



A MILLIMAN GLOBAL FIRM

Milliman

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March 14, 2005

Mr. Wilfred G. Aflague
Director
Government of Guam Retirement Fund
424 Route 8
Maite, Guam 96927

**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2003 – Final Draft**

Dear Mr. Aflague:

Enclosed are 12 copies of our final draft of the Actuarial Valuation as of September 30, 2003. This draft is unchanged from the 2nd draft sent via e-mail on February 15, 2005, which included the following changes discussed at the trustee meeting on February 4th.

- Valuation interest rate of 7.0%.
- No increase in total payroll from FY 2003 to FY 2004.
- Total payroll increases of 3.5% per year for fiscal years after 2004.
- Added exhibits showing retiree and surviving spouse benefit distribution by amount.

If you have any questions, please call me at (415) 403-1333, extension 116.

Sincerely,

Richard A. Wright, F.S.A.

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enc.

cc: Pete Tajalle

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**Government of Guam
Retirement Fund**

Actuarial Valuation as of September 30, 2003

Prepared by:

**Richard A. Wright, F.S.A.
Milliman**

March 14, 2005



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March 14, 2005

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Maite, Guam 96927

**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2003 – Final Draft**

At the request of the Trustees, we have made an actuarial valuation of the Government of Guam Retirement Fund as of September 30, 2003.

In preparing our report, we relied on financial information and employee data furnished to us by the Government of Guam Retirement Fund. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial cost method and assumptions used as well as the supporting data and principal plan provisions upon which the valuation is based are set forth in the following report. In our opinion, each actuarial assumption, method, and technique used (a) is reasonable taking into account the experience of the Plan and reasonable expectations or (b) would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions.

The results of this valuation are applicable only for the current year and are intended to be used only by the plan sponsor for the specific purposes described herein. Reliance on information contained in this report by anyone for anything other than the intended purpose puts the relying entity at risk of being misled.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, all costs, liabilities, and other factors under the Plan were determined in accordance with generally accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. We further certify



Government of Guam Retirement Fund
March 14, 2005
Page 2

that, to the best of our knowledge, the report is complete and accurate and the information presented herein, in our opinion, fully and fairly discloses the actuarial position of the Plan.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

A handwritten signature in black ink that reads "Richard A. Wright".

Richard A. Wright, F.S.A.
Consulting Actuary

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SECTION I. VALUATION SUMMARY

Introduction

Milliman, Inc. has been retained by the Government of Guam Retirement Fund to provide an actuarial valuation of the retirement fund. In our valuation we:

- Summarize the membership data.
- Calculate the accrued liability and normal cost.
- Determine the contribution requirements.
- Provide financial information required by GASB No. 25.
- Project the fund balance and security ratio forward 40 years.

The results contained in this report represent our best estimates. However, it is likely that actual experience will vary from these estimates. To the extent that actual experience differs from the anticipated experience, actual plan costs will vary as well.

Highlights

- The required contribution under GCA 8137 increased from 20.81% of total payroll in the actuarial valuation as of 9/30/2002 to 24.89% of total payroll as of 9/30/2003. The required calculation consists of a 8.80% rate applied to defined benefit payroll and a 19.93% rate applied to total payroll.
- The investment return on the market value of assets equaled 9.9% for the fiscal year ending September 30, 2003. The average annual return on the actuarial value of assets for the last 3 fiscal years is 2.4%.
- Earnings were reported for Guam Memorial Hospital participants for the year ending September 30, 2003. The reported earnings included earnings for some prior periods. For the purpose of projecting earnings forward, we have averaged the reported GMH earnings for the last three years. The 5% load on liabilities for missing GMH data, which was applied in the prior valuation, was removed for this valuation.
- The Fund's administrative expenses for the defined benefit plan were \$3,533,184 for the year ending September 30, 2003. We have used this as the expense assumption for future years. The prior valuation assumed administrative expenses of \$3,978,000 per year.
- Two of the actuarial assumptions have changed since the last valuation. The interest rate used to discount future benefit payments was reduced from 7.5% to 7.0%, and the assumption for total payroll increases was reduced from 4.5% to 3.5%. All other actuarial assumptions are the same as those recommended by the prior actuary in the 1997-2001 experience study.
- There have been no changes in plan provisions since the prior actuarial valuation. A summary of plan provisions is in Appendix A.



SECTION I. VALUATION SUMMARY

Results of Valuation

The following table summarizes the principal valuation results and compares them with the prior year.

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|--|---------------------|---------------------------|
| <i>Participant Counts</i> | | |
| Active – Non-Uniformed | 5,188 | 5,308 |
| – Uniformed | <u>469</u> | <u>467</u> |
| – Total | 5,657 | 5,775 |
| Retired | <u>6,809</u> | <u>6,536</u> |
| Total Actives and Retirees | 12,466 | 12,311 |
| Inactive and Terminated Members with Accumulated contributions | 7,025 | n/a |
| <i>Actual Payroll for Prior Fiscal Year</i> | | |
| | <i>(\$millions)</i> | <i>(\$millions)</i> |
| Defined benefit (DB) payroll | \$221.8 | \$206.9 |
| Total payroll (DB and DC) | 364.9 | 378.9 |
| <i>Expected Payroll for Next Fiscal Year</i> | | |
| Defined benefit (DB) payroll | \$224.2 | \$232.3 * |
| Total payroll (DB and DC) | 398.1 | 413.8 * |
| <i>Financial Status</i> | | |
| Accrued liability | \$2,614.8 | \$2,378.4 |
| Actuarial value of assets | <u>1,206.9</u> | <u>1,135.7</u> |
| Unfunded accrued liability | \$1,407.9 | \$1,242.7 |
| Security ratio | 46.16% | 47.75% |
| <i>Normal Cost</i> | | |
| | | <i>% of DB Payroll</i> |
| Total normal cost | \$ 41.0 | 18.30% |
| Estimated employee contributions | <u>(21.3)</u> | <u>(9.50%)</u> |
| Government normal cost | \$ 19.7 | 8.80% |
| | | <i>% of Total Payroll</i> |
| Total normal cost | \$ 41.0 * | 17.66% |
| Estimated employee contributions | <u>(22.1)*</u> | <u>(9.50%)</u> |
| Government normal cost | \$ 19.0 * | 8.16% |
| <i>Required Contribution per GCA 8137</i> | | |
| | | <i>% of Total Payroll</i> |
| Government normal cost | \$ 19.7 | 4.96% |
| Government unfunded liability cost | <u>79.3</u> | <u>19.93%</u> |
| Required contribution | \$ 99.1 | 24.89% |
| | | <i>% of Total Payroll</i> |
| Government normal cost | \$ 19.0 * | 4.58% |
| Government unfunded liability cost | <u>67.2 *</u> | <u>16.23%</u> |
| Required contribution | \$ 86.1 * | 20.81% |
| <i>Yield on Market Value of Assets</i> | | |
| Current year | 9.9% | (0.5%) |
| Average for last 2 years | 4.6% | n/a |

* Projected to FY 2004.



SECTION I. VALUATION SUMMARY

Actuarial Assumptions

The following assumptions should be reviewed for reasonableness. To the extent that actual experience differs from the assumptions below, future pension costs will differ as well.

Interest Rate: The interest rate used as of September 30, 2003, was 7.0%. This was reduced from the 7.5% rate assumed in the prior valuation. The investment consultant's expected long-term returns on various asset classes is shown below. The target asset allocation is from the proposed new investment management guidelines.

| <i>Asset Class</i> | <i>Expected 1 Year Nominal Return</i> | <i>Target Asset Allocation</i> |
|--|---|------------------------------------|
| U.S. Equities | | 38% |
| Non-U.S. Equities | | 16% |
| Non-U.S. Equities (emerging markets) | | 3% |
| U.S. Fixed Income (aggregate) | | 38% |
| Non-U.S. Fixed Income | | 4% |
| Cash | | 1% |
| Expected Average Return (1 yr) | | |
| Expected Geometric Average Return (30 yr) | | |
| 25 th to 75 th Percentile Return | | |

The expected geometric average return over 30 years is less than the 1-year arithmetic return due to expected deviations from the average. The current assumption of 7.0% is about equal to the geometric average return over 30 years, and is within the 25th to 75th percentile of expected results. Note that if investments fail to achieve the assumed interest rate, future pension costs will increase.

Mortality. The mortality table used as of September 30, 2003, was the Uninsured Pensioner 1994 Table (UP94), with male mortality rates set forward 2 years. The mortality table used for disabled lives is the UP94 table with a 10-year set forward for males and an 8-year set forward for females. This assumption is unchanged from the prior valuation.

Salary Increases. Salaries are assumed to increase 8.5% per year for employees in their first 5 years of service, 7.0% for service between 6 and 10 years, 6.0% for service between 11 and 15 years, 5.0% for service between 16 and 20 years, and 4.0% for service after 20 years. This assumption is unchanged from the prior valuation.

Total Payroll Growth. Total payroll for defined benefit and defined contribution members is assumed to increase 3.5% per year. The prior assumption assumed payroll increases of 4.5% per year. The change is due to the removal of the 1% per year increase in personnel.



SECTION I. VALUATION SUMMARY

Retirement Age. We have assumed 50% of employees will retire when first eligible for unreduced retirement. Thereafter, 20% of employees will retire at each year until age 70, at which time all remaining employees are assumed to retire. This assumption is unchanged from the prior valuation.

Return of Contributions. We have assumed 100% of employees who withdraw prior to retirement and who have less than 20 years of service will elect of return of contributions in lieu of a deferred benefit. This assumption is unchanged from the prior valuation.

Administrative Expenses. Annual administrative expenses are assumed to be \$3,533,184, which is the amount of defined benefit plan expenses for the year ending September 30, 2003, as reported in the Fund's audited financial statements. The prior valuation assumed annual expenses of \$3,978,000.

A summary of actuarial assumptions is in Appendix B.

Alternative Funding Strategies

GC Section 8137 requires a contribution sufficient to fully fund the unfunded liability by 2031 (within 80 years from May 1, 1951). The required contribution shown in this report includes a payment for the normal cost of active members of the Fund, and amortizes the unfunded liability over the remaining 27.58 years as a level percentage of total payroll (including both defined benefit and defined contribution members).

Any change in contribution requirements requires legislative action. One alternative strategy is to achieve a funding target of less than 100% after a certain number of years. Another strategy recognizes the decreasing size of the active population and develops contribution requirements that decrease as a percentage of payroll.

