## ANCHORAGE POLICE AND FIRE

 RETIREMENT SYSTEMACTUARY'S REPORT
(As of January 1, 2005)

Consultants and Actuaries

111 SW Fifth Avenue, Suite 3700
Portiand, OR 97204
Tet +1503227.0634
Fax +1503227.7956
www.milliman.com

April 13, 2005

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, 2005. Our findings are discussed in Section 1.

In preparing this report, we relied without audit upon the employee and beneficiary data furnished by the System. We believe this information is sufficient and reliable for the purposes of our calculations. We relied on Section 3.85 of the Anchorage Municipal Code on the City's website as of March 1, 2005. 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. 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 this report is complete and accurate to the best of our knowledge and belief. The report has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Standards of Practice adopted by the Actuarial Standards Board of the American Academy of Actuaries.

We further certify that, in our opinion, the actuarial assumptions used in the valuation are reasonably related to the past experience of the System. They represent our best estimate of future conditions affecting the System. Nevertheless, the emerging costs of the System will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. The Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Section 3.

Actuarial computations presented in this report are for purposes of determining the recommended funding levels for the members of the System and the Municipality of Anchorage. Actuarial computations under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations in this report have been

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made on a basis consistent with our understanding of the Retirement Board's funding policies and GASB Statement No. 25.

Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, different determinations may be needed for other purposes. Any distribution of the enclosed report must be in its entirety including this cover letter, unless prior written consent is obtained from Milliman.

Milliman has been engaged by the Anchorage Police and Fire Retirement System as an independent actuary. The undersigned is a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries and an Enrolled Actuary, is experienced in performing actuarial valuations for large public employee retirement systems and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report.


# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

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# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## Section 1 <br> Discussion of the Findings

## SCOPE OF THE REPORT

This report presents the preliminary results of the Actuarial Valuation of the Anchorage Police and Fire Retirement System as of January 1, 2005. The last Actuarial Valuation of the System was performed as of January 1, 2004.

The purpose of this actuarial valuation is to analyze the resources needed to meet the current and future obligations of the three Plans. This actuarial valuation provides the best estimate of the long-term financial condition of each Plan.

A summary of the findings and an analysis of the funding level are presented in this report. The final valuation report will include a number of important statements about the findings, actuarial assumptions and methods, and our reliance on the demographic and financial data.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## DEMOGRAPHIC DATA

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 1 | Plan III | Plan III | System |
| :---: | :---: | :---: | :---: | :---: |
| Total on January 1, 2004 | 221 | 125 | 449 | 795 |
| Active Members |  |  |  |  |
| Total on January 1, 2004 | 13 | 22 | 167 | 202 |
| Reinstatements | - | - | - | - |
| Vested Terminations | - | - | - | - |
| Service Retirements | (6) | (5) | (16) | (27) |
| Disability Retirements | - | (1) | - | (1) |
| Deaths | - | ) | - | - |
| Total on January 1, 2005 | 7 | 16 | 151 | 174 |
| Police Officers | 1 | 15 | 73 | 89 |
| Firefighters | 6 | 1 | 78 | 85 |
| Terminated Members |  |  |  |  |
| Total on January 1, 2004 | - | 5 | 11 | 16 |
| Reinstatements | - | - | - | - |
| New Terminations | - | - | - | - |
| Retirements | - | (1) | (2) | (3) |
| Total on January 1, 2005 | - | 4 | 9 | 13 |
| Benefit Recipients |  |  |  |  |
| Total on January 1, 2004 | 208 | 98 | 271 | 577 |
| Adjustment to Count | - | - | - | - |
| Service Retirements | 6 | 6 | 17 | 29 |
| Disability Retirements | - | 1 | 1 | 2 |
| Childrens' Benefit Started | - | 2 | - | 2 |
| Childrens' Benefit Ended | - | (1) | - | (1) |
| Deaths | (2) | (2) | (2) | (6) |
| Beneficiaries | 1 | 1 | 1 | 3 |
| Total on January 1, 2005 | 213 | 105 | 288 | 606 |
| Total on January 1, 2005 | 220 | 125 | 448 | 793 |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

The next table shows the number of Alternate Payees currently being paid. Note we have not included them in the previous table. Below, we also show the number of Children's Benefits currently being paid.

|  | Plan 1 | Plan II | Plan III | System |
| :---: | :---: | :---: | :---: | :---: |
| Alternate Payees (not included above) |  |  |  |  |
| Total on January 1, 2004 | 15 | 4 | 26 | 45 |
| QDROs Established QDROs Terminated | $\begin{array}{r} 3 \\ 10) \\ \hline \end{array}$ | $\begin{gathered} 1 \\ (1) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (1) \\ \hline \end{gathered}$ | $\begin{gathered} 5 \\ (2) \\ \hline \end{gathered}$ |
| Total on January 1, 2005 | 18 | 4 | 26 | 48 |
| Children's Benefits (included with Benefit Recipients in the previous table) |  |  |  |  |
| Total on January 1, 2004 | - | 1 | 22 | 23 |
| Adjustments to Count | - | - | - | - |
| Benefits Started |  | 2 | - | 2 |
| Benefits Ended | - | (1) | - | (1) |
| Total on January 1, 2005 | - | 2 | 22 | 24 |

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

|  | Plan 1 | Plan II | Plan III |
| :---: | :---: | :---: | :---: |
| January 1, 2004 |  |  |  |
| Average Salary | \$91,611 | \$90,513 | \$75,913 |
| Average Age | 53.6 | 48.8 | 44.7 |
| Average Years Employed | 28.8 | 21.8 | 15.9 |
| January i, 2005 |  |  |  |
| Average Salary | \$103,160 | \$95,935 | \$76,842 |
| Average Age | 54.0 | 49.3 | 45.4 |
| Average Years Employed | 29.7 | 22.4 | 16.4 |
| Changes for the Year |  |  |  |
| Average Salary | 12.6\% | 6.0\% | 1.2\% |
| Average Salary increase for Members active in both valuations | 8.2\% | 3.8\% | 2.1\% |
| Average Age | 0.4 yr . | 0.5 yr . | 0.7 yr . |
| Average Years Employed | 0.9 yr . | 0.6 yr . | 0.5 yr . |

## Anchorage Police and Fire Retirement System

Actuarial Valuation as of January 1, 2005

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

| Age Group | Years of Service by Age |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\leq 10$ | 10-14 | 15-19 | 20-24 | 25-29 | $30+$ |  |
| Plan 1 |  |  |  |  |  |  |  |
| 30-34 |  |  |  |  |  |  | 0 |
| 35-39 |  |  |  |  |  |  | 0 |
| 40-44 |  |  |  |  |  |  | 0 |
| 45-49 |  |  |  |  |  |  | 0 |
| 50-54 |  |  |  |  | 4 |  | 4 |
| 55-59 |  |  |  |  |  | 3 | 3 |
| 60 \& up |  |  |  |  |  |  |  |
| Total | 0 | 0 | 0 | 0 | 4 | 3 | 7 |
| Plan II |  |  |  |  |  |  |  |
| 30-34 |  |  |  |  |  |  | 0 |
| 35-39 |  |  |  |  |  |  | 0 |
| 40-44 |  |  |  | 1 |  |  | 1 |
| 45-49 |  | 1 |  | 5 | 1 |  | 7 |
| 50-54 |  |  |  | 6 | 1 |  | 7 |
| 55-59 |  |  |  | 1 |  |  | 1 |
| 60 \& up |  |  |  |  |  |  |  |
| Total | 0 | 1 | 0 | 13 | 2 | 0 | 16 |
| Plan III |  |  |  |  |  |  |  |
| 30-34 |  | 3 |  |  |  |  | 3 |
| 35-39 |  | 21 | 2 |  |  |  | 23 |
| 40-44 |  | 36 | 9 | 3 |  |  | 48 |
| 45-49 |  | 17 | 8 | 9 | 4 |  | 38 |
| 50-54 |  | 5 | 6 | 10 | 3 |  | 24 |
| 55-59 |  | 2 | 3 | 3 | 3 | 1 | 12 |
| 60 \& up |  |  | 1 | 2 |  |  | 3 |
| Total | 0 | 84 | 29 | 27 | 10 | 1 | 151 |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

Actuarial Methods and Assumptions

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 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 performed for the 1999 Actuarial Valuation and a number of minor changes have been made since then. We are not recommending any changes for this actuarial valuation.

