments. The COLA on the portion of the member's monthly pension will be calculated based on the full monthly benefit without reduction for the DROP lump sum.

#### Actuarial Valuation as of January 1, 2008

# Section 5 SUMMARY OF MEMBERSHIP DATA

The collection and analysis of the membership data was performed in the same manner as last year. There were no unusual changes in the number of members during 2007. The number of active members continues to decline because all Plans are closed to new members.

The following tables depict the membership data that was used in the valuation.

Table 7 is a five-year history of membership characteristics for each Plan.

Table 8 displays the data included in this valuation for the vested terminated members.

Table 9 is a distribution of the active members by age, service and salary.

Table 10 displays the number of retirees and beneficiaries by Plan in 5-year age groups and the total monthly benefit on record for each group.



Actuarial Valuation as of January 1, 2008

# TABLE 7 HISTORICAL MEMBERSHIP SUMMARY - PLAN I

Activ	e Members	1-1-04	1-1-05	1-1-06	1-1-07	1-1-08
(1)	Number	13	7	6	5	3
(2)	Average Current Age	53.6	54.0	55.3	56.4	58.3
(3)	Average Service to Date	28.8	29.7	31.1	32.6	35.0
(4)	Average Salary	\$91,611	\$103,160	\$107,848	\$104,416	\$110,261
Term	inated Members					
(5)	Number					
(6)	Average Age					
(7)	Average Monthly Benefit					
	ees, Beneficiaries, and native Payees (QDROs)					
(8)	Number	223	231	228	227	228
(9)	Average Age	61.6	62.2	62.9	63.6	64.5
(10)	Average Monthly Benefit	\$2,929	\$2,973	\$3,003	\$3,033	\$3,074



Actuarial Valuation as of January 1, 2008

# TABLE 7 HISTORICAL MEMBERSHIP SUMMARY - PLAN II

Activ	e Members	1-1-04	1-1-05	1-1-06	1-1-07	1-1-08
, 101.1						
(1)	Number	22	16	14	11	9
(2)	Average Current Age	48.8	49.3	50.4	51.4	51.6
(3)	Average Service to Date	21.8	22.4	23.5	24.5	25.0
(4)	Average Salary	\$90,513	\$95,935	\$105,690	\$106,690	\$115,219
Term	inated Members					
(5)	Number	5	4	3	2	1
(6)	Average Age	52.0	52.3	52.3	52.5	51.0
(7)	Average Monthly Benefit	\$1,903	\$2,081	\$2,069	\$2,227	\$2,182
	ees, Beneficiaries, and native Payees (QDROs)					
(8)	Number	102	109	111	114	117
(9)	Average Age	53.5	53.8	55.0	55.8	56.8
(10)	Average Monthly Benefit	\$3,690	\$3,716	\$3,691	\$3,742	\$3,762



Actuarial Valuation as of January 1, 2008

TABLE 7
HISTORICAL MEMBERSHIP SUMMARY - PLAN III

Activ	e Members	1-1-04	1-1-05	1-1-06	1-1-07	1-1-08	
(1)	Number	167	151	124	104	92 <sup>(1)</sup>	
(2)	Average Current Age	44.7	45.4	45.6	46.1	46.6	
(3)	Average Service to Date	15.9	16.4	16.5	16.9	17.5	
(4)	Average Salary	\$75,913	\$76,842	\$81,730	\$83,288	\$86,902	
Term	inated Members						
(5)	Number	11	9	10	10	10	
(6)	Average Age	40.7	40.6	41.7	42.7	43.7	
(7)	Average Monthly Benefit	nthly Benefit \$1,341 \$1,317 \$1,366		\$1,366	\$1,366	\$1,366	
Retirees, Beneficiaries <sup>(2)</sup> , and Alternative Payees (QDROs)							
(8)	Number	297	314	322	343	354	
(9)	Average Age	52.8	53.4	56.6	57.0	57.6	
(10)	Average Monthly Benefit	\$2,545	\$2,618	\$2,850	\$2,918	\$2,965	

<sup>(1)</sup> Excludes one active member on unpaid leave.