Exhibits 18 and 19 project the employer and employee contributions, fund balance, accrued liability and security ratio forward 40 years under the current funding requirements. Any change in funding requirements should consider the effect on the projected fund balance and security ratio.



SECTION II. FUND ASSETS

Exhibit 1. Summary of Fund Assets

Listed below are the assets reported in the Fund's audited financial statements as of September 30, 2003, excluding certain receivables and liabilities whose payments are deducted from employer contributions to the Fund.

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|---------------------------------------|-------------------------|-------------------------|
| Investments | | |
| Common stocks | \$ 529,489,480 | \$ 348,941,716 |
| U.S. Government securities | 207,036,448 | 369,781,797 |
| Corporate bonds and notes | 342,432,781 | 376,218,434 |
| Money market funds | <u>54,539,441</u> | <u>28,490,623</u> |
| Total investments | 1,133,498,150 | 1,123,432,570 |
| Receivables | | |
| Employer contributions, net | 20,479,533 | 23,119,737 |
| Member contributions | 7,872,191 | 10,804,989 |
| Accrued investment income | 7,220,281 | 10,155,834 |
| Due from brokers for unsettled trades | 11,152,068 | 15,399,194 |
| Notes receivable for service credits | 8,807,252 | 8,837,608 |
| Notes receivable ERIP | 12,498,071 | 13,487,082 |
| Other receivables | 12,854,115 | 11,217,914 |
| Due from DC plan | <u>419,722</u> | <u>420,993</u> |
| Total receivables | 81,303,233 | 93,443,351 |
| Cash and cash equivalents | 15,409,299 | 3,227,194 |
| Property and equipment | <u>1,440,829</u> | <u>1,425,433</u> |
| Total assets | \$ 1,231,651,511 | \$ 1,221,528,548 |
| Liabilities | | |
| Bank overdraft | \$ 411,663 | \$ 1,306,081 |
| Accounts payable and accrued expenses | 3,224,330 | 2,558,891 |
| Due to brokers for unsettled trades | <u>2,730,786</u> | <u>28,162,721</u> |
| Total liabilities | \$ 6,366,779 | \$ 32,027,693 |
| Valuation Assets | <u>\$ 1,225,284,732</u> | <u>\$ 1,189,500,855</u> |
| Excluded Assets | | |
| Receivable – ERIP employer share | \$ 17,080,487 | \$ 21,644,375 |
| Supplemental/COLA benefits receivable | 103,675,964 | 106,513,203 |
| Deferred revenue for service credits | <u>(38,385,810)</u> | <u>(43,969,065)</u> |
| Total excluded assets | \$ 82,370,641 | \$ 84,188,513 |



SECTION II. FUND ASSETS

Exhibit 2. Asset Allocation

The allocation of assets among various investment classes is an important determinant of expected future investment returns.

| | <i>Asset Allocation</i> | |
|----------------------------|-------------------------|------------------|
| | <u>9/30/2003</u> | <u>9/30/2002</u> |
| Common stocks | 46.7% | 31.1% |
| U.S. Government securities | 18.3% | 32.9% |
| Corporate bonds and notes | 30.2% | 33.5% |
| Money market funds | <u>4.8%</u> | <u>2.5%</u> |
| Total | 100.0% | 100.0% |



SECTION II. FUND ASSETS

Exhibit 3. Changes in Fund Assets

Fund assets increase or decrease each year due to employer contributions, investment income, benefit payments to retiring participants, plan expenses paid by the trust fund, and any realized and unrealized gains and losses from investments.

| | <i>Fiscal Year Ending</i> | |
|--|---------------------------|---------------------|
| | <u>9/30/2003</u> | <u>9/30/2002</u> |
| Beginning Balance | \$ 1,189,500,855 | \$ 1,295,058,469 |
| Contributions | | |
| Employer contributions | 61,667,848 | 62,567,070 |
| Member contributions | 22,339,675 | 23,643,131 |
| Decrease/(increase) in excluded assets | <u>1,817,872</u> | <u>(24,999,623)</u> |
| Total contributions | 85,825,395 | 61,210,578 |
| Investment Income | | |
| Net appreciation in fair value | 68,955,855 | (57,671,173) |
| Interest | 41,147,525 | 46,432,832 |
| Dividends | 8,441,013 | 7,457,745 |
| Other investment income | 631,605 | 728,673 |
| Investment expenses | <u>(2,727,823)</u> | <u>(2,825,072)</u> |
| Total investment income | 116,448,175 | (5,876,995) |
| Benefit Payments | | |
| Age and service annuities | 128,189,391 | 124,500,190 |
| Disability annuities | 9,276,164 | 9,205,129 |
| Survivor annuities | 13,617,180 | 12,893,926 |
| Insurance | 0 | 332,562 |
| Refunds to separated employees | 10,239,383 | 8,272,760 |
| Interest on refunded contributions | 546,733 | 0 |
| Balances transferred to DC plan | <u>1,640,404</u> | <u>2,753,945</u> |
| Total benefit payments | 163,509,255 | 157,958,512 |
| Administrative expenses | | |
| Administrative expenses | 3,533,184 | 3,856,932 |
| Bad debts (recoveries) | <u>(552,746)</u> | <u>(924,247)</u> |
| Net administrative expenses | 2,980,438 | 2,932,685 |
| Ending Balance | \$ 1,225,284,732 | \$ 1,189,500,855 |



SECTION II. FUND ASSETS

Exhibit 4. Actuarial Value of Assets

The actuarial value of assets equals the market value, except that bonds are valued at amortized cost instead of at market value.

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|--------------------------------------|--------------------|--------------------|
| Valuation Assets | \$ 1,225,284,732 | \$ 1,189,501,000 |
| Amortized cost of bonds | 531,095,369 | 691,614,000 |
| Market value of bonds | <u>549,469,229</u> | <u>745,449,000</u> |
| Adjustment to valuation assets | (18,373,860) | (53,835,000) |
| Actuarial value of assets | \$ 1,206,910,872 | \$ 1,135,666,000 |
| Actuarial value as % of market value | 98.5% | 95.5% |



SECTION II. FUND ASSETS

Exhibit 5. Historical Returns on Fund Assets

The following table shows the historical return on Fund assets over the last 3 years:

| <i>Fiscal Year Ending 9/30</i> | <i>Return on Market Value</i> | <i>Return on Actuarial Value</i> |
|------------------------------------|-----------------------------------|--------------------------------------|
| 2003 | 9.9% | 13.0% |
| 2002 | (0.5%) | (2.7%) |
| 2001 | n/a | (2.3%) |
| Average for last 3 fiscal years | n/a | 2.4% |

The actuarial valuation rate is 7.00%.



SECTION III. MEMBERSHIP DATA

Exhibit 6. Active Employees

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|---|------------------|------------------|
| Reconciliation of Census | | |
| Members reported in raw data | 12,682 | n/a |
| Number excluded due to: | | |
| Reported as inactive | 5,121 | |
| Reported as terminated | 314 | |
| Zero earnings | 1,418 | |
| Refund of contributions | <u>172</u> | |
| Total exclusions | 7,025 | n/a |
| Active employees in valuation | 5,657 | 5,775 |
| Active Employees - Non-Uniformed | | |
| Number vested | 5,095 | n/a |
| Number not vested | <u>93</u> | <u>n/a</u> |
| Total | 5,188 | 5,308 |
| Average age | 45.9 | 44.7 |
| Average service | 16.4 | 15.5 |
| Average earnings | \$ 39,066 | \$ 37,273 |
| Average accumulated contributions | \$ 56,556 | n/a |
| Active Employees – Uniformed | | |
| Number vested | 468 | n/a |
| Number not vested | <u>1</u> | <u>n/a</u> |
| Total | 469 | 467 |
| Average age | 40.6 | 40.3 |
| Average service | 16.3 | 15.6 |
| Average earnings | \$ 45,830 | \$ 47,559 |
| Average accumulated contributions | \$ 69,268 | n/a |
| Active Employees – Total | | |
| Number vested | 5,563 | n/a |
| Number not vested | <u>94</u> | <u>n/a</u> |
| Total | 5,657 | 5,775 |
| Average age | 45.5 | 44.3 |
| Average service | 16.4 | 15.5 |
| Average earnings | \$ 39,627 | \$ 38,105 |
| Average accumulated contributions | \$ 57,610 | n/a |



SECTION III. MEMBERSHIP DATA

Exhibit 7. Active Employees by Agency

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|---|------------------|------------------|
| Agency For Human Resources Development | 15 | n/a |
| Bureau Of Budget & Management Research | 13 | |
| Bureau Of Planning | 28 | |
| Chamorro Land Trust | 5 | |
| Chief Medical Examiner | 2 | |
| Civil Service Commission | 6 | |
| Commissioner's Council | 38 | |
| Customs & Quarantine | 51 | |
| Dept Of Administration | 82 | |
| Dept Of Agriculture | 65 | |
| Dept Of Commerce | 1 | |
| Dept Of Corrections | 91 | |
| Dept Of Education | 1,864 | |
| Dept Of Labor | 36 | |
| Dept Of Land Management | 40 | |
| Dept Of Law | 70 | |
| Dept Of Mental Health & Substance Abuse | 51 | |
| Dept Of Military Affairs | 14 | |
| Dept Of Parks And Recreation | 59 | |
| Dept Of Public Health & Social Services | 208 | |
| Dept Of Public Works | 306 | |
| Dept Of Revenue And Taxation | 101 | |
| Dept Of Vocational Rehabilitation | 19 | |
| Dept Of Youth Affairs | 44 | |
| Government Of Guam Retirement Fund | 23 | |
| Governor's Office | 27 | |
| Guam Airport Authority | 128 | |
| Guam Caha | 3 | |
| Guam Community College | 124 | |
| Guam Economic Development Agency | 14 | |
| Guam Election Commission | 1 | |
| Guam Energy Office | 4 | |
| Guam Environmental Protection Agency | 19 | |
| Guam Fire Dept | 186 | |
| Guam Housing & Urban Renewal Agency | 45 | |
| Guam Housing Corporation | 9 | |
| Guam Legislature | 37 | |
| Guam Memorial Hospital Authority | 356 | |
| Guam Police Dept | 160 | |
| Guam Power Authority | 321 | |
| Guam Reparation Commission | 7 | |
| Guam Telephone Authority | 176 | |
| Guam Visitors Bureau | 12 | |
| Guam Waterworks Authority | 151 | |
| KGTF | 7 | |
| Nieves M. Flores Memorial Library | 10 | |
| Port Authority Of Guam | 170 | |
| Public Defender | 26 | |
| Superior Court Of Guam | 140 | |
| Supreme Court Of Guam | 9 | |
| Territorial Auditors | 2 | |
| University Of Guam | 280 | |
| Veteran's Affairs Office | 1 | |
| TOTAL | <u>5,657</u> | <u>5,775</u> |



SECTION III. MEMBERSHIP DATA

Exhibit 8. Retired Employees

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|-------------------------------------|------------------|------------------|
| Service retirees | | |
| Count | 4,756 | 4,536 |
| Average age | 62.5 | 61.6 |
| Average benefit | \$26,811 | \$26,781 |
| Disabled retirees | | |
| Count | 505 | 473 |
| Average age | 60.0 | 59.5 |
| Average benefit | \$18,465 | \$18,805 |
| Survivors | | |
| Count | 1,236 | 1,221 |
| Average age | 67.0 | 66.6 |
| Average benefit | \$10,638 | \$14,475 |
| Child pensioners | | |
| Count | 312 | 306 |
| Average age | 15.1 | 15.8 |
| Average benefit | \$2,160 | \$2,160 |
| Total retirees and survivors | | |
| Count | 6,809 | 6,536 |
| Average age* | 63.2 | 62.4 |
| Average benefit* | \$23,085 | \$23,764 |

* Excludes child pensioners.