Actuarial Methods
$\begin{array}{ll}\text { Actuarial Cost Method: } & \text { Modified Aggregate Actuarial Cost Method } \\ \text { Valuation Assets: } & \text { Fair Market Value of Assets }\end{array}$

## Actuarial Assumptions

Economic Assumptions:

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


# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## 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 1 |  | Plan III |  | Plan III. |  | System |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January 1, 2004 |  |  |  |  |  |  |  |  |
| Active Members |  |  |  |  |  |  |  |  |
| Retirement Benefits | \$ | 9,249 | \$ | 11,137 | \$ | 72,560 | \$ | 92,946 |
| Disability Benefits |  | 322 |  | 2,127 |  | 4,611 |  | 7,060 |
| Death Benefits |  | 89 |  | 149 |  | 860 |  | 1,098 |
| Return of Contributions |  | 0 |  | 2 |  | 38 |  | 40 |
| Active Members | \$ | 9,660 | \$ | 13,415 | \$ | 78,069 | \$ | 101,144 |
| Inactive |  |  |  |  |  |  |  |  |
| Members |  |  |  |  |  |  |  |  |
| Service Retirees | \$ | 51,317 | \$ | 35,858 | \$ | 106,016 | \$ | 193,191 |
| Disabled Members |  | 24,224 |  | 13,661 |  | 10,868 |  | 48,753 |
| Surviving Beneficiaries |  | 10,557 |  | 3,200 |  | 5,495 |  | 19,252 |
| Terminated Members |  | 0 |  | 1,156 |  | 1,624 |  | 2,780 |
| Inactive Members | \$ | 86,098 | \$ | 53,875 | \$ | 124,003 | \$ | 263,976 |
| Total Projected Liability | \$ | 95,758 | \$ | 67,290 | \$ | 202,072 |  | 365,120 |
| January 1, 2005 |  |  |  |  |  |  |  |  |
| Active Members |  |  |  |  |  |  |  |  |
| Retirement Benefits | \$ | 5,853 | \$ | 8,780 | \$ | 67,909 | \$ | 82,542 |
| Disability Benefits |  | 48 |  | 1,702 |  | 4,133 |  | 5,883 |
| Death Benefits |  | 51 |  | 119 |  | 755 |  | 925 |
| Return of Contributions |  | 0 |  | 1 |  | 18 |  | 19 |
| Active Members | \$ | 5,952 | \$ | 10,602 | \$ | 72,815 | \$ | 89,369 |
| Inactive Members |  |  |  |  |  |  |  |  |
| Service Retirees | \$ | 54,846 | \$ | 37,813 | \$ | 114,736 | \$ | 207,395 |
| Disabled Members |  | 24,022 |  | 14,192 |  | 11,752 |  | 49,966 |
| Surviving Beneficiaries |  | 10,926 |  | 4,597 |  | 5,689 |  | 21,212 |
| Terminated Members |  | 0 |  | 1,057 |  | 1,297 |  | 2,354 |
| Inactive Members | \$ | 89,794 | \$ | 57,659 | \$ | 133,474 |  | 280,927 |
| Total Projected Liability | \$ | 95,746 | \$ | 68,261 | \$ | 206,289 |  | 370,296 |

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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.

| 2004 Activity (\$000) |  | Plan I |  | Plan II |  | Plan III |  | System |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actual Earnings |  |  |  |  |  |  |  |  |
| Beginning Balance at Mellon | \$ | 103,126 | \$ | 69,395 | \$ | 198,830 |  | 371,351 |
| Net Investment income |  | 11,228 |  | 7,650 |  | 22,331 |  | 41,209 |
| Contributions - Municipality |  | 752 |  | 547 |  | 2,519 |  | 3,818 |
| Contributions- Members |  | 59 |  | 110 |  | 742 |  | 911 |
| Regular Benefit Payments |  | $(8,094)$ |  | $(4,661)$ |  | (9,495) |  | $(22,250)$ |
| Ending Balance at Mellon | \$ | 107,071 | \$ | 73,041 | \$ | 214,927 | \$ | 395,039 |
| Estimated Rate of Return (net of all expenses) |  | 11.3\% |  | 11.4\% |  | 11.4\% |  | 11.4\% |
| Expected Earnings |  |  |  |  |  |  |  |  |
| Beginning Balance at Mellon | \$ | 103,126 | \$ | 69,395 | \$ | 198,830 |  | 371,351 |
| Net Investment Income 8\% |  | 7,964 |  | 5,395 |  | 15,661 |  | 29,020 |
| Contributions - Municipality |  | 752 |  | 547 |  | 2,519 |  | 3,818 |
| Contributions - Members |  | 59 |  | 110 |  | 742 |  | 911 |
| Regular Benefit Payments |  | (8,094) |  | $(4,661)$ |  | $(9,495)$ |  | $(22,250)$ |
| Ending Balance at Mellon | \$ | 103,807 | \$ | 70,786 |  | 208,257 |  | 382,850 |
| Investment Gain (Loss) | \$ | 3,264 | \$ | 2,255 | \$ | 6,670 |  | 12,189 |

Supplemental Accounts: We have excluded the Trust assets held by Morgan Stanley from this valuation. The assets allocated to individual members are not included in the Projected Liabilities, so it is not appropriate to include the supplemental accounts in the Assets. The Projected Liability of the supplemental accounts is equal to the sum of the Assets for all supplemental accounts, so no further funding is necessary.

Estimated Rate of Return: The estimated return of $11.4 \%$ was calculated assuming uniform cash flows throughout the year. In addition, these returns represent earnings after all investment and administrative expenses. The System's investment advisor generally presents gross rates of return before expenses.