<sup>(2)</sup> Excludes Child Beneficiaries with benefit payments scheduled to stop at age 18.

# Actuarial Valuation as of January 1, 2008

# TABLE 8 SUMMARY OF TERMINATED MEMBERS

Name	Monthly Benefit (for valuation purposes only)	Date of Birth	Assumed Retirement Date
PLAN I None			
PLAN II Dahl, Mathew H.	\$ 2,181.50	June 9, 1957	July 1, 2012
PLAN III  Anderson, Scott C. Cross, Ken L. Dow, Gloria T. Dutton, Robert J. Herrera, Bryan N. Martin Jr., Ronald D. Oruoja, Indrek E. Shelton, Chris E. Smith, Terrance R. Take, Flint A.	\$ 1,493.10 807.74 872.73 1,760.71 1,803.92 1,559.73 1,471.94 1,264.92 1,356.46 1,267.30	May 10, 1965 October 10, 1961 September 23,1964 April 11, 1969 May 8, 1963 July 26, 1963 May 18, 1961 September 2, 1966 June 1, 1964 December 29, 1962	August 1, 2010 January 1, 2011 November 1, 2013 March 1, 2012 September 1, 2013 January 1, 2011 September 1, 2013 September 1, 2013 September 1, 2013 August 1, 2010



# Actuarial Valuation as of January 1, 2008

# TABLE 9 ACTIVE MEMBER AGE AND SERVICE DISTRIBUTIONS - PLAN I

ANNUAL	<b>EARNINGS</b>	ΒY	Age
--------	-----------------	----	-----

Age Group	Count	Total Earnings	Average Earnings		
25-29 30-34 35-39 40-44 45-49					
50-54 55-59 60-64 65-69	3	\$ 330,782	\$ 110,261		
Total	3	\$ 330,782	\$ 110,261		

#### **ANNUAL EARNINGS BY SERVICE**

Service Group	Count	Total Earnings	Average Earnings
0-4			
5-9			
10-14			
15-19			
20-24			
25-29			
30 & up	3	\$ 330,782	\$ 110,261
Total	3	\$ 330,782	\$ 110,261

#### YEARS OF SERVICE BY AGE

Age								
<u>Group</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30&amp;up</u>	<u>Total</u>
25-29								
30-34								
35-39								
40-44								
45-49								
50-54								
55-59							3	3
60-64								
65-69								
Total							3	3

# Actuarial Valuation as of January 1, 2008

TABLE 9
ACTIVE MEMBER AGE AND SERVICE DISTRIBUTIONS - PLAN II

ΔΝΝΙΙΛΙ	<b>EARNINGS BY</b>	ΔGE
ANNUAL	EARNINGS BY	AGE

				_	
Age Group	Count	Total Earnings	Average Earnings		
25-29 30-34 35-39 40-44					•
45-49 50-54 55-59 60-64	2 6 1	\$ 247,432 669,504 120,032	\$	123,716 111,584 120,032	
Total	9	\$ 1,036,968	\$	115,219	

#### ANNUAL EARNINGS BY SERVICE

		,	
Service		Total	Average
Group	Count	Earnings	Earnings
0-4			
5-9			
10-14			
15-19	1	\$ 96,238	\$ 96,238
20-24	3	309,784	103,261
25-29	5	630,946	126,189
30 & up			
Total	9	\$ 1.036.968	\$ 115.219

#### YEARS OF SERVICE BY AGE

Age								
<u>Group</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	30&up	<u>Total</u>
25-29								
30-34								
35-39								
40-44								
45-49					1	1		2
50-54				1	2	3		6
55-59						1		1
60-64								
65-69								
Total				1	3	5		9

# Actuarial Valuation as of January 1, 2008

TABLE 9
ACTIVE MEMBER AGE AND SERVICE DISTRIBUTIONS - PLAN III

#### **ANNUAL EARNINGS BY AGE**

Age Group	Count	Total Earnings	Average Earnings
25-29			
30-34			
35-39	7	\$ 607,092	\$ 86,727
40-44	27	2,321,125	85,968
45-49	39	3,283,844	84,201
50-54	8	758,986	94,873
55-59	9	824,593	91,621
60-64	9	84,610	84,610
65-69	1	114,742	114,742
Total	92*	\$ 7,994,992	\$ 86,902