SECTION III. MEMBERSHIP DATA

Exhibit 9. Terminated and Inactive Members

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|--|------------------|------------------|
| Reported as Inactive | | |
| Count | 5,121 | n/a |
| Accumulated contributions | \$2,495,808 | |
| Reported as Terminated | | |
| Count | 314 | n/a |
| Accumulated contributions | \$1,659,776 | |
| Zero Earnings | | |
| Count | 1,418 | n/a |
| Accumulated contributions | \$6,814,580 | |
| Refund of Contributions | | |
| Count | 172 | n/a |
| Accumulated contributions | \$173,822 | |
| Total Terminateds and Inactives | | |
| Count | 7,025 | n/a |
| Accumulated contributions | \$11,143,985 | \$7,735,000 |



SECTION IV. VALUATION EXHIBITS

Exhibit 10. Accrued Liability

The accrued liability has been calculated using the Entry Age Normal actuarial cost method, and is equal to the present value of benefits for all members less the present value of future normal costs for active employees.

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|--|--------------------|--------------------|
| Present value of benefits | | |
| Active employees - | | |
| Retirement | \$ 1,053,962,128 | \$ 897,216,000 |
| Disability | 88,319,683 | 68,652,000 |
| Death | 31,794,656 | 26,407,000 |
| Withdrawal | <u>42,317,749</u> | <u>69,673,000</u> |
| Total active PVB | 1,216,394,216 | 1,061,948,000 |
| Retirees and Survivors | | |
| Retirees | 1,470,737,897 | 1,337,812,000 |
| Disabled retirees | 89,858,927 | 82,837,000 |
| Survivors | <u>149,827,310</u> | <u>177,851,000</u> |
| Total retirees and survivors | 1,710,424,134 | 1,598,500,000 |
| Terminated and inactive members | 11,143,985 | 7,735,000 |
| Total PVB | \$ 2,937,962,335 | \$ 2,668,183,000 |
| Present Value of Future Normal Cost | | |
| Active employees - | | |
| Retirement | \$ 232,777,106 | \$ 201,872,000 |
| Disability | 42,436,189 | 32,611,000 |
| Death | 16,616,207 | 11,494,000 |
| Withdrawal | <u>31,292,690</u> | <u>43,807,000</u> |
| Total active PVFNC | \$ 323,122,192 | \$ 289,784,000 |
| Accrued Liability | | |
| Active members | \$ 893,272,024 | \$ 772,164,000 |
| Retirees and survivors | 1,710,424,134 | 1,598,500,000 |
| Terminations and inactives | <u>11,143,985</u> | <u>7,735,000</u> |
| Total accrued liability | \$ 2,614,840,143 | \$ 2,378,399,000 |



SECTION IV. VALUATION EXHIBITS

Exhibit 11. Calculation of Unfunded Accrued Liability

The unfunded accrued liability is used to determine the funding requirements. The unfunded accrued liability equals the accrued liability less the valuation assets.

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|-------------------------------------|-------------------|------------------|
| Accrued Liability | | |
| Active members | \$ 893,272,024 | \$ 772,164,000 |
| Retirees and survivors | 1,710,424,134 | 1,598,500,000 |
| Terminations and inactives | <u>11,143,985</u> | <u>7,735,000</u> |
| Total accrued liability | \$ 2,614,840,143 | \$ 2,378,399,000 |
| Actuarial Value of Assets | 1,206,910,872 | 1,135,666,000 |
| Unfunded accrued liability | \$ 1,407,929,271 | \$ 1,242,733,000 |
| Security Ratio = (Assets/AL) | 46.16% | 47.75% |



SECTION IV. VALUATION EXHIBITS

Exhibit 12. Calculation of Actuarial Gain/Loss

| | <u>9/30/2003</u> | <u>9/30/2002</u> |
|--|----------------------|----------------------|
| Unfunded accrued liability, beginning of year | \$ 1,242,733,000 | \$ 1,068,861,000 |
| Additions: | | |
| Normal cost | 18,280,861 | 16,098,605 |
| Interest to end of year | <u>94,576,040</u> | <u>81,371,970</u> |
| Total additions | 112,856,901 | 97,470,575 |
| Deductions: | | |
| Employer contributions for year | 63,485,720 | 75,312,826 |
| Interest on contributions | <u>2,337,675</u> | <u>2,773,174</u> |
| Total deductions | 65,823,395 | 78,086,000 |
| Other changes: | | |
| Plan amendments | 0 | 0 |
| Changes in assumptions | <u>135,339,435</u> | <u>0</u> |
| Net other changes | 135,339,435 | 0 |
| Expected UAL, end of year | \$ 1,425,105,941 | \$ 1,088,245,575 |
| Actual UAL, end of year | <u>1,407,929,271</u> | <u>1,242,733,000</u> |
| Actuarial gain/(loss) | \$ 17,176,670 | \$ (154,487,425) |
| Components of actuarial gain/(loss): | | |
| Investment gain/(loss) | \$ 64,069,477 | \$ (124,000,000) |
| Other changes | <u>(46,892,807)</u> | <u>(30,487,425)</u> |
| Total actuarial gain/(loss) | \$ 17,176,670 | \$ (154,487,425) |



SECTION IV. VALUATION EXHIBITS

Exhibit 13. Normal Cost

The normal cost has been calculated using the Entry Age Normal actuarial cost method.

| | <u>9/30/2003</u> | | <u>9/30/2002²</u> | |
|---|---------------------|----------------|------------------------------|----------------|
| Expected defined benefit payroll for fiscal year following | \$ 224,246,929 | | \$ 232,326,000 | |
| Normal cost¹ - | | <i>% of DB</i> | | <i>% of DB</i> |
| Retirement | \$ 27,307,755 | <u>12.18%</u> | \$ 26,845,000 | <u>11.55%</u> |
| Disability | 4,651,646 | 2.07% | 4,141,000 | 1.78% |
| Death | 3,662,412 | 1.63% | 4,619,000 | 1.99% |
| Withdrawal | <u>1,880,555</u> | <u>0.84%</u> | <u>1,442,000</u> | <u>0.62%</u> |
| Total active normal cost | \$ 37,502,368 | 16.72% | \$ 37,047,000 | 15.95% |
| Assumed administrative expenses | <u>3,533,184</u> | <u>1.58%</u> | <u>3,978,000</u> | <u>1.71%</u> |
| Total normal cost and expenses | \$ 41,035,552 | 18.30% | \$ 41,025,000 | 17.66% |
| Expected member contributions | <u>(21,303,458)</u> | <u>(9.50%)</u> | <u>(22,071,000)</u> | <u>(9.50%)</u> |
| Government portion of normal cost | \$ 19,732,094 | 8.80% | \$ 18,954,000 | 8.16% |

¹ Includes interest to mid-year.

² Projected to FY 2004.



SECTION IV. VALUATION EXHIBITS

Exhibit 14. Amortization of Unfunded Liability

Pursuant to GCA Section 8137, the unfunded liabilities of the Government of Guam Retirement Fund are to be completed funded within 80 years from May 1, 1951. As of September 30, 2003, there are 27.58 years remaining in the funding period. The amortization of the unfunded liability is calculated as a constant percentage of total payroll.

| | <u>9/30/2003</u> | <u>9/30/2002¹</u> |
|--|------------------|------------------------------|
| Total payroll (DB and DC) for fiscal year following | \$ 398,111,817 | \$ 413,786,000 |
| Unfunded accrued liability | 1,407,929,271 | 1,242,733,000 |
| Remaining funding period | 27.58 years | 28.58 years |
| Annual amortization | 79,347,419 | 67,157,000 |
| As % of total payroll (DB and DC) | 19.93% | 16.23% |

¹ Projected to FY 2004.



SECTION IV. VALUATION EXHIBITS

Exhibit 15. Contribution Requirements

Pursuant to GCA Section 8137, the unfunded liabilities of the Government of Guam Retirement Fund are to be completed funded by the year 2031. As of September 30, 2003, there are 28 years remaining in the funding period. The amortization of the unfunded liability is calculated as a constant percentage of total payroll.

| | <u>9/30/2003</u> | <u>9/30/2002¹</u> |
|--|----------------------|------------------------------|
| Defined benefit (DB) payroll for fiscal year following | \$ 224,246,929 | \$ 232,326,000 |
| Total payroll (DB and DC) for fiscal year following | 398,111,817 | 413,786,000 |
| Government normal cost As % of DB payroll | 19,732,094 8.80% | 18,954,000 8.16% |
| Annual amortization As % of total payroll (DB and DC) | 79,347,419 19.93% | 67,157,000 16.23% |
| Required contribution As % of total payroll (DB and DC) | 99,079,513 24.89% | 86,111,000 20.81% |

¹ Projected to FY 2004.