# Anchorage Police and Fire Retirement System 

## Actuarial Valuation as of January 1, 2005

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, 2004, and 2005. As previously noted, the assets and liabilities exclude the individual supplemental accounts.

| (\$000) | Plan 1 |  | Plan II | Plan III | System |
| :---: | :---: | :---: | :---: | :---: | :---: |
| January 1, 2004 |  |  |  |  |  |
| Projected Liability | \$ 95,758 |  | 67,290 | \$ 202,072 | \$ 365,120 |
| Actuarial Value of Assets | 103,126 |  | 69,395 | 198,830 | 371,351 |
| Funded Status | \$ $(7,368)$ |  | $(2,105)$ | \$ 3,242 | \$ $(6,231)$ |
| Funded Ratio | 108\% |  | 103\% | 98\% | 102\% |
| January 1, 2005 |  |  |  |  |  |
| Projected Liability | \$ 95,746 | \$ | 68,261 | \$ 206,289 | \$ 370,296 |
| Actuarial Value of Assets | 107,071 |  | 73,041 | 214,927 | 395,039 |
| Funded Status | \$ $(11,325)$ |  | $(4,780)$ | \$ $(8,638)$ | \$ $(24,743)$ |
| Funded Ratio | 112\% |  | 107\% | 104\% | 107\% |

As of January 1, 2004, Plan I and Plan II each had an Actuarial Surplus, and Plan III had an Unfunded Actuarial Liability. As of January 1, 2005, all three Plans have an Actuarial Surplus due to the favorable investment performance over the last year. The Funded Ratio for all three plans has increased this past year, primarily due to the investment gains.

| Funded Ratio | Plan 1 | Plan II | Plan III |
| :---: | :---: | :---: | :---: |
| January 1, 1995 | 125\% | 108\% | 83\% |
| January 1, 1996 | 137\% | 120\% | 95\% |
| January 1, 1997 | 149\% | 130\% | 100\% |
| 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\% |

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

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 1 |  | Plan II |  | Plan III |  | System |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial (Gains) and Losses |  |  |  |  |  |  |  |  |
| Funded Status January, 2004 | \$ | $(7,368)$ | \$ | $(2,105)$ | \$ | 3,242 | \$ | $(6,231)$ |
| Expected Funded Status January, 2005 | \$ | $(8,800)$ | \$ | $(2,957)$ | \$ | 113 |  | $(11,644)$ |
| Actual Funded Status January, 2005 |  | $(11,325)$ | \$ | $(4,780)$ | \$ | $(8,638)$ |  | $(24,743)$ |
| Actuarial (Gains) and Losses | \$ | $(2,525)$ | \$ | $(1,823)$ | \$ | $(8,751)$ | \$ | $(13,099)$ |
| (Gains) and Losses by Source |  |  |  |  |  |  |  |  |
| Liability Experience | \$ | 739 | \$ | 432 | \$ | $(2,081)$ | \$ | (910) |
| As a percent of Liabilities |  | 0.8\% |  | 0.6\% |  | (1.0)\% |  | (0.2)\% |
| Investment Return (Gain) or Loss | \$ | $(3,264)$ | \$ | $(2,255)$ | \$ | $(6,670)$ | \$ | $(12,189)$ |
| As a percent of Assets |  | (3.0)\% |  | (3.1)\% |  | (3.1)\% |  | (3.1)\% |
| Total Actuarial (Gains) and Losses | \$ | $(2,525)$ | \$ | $(1,823)$ | \$ | $(8,751)$ | \$ | $(13,099)$ |

- Investment Return: The actual investment return for 2004 was about 11.4\% as calculated from the Mellon Bank financial statements. Since the assumed rate of return is $8.0 \%$ net of all expenses, there were gains due to investment performance. We estimated the dollar amount of the gain based on a uniform timing of the cash flow.
- Liability Experience: For the most part, the gains and losses due to all non-investment experience during 2004 were relatively minor as a percentage of the expected Projected Liability. This is an indication that the actuarial assumptions are reasonable in the aggregate.

Retire/Rehire: The census data indicated that the Municipality has rehired a number of 2004 retirees. These members continue to receive their retirement benefits from the System while working for the Municipality. We are not attorneys and are not providing an opinion on this activity, but we did analyze the impact on the System.

The Board has adopted a set of assumptions to predict when members will retire. The following table shows the rates of retirement we expect at each service level. Note the expected rates of retirement are the same for Plans I and II, but are different for Plan III.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

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

| Plans I and II |  | Plan III |  |
| :---: | :---: | :---: | :---: |
|  | Rervice | Service | Rates |
|  |  | 15 | $17.5 \%$ |
|  |  | 16 | $7.5 \%$ |
|  |  | 17 | $7.5 \%$ |
|  |  | 18 | $7.5 \%$ |
| 20 | $27.5 \%$ | 19 | $12.5 \%$ |
| 21 | $12.5 \%$ | 20 | $20.0 \%$ |
| 22 | $12.5 \%$ | 22 | $20.0 \%$ |
| 23 | $20.0 \%$ | 23 | $20.0 \%$ |
| 24 | $20.0 \%$ | 24 | $15.0 \%$ |
| 25 or more | $20.0 \%$ | 25 or more | $15.0 \%$ |
| Age $57 \& 5$ Years of |  | Age 55 \& 5 Years of |  |
| Service | Service |  |  |

For example, we are assuming that $27.5 \%$ of the Plan II members who attained 20 years of service in 2004 would retire, and that $72.5 \%$ of them work at least another year.

The following table shows the number of expected and actual retirements during 2004.

|  | Expected <br> Retirements | Total |  |  |
| :--- | :---: | :---: | :---: | :---: |

As you can see the total number of retirements was very close to the number expected. There were slightly more in Plans I and II than expected, but the total numbers were small. There were fewer retirements in Plan III than expected. For 2004, the number of actual retirements was about $92 \%$ of what we expected.

We also looked at the actuarial gains or losses due to retirements in 2004. In Plans I and II where we had more retirements than expected, there was a slight loss.

| $\$(000)$ | Actual Gain or (Loss) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Ton Retirements During 2004 |  |  |  |
|  | $\$(342)$ | Pct of TPL | No Rehire | With Rehire |
| Plan I | $(209)$ | $(0.4) \%$ | $\$(450)$ | $\$ 108$ |
| Plan II | 98 | $\underline{0.1 \%})$ | $(150)$ | $(59)$ |
| Plan III | $\$(453)$ | $(0.1) \%$ | $\$(447)$ | $\$ 153$ |
| Total |  |  |  | $(6)$ |

The gains and losses were measured for each individual. In total, the actuarial gains and losses are a very small percent of the Total Projected Liability for each Plan.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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 as of January 1, 2005, 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, 2005. Therefore, no member or Municipality contributions are due for 2006. The following table summarizes the calculations.

|  | (\$000) | Plan I |  | Plan II |  | Plan III |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | Projected Liability |  | 95,746 |  | 68,261 |  | 06,289 |
| (2) | Actuarial Value of Assets |  | 107,071 |  | 73,041 |  | 14,927 |
| (3) | Unfunded Projected Liability (2) - (1) |  | $(11,325)$ | \$ | $(4,780)$ | \$ | $(8,638)$ |
| (4) | Expected 2005 Contribution discounted to $1 / 1 / 2005$ at $8.00 \%$ interest |  | 0 |  | 0 |  | 15 |
| (5) | Remaining Unfunded Projected Liability (3)- <br> (4), but not less than zero |  | 0 |  | 0 |  | 0 |
| (6) | Amortization Period |  | 15 years |  | years |  | years |
| (7) | Amortization Payment for 2006 | \$ | 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.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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.

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. An Unallocated Gains and Loss Reserve is determined. This Reserve is equal to Plan Assets less the sum of the Projected Liability, the Contingency Reserve, the prior year's Additional Contingency Reserve, and the prior year's Benefit Enhancement Reserve.
3. The Unallocated Gain and Loss Reserve is allocated to the Additional Contingency Reserve (25\%) and the Benefit Enhancement Reserve (75\%).