#### ANNUAL EARNINGS BY SERVICE

Service Group	Count	Total Earnings	Average Earnings	
0-4	Oddit	Lamings	 Larrings	_
• .				
5-9				
10-14	26	\$ 2,146,247	\$ 82,548	
15-19	51	4,437,156	87,003	
20-24	7	621,049	88,721	
25-29	6	594,906	99,151	
30 & Up	2	195,634	97,817	
Total	92*	\$ 7,994,992	\$ 86.902	

<sup>\*</sup> Excludes one active member on unpaid leave.

#### YEARS OF SERVICE BY AGE

Age <u>Group</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	30 & Up	<u>Total</u>
25-29								
30-34								
35-39			3	4				7
40-44			9	17	1			27
45-49			13	23	3			39
50-54			2	4	1	2		9
55-59				2	2	3	2	9
60-64				1				1
65-69						1		1
Total			27	51	7	6	2	93



# Actuarial Valuation as of January 1, 2008

# TABLE 10 RETIREE AND BENEFICIARY DISTRIBUTIONS

#### PLAN 1

#### Distribution of Service Retirees January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 50	0	\$ 0	\$ 0
50 – 54	7	34,320	4,903
55 – 59	44	186,373	4,236
60 – 64	23	92,265	4,012
65 – 69	10	41,008	4,101
70 – 74	8	23,914	2,989
75 – 79	7	14,815	2,116
80+	_4	<u>4,848</u>	<u> 1,212</u>
Totals	103	\$ 397,543	\$ 3,860

#### PLAN 1

# Distribution of Occupational Disability Retirees January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 50	0	\$ 0	\$ 0
50 – 54	2	5,679	2,840
55 – 59	10	36,600	3,660
60 – 64	14	51,166	3,655
65 – 69	9	27,294	3,033
70 – 74	12	37,171	3,098
75 – 79	3	6,968	2,323
80 - 84	4	8,300	2,075
85+	1	985	<u>985</u>
Totals	55	\$ 174,163	\$ 3,167

# Actuarial Valuation as of January 1, 2008

PLAN 1

Distribution of Non-Occupational Disability Retirees

January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 55	0	\$ 0	\$ 0
55 – 59	2	3,869	1,935
60 – 64	8	14,437	1,805
65 – 69	2	3,745	1,873
70 – 74	1	2,709	2,709
75+	0	0	0
Totals	13	\$ 24,760	\$ 1,905

#### PLAN 1

## Distribution of Survivors January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 45	0	\$ 0	\$ 0
45 – 49	2	7,796	3,898
50 – 54	3	9,652	3,217
55 – 59	1	3,454	3,454
60 – 64	6	15,808	2,635
65 – 69	5	10,728	2,146
70 – 74	5	9,867	1,973
75 – 79	9	17,283	1,920
80 – 84	5	5,873	1,175
85+	_2	<u>1,390</u>	<u>695</u>
Totals	38	\$ 81,852	\$ 2,154

# Actuarial Valuation as of January 1, 2008

# PLAN 1 Distribution of Alternate Payees \* January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 55	0	\$ 0	\$ 0
55 – 59	8	8,987	1,123
60 - 64	8	9,897	1,237
65 – 69	2	1,722	861
70+	1	2,022	2,022
Totals	19	\$ 22,628	\$ 1,191

<sup>\*</sup> Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.