SECTION IV. VALUATION EXHIBITS

Exhibit 16. GASB No. 25 Schedule of Funding Progress

Government Accounting Standards Board (GASB) Statement No. 25 – Financial Reporting for Defined Benefit Pension Plans requires disclosure of the Schedule of Funding Progress.

| <i>Actuarial Valuation Date</i> | <i>Actuarial Value of Assets</i> | <i>Entry Age Normal Actuarial Accrued Liability (AAL)</i> | <i>Unfunded Actuarial Accrued Liability (UAAL)</i> | <i>Funded Ratio</i> | <i>Total Government Covered Payroll</i> | <i>UAAL as a Percentage of Covered Payroll</i> |
|---|--|---|--|-------------------------|---|--|
| 9/30/1989 | \$ 372,820,000 | \$ 934,253,000 | \$ 561,432,000 | 39.9% | \$272,710,000 | 205.9% |
| 9/30/1991 | 532,031,000 | 1,151,610,000 | 619,578,000 | 46.2% | 321,580,000 | 192.7% |
| 9/30/1993 | 703,443,000 | 1,429,839,000 | 726,395,000 | 49.2% | 368,900,000 | 196.9% |
| 9/30/1995 | 865,014,000 | 1,417,190,000 | 552,176,000 | 61.0% | 356,990,000 | 154.7% |
| 9/30/1997 | 1,213,706,000 | 1,824,868,000 | 611,161,000 | 66.5% | 390,000,000 | 156.7% |
| 9/30/1998 | 1,287,157,000 | 1,770,852,000 | 483,694,000 | 72.6% | 407,550,000 | 118.7% |
| 9/30/1999 | 1,346,205,000 | 2,096,617,000 | 750,412,000 | 64.2% | 363,711,000 | 206.3% |
| 9/30/2000 | 1,348,761,000 | 2,126,150,000 | 777,389,000 | 63.4% | 374,551,000 | 207.6% |
| 9/30/2001 | 1,265,001,000 | 2,333,862,000 | 1,068,861,000 | 54.2% | 403,061,000 | 265.2% |
| 9/30/2002 | 1,135,666,000 | 2,378,399,000 | 1,242,733,000 | 47.7% | 395,967,000 | 313.8% |
| 9/30/2003 | 1,206,911,000 | 2,614,840,000 | 1,407,929,000 | 46.2% | 398,112,000 | 353.7% |



SECTION IV. VALUATION EXHIBITS

Exhibit 17. GASB No. 25 Schedule of Employer Contributions

Government Accounting Standards Board (GASB) Statement No. 25 – Financial Reporting for Defined Benefit Pension Plans requires disclosure of the Schedule of Employer Contributions.

| <i>Fiscal Year Ending</i> | <i>Annual Required Contribution</i> | <i>Employer Contribution</i> | <i>Percentage Contributed</i> |
|---------------------------|-------------------------------------|------------------------------|-------------------------------|
| September 30, 1989 | \$ 56,145,000 | \$ 33,799,000 | 60.2% |
| September 30, 1990 | 58,952,000 | 39,441,000 | 66.9% |
| September 30, 1991 | 83,988,000 | 51,612,000 | 61.5% |
| September 30, 1992 | 88,187,000 | 54,111,000 | 61.4% |
| September 30, 1993 | 94,552,000 | 59,117,000 | 62.5% |
| September 30, 1994 | 99,280,000 | 80,965,000 | 81.6% |
| September 30, 1995 | 67,650,000 | 66,904,000 | 98.9% |
| September 30, 1996 | 71,187,000 | 68,969,000 | 96.9% |
| September 30, 1997 | 67,521,000 | 81,546,000 | 120.8% |
| September 30, 1998 | 61,929,000 | 81,877,000 | 132.2% |
| September 30, 1999 | 63,985,000 | 96,134,000 | 150.2% |
| September 30, 2000 | 52,463,000 | 85,831,000 | 163.6% |
| September 30, 2001 | 75,494,000 | 73,386,000 | 97.2% |
| September 30, 2002 | 75,906,000 | 78,087,000 | 102.9% |
| September 30, 2003 | 100,758,000 | 63,486,000 | 63.0% |



SECTION IV. VALUATION EXHIBITS

Exhibit 18. 40-Year Projection of Fund Balance (\$\$millions)

| <i>Year</i> | <i>ER+EE Contributions</i> | | <i>Investment</i> | <i>Benefits</i> | <i>Fund</i> | | |
|-------------|----------------------------|-----------------------------|-------------------|-----------------|-------------|---------------|-------------|
| | <i>Ending</i> | <i>Payroll</i> ¹ | | | | <i>Amount</i> | <i>ER %</i> |
| 2003 | | | | | | | \$ 1,206.91 |
| 2004 | | \$ 398.11 | \$ 104.21 | 20.81% | \$ 81.82 | \$ (159.42) | 1,233.53 |
| 2005 | | 412.05 | 123.33 | 24.89% | 84.07 | (166.21) | 1,274.71 |
| 2006 | | 426.47 | 125.18 | 24.61% | 86.77 | (172.51) | 1,314.15 |
| 2007 | | 441.39 | 126.99 | 24.31% | 89.37 | (178.14) | 1,352.38 |
| 2008 | | 456.84 | 128.90 | 24.00% | 91.92 | (183.05) | 1,390.16 |
| 2009 | | 472.83 | 131.14 | 23.74% | 94.48 | (187.19) | 1,428.59 |
| 2010 | | 489.38 | 133.48 | 23.50% | 97.10 | (191.11) | 1,468.06 |
| 2011 | | 506.51 | 136.07 | 23.30% | 99.79 | (195.10) | 1,508.81 |
| 2012 | | 524.24 | 138.56 | 23.08% | 102.58 | (199.01) | 1,550.94 |
| 2013 | | 542.59 | 141.20 | 22.90% | 105.43 | (203.88) | 1,593.69 |
| 2014 | | 561.58 | 143.76 | 22.71% | 108.28 | (209.54) | 1,636.19 |
| 2015 | | 581.23 | 146.23 | 22.52% | 111.10 | (215.63) | 1,677.91 |
| 2016 | | 601.57 | 148.69 | 22.31% | 113.86 | (222.00) | 1,718.46 |
| 2017 | | 622.63 | 151.29 | 22.13% | 116.53 | (228.61) | 1,757.67 |
| 2018 | | 644.42 | 153.93 | 21.94% | 119.12 | (234.73) | 1,795.99 |
| 2019 | | 666.98 | 156.56 | 21.75% | 121.62 | (241.70) | 1,832.47 |
| 2020 | | 690.32 | 159.43 | 21.60% | 123.97 | (249.39) | 1,866.49 |
| 2021 | | 714.48 | 162.21 | 21.44% | 126.13 | (257.57) | 1,897.25 |
| 2022 | | 739.49 | 165.10 | 21.29% | 128.05 | (265.91) | 1,924.49 |
| 2023 | | 765.37 | 168.12 | 21.13% | 129.77 | (273.30) | 1,949.08 |
| 2024 | | 792.16 | 171.39 | 20.98% | 131.37 | (279.28) | 1,972.56 |
| 2025 | | 819.88 | 174.96 | 20.84% | 132.98 | (283.36) | 1,997.13 |
| 2026 | | 848.58 | 178.99 | 20.72% | 134.74 | (285.75) | 2,025.11 |
| 2027 | | 878.28 | 183.39 | 20.60% | 136.84 | (285.91) | 2,059.43 |
| 2028 | | 909.02 | 188.23 | 20.49% | 139.48 | (284.11) | 2,103.03 |
| 2029 | | 940.84 | 193.49 | 20.41% | 142.84 | (280.98) | 2,158.38 |
| 2030 | | 973.77 | 199.10 | 20.33% | 147.09 | (276.35) | 2,228.22 |
| 2031 | | 1,007.85 | 125.06 | 12.32% | 149.64 | (271.05) | 2,231.87 |
| 2032 | | 1,043.12 | 4.85 | 0.40% | 146.00 | (264.90) | 2,117.81 |
| 2033 | | 1,079.63 | 4.53 | 0.38% | 138.28 | (257.89) | 2,002.74 |
| 2034 | | 1,117.42 | 4.28 | 0.35% | 130.53 | (250.03) | 1,887.51 |
| 2035 | | 1,156.53 | 4.10 | 0.33% | 122.79 | (241.43) | 1,772.96 |
| 2036 | | 1,197.01 | 3.96 | 0.32% | 115.12 | (232.53) | 1,659.52 |
| 2037 | | 1,238.90 | 3.87 | 0.30% | 107.55 | (223.02) | 1,547.91 |
| 2038 | | 1,282.26 | 3.80 | 0.29% | 100.12 | (213.22) | 1,438.61 |
| 2039 | | 1,327.14 | 3.75 | 0.28% | 92.87 | (202.89) | 1,332.35 |
| 2040 | | 1,373.59 | 3.72 | 0.27% | 85.84 | (192.42) | 1,229.49 |
| 2041 | | 1,421.67 | 3.70 | 0.26% | 79.06 | (181.79) | 1,130.46 |
| 2042 | | 1,471.43 | 3.68 | 0.25% | 72.55 | (171.13) | 1,035.55 |

¹ Payroll is assumed to increase 3.5% per year.

² Investment earnings are assumed to be 7.0% per year.