Table 10 shows the adjustments to the Reserves for the past year. The ending balances, including the distribution of the Unallocated Gain and Loss Reserve to the Additional Contingency Reserve and the Benefit Enhancement Reserve, are summarized below.

| (\$000) | Plan 1 | Plan II | Plan III | System Total |
| :---: | :---: | :---: | :---: | :---: |
| Projected Liability | \$ 95,746 | \$ 68,261 | \$ 206,289 | \$ 370,296 |
| Actuarial Value of Assets | 107,071 | 73,041 | 214,927 | 395,039 |
| Unfunded Projected Liability | \$ $(11,325)$ | \$ $(4,780)$ | \$ $(8,638)$ | \$ $(24,743)$ |
| Contingency Reserve | \$ 15,319 | \$ 10,922 | \$ 33,006 | \$ 59,247 |
| Additional Contingency Reserve | (870) | $(1,573)$ | $(4,790)$ | $(7,233)$ |
| Benefit Enhancement Reserve | $(3,124)$ | (4,569) | $(19,578)$ | (27,271) |
| Total Reserves | \$ 11,325 | \$ 4,780 | \$ 8,638 | \$ 24,743 |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## Section 2 <br> 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

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

Table 1
Actuarial Present Value of Projected Benefits

## Active Members

(1) Retirement Benefits
(2) Return of Contributions
(3) Occupational Disability Benefits
(4) Non-Occupational Disability Benefits
(5) Occupational Death Benefits
(6) Non-Occupational Death Benefits
(7) Children's Benefit
(8) Subtotal Present Value of Benefits

Inactive Members
(9) Service Retirees
(10) Disabilities
(11) Surviving Beneficiaries
(12) Vested Terminations
(13) Subtotal Present Value of Benefits
(14) Total Present Value of Benefits $(8)+(13)$

Plan I
\$ 5,853,229
0
47,930

0

47,967
3,129
0
\$ 5,952,255
$\begin{array}{r}\$ 54,845,939 \\ 24,021,552 \\ 10,925,759 \\ 0 \\ \hline\end{array}$
$\begin{array}{r}\$ 44,845,939 \\ 24,021,552 \\ 10,925,759 \\ 0 \\ \hline\end{array}$
$\begin{array}{r}\$ 44,845,939 \\ 24,021,552 \\ 10,925,759 \\ 0 \\ \hline\end{array}$
$\begin{array}{r}\$ 44,845,939 \\ 24,021,552 \\ 10,925,759 \\ 0 \\ \hline\end{array}$
\$ 89,793,250
\$ 95,745,505
\$

Plan II
$8,780,411$
1,040
1,643,178
58,110
112,029
7,288
0
\$ 10,602,056
\$ 72,815,548
\$ 37,812,995
\$ 114,735,712
11,752,508
5,688,508
1,296,844
\$ 57,659,302
\$ 133,473,572
\$ 68,261,358
14,191,760
4,597,611
1,056,936
\$206,289,120

Plan III
\$ 67,908,936
18,442
3,422,670
558,926
644,912
56,056
205,606

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

| Table 2 <br> Actuarial Value of Assets |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Plan 1 |  | Plan II | Plan III |
| (1) | As Reported in Prior Valuation | \$ 103,126,080 | \$ | 69,394,885 | \$ 198,829,864 |
| (2) | Net Investment Income | 11,227,978 |  | 7,649,199 | 22,331,690 |
| (3) | Contributions - Municipality | 751,790 |  | 547,070 | 2,519,198 |
| (4) | Contributions - Member | 59,364 |  | 110,173 | 741,769 |
| (5) | Benefit Distributions | $(8,094,378)$ |  | $(4,660,819)$ | $(9,495,135)$ |
| (6) | Ending Balance at Mellon Ban included in this Valuation | \$ 107,070,834 | \$ | 73,040,508 | \$ 214,927,386 |

The table above 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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

Table 3
Actuarial Balance Sheet

## Resources

|  |  | Plan 1 |  | Plan II | Plan III |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | Actuarial Value of Assets | \$ 107,070,834 |  | 73,040,508 | \$ 214,927,386 |
| (2) | Actuarial Present Value of Future Contributions | $(11,325,329)$ |  | (4,779,150) | $(8,638,266)$ |
| (3) | Total Resources | \$ 95,745,505 | \$ | 68,261,358 | \$ 206,289,120 |
| Requirements |  |  |  |  |  |
| (4) | Actuarial Present Value of Projected Benefits |  |  |  |  |
|  | (a) Retired or Disabled Members and Beneficiaries | \$ 89,793,250 |  | 56,602,366 | \$ 132,176,728 |
|  | (b) Vested Terminated and Inactive Members | 0 |  | 1,056,936 | 1,296,844 |
|  | (c) Active Members' MunicipalityProvided Pension | 5,274,613 |  | 9,134,312 | 66,041,386 |
|  | (d) Active Members' Contributions | 677,642 |  | 1,467,744 | 6,774,162 |
| (5) | Total Requirements | \$ 95,745,505 |  | 68,261,358 | \$ 206,289,120 |

(5) Total Requirements
$\$ 95,745,505 \quad \$ 68,261,358$
\$ 206,289,120

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## Table 4 <br> Determination of Contribution Rates

## Based on 15-Year Amortization Period

|  |  | Plan 1 | Plan II |  |  | Plan III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | Actuarial Present Value of Benefits | \$ 95,745,505 | \$ | 68,261,358 |  | 206,289,120 |
| (2) | Actuarial Value of Assets | \$ 107,070,834 | \$ | 73,040,508 |  | 214,927,386 |
| (3) | Unfunded Projected Liability $(1)-(2)$ | $(11,325,329)$ |  | $(4,779,150)$ |  | $(8,638,266)$ |
| (4) | Expected 2005 Contributions, discounted to $1 / 1 / 2005$ at $8 \%$ interest | \$ 0 | \$ | 0 | \$ | 15,393 |
| (5) | Remaining Unfunded Projected Liability $\text { (3) }-(4)$ | (11,325,329) |  | (4,779,150) |  | $(8,653,659)$ |
| (6) | Amortization Period | 15 years |  | 15 years |  | 15 years |
|  | One-Year Deferred Amortization Factor at 8\% Interest (present value of $\$ 1$ per year for period) | 8.23840 |  | 8.23840 |  | 8.23840 |
| (7) | Total Annual Contribution for 2006 $((5) \div(6))$, but not less than zero | \$ 0 | \$ | 0 | \$ | 0 |
| Determination of Member Portion |  |  |  |  |  |  |
| (8) | Projected Payroll in 2006 (based on current actuarial assumptions) | N/A | N/A |  | N/A |  |
| (9) | Member Share (7) $\div 3.5$ | N/A | N/A |  | N/A |  |
| (10) | Calculated Member Rate (9) $\div(8)$ | N/A | N/A |  | N/A |  |
| (11) | Actual Member Rate <br> (subject to maximum; rounded down) | 0.00\% | 0.00\% |  | 0.00\% |  |

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

Table 5
Disclosure Information - GASB Statement No. 25

Plan I

## Schedule of Funding Progress <br> Not required - Aggregate Actuarial Cost Method

Schedule of Employer Contributions
(Dollar Amounts in Thousands)

| Year <br> Ending | Annual Required <br> Contribution | Amount <br> Contributed | Percentage <br> 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 | $100 \%$ |

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27 as a percentage of covered payroll. 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.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