# Actuarial Valuation as of January 1, 2008

PLAN 2

Distribution of Service Retirees

January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 45	0	\$ 0	\$ 0
45 – 49	6	24,495	4,083
50 – 54	16	68,147	4,259
55 – 59	35	144,282	4,122
60 - 64	9	38,875	4,319
65 – 69	4	15,686	3,922
70+	_3	7,077	2,359
Totals	73	\$ 298,562	\$ 4,090

PLAN 2

Distribution of Occupational Disability Retirees
January 1, 2008

Age	Number	Total  Monthly Pension	Average Monthly Pension
Under 45	0	\$ 0	\$ 0
45 – 49	2	8,087	4,044
50 – 54	6	21,009	3,502
55 – 59	9	31,849	3,539
60 – 64	3	14,168	4,723
65 – 69	2	4,829	2,415
70+	_2	6,900	3,450
Totals	24	\$ 86,842	\$ 3,618

# Actuarial Valuation as of January 1, 2008

PLAN 2

Distribution of Non-Occupational Disability Retirees

January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 50	0	\$ 0	\$ 0
50 – 54	1	2,482	2,482
55 – 59	2	5,893	2,947
60 - 64	3	7,822	2,607
65 – 69	2	5,631	2,816
70+	0	0	0
Totals	8	\$ 21,828	\$ 2,729

#### PLAN 2

## Distribution of Survivors\* January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 40	2	\$ 6,632	\$ 3,316
40 – 44	0	0	0
45 – 49	2	8,445	4,223
50 – 54	1	3,232	3,232
55 – 59	2	6,499	3,250
60 – 64	0	0	0
65+	_ 2	6,289	3,145
Totals	9	\$ 31,097	\$ 3,455

<sup>\*</sup> Excludes two Annuities totaling \$1,836 per month being paid under installment options.



# Actuarial Valuation as of January 1, 2008

# PLAN 2 Distribution of Alternate Payees \* January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension	
Under 45	0	\$ 0	\$ 0	
45 – 49	1	313	313	
50 – 54	1	737	737	
55 – 59	0	0	0	
60 – 64	1	761	761	
65+	_0	0	0	
Totals	3	\$ 1,811	\$ 604	

<sup>\*</sup> Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.



# Actuarial Valuation as of January 1, 2008

PLAN 3

Distribution of Service Retirees
January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension	
Under 40	1	\$ 2,471	\$ 2,471	
40 – 44	9	25,058	2,784	
45 – 49	29	87,189	3,007	
50 – 54	56	186,262	3,326	
55 – 59	71	241,914	3,407	
60 – 64	59	187,586	3,179	
65 – 69	39	129,056	3,309	
70 – 74	11	37,160	3,378	
75 – 79	2	7,163	3,582	
80+	1	4,212	4,212	
Totals	278	\$ 908,071	\$ 3,266	

PLAN 3

Distribution of Occupational Disability Retirees
January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension	
Under 40	0	\$ 0	\$ 0	
40 – 44	1	2,362	2,362	
45 – 49	1	1,716	1,716	
50 – 54	10	27,823	2,782	
55 – 59	4	12,365	3,091	
60 - 64	3	8,444	2,815	
65 – 69	2	5,386	2,693	
70 – 74	1	3,277	3,277	
75+	_0	0	0	
Totals	22	\$ 61,373	\$ 2,790	

# Actuarial Valuation as of January 1, 2008

PLAN 3

Distribution of Non-Occupational Disability Retirees

January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 40	0	\$ 0	\$ 0
40 – 44	1	2,297	2,297
45 – 49	1	2,949	2,949
50 – 54	1	1,804	1,804
55 – 59	2	3,105	1,553
60 – 64	1	1,788	1,788
65 – 69	1	1,640	1,640
70 – 74	1	1,561	1,561
75+	_0	0	0
Totals	8	\$ 15,144	\$ 1,893

PLAN 3

## Distribution of Survivors\* January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension
Under 40	0	\$ 0	\$ 0
40 – 44	0	0	0
45 – 49	3	9,782	3,261
50 – 54	0	0	0
55 – 59	1	3,554	3,554
60 – 64	4	12,053	3,013
65 – 69	3	5,648	1,883
70 – 74	1	1,937	1,937
75+	_0	0	0
Totals	12	\$ 32,974	\$ 2,748

<sup>\*</sup>Excludes Child Beneficiaries with benefit payments scheduled to stop at age 18.