SECTION IV. VALUATION EXHIBITS

Exhibit 19. 40-Year Projection of Security Ratio

| <i>Year</i> | <i>Employer Contributions</i> | | <i>Fund</i> | <i>Accrued</i> | <i>Security</i> | | |
|-------------|-------------------------------|-----------------------------|-------------|----------------|-----------------|---------------|----------|
| | <i>Ending</i> | <i>Payroll</i> ¹ | | | | <i>Amount</i> | <i>%</i> |
| 2003 | | | | \$ 1,206.91 | \$ 2,614.84 | 46.16% | |
| 2004 | | \$ 398.11 | \$ 82.85 | 20.81% | 1,233.53 | 2,674.78 | 46.12% |
| 2005 | | 412.05 | 102.55 | 24.89% | 1,274.71 | 2,730.48 | 46.68% |
| 2006 | | 426.47 | 104.97 | 24.61% | 1,314.15 | 2,782.25 | 47.23% |
| 2007 | | 441.39 | 107.29 | 24.31% | 1,352.38 | 2,830.54 | 47.78% |
| 2008 | | 456.84 | 109.65 | 24.00% | 1,390.16 | 2,876.07 | 48.34% |
| 2009 | | 472.83 | 112.27 | 23.74% | 1,428.59 | 2,919.50 | 48.93% |
| 2010 | | 489.38 | 115.00 | 23.50% | 1,468.06 | 2,961.11 | 49.58% |
| 2011 | | 506.51 | 118.03 | 23.30% | 1,508.81 | 3,000.41 | 50.29% |
| 2012 | | 524.24 | 120.99 | 23.08% | 1,550.94 | 3,037.51 | 51.06% |
| 2013 | | 542.59 | 124.24 | 22.90% | 1,593.69 | 3,071.01 | 51.89% |
| 2014 | | 561.58 | 127.56 | 22.71% | 1,636.19 | 3,099.56 | 52.79% |
| 2015 | | 581.23 | 130.87 | 22.52% | 1,677.91 | 3,122.17 | 53.74% |
| 2016 | | 601.57 | 134.21 | 22.31% | 1,718.46 | 3,138.20 | 54.76% |
| 2017 | | 622.63 | 137.78 | 22.13% | 1,757.67 | 3,146.71 | 55.86% |
| 2018 | | 644.42 | 141.36 | 21.94% | 1,795.99 | 3,147.68 | 57.06% |
| 2019 | | 666.98 | 145.06 | 21.75% | 1,832.47 | 3,139.80 | 58.36% |
| 2020 | | 690.32 | 149.11 | 21.60% | 1,866.49 | 3,121.37 | 59.80% |
| 2021 | | 714.48 | 153.16 | 21.44% | 1,897.25 | 3,091.12 | 61.38% |
| 2022 | | 739.49 | 157.41 | 21.29% | 1,924.49 | 3,047.86 | 63.14% |
| 2023 | | 765.37 | 161.72 | 21.13% | 1,949.08 | 2,991.73 | 65.15% |
| 2024 | | 792.16 | 166.19 | 20.98% | 1,972.56 | 2,923.43 | 67.47% |
| 2025 | | 819.88 | 170.83 | 20.84% | 1,997.13 | 2,844.36 | 70.21% |
| 2026 | | 848.58 | 175.78 | 20.72% | 2,025.11 | 2,755.65 | 73.49% |
| 2027 | | 878.28 | 180.90 | 20.60% | 2,059.43 | 2,659.29 | 77.44% |
| 2028 | | 909.02 | 186.30 | 20.49% | 2,103.03 | 2,557.07 | 82.24% |
| 2029 | | 940.84 | 191.99 | 20.41% | 2,158.38 | 2,450.21 | 88.09% |
| 2030 | | 973.77 | 197.93 | 20.33% | 2,228.22 | 2,340.13 | 95.22% |
| 2031 | | 1,007.85 | 124.16 | 12.32% | 2,231.87 | 2,227.41 | 100.20% |
| 2032 | | 1,043.12 | 4.20 | 0.40% | 2,117.81 | 2,112.78 | 100.24% |
| 2033 | | 1,079.63 | 4.05 | 0.38% | 2,002.74 | 1,997.10 | 100.28% |
| 2034 | | 1,117.42 | 3.93 | 0.35% | 1,887.51 | 1,881.27 | 100.33% |
| 2035 | | 1,156.53 | 3.85 | 0.33% | 1,772.96 | 1,766.10 | 100.39% |
| 2036 | | 1,197.01 | 3.79 | 0.32% | 1,659.52 | 1,652.00 | 100.45% |
| 2037 | | 1,238.90 | 3.75 | 0.30% | 1,547.91 | 1,539.72 | 100.53% |
| 2038 | | 1,282.26 | 3.72 | 0.29% | 1,438.61 | 1,429.70 | 100.62% |
| 2039 | | 1,327.14 | 3.70 | 0.28% | 1,332.35 | 1,322.67 | 100.73% |
| 2040 | | 1,373.59 | 3.68 | 0.27% | 1,229.49 | 1,219.00 | 100.86% |
| 2041 | | 1,421.67 | 3.68 | 0.26% | 1,130.46 | 1,119.09 | 101.02% |
| 2042 | | 1,471.43 | 3.67 | 0.25% | 1,035.55 | 1,023.26 | 101.20% |

¹ Payroll is assumed to increase 3.5% per year.

² Investment earnings are assumed to be 7.0% per year.



Appendix A. Summary of Plan Provisions

The following description is only a brief summary of the more important provisions of the retirement plan. Actual plan provisions are contained in Chapter 8 of the Guam Code.

Membership Conditions and Exclusions: All employees of the Government of Guam hired on or before September 30, 1995 are required to participate as a condition of employment, except:

- a) Persons who are compensated on a fee basis;
- b) Independent contractors;
- c) Persons employed for a specific project;
- d) Persons employed in the Senior Citizens' Community Employment Program; and
- e) Persons with less than 20 years of service prior to September 30, 1995 who elect to transfer to the Government of Guam Defined Contribution Fund. Participants have an annual opportunity to transfer.

Membership is optional for:

- a) Temporary, seasonal, intermittent and part-time employees;
- b) Persons employed for a specific period of time and not domiciled in Guam; and
- c) Employees of a public corporation of the Government of Guam.

Membership is also applicable to members of the Legislature with special provisions for:

- a) The determination of average annual salary for pension computation purposes; and
- b) Contributions.

Pension Credits: Employees are entitled to pension credit for:

- a) Service rendered to the Government prior to May 1, 1951 when the Fund began operations.
- b) Service on or after May 1, 1951 for which contributions are required to be made by the employees.
- c) Casual or part-time employment under prescribed conditions for which contributions must be made.
- d) Unused and accumulated sick and annual (vacation) leaves with 12 days of service counted as a full month; 6 to 11 days, $\frac{1}{2}$ month; and less than 6 days disregarded.
- e) For employees hired before June 1, 1989, pension credit is granted up to a maximum of 5 years for Federal service, provided the employee terminates membership in the Federal Civil Service Retirement Fund and makes a contribution to the Government of Guam Retirement Fund equal to the amount contributed by the member and his employer during the period which is equal in length to the period for which service credit is requested, and



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which ends on the member's termination date of such employment with interest from the date of such termination to the date of payment.

- f) For employees hired before June 1, 1989, educational leave time or periods of termination for educational training purposes, if contributions are made to the Fund with interest. Members who first joined the fund prior to January 31, 1987, may receive credit for up to the normal period of time required to complete degree without having been employed by the government prior to the period during which the degree was earned.
- g) Military service prior to May 1, 1951, if not considered for any Federal Government Pension other than for disability. If entry into military service occurred after May 1, 1951, total pension credit is limited to 5 years in the aggregate, provided the employee was in the service of the Government of Guam at date of entry into military service and returned to the Government of Guam service within one year following discharge from military service under conditions other than dishonorable, or within 6 months after completion of education under the various education benefits programs for veterans; otherwise the total credit is limited to three years.

Schedule for Computing Service: The following schedule shall govern the computation of pension credit: 12 days or more during any month constitutes a month of service; 6 to 12 days, ½ month; less than 6 days is disregarded. Nine months or more during any year constitutes a year of service.

Vesting of Pension Credit: If entrance to service was prior to October 1, 1981, vesting occurs after at least 3 years of service. If entrance to service was on or after October 1, 1981, vesting occurs after at least 5 years of service.

Upon separation from service, an employee may optionally leave the contribution credits in the Fund and qualify for a deferred retirement annuity, based upon the total pension credit. If the pension credit is 20 years or more, no refund of contributions is payable and the employee must accept a deferred retirement annuity.

Conditions for Service Retirement: With respect to any employee who originally became a member of the Fund prior to October 1, 1981:

- a) Such member may retire on a service retirement annuity at age 60 or over, or at age 55 in the case of a member of the uniformed personnel after at least 10 years of service. Upon retirement, a member of the uniformed personnel shall be considered one grade above that held at date of retirement.
- b) A member with at least 25 years of service may retire at any age on an unreduced retirement annuity.
- c) Any retired employee with at least 25 years of credit service shall be entitled to the full retirement annuity on and after September 30, 1981.



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- d) Any member, active or inactive, may retire after 20 years of service, regardless of age. In such case, the retirement annuity shall be reduced $\frac{1}{4}$ of 1% for each month that the age of the member is less than 60 years (3% per year).

With respect to an employee who became a member of the Fund on or after October 1, 1981, and prior to August 22, 1984, the following provisions shall govern:

- a) Such member may retire on a service retirement annuity at age 60 or over, or at age 55 if a member of the uniformed personnel after at least 15 years of service and upon retirement shall be considered one rank grade above that held at such date.
- b) A member with at least 30 years of service shall be eligible for service retirement, regardless of age, without reduction for early retirement.
- c) Any member, whether in an active or inactive status, may retire after 25 years of service, at any age, on an annuity reduced $\frac{1}{4}$ of 1% per month (3% per year) for each month member's age is less than 60.

With respect to any employee becoming a member of the Fund on or after August 22, 1984:

- a) Such member may retire on a service retirement annuity at age 65 or over, or at age 60 in the case of a member of the uniformed personnel after at least 15 years of service. Upon retirement, a member of the uniformed personnel shall be considered one grade above that held at date of retirement.
- b) A member with at least 30 years of service may retire at any age on an unreduced retirement annuity.
- c) Any member, active or inactive, may retire after 25 years of service, regardless of age. In such case, the retirement annuity shall be reduced $\frac{1}{4}$ of 1% for each month that the age of the member is less than 65 years (3% per year).

Amount of Service Retirement Annuity: A basic annuity of 2.00% of "average annual salary" for each of the first 10 years of credited service; and 2.5% of "average annual salary" for each full year of pension credit above 10 years, plus twenty dollars (\$20.00) multiplied by years of credited service reduced by an amount equal to one hundredth of one percent (.01%) of said amount for each one dollar (\$1.00) that a member's average annual salary exceeds the amount of six thousand dollars (\$6,000).

The minimum amount of service retirement annuity payable by the Fund is \$1,200 per year. The maximum retirement annuity is 85% of "average annual salary."

Average Annual Salary: Average of three highest annual salaries received by a member during the entire period of pension credit, or \$6,000, whichever is greater.

The annual salary of the member shall include the basic rate of salary on which contributions were made by the member and any salary on which the member made contributions as



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required under GCA, Section 8136(a). Effective October 1, 1986, salary can include payment for unused annual leave upon retirement.

In case of members of the Legislature, the average annual salary is the salary of the Director of Administration at the member's date of retirement, or the average of the three highest annual salaries received by the member during the period of membership credit, whichever is greater.

Automatic Increase in Annuity: Effective July 1, 1984, any member retiring from service and entitled to benefits after September 1, 1972, is to receive each year, on the anniversary date of retirement, an increment of \$600 if the annual annuity is \$3,500 or less; \$400 if the annuity is between \$3,500 and \$6,300 per year; \$300 if the annuity is between \$6,300 and \$10,100; and \$200 if the annuity exceeds \$10,100 per year.