TABLE 5
DISCLOSURE InFORMATION - GASB STATEMENT No. 25
(CONTINUED)
Plan II

Schedule of Funding Progress
Not required - Aggregate Actuarial Cost Method

Schedule of Employer Contributions
(Dollar Amounts in Thousands)

| Year <br> Ending | Annual Required <br> Contribution | Amount <br> Contributed | Percentage <br> 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 | $100 \%$ |

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27 as a percentage of covered payroll. 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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

Table 5
Disclosure information - GASB Statement No. 25
(Continued)
Plan III

Schedule of Funding Progress
Not required - Aggregate Actuarial Cost Method

Schedule of Employer Contributions
(Dollar Amounts in Thousands)

| Year <br> Ending | Annual Required <br> Contribution | Amount <br> Contributed | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
| December 31, 1992 | $\$$ | 2,387 | $\$$ |
| December 31, 1993 | 2,390 | 2,397 | $100 \%$ |
| December 31, 1994 | 2,236 | 1,204 | $100 \%$ |
| December 31, 1995 | 1,947 | 0 | $54 \%$ |
| December 31, 1996 | 2,340 | 0 | $0 \%$ |
| December 31, 1997 | 750 | 0 | $0 \%$ |
| December 31, 1998 | 0 | 0 | $0 \%$ |
| 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 | $100 \%$ |

The Municipality's contribution has been calculated in conformance with the provisions of GASB No. 27 as a percentage of covered payroll. 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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## Section 3 <br> 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 performed for the 1999 Actuarial Valuation and a number of minor changes have been made since then. We are not recommending any changes for this actuarial valuation.

## Standards of Practice

- The economic assumptions have been developed in accordance with the Actuarial Standard of Practice No. 27, Selection of Economic Assumptions for Measuring Pension Obligations.
- The demographic assumptions have been developed in accordance with the 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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## 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.

The total contribution is equal to the Unfunded Projected Liability (as of January 1, 2005) 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.

## Post-retirement Benefit Increases

It is assumed that the Consumer Price Index will increase at a rate of $3.5 \%$ per year, so that Plan III retirement allowances will increase at the rate of $0.875 \%$ per year for present retirees and after retirement for current active members and their beneficiaries for payments after their 20th anniversary of hire, and $1.750 \%$ 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 $4.0 \%$ per annum.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## 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 | $12.5 \%$ |
|  |  | 20 | $20.0 \%$ |
| Age 57 \& 5 Years |  | $21-22$ | $20.0 \%$ |
| of Service |  | $23-24$ | $15.0 \%$ |
|  |  | 25 | $25.0 \%$ |
|  |  | Age 55 \& 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 <br> Disability | Non-Occupational <br> 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 | $6.0 \%$ | $2.0 \%$ |
| $55+$ |  | $5.0 \%$ |
|  | Occupational |  |
| Age | Disability | Non-Occupational |
| Plan III |  | Disability |
| 20 to 29 | $0.2 \%$ |  |
| 30 to 39 | $0.2 \%$ | $0.1 \%$ |
| 40 to 44 | $0.5 \%$ | $0.2 \%$ |
| 45 to 49 | $1.5 \%$ | $0.3 \%$ |
| 50 to 54 | $5.0 \%$ | $0.4 \%$ |
| $55+$ | $6.0 \%$ | $0.0 \%$ |
|  |  | $0.0 \%$ |

## Anchorage Police and Fire Retirement System

## Actuarial Valuation as of January 1, 2005

## Mortality

The probabilities of mortality for healthy lives are based on the UP-1994 Table, set forward one year for males and females. Also, $92 \%$ of active deaths were assumed to be occupational. Disabled mortality was assumed to follow the UP-1984 Table set forward four years.

## 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 |
| :---: | :---: |
| $1^{\text {st }}$ Year | $8 \%$ |
| $2^{\text {nd }}-3^{\text {rd }}$ Years | $3 \%$ |
| $4^{4^{\text {th }}-7^{\text {th }} \text { Years }}$ | $2 \%$ |
| $8^{\text {th }}$ or Later Years | $1 \%$ |

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## SEction 4 <br> Summary of Plan Provisions

## Plan I

## Effective Date

Plan I became effective as of July 1, 1968.

## Membershil

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.

# Anchorage Police and Fire Retirement System 

## Actuarial Valuation as of January 1, 2005

## 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 annual rate of not less than $4 \%$. Payment is made upon application or age 62.

A vested Member who terminates employment prior to being eiigibie 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 annual rate of not less than $4 \%$.
(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 untii the Member is capable of resuming similar duty with any police or fire department.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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) dependent parents,
(d) 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.

## 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.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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 annual rate of not less than $4 \%$. Payment is made upon application or age 62.

A vested Member who terminates employment prior to being eligibie 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 annual rate of not less than $4 \%$.
(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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## 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) dependent parents,
(d) 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.

## 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 $D R O P$ percentage of the member's monthly pension.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## Summary of Plan Provisions

## Plan III

## Effective Date

Plan III became effective April 17, 1984.

## Membership

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.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## 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 annual rate of not less than $4 \%$ 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 annual rate of not less than $4 \%$.
(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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## Death Benefits

Regardless of cause, the benefit is the greater of the following:
(a) $100 \%$ of the disability benefit to which the Member would have been entitled had the Member survived with a disability, whether occupational or non-occupational,
(b) $75 \%$ of the service retirement benefit to which the Member would have been entitled had the Member survived.

The benefit is 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) dependent parents,
(d) dependent siblings under the age of 18 .

At the time of remarriage, the surviving spouse's benefit shall be reduced to $50 \%$ of the retirement benefit that the Member was entitled to at the time of death. The remainder shall be distributed as expressed above.

## Post-Retirement Death Benefits

The benefit is $75 \%$ of the Member's retirement benefit. The benefit is payable in the same manner as the pre-retirement death benefits.

## 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.

## Anchorage Police and Fire Retirement System

## Actuarial Valuation as of January 1, 2005

## 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.

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

## 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 2004. 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 6 is a five-year history of membership characteristics for each Plan.
Table 7 displays the data included in this valuation for the vested terminated members.
Table 8 is a distribution of the active members by age, service and salary.
Table 9 displays the number of retirees and beneficiaries by Plan in 5 -year age groups and the total monthly benefit on record for each group.