# Actuarial Valuation as of January 1, 2008

#### PLAN 3

## Distribution of Child Beneficiaries January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension	
Under 18	14	\$ 3,287	\$ 235	

#### PLAN 3

# Distribution of Alternate Payees \* January 1, 2008

Age	Number	Total Monthly Pension	Average Monthly Pension	
Under 40	0	\$ 0	\$ 0	
40 – 44	0	0	0	
45 – 49	3	2,314	771	
50 – 54	9	11,395	1,266	
55 – 59	10	7,899	790	
60 - 64	9	7,635	848	
65 – 69	3	2,905	968	
70+	0	0	0	
Totals	34	\$ 32,148	\$ 946	

<sup>\*</sup> Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.

Actuarial Valuation as of January 1, 2008

# Section 6 ALLOCATION OF RESERVES

The Retirement Board has established a procedure to allocate Actuarial Gains and Losses between the Benefit Enhancement Reserve and the Additional Contingency Reserve. The following is a description of each step used to determine the amount of the reserves as of the valuation date. This description, based on our current understanding of the procedures to calculate the allocation of reserves, represents a change in calculation method from our prior actuarial report.

- 1. Each Plan maintains a Contingency Reserve equal to 16% of the Projected Liability. Regardless of the experience that emerged during the previous year, the Contingency Reserve has first priority and will be funded each year at the 16% level.
- 2. The Surplus Assets are determined. Surplus Assets are equal to Plan Assets less the sum of the Projected Liability and the Contingency Reserve.
- 3. The Surplus Assets are allocated to the Additional Contingency Reserve (25%) and the Benefit Enhancement Reserve (75%).

The ending balances, including the distribution of the Surplus Assets to the Additional Contingency Reserve and the Benefit Enhancement Reserve, are summarized below.

(\$000)	Plan I	Plan II	<u>Plan III</u>	System <u>Total</u>
Projected Liability  Actuarial Value of Assets	\$ 94,085	\$ 68,097	\$ 215,494	\$ 377,675
		<u>74,765</u>	<u>232,051</u>	<u>413,804</u>
Unfunded Projected Liability	\$ (12,903)	\$ (6,668)	\$ (16,557)	\$ (36,128)
Contingency Reserve Additional Contingency Reserve Benefit Enhancement Reserve Total Reserves	\$ 15,054	\$ 10,896	\$ 34,478	\$ 60,428
	(538)	(1,057)	(4,480)	(6,075)
	(1,613)	(3,171)	(13,441)	(18,225)
	\$ 12,903	\$ 6,668	\$ 16,557	\$ 36,128

# Actuarial Valuation as of January 1, 2008

# TABLE 11 ALLOCATION OF RESERVES

	Plan I	Plan II	Plan III
January 1, 2007 Experience Analysis			
Projected Liability Contingency Reserve at 16% Subtotal	95,259.953 15,241,592 110,501,545	68,006,646 10,881,063 78,887,709	211,914,377 33,906,300 245,820,677
Available Assets at Fair Value Surplus Assets	110,130,822 (370,723)	76,384,759 (2,502,950)	233,337,613 (12,483,064)
Additional Contingency Reserves (25% of Surplus Assets)	(92,681)	(625,738)	(3,120,766)
Benefit Enhancement Reserves (75% of Surplus Assets)	(278,042)	(1,877,212)	(9,362,298)
January 1, 2008 Actuarial Valuation			
Projected Liability Contingency Reserve at 16% Subtotal	94,084,857 15,053,577 109,138,434	68,097,236 10,895,558 78,992,794	215,493,831 34,479,013 249,972,844
Available Assets at Fair Value Surplus Assets	106,987,684 (2,150,750)	<u>74,765,422</u> (4,227,372)	232,051,290 (17,921,554)
Additional Contingency Reserves (25% of Surplus Assets)	(537,688)	(1,056,843)	(4,480,388)
Benefit Enhancement Reserves (75% of Surplus Assets)	(1,613,062)	(3,170,529)	(13,441,166)