Disability Retirement: Upon total and permanent disability due to physical or mental causes, an employee under age 65 is entitled to a disability retirement annuity. For employees hired prior to August 22, 1984, the amount of the disability retirement annuity will be 66-2/3% of the employee's salary in effect on the date of disability. Subsequent employees will have an annuity amount based on 66-2/3% of the average of the highest three years of salary. If the disability was not due to occupational causes, the employee must have Government of Guam service credit of at least six years, or five years in the case of terminal illness, in order to qualify, except that new members since May 28, 1985, may not retire if a disability arises from impairment or conditions existing prior to employment.

A disability retirement annuitant must submit to a medical examination at least once a year during the first five years of disability, and at least once every three years thereafter, by a physician or physicians designated by the Board in order to establish continuing disability and entitlement to benefits. Should a disability annuitant resume gainful employment in a position other than the particular job in which he was engaged when declared disabled, the disability retirement benefit shall continue as initially determined.

A member receiving disability retirement benefits since December 1, 1972, is entitled to receive on the anniversary date of retirement, an annual increase of \$300 if the benefit is \$3,000 per year or less; \$250 per year where the annuity is between \$3,000 and \$6,000 per year; \$200 per year where the annuity is between \$6,000 and \$10,000 per year; and \$100 if the annuity exceeds \$10,000 per year.

Re-entry Into Service: A member on retirement who re-enters services as an employee eligible for membership shall have the annuity suspended during the period of employment without losing rights to automatic increases in the retirement annuity during the period of re-employment. This provision does not apply to Department of Education employees who occupy positions dealing with the Chamorro Language and Culture Program in Guam schools, persons employed as classroom teachers, guidance or health counselors when critical need arises, nor elected officials.



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Benefits to Survivors: Benefits are payable to a surviving spouse and children under age 21, upon the death of a member while in service after at least three years of service, or occurring while on retirement. The benefit to children of an annuitant or member whose death occurs while in service, after at least three years of service is payable until age 24, if they are full-time students in an accredited educational institution and for disabled children regardless of age, if disability occurred before age 21.

If only a spouse survives the active or retired member, the annuity payable is 50% of the service or disability retirement annuity earned by the member, subject to a minimum of \$1,200 per year.

The annuity to a child is \$2,160 per year, subject to a maximum payment to five or more minor children of \$10,800 per year. The term “child” or “children” includes any natural child or adopted child under age 21, or any permanently disabled child whose incapacity began before the child attained age 21.

A survivor annuitant is entitled to an automatic increase in annuity each year on the anniversary date of the annuity of \$600 if the annuity is \$3,500 per year or less; \$400 if the annuity is between \$3,500 and \$6,300 per year; \$300 if the annuity is between \$6,300 and \$10,100; and \$200 if the annuity is more than \$10,100 per year.

A surviving spouse or minor child surviving the member is entitled, in addition to the above, a death benefit of \$1,000 payable in a lump sum.

A survivor’s annuity terminates upon death or re-marriage under the age of 40, attainment of age 21 of the child, or the termination of the incapacity of a disabled child.

Optional Privilege at Retirement: Upon retirement from service, any unmarried employee, if in good health as determined by medical examination, may elect to receive, on an actuarial equivalent basis in lieu of the full retirement annuity, a reduced retirement annuity payable during the annuitant’s lifetime, plus an annuity to a designated beneficiary to become payable at death of the annuitant. The annuity to the beneficiary is to be paid at the same rate and under the same conditions that apply to a survivor of a married member whose death occurs while in service.

Death Benefit – Active and Retired Members Without Survivors: Upon death of a member while in service, leaving no survivors eligible for annuities, the designated beneficiary or estate is entitled to a refund of the contribution credits, plus interest, together with a death benefit of \$1,000 payable in a lump sum.

Upon death of a retired member, if no survivors’ annuities are payable, the death benefit to a designated beneficiary or the estate of the member consists of the excess, if any, of: (1) the



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total contribution credits of the member at retirement, plus interest, over (2) the total amount of annuity payments made to the retired member, plus the sum of \$1,000.

Death Benefit – Inactive Members: Upon the death of an inactive member with at last 20 years of pension credit, and survived by a spouse or minor children, the following benefit options are provided: (a) the surviving spouse of children, as the case may be, may elect to receive the annuities prescribed if the death of a member occurs while in service; or (b) a refund of the deceased member's total contribution credits, plus interest.

Refund of Members' Contributions: Upon complete separation from service, or transfer to the Government of Guam Defined Contribution Fund, a member may receive a refund of the total contributions, plus interest (except that no interest is payable if the total pension credit is less than one year).

Contributions by Members: Each member shall contribute to the Fund 9½% of salary earned and accruing after October 1, 1997; and at the member's option, 10½% of non-base pay subsequent to October 1, 1997.



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Appendix B. Actuarial Cost Method and Assumptions

| | <u>September 30, 2003</u> | | <u>September 30, 2002</u> | |
|----------------------------------|--|-------------------|--|-------------------|
| Actuarial Cost Method | Entry Age Normal | | Entry Age Normal | |
| Interest Rate | 7.00% | | 7.50% | |
| Salary Increases | <u>Service</u> | <u>% Increase</u> | <u>Service</u> | <u>% Increase</u> |
| | 0 – 5 | 8.5% | 0 – 5 | 8.5% |
| | 6 – 10 | 7.0% | 6 – 10 | 7.0% |
| | 11 – 15 | 6.0% | 11 – 15 | 6.0% |
| | 16 – 20 | 5.0% | 16 – 20 | 5.0% |
| | Over 20 | 4.0% | Over 20 | 4.0% |
| Total Payroll Growth | 3.50% | | 4.50% | |
| Cost of Living Adjustment | Specified in Plan | | Specified in Plan | |
| Mortality | 1994 U.S. Uninsured Pensioners for Males +2 for males +0 for females | | 1994 U.S. Uninsured Pensioners for Males +2 for males +0 for females | |
| Disability Incidence | 1974-78 SOA LTD Non-Jumbo with rates increased for males by 30% | | 1974-78 SOA LTD Non-Jumbo with rates increased for males by 30% | |
| Post-disability mortality | 1984 U.S. Uninsured Pensioners +10 for males +8 for females | | 1984 U.S. Uninsured Pensioners +10 for males +8 for females | |
| Withdrawal Rates | Graded rates based on actual experience (see attached) | | Graded rates based on actual experience (see attached) | |



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| | <i>September 30, 2003</i> | <i>September 30, 2002</i> |
|--------------------------------|---|---|
| Retirement Age | 50% assumed to retire at earliest eligibility for unreduced benefits. 20% per year thereafter until age 70 100% at age 70 | 50% assumed to retire at earliest eligibility for unreduced benefits. 20% per year thereafter until age 70 100% at age 70 |
| Return of Contributions | 100% withdrawing before retirement with less than 20 years of service are assumed to elect a return of contributions All employees who have previously withdrawn are assumed to elect a return of contributions. | 100% withdrawing before retirement with less than 20 years of service are assumed to elect a return of contributions All employees who have previously withdrawn are assumed to elect a return of contributions. |
| Marital Status | Retiree data included spouse information. 65% of non-retirees are assumed to have spouses | Retiree data included spouse information. 65% of non-retirees are assumed to have spouses |
| Administrative Expenses | \$3,533,184 per year | \$3,978,000 per year |
| Asset Valuation Method | Market, except fixed income investments at amortized cost. | Market, except fixed income investments at amortized cost |
| Data Inconsistencies | None. | No data reported for Guam Memorial Hospital. Active liabilities were increased by 5%. |



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Probabilities of Separation from Active Service

(per 10,000 working at each age)

| <i>Male</i> | | | | <i>Female</i> | | | |
|-------------|-------------------|--------------|-------------------|---------------|-------------------|--------------|-------------------|
| <u>Age</u> | <u>Withdrawal</u> | <u>Death</u> | <u>Disability</u> | <u>Age</u> | <u>Withdrawal</u> | <u>Death</u> | <u>Disability</u> |
| 20 | 731 | 6 | 13 | 20 | 967 | 5 | 10 |
| 21 | 699 | 6 | 13 | 21 | 936 | 6 | 10 |
| 22 | 671 | 7 | 13 | 22 | 901 | 6 | 10 |
| 23 | 641 | 7 | 13 | 23 | 866 | 6 | 10 |
| 24 | 619 | 7 | 13 | 24 | 832 | 7 | 10 |
| 25 | 599 | 8 | 13 | 25 | 797 | 7 | 10 |
| 26 | 578 | 8 | 13 | 26 | 761 | 7 | 10 |
| 27 | 559 | 8 | 13 | 27 | 731 | 8 | 10 |
| 28 | 542 | 9 | 13 | 28 | 704 | 8 | 10 |
| 29 | 526 | 9 | 13 | 29 | 680 | 8 | 10 |
| 30 | 512 | 9 | 13 | 30 | 658 | 9 | 10 |
| 31 | 497 | 9 | 13 | 31 | 637 | 9 | 10 |
| 32 | 483 | 9 | 13 | 32 | 616 | 9 | 10 |
| 33 | 469 | 9 | 13 | 33 | 596 | 9 | 10 |
| 34 | 454 | 9 | 13 | 34 | 578 | 9 | 10 |
| 35 | 439 | 10 | 13 | 35 | 560 | 9 | 10 |
| 36 | 422 | 10 | 13 | 36 | 543 | 9 | 10 |
| 37 | 404 | 11 | 13 | 37 | 527 | 10 | 10 |
| 38 | 386 | 12 | 13 | 38 | 511 | 10 | 10 |
| 39 | 367 | 12 | 13 | 39 | 495 | 11 | 10 |
| 40 | 348 | 13 | 26 | 40 | 480 | 12 | 20 |
| 41 | 336 | 15 | 26 | 41 | 465 | 12 | 20 |
| 42 | 329 | 16 | 26 | 42 | 457 | 13 | 20 |
| 43 | 323 | 17 | 26 | 43 | 436 | 15 | 20 |
| 44 | 318 | 19 | 26 | 44 | 422 | 16 | 20 |
| 45 | 313 | 20 | 47 | 45 | 407 | 17 | 36 |
| 46 | 299 | 23 | 47 | 46 | 392 | 19 | 36 |
| 47 | 280 | 25 | 47 | 47 | 375 | 20 | 36 |
| 48 | 259 | 28 | 47 | 48 | 356 | 23 | 36 |
| 49 | 236 | 31 | 47 | 49 | 325 | 25 | 36 |
| 50 | 211 | 35 | 82 | 50 | 287 | 28 | 63 |
| 51 | 176 | 39 | 82 | 51 | 244 | 31 | 63 |
| 52 | 136 | 43 | 82 | 52 | 202 | 35 | 63 |
| 53 | 95 | 48 | 82 | 53 | 163 | 39 | 63 |
| 54 | 64 | 53 | 82 | 54 | 132 | 43 | 63 |
| 55 | 42 | 60 | 138 | 55 | 108 | 48 | 106 |
| 56 | 0 | 68 | 138 | 56 | 0 | 53 | 106 |
| 57 | 0 | 76 | 138 | 57 | 0 | 60 | 106 |
| 58 | 0 | 86 | 138 | 58 | 0 | 68 | 106 |
| 59 | 0 | 97 | 138 | 59 | 0 | 76 | 106 |
| 60 | 0 | 109 | 196 | 60 | 0 | 86 | 151 |
| 61 | 0 | 123 | 196 | 61 | 0 | 97 | 151 |
| 62 | 0 | 139 | 196 | 62 | 0 | 109 | 151 |
| 63 | 0 | 156 | 196 | 63 | 0 | 123 | 151 |
| 64 | 0 | 175 | 196 | 64 | 0 | 156 | 151 |