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

Table 6
Historical Membership Summary - Plan I

|  | $\mathbf{1 - 1 - 0 1}$ | $\mathbf{1 - 1 - 0 2}$ | $\mathbf{1 - 1 - 0 3}$ | $\mathbf{1 - 1 - 0 4}$ | $\mathbf{1 - 1 - 0 5}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Active Members |  |  |  |  |  |
| (1) $\quad$ Number | 21 | 16 | 13 | 13 | 7 |
| (2) $\quad$ Average Current Age | 50.6 | 51.6 | 52.6 | 53.6 | 54.0 |
| (3) $\quad$ Average Service to Date | 26.4 | 27.0 | 27.8 | 28.8 | 29.7 |
| (4) $\quad$ Average Salary | $\$ 93,105$ | $\$ 97,096$ | $\$ 97,311$ | $\$ 91,611$ | $\$ 103,160$ |

Terminated Members
(5) Number
(6) Average Age
(7) Average Monthly Benefit

Retirees, Beneficiaries, and Alternative Payees (QDROs)

| $(8)$ | Number | 218 | 223 | 227 | 223 | 231 |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: |
| $(9)$ | Average Age | 59.4 | 59.9 | 60.7 | 61.6 | 62.2 |
| $(10)$ | Average Monthly Benefit | $\$ 2,802$ | $\$ 2,865$ | $\$ 2,913$ | $\$ 2,929$ | $\$ 2,973$ |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

TABLE 6
Historical Membership Summary - Plan II

Active Members

| (1) | Number | 58 | 53 | 30 | 22 | 16 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| $(2)$ | Average Current Age | 47.8 | 48.7 | 48.6 | 48.8 | 49.3 |
| (3) | Average Service to Date | 19.6 | 20.6 | 21.0 | 21.8 | 22.4 |
| $(4)$ | Average Salary | $\$ 89,240$ | $\$ 90,929$ | $\$ 92,512$ | $\$ 90,513$ | $\$ 95,935$ |

Terminated Members
(5) $\quad$ Number
(6) Average Age
(7) Average Monthly Benefi
Retirees, Beneficiaries, and
Alternative Payees (QDROs)

| (8) | Number | 64 | 70 | 94 | 102 |
| ---: | :--- | ---: | ---: | ---: | ---: |
| $(9)$ | Average Age | 51.3 | 51.2 | 52.3 | 53.5 |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

TABLE 6
Historical Membership Summary - Plan III

| Active Members | $\mathbf{1 - 1 - 0 1}$ | $\mathbf{1 - 1 - 0 2}$ | $\mathbf{1 - 1 - 0 3}$ | $\mathbf{1 - 1 - 0 4}$ | $\mathbf{1 - 1 - 0 5}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (1) $\quad$ Number |  |  |  |  |  |
| (2) $\quad$ Average Current Age | 42.6 | 205 | 183 | 167 | 151 |
| (3) $\quad$ Average Service to Date | 14.1 | 14.4 | 43.9 | 44.7 | 45.4 |
| (4) $\quad$ Average Salary | $\$ 73,011$ | $\$ 72,577$ | $\$ 74,679$ | $\$ 75,913$ | $\$ 76,842$ |

Terminated Members
(5) Number
(6) Average Age
(7) Average Monthly Benefit

Retirees, Beneficiaries, and Alternative Payees (QDROs)
(8) Number
(9) Average Age
(10) Average Monthly Benefit

| 9 | 10 |
| ---: | ---: |
| 42.9 | 43.4 |
| $\$ 1,195$ | $\$ 1,341$ |

9
40.9
$\$ 1,261$

| 11 | 9 |
| ---: | ---: |
| 40.7 | 40.6 |
| $\$ 1,341$ | $\$ 1,317$ |


| 211 | 243 | 278 | 297 | 314 |
| ---: | ---: | ---: | ---: | ---: |
| 54.7 | 52.9 | 52.5 | 52.8 | 53.4 |
| $\$ 2,648$ | $\$ 2,563$ | $\$ 2,527$ | $\$ 2,545$ | $\$ 2,618$ |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 

TABLE 7
Summary of Terminated Members

| Monthly Benefit <br> (for valuation <br> purposes only) | Date of Birth | Assumed |
| :---: | :---: | :---: |
| Retirement Date |  |  |

Name

## PLAN I

None

## PLAN II

Dahl, Mathew H.
Gansel, John A.
Skrifvars, Karl C.
Woelfel, James R.

## PLAN III

Anderson, Scott
Cross, Ken L.
Dow, Gloria T.
Dutton, Robert J.
Martin Jr., Ronald D.
Oruoja, Indrek
Shelton, Chris E.
Smith, Terrance R.
Take, Flint A.
\$ 2,181.50
2,271.69
2,115.84
1,752.83
June 9, 1957
February 6, 1952
March 31, 1950
December 10, 1951

July 1, 2012
March 1, 2007
April 1, 2005
January 1, 2007
\$ 1,493.10
May 10, 1965
August 1, 2010
January 1, 2011
November 1, 2013
March 1, 2012
January 1, 2011
September 1, 2013
September 1, 2013
September 1, 2013
August 1, 2010

## Anchorage Police and Fire Retirement System

Actuarial Valuation as of January 1, 2005

Table 8
Active Member Age and Service Distributions - Plan I

| Age Group | Annual Earnings by Age |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | Total Earnings |  | Average Earnings |  |
| 25-29 |  |  |  |  |  |
| 30-34 |  |  |  |  |  |
| 35-39 |  |  |  |  |  |
| 40-44 |  |  |  |  |  |
| 45-49 |  |  |  |  |  |
| 50-54 | 4 | \$ | 410,836 | \$ | 102,709 |
| 55-59 | 3 |  | 311,283 |  | 103,761 |
| 60-64 |  |  |  |  |  |
| 65-69 |  |  |  |  |  |
| Tota! | 7 | \$ | 722,119 | \$ | 103,160 |


| Service Group | Annual Earnings by Service |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | Total Earnings |  | Average Earnings |  |
| 0-4 |  |  |  |  |  |
| 5-9 |  |  |  |  |  |
| 10-14 |  |  |  |  |  |
| 15-19 |  |  |  |  |  |
| 20-24 |  |  |  |  |  |
| 25-29 | 4 | \$ | 410,836 | \$ | 102,709 |
| 30 \& up | 3 |  | 311,283 |  | 103,761 |
| Total | 7 | \$ | 722,119 | \$ | 103,160 |

Years of Service by Age
Age

| Group | $\underline{0-4}$ | $\underline{5-9}$ | $\underline{10-14}$ | $\underline{15-19}$ | $\underline{20-24}$ | $\underline{25-29}$ | $\underline{30-34}$ | $\underline{T o t a l}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $25-39$ |  |  |  |  |  |  |  |  |
| $35-39$ |  |  |  |  |  |  |  |  |
| $40-44$ |  |  |  |  |  |  |  | 4 |
| $45-49$ |  |  |  |  |  | 3 | 3 |  |
| $50-54$ |  |  |  |  |  |  |  |  |
| $55-59$ |  |  |  |  |  |  |  |  |
| $60-64$ |  |  |  |  |  | 3 | 7 |  |

Table 8
Active Member Age and Service Distributions - Plan II

| Age Group | Annual Earnings by Age |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Count | Total Earnings | Average Earnings |  |
| 25-29 |  |  |  |  |
| 30-34 |  |  |  |  |
| 35-39 |  |  |  |  |
| 40-44 | 1 | \$ 94,242 | \$ | 94,242 |
| 45-49 | 7 | 758,627 |  | 108,375 |
| 50-54 | 7 | 602,076 |  | 86,011 |
| 55-59 | 1 | 80,008 |  | 80,008 |
| 60-64 |  |  |  |  |
| Total | 16 | \$ 1,534,953 | \$ | 95,935 |
|  | Annual Earnings by Service |  |  |  |
| Service |  | Total |  | Average |
| Group | Count | Earnings |  | Earnings |
| 0-4 |  |  |  |  |
| 5-9 |  |  |  |  |
| 10-14 | 1 | \$ 85,935 | \$ | 85,935 |
| 15-19 |  |  |  |  |
| 20-24 | 13 | 1,255,043 |  | 96,542 |
| 25-29 | 2 | 193,975 |  | 96,988 |
| 30 \&up |  |  |  |  |
| Total | 16 | \$ 1,534,953 | \$ | 95,935 |

Years of Service by Age
Age

| Group | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25-29 |  |  |  |  |  |  |  |  |
| 30-34 |  |  |  |  |  |  |  |  |
| 35-39 |  |  |  |  |  |  |  |  |
| 40-44 |  |  |  |  | 1 |  |  | 1 |
| 45-49 |  |  | 1 |  | 5 | 1 |  | 7 |
| 50-54 |  |  |  |  | 6 | 1 |  | 7 |
| 55-59 |  |  |  |  | 1 |  |  | 1 |
| 60-64 |  |  |  |  |  |  |  |  |
| 65-69 |  |  |  |  |  |  |  |  |
| Total |  |  | 1 |  | 13 | 2 |  | 16 |

## Anchorage Police and Fire Retirement System

Actuarial Valuation as of January 1, 2005

TABLE 8
Active Member Age and Service Distributions - Plan III

| Age Group | Annual Earnings by Age |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Count | Total Earnings |  | Average Earnings |
|  |  |  |  |  |
| 25-29 |  |  |  |  |
| 30-34 | 3 | \$ | 235,043 | \$78,348 |
| 35-39 | 23 |  | 1,709,458 | 74,324 |
| 40-44 | 48 |  | 3,598,460 | 74,968 |
| 45-49 | 38 |  | 2,945,566 | 77,515 |
| 50-54 | 24 |  | 1,857,650 | 77,402 |
| 55-59 | 12 |  | 999,444 | 83,287 |
| 60-64 | 3 |  | 257,545 | 85,848 |
| Total | 151 |  | 11,603,166 | \$76,842 |


| Service Group | Annual Earnings by Service |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Count | Total Earnings |  | Average <br> Earnings |
|  |  |  |  |  |
| 0-4 |  |  |  |  |
| 5-9 |  |  |  |  |
| 10-14 | 84 | \$ | 6,230,965 | \$74,178 |
| 15-19 | 29 |  | 2,262,946 | 78,033 |
| 20-24 | 27 |  | 2,135,582 | 79,096 |
| 25-29 | 10 |  | 892,488 | 89,249 |
| 30 \& Up | 1 |  | 81,185 | 81,185 |
| Total | 151 |  | 1,603,166 | \$76,842 |

Years of Service by Age
Age

| Group <br> $25-29$ | $\underline{0-4}$ | $\underline{5-9}$ | $\underline{10-14}$ | $\underline{15-19}$ | $\underline{20-24}$ | $\underline{25-29}$ | $\underline{30-34}$ | $\underline{\text { Total }}$ |
| :--- | :--- | :--- | ---: | :--- | ---: | :--- | :--- | :--- | :--- |
| $30-34$ |  |  | 3 |  |  |  |  |  |
| $35-39$ |  |  | 21 | 2 |  |  |  | 3 |
| $40-44$ |  |  | 36 | 9 | 3 |  |  | 23 |
| $45-49$ |  |  | 17 | 8 | 9 | 4 |  | 48 |
| $50-54$ |  | 5 | 6 | 10 | 3 |  | 38 |  |
| $55-59$ |  |  | 2 | 3 | 3 | 3 | 1 | 12 |
| $60-64$ |  |  |  | 1 | 2 |  |  | 3 |
| $65-69$ |  |  |  |  |  |  |  |  |
| Total |  |  | 84 | 29 | 27 | 10 | 1 | 151 |

Table 9
Retiree and Beneficiary Distributions

## Plan 1

## Distribution of Service Retirees

 January 1, 2005

## Plan 1

Distribution of Disability Retirees
January 1, 2005

| Age | Number | Mon | Total nthly Pension | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 50 | 0 | \$ | 0 | \$ | 0 |
| 50-54 | 8 |  | 30,242 |  | 3,780 |
| 55-59 | 16 |  | 46,395 |  | 2,900 |
| 60-64 | 17 |  | 49,126 |  | 2,890 |
| 65-69 | 13 |  | 33,133 |  | 2,549 |
| 70-74 | 9 |  | 23,289 |  | 2,588 |
| 75-79 | 5 |  | 11,187 |  | 2,237 |
| 80-84 | 1 |  | 985 |  | 985 |
| 85+ | 1 |  | 994 |  | 994 |
| Totals | 70 | \$ | 195,351 | \$ | 2,791 |

# Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005 



Plan 1

## Distribution of Alternate Payees *

 January 1, 2005| Age | Number | Total Monthly Pension | Average Monthly Pension |
| :---: | :---: | :---: | :---: |
| Under 50 | 0 | \$ 0 | \$ 0 |
| 50-54 | 4 | 4,591 | 1,148 |
| 55-59 | 9 | 10,878 | 1,209 |
| 60-64 | 4 | 5,590 | 1,398 |
| 65-69 | 1 | 722 | 722 |
| 70+ | 0 | 0 | 0 |
| Totals | 18 | \$ 21,781 | \$ 1,210 |

- Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.


# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005


## Plan 2

## Distribution of Disability Retirees

January 1, 2005

| Age | Number | Total Monthly Pension | Average Monthly Pension |
| :---: | :---: | :---: | :---: |
| Under 45 | 0 | \$ 0 | \$ 0 |
| 45-49 | 6 | 21,293 | 3,549 |
| 50-54 | 8 | 25,074 | 3,134 |
| 55-59 | 9 | 32,320 | 3,591 |
| 60-64 | 5 | 15,589 | 3,118 |
| 65-69 | 2 | 6,055 | 3,028 |
| 70+ | 1 | 3,391 | 3,391 |
| Totals | 31 | \$ 103,722 | \$ 3,346 |

## Anchorage Police and Fire Retirement System <br> Actuarial Valuation as of January 1, 2005

## Plan 2

Distribution of Survivors
January 1, 2005

| Age | Number | Mon | Total Ty Pension | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 40 | 3 | \$ | 11,609 | \$ | 3,870 |
| 40-44 | 1 |  | 6,347 |  | 6,347 |
| 45-49 | 2 |  | 5,330 |  | 2,665 |
| 50-54 | 1 |  | 4,085 |  | 4,085 |
| 55-59 | 1 |  | 2,414 |  | 2,414 |
| 60-64 | 2 |  | 6,289 |  | 3,145 |
| 65+ | 0 |  | 0 |  | 0 |
| Totals | 10 | \$ | 36,074 | \$ | 3,607 |

Plan 2

## Distribution of Alternate Payees * <br> January 1, 2005

| Age | Number | Total Monthly Pension |  | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 45 | 0 | \$ | 0 | \$ | 0 |
| 45-49 | 2 |  | 1,050 |  | 525 |
| 50-54 | 0 |  | 0 |  | 0 |
| 55-59 | 2 |  | 1,455 |  | 728 |
| 60+ | 0 |  | 0 |  | 0 |
| Totals | 4 | \$ | 2,505 | \$ | 626 |

- Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.

| Plan 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Distribution of Service Retirees January 1, 2005 |  |  |  |  |  |
| Age | Number |  | Total nthly Pension |  | erage y Pension |
| Under 40 | 0 | \$ | 0 | \$ | 0 |
| 40-44 | 10 |  | 26,948 |  | 2,695 |
| 45-49 | 28 |  | 77,388 |  | 2,764 |
| 50-54 | 46 |  | 154,276 |  | 3,354 |
| 55-59 | 59 |  | 173,982 |  | 2,949 |
| 60-64 | 62 |  | 193,716 |  | 3,124 |
| 65-69 | 17 |  | 56,844 |  | 3,344 |
| 70-74 | 5 |  | 15,405 |  | 3,081 |
| 75+ | 2 |  | 7,889 |  | 3,945 |
| Totals | 229 | \$ | 706,448 | \$ | 3,085 |