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Appendix C. Summary of Participant Data

Active Non-Uniformed

| Age | Count | | | Annual Salaries | | |
|-----------|-------|---------|-------|-----------------|-------------|-------------|
| | Males | Females | Total | Males | Females | Total |
| Under 20 | - | 1 | 1 | * | * | * |
| 20 – 24 | 1 | - | 1 | * | * | * |
| 25 – 29 | 38 | 32 | 70 | 987,589 | 1,186,306 | 2,173,895 |
| 30 – 34 | 267 | 238 | 505 | 7,904,202 | 7,935,314 | 15,839,516 |
| 35 – 39 | 432 | 404 | 836 | 15,466,041 | 14,679,541 | 30,145,582 |
| 40 – 44 | 529 | 531 | 1,060 | 20,107,149 | 20,584,732 | 40,691,881 |
| 45 – 49 | 455 | 514 | 969 | 18,814,212 | 20,504,052 | 39,318,264 |
| 50 – 54 | 327 | 444 | 771 | 14,231,818 | 17,806,239 | 32,038,057 |
| 55 – 59 | 219 | 295 | 514 | 10,298,848 | 11,556,714 | 21,855,562 |
| 60 – 64 | 114 | 160 | 274 | 5,149,288 | 7,203,966 | 12,353,254 |
| 65 – 69 | 70 | 61 | 131 | 2,737,072 | 2,692,150 | 5,429,222 |
| 70 & Over | 19 | 37 | 56 | * | 1,689,231 | 2,689,214 |
| Total | 2,471 | 2,717 | 5,188 | 96,720,790 | 105,956,057 | 202,676,847 |

* Not shown if less than 20 members.

| Age | Service | | | | | | | | | Total |
|-----------|---------|-------|-------|-------|-------|-------|-------|-------|-----|-------|
| | 0 - 4 | 5 - 9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| Under 20 | 1 | - | - | - | - | - | - | - | - | 1 |
| 20 – 24 | - | - | 1 | - | - | - | - | - | - | 1 |
| 25 – 29 | 13 | 42 | 15 | - | - | - | - | - | - | 70 |
| 30 - 34 | 20 | 159 | 308 | 17 | 1 | - | - | - | - | 505 |
| 35 - 39 | 17 | 94 | 458 | 243 | 23 | - | 1 | - | - | 836 |
| 40 - 44 | 17 | 95 | 347 | 329 | 249 | 22 | 1 | - | - | 1,060 |
| 45 - 49 | 11 | 67 | 278 | 213 | 234 | 144 | 21 | 1 | - | 969 |
| 50 - 54 | 12 | 58 | 220 | 155 | 161 | 87 | 74 | 4 | - | 771 |
| 55 - 59 | 5 | 39 | 167 | 112 | 98 | 60 | 27 | 6 | - | 514 |
| 60 - 64 | - | 18 | 86 | 65 | 47 | 24 | 28 | 4 | 2 | 274 |
| 65 - 69 | - | 7 | 43 | 28 | 30 | 17 | 2 | 1 | 3 | 131 |
| 70 & Over | 3 | 5 | 16 | 9 | 13 | 7 | 1 | 1 | 1 | 56 |
| Total | 99 | 584 | 1,939 | 1,171 | 856 | 361 | 155 | 17 | 6 | 5,188 |



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Active Uniformed

| <i>Age</i> | <i>Count</i> | | | <i>Annual Salaries</i> | | |
|--------------|--------------|----------------|--------------|------------------------|----------------|-------------------|
| | <i>Males</i> | <i>Females</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Total</i> |
| Under 20 | - | - | - | - | - | - |
| 20 - 24 | - | - | - | - | - | - |
| 25 - 29 | 12 | - | 12 | * | - | * |
| 30 - 34 | 64 | 3 | 67 | 2,561,553 | * | 2,649,272 |
| 35 - 39 | 126 | 6 | 132 | 5,675,483 | * | 5,922,606 |
| 40 - 44 | 139 | 6 | 145 | 6,643,203 | * | 6,877,709 |
| 45 - 49 | 63 | 6 | 69 | 3,355,426 | * | 3,623,979 |
| 50 - 54 | 29 | 1 | 30 | 1,319,940 | * | 1,372,971 |
| 55 - 59 | 10 | - | 10 | * | - | * |
| 60 - 64 | 3 | - | 3 | * | - | * |
| 65 - 69 | 1 | - | 1 | * | - | * |
| 70 & Over | - | - | - | - | - | - |
| Total | 447 | 22 | 469 | 20,603,215 | 890,932 | 21,494,147 |

* Not shown if less than 20 members.

| <i>Age</i> | <i>Service</i> | | | | | | | | | <i>Total</i> |
|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| | <i>0 - 4</i> | <i>5 - 9</i> | <i>10-14</i> | <i>15-19</i> | <i>20-24</i> | <i>25-29</i> | <i>30-34</i> | <i>35-39</i> | <i>40+</i> | |
| Under 20 | - | - | - | - | - | - | - | - | - | - |
| 20 - 24 | - | - | - | - | - | - | - | - | - | - |
| 25 - 29 | - | 9 | 3 | - | - | - | - | - | - | 12 |
| 30 - 34 | 1 | 20 | 40 | 5 | - | 1 | - | - | - | 67 |
| 35 - 39 | - | 4 | 75 | 47 | 6 | - | - | - | - | 132 |
| 40 - 44 | - | 6 | 33 | 63 | 40 | 3 | - | - | - | 145 |
| 45 - 49 | - | 2 | 11 | 12 | 27 | 16 | 1 | - | - | 69 |
| 50 - 54 | - | 1 | 9 | 9 | 6 | 3 | 2 | - | - | 30 |
| 55 - 59 | - | - | 1 | 3 | 1 | 3 | 2 | - | - | 10 |
| 60 - 64 | - | - | - | 2 | - | - | - | - | 1 | 3 |
| 65 - 69 | - | - | - | - | - | 1 | - | - | - | 1 |
| 70 & Over | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | 42 | 172 | 141 | 80 | 27 | 5 | - | 1 | 469 |



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Active Total

| <i>Age</i> | <i>Count</i> | | | <i>Annual Salaries</i> | | |
|--------------|--------------|----------------|--------------|------------------------|--------------------|--------------------|
| | <i>Males</i> | <i>Females</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Total</i> |
| Under 20 | - | 1 | 1 | * | * | * |
| 20 - 24 | 1 | - | 1 | * | * | * |
| 25 - 29 | 50 | 32 | 82 | 1,321,880 | 1,186,306 | 2,508,186 |
| 30 - 34 | 331 | 241 | 572 | 10,465,755 | 8,023,033 | 18,488,788 |
| 35 - 39 | 558 | 410 | 968 | 21,141,524 | 14,926,664 | 36,068,188 |
| 40 - 44 | 668 | 537 | 1,205 | 26,750,352 | 20,819,238 | 47,569,590 |
| 45 - 49 | 518 | 520 | 1,038 | 22,169,638 | 20,772,605 | 42,942,243 |
| 50 - 54 | 356 | 445 | 801 | 15,551,758 | 17,859,270 | 33,411,028 |
| 55 - 59 | 229 | 295 | 524 | 10,781,480 | 11,556,714 | 22,338,194 |
| 60 - 64 | 117 | 160 | 277 | 5,318,177 | 7,203,966 | 12,522,143 |
| 65 - 69 | 71 | 61 | 132 | 2,798,870 | 2,692,150 | 5,491,020 |
| 70 & Over | 19 | 37 | 56 | * | 1,689,231 | 2,689,214 |
| Total | 2,918 | 2,739 | 5,657 | 117,324,005 | 106,846,989 | 224,170,994 |

* Not shown if less than 20 members.

| <i>Age</i> | <i>Service</i> | | | | | | | | | <i>Total</i> |
|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| | <i>0 - 4</i> | <i>5 - 9</i> | <i>10-14</i> | <i>15-19</i> | <i>20-24</i> | <i>25-29</i> | <i>30-34</i> | <i>35-39</i> | <i>40+</i> | |
| Under 20 | 1 | - | - | - | - | - | - | - | - | 1 |
| 20 - 24 | - | - | 1 | - | - | - | - | - | - | 1 |
| 25 - 29 | 13 | 51 | 18 | - | - | - | - | - | - | 82 |
| 30 - 34 | 21 | 179 | 348 | 22 | 1 | 1 | - | - | - | 572 |
| 35 - 39 | 17 | 98 | 533 | 290 | 29 | - | 1 | - | - | 968 |
| 40 - 44 | 17 | 101 | 380 | 392 | 289 | 25 | 1 | - | - | 1,205 |
| 45 - 49 | 11 | 69 | 289 | 225 | 261 | 160 | 22 | 1 | - | 1,038 |
| 50 - 54 | 12 | 59 | 229 | 164 | 167 | 90 | 76 | 4 | - | 801 |
| 55 - 59 | 5 | 39 | 168 | 115 | 99 | 63 | 29 | 6 | - | 524 |
| 60 - 64 | - | 18 | 86 | 67 | 47 | 24 | 28 | 4 | 3 | 277 |
| 65 - 69 | - | 7 | 43 | 28 | 30 | 18 | 2 | 1 | 3 | 132 |
| 70 & Over | 3 | 5 | 16 | 9 | 13 | 7 | 1 | 1 | 1 | 56 |
| Total | 100 | 626 | 2,111 | 1,312 | 936 | 388 | 160 | 17 | 7 | 5,657 |