Plan 3

Distribution of Disability Retirees January 1, 2005

| Age | Number | Mo | Total thly Pension | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 40 | 2 | \$ | 4,551 | \$ | 2,276 |
| 40-44 | 1 |  | 1,672 |  | 1,672 |
| 45-49 | 5 |  | 12,720 |  | 2,544 |
| 50-54 | 11 |  | 28,789 |  | 2,617 |
| 55-59 | 4 |  | 8,618 |  | 2,155 |
| 60-64 | 2 |  | 5,672 |  | 2,836 |
| 65-69 | 4 |  | 7,621 |  | 1,905 |
| $70+$ | 1 |  | 3,135 |  | 3,135 |
| Totals | 30 | \$ | 72,778 | \$ | 2,426 |

Plan 3
Distribution of Survivors
January 1, 2005

| Age | Number | Mon | Total <br> ly Pension | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 40 | 22 | \$ | 4,955 | \$ | 225 |
| 40-44 | 1 |  | 2,908 |  | 2,908 |
| 45-49 | 1 |  | 2,479 |  | 2,479 |
| 50-54 | 0 |  | 0 |  | 0 |
| 55-59 | 1 |  | 3,245 |  | 3,245 |
| 60-64 | 3 |  | 6,657 |  | 2,219 |
| 65-69 | 0 |  | 0 |  | 0 |
| 70+ | 1 |  | 1,741 |  | 1,741 |
| Totals | 29 | \$ | 21,985 | \$ | 758 |

Plan 3
Distribution of Alternate Payees *
January 1, 2005

| Age | Number | Total Monthly Pension |  | Average Monthly Pension |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 40 | 0 | \$ | 0 | \$ | 0 |
| 40-44 | 1 |  | 468 |  | 468 |
| 45-49 | 3 |  | 2,113 |  | 704 |
| 50-54 | 5 |  | 4,775 |  | 955 |
| 55-59 | 9 |  | 6,038 |  | 671 |
| 60-64 | 7 |  | 5,847 |  | 835 |
| $65+$ | 1 |  | 1,000 |  | 1,000 |
| Totals | 26 | \$ | 20,241 | \$ | 779 |

[^0]
# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

## SEction 6 <br> 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.

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. An Unallocated Gain and Loss Reserve is determined. This Reserve is equal to Plan Assets less the sum of the Projected Liability, the Contingency Reserve, the prior year's Additional Contingency Reserve, and the prior year's Benefit Enhancement Reserve.
3. The Unallocated Gain and Loss Reserve is allocated to the Additional Contingency Reserve (25\%) and the Benefit Enhancement Reserve (75\%).

Table 10 shows the adjustments to the Reserves for the year. The ending balances, including the distribution of the Unallocated Gain and Loss Reserve to the Additional Contingency Reserve and the Benefit Enhancement Reserve, are summarized below.

| (\$000) | Plan 1 | Plan III | Plan III | System Total |
| :---: | :---: | :---: | :---: | :---: |
| Projected Liability | \$ 95,746 | \$ 68,261 | \$ 206,289 | \$ 370,296 |
| Actuarial Value of Assets | 107,071 | 73,041 | 214,927 | 395,039 |
| Unfunded Projected Liability | \$ $(11,325)$ | \$ (4,780) | \$ (8,638) | \$ $(24,743)$ |
| Contingency Reserve | \$ 15,319 | \$ 10,922 | \$ 33,006 | \$ 59,247 |
| Additional Contingency Reserve | (870) | $(1,573)$ | $(4,790)$ | $(7,233)$ |
| Benefit Enhancement Reserve | $(3,124)$ | $(4,569)$ | (19,578) | (27,271) |
| Total Reserves | \$ 11,325 | \$ 4,780 | \$ 8,638 | \$ 24,743 |

# Anchorage Police and Fire Retirement System 

Actuarial Valuation as of January 1, 2005

Table 10
Allocation of Reserves

| January 1, 2005 |  | Before Allocation | Allocation |  |  | After Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plan 1 |  |  |  |  |  |  |
| Projected Liability | \$ | 95,745,505 |  |  | \$ | 95,745,505 |
| Contingency Reserve at 16\% Additional Contingency Reserve (25\%) |  | $\begin{aligned} & 15,319,281 \\ & (1,860,073) \end{aligned}$ | \$ | 989,877 |  | $\begin{array}{r} 15,319,281 \\ (870,196) \end{array}$ |
| Contingency Reserve Level |  |  |  |  |  | 15.1\% |
| Benefit Enhancement Reserve (75\%) |  | $(6,093,387)$ |  | 2,969,631 |  | $(3,123,756)$ |
| Total Reserves after Allocation |  |  |  |  | \$ | 11,325,329 |
| Total Reserve Level |  |  |  |  |  | 11.8\% |
| Unallocated Gain and Loss Reserve |  | 3,959,508 |  | $(3,959,508)$ |  | 0 |
| Available Assets at Fair Value | \$ | 107,070,834 | \$ | 0 | \$ | 107,070,834 |
| Plan 11 |  |  |  |  |  |  |
| Projected Liability | \$ | 68,261,358 |  |  | \$ | 68,261,358 |
| Contingency Reserve at 16\% Additional Contingency Reserve (25\%) |  | $\begin{aligned} & 10,921,817 \\ & (2,203,304) \end{aligned}$ | \$ | 629,705 |  | $\begin{aligned} & 10,921,817 \\ & (1,573,599) \end{aligned}$ |
| Contingency Reserve Level |  |  |  |  |  | 13.7\% |
| Benefit Enhancement Reserve (75\%) |  | $(6,458,183)$ |  | 1,889,115 |  | $(4,569,068)$ |
| Total Reserves after Allocation |  |  |  |  | \$ | 4,779,150 |
| Total Reserve Level |  |  |  |  |  | 7.0\% |
| Unallocated Gain and Loss Reserve |  | 2,518,820 |  | $(2,518,820)$ |  | 0 |
| Available Assets at Fair Value | \$ | 73,040,508 | \$ | 0 | \$ | 73,040,508 |
| Plan III |  |  |  |  |  |  |
| Projected Liability |  | 206,289,120 |  |  | \$ | 206,289,120 |
| Contingency Reserve at 16\% |  | 33,006,259 |  |  |  | 33,006,259 |
| Additional Contingency Reserve (25\%) |  | $(7,591,506)$ | \$ | 2,801,479 |  | $(4,790,027)$ |
| Contingency Reserve Level |  |  |  |  |  | 13.7\% |
| Benefit Enhancement Reserve (75\%) |  | $(27,982,404)$ |  | 8,404,438 |  | $(19,577,966)$ |
| Total Reserves after Allocation |  |  |  |  | \$ | 8,638,266 |
| Total Reserve Level |  |  |  |  |  | 4.2\% |
| Unallocated Gain and Loss Reserve |  | 11,205,917 |  | $(11,205,917)$ |  | 0 |
| Available Assets at Fair Value |  | 214,927,386 | \$ | 0 |  | 214,927,386 |


[^0]:    * Ages shown are ages of the corresponding retirees. Benefits generally are payable to alternate payees for the life of the corresponding retiree.