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Service Retirees

| Age | Count | | | Annual Benefits | | |
|--------------|--------------|--------------|--------------|-------------------|-------------------|--------------------|
| | Males | Females | Total | Males | Females | Total |
| Under 25 | - | - | - | - | - | - |
| 25 - 29 | - | - | - | - | - | - |
| 30 - 34 | - | - | - | - | - | - |
| 35 - 39 | 8 | 1 | 9 | * | * | * |
| 40 - 44 | 39 | 18 | 57 | 1,176,652 | * | 1,753,408 |
| 45 - 49 | 191 | 138 | 329 | 6,516,224 | 3,867,466 | 10,383,690 |
| 50 - 54 | 468 | 355 | 823 | 15,877,674 | 9,817,415 | 25,695,089 |
| 55 - 59 | 432 | 391 | 823 | 14,677,721 | 11,119,615 | 25,797,336 |
| 60 - 64 | 417 | 348 | 765 | 13,644,871 | 8,845,395 | 22,490,266 |
| 65 - 69 | 372 | 339 | 711 | 9,802,616 | 7,436,636 | 17,239,252 |
| 70 - 74 | 303 | 273 | 576 | 6,836,146 | 5,516,491 | 12,352,637 |
| 75 - 79 | 220 | 181 | 401 | 4,293,963 | 3,167,160 | 7,461,123 |
| 80 - 84 | 92 | 82 | 174 | 1,494,223 | 1,277,225 | 2,771,448 |
| 85 - 89 | 30 | 39 | 69 | 488,110 | 517,142 | 1,005,252 |
| 90 & Over | 10 | 9 | 19 | * | * | * |
| Total | 2,582 | 2,174 | 4,756 | 75,215,663 | 52,295,618 | 127,511,281 |

* Not shown if less than 20 members.

| Age | Annual Benefit Level | | | | | | | | | Total |
|--------------|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|
| | <\$5k | \$5-10k | \$10-15k | \$15-20k | \$20-25k | \$25-30k | \$30-40k | \$40-50k | \$50k+ | |
| Under 40 | - | - | - | 1 | 2 | 5 | 1 | - | - | 9 |
| 40 - 44 | - | 2 | 1 | 6 | 8 | 7 | 22 | 9 | 2 | 57 |
| 45 - 49 | - | 9 | 9 | 36 | 51 | 61 | 84 | 56 | 23 | 329 |
| 50 - 54 | - | 29 | 30 | 66 | 133 | 160 | 248 | 102 | 55 | 823 |
| 55 - 59 | - | 9 | 45 | 89 | 160 | 148 | 199 | 99 | 74 | 823 |
| 60 - 64 | 6 | 21 | 80 | 105 | 126 | 138 | 140 | 76 | 73 | 765 |
| 65 - 69 | 9 | 54 | 146 | 110 | 113 | 106 | 97 | 41 | 35 | 711 |
| 70 - 74 | 1 | 55 | 170 | 121 | 65 | 56 | 60 | 23 | 25 | 576 |
| 75 - 79 | - | 36 | 164 | 82 | 42 | 37 | 23 | 8 | 9 | 401 |
| 80 - 84 | - | 16 | 87 | 39 | 17 | 5 | 4 | 6 | - | 174 |
| 85 - 89 | - | 4 | 49 | 6 | 6 | - | 3 | - | 1 | 69 |
| 90 & Over | - | - | 11 | 4 | 2 | 1 | - | - | 1 | 19 |
| Total | 16 | 235 | 792 | 665 | 725 | 724 | 881 | 420 | 298 | 4,756 |



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Disabled Retirees

| Age | Count | | | Annual Benefits | | |
|--------------|------------|------------|------------|------------------|------------------|------------------|
| | Males | Females | Total | Males | Females | Total |
| Under 25 | - | - | - | - | - | - |
| 25 - 29 | - | - | - | - | - | - |
| 30 - 34 | - | 2 | 2 | - | * | * |
| 35 - 39 | 4 | 3 | 7 | * | * | * |
| 40 - 44 | 10 | 8 | 18 | * | * | * |
| 45 - 49 | 23 | 31 | 54 | 473,892 | 526,291 | 1,000,183 |
| 50 - 54 | 47 | 39 | 86 | 985,167 | 660,731 | 1,645,898 |
| 55 - 59 | 43 | 40 | 83 | 944,258 | 738,276 | 1,682,534 |
| 60 - 64 | 50 | 42 | 92 | 948,516 | 738,468 | 1,686,984 |
| 65 - 69 | 30 | 25 | 55 | 637,402 | 499,048 | 1,136,450 |
| 70 - 74 | 25 | 33 | 58 | 412,349 | 515,345 | 927,694 |
| 75 - 79 | 15 | 21 | 36 | * | 291,930 | 521,681 |
| 80 - 84 | 3 | 5 | 8 | * | * | * |
| 85 - 89 | 2 | 4 | 6 | * | * | * |
| 90 & Over | - | - | - | - | - | - |
| Total | 252 | 253 | 505 | 5,005,008 | 4,319,877 | 9,324,885 |

* Not shown if less than 20 members.

| Age | Annual Benefit Level | | | | | | | | | Total |
|--------------|----------------------|-----------|------------|------------|------------|-----------|-----------|----------|----------|------------|
| | <\$5k | \$5-10k | \$10-15k | \$15-20k | \$20-25k | \$25-30k | \$30-40k | \$40-50k | \$50k + | |
| Under 40 | - | - | - | 6 | 1 | - | 2 | - | - | 9 |
| 40 - 44 | - | - | 3 | 7 | 5 | 1 | 2 | - | - | 18 |
| 45 - 49 | 1 | 3 | 10 | 20 | 13 | 3 | 3 | 1 | - | 54 |
| 50 - 54 | 1 | 4 | 19 | 29 | 20 | 7 | 4 | 2 | - | 86 |
| 55 - 59 | - | 1 | 17 | 29 | 20 | 9 | 6 | - | 1 | 83 |
| 60 - 64 | 1 | 5 | 23 | 31 | 18 | 8 | 5 | 1 | - | 92 |
| 65 - 69 | - | - | 15 | 14 | 10 | 10 | 5 | 1 | - | 55 |
| 70 - 74 | - | - | 30 | 13 | 11 | 2 | 2 | - | - | 58 |
| 75 - 79 | - | - | 25 | 5 | 3 | 2 | 1 | - | - | 36 |
| 80 - 84 | - | 1 | 3 | 4 | - | - | - | - | - | 8 |
| 85 - 89 | - | - | 6 | - | - | - | - | - | - | 6 |
| 90 & Over | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 14 | 151 | 158 | 101 | 42 | 30 | 5 | 1 | 505 |



APPENDICES

Surviving Spouses and Child Pensioners

| <i>Age</i> | <i>Count</i> | | | <i>Annual Benefits</i> | | |
|--------------|--------------|----------------|--------------|------------------------|-------------------|-------------------|
| | <i>Males</i> | <i>Females</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Total</i> |
| Under 25 | 148 | 150 | 298 | 319,680 | 324,000 | 643,680 |
| 25 - 29 | 1 | 1 | 2 | * | * | * |
| 30 - 34 | 2 | 6 | 8 | * | * | * |
| 35 - 39 | 2 | 18 | 20 | * | * | 162,301 |
| 40 - 44 | 3 | 29 | 32 | * | 281,650 | 298,594 |
| 45 - 49 | 7 | 53 | 60 | * | 694,239 | 766,776 |
| 50 - 54 | 14 | 92 | 106 | * | 1,067,483 | 1,177,073 |
| 55 - 59 | 17 | 115 | 132 | * | 1,376,050 | 1,555,600 |
| 60 - 64 | 35 | 108 | 143 | 360,802 | 1,246,801 | 1,607,603 |
| 65 - 69 | 30 | 149 | 179 | 312,763 | 1,577,314 | 1,890,077 |
| 70 - 74 | 39 | 151 | 190 | 396,415 | 1,551,047 | 1,947,462 |
| 75 - 79 | 33 | 154 | 187 | 323,773 | 1,505,623 | 1,829,396 |
| 80 - 84 | 17 | 92 | 109 | * | 881,312 | 1,077,845 |
| 85 - 89 | 3 | 54 | 57 | * | 536,719 | 567,910 |
| 90 & Over | 2 | 23 | 25 | * | 233,588 | 250,876 |
| Total | 353 | 1,195 | 1,548 | 2,349,306 | 11,473,301 | 13,822,607 |

* Not shown if less than 20 members.

Surviving Spouses Only

| <i>Age</i> | <i>Annual Benefit Level</i> | | | | | | | | | <i>Total</i> |
|--------------|-----------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|--------------|
| | <i><\$5k</i> | <i>\$5-10k</i> | <i>\$10-15k</i> | <i>\$15-20k</i> | <i>\$20-25k</i> | <i>\$25-30k</i> | <i>\$30-40k</i> | <i>\$40-50k</i> | <i>\$50k +</i> | |
| Under 40 | 5 | 14 | 6 | 0 | 1 | - | - | - | - | 26 |
| 40 - 44 | 5 | 15 | 6 | 4 | 1 | - | - | - | - | 31 |
| 45 - 49 | 1 | 25 | 18 | 6 | 5 | - | - | 1 | 1 | 57 |
| 50 - 54 | 2 | 52 | 35 | 9 | 6 | 2 | - | - | - | 106 |
| 55 - 59 | 4 | 43 | 54 | 16 | 8 | 2 | 1 | - | - | 128 |
| 60 - 64 | 4 | 61 | 55 | 12 | 7 | 1 | 3 | - | - | 143 |
| 65 - 69 | 6 | 82 | 69 | 13 | 4 | 3 | 1 | - | - | 178 |
| 70 - 74 | 3 | 95 | 77 | 11 | 3 | - | 1 | - | - | 190 |
| 75 - 79 | 3 | 111 | 63 | 9 | 1 | - | - | - | - | 187 |
| 80 - 84 | 1 | 62 | 41 | 2 | 2 | 1 | - | - | - | 109 |
| 85 - 89 | - | 25 | 29 | 3 | - | - | - | - | - | 57 |
| 90 & Over | - | 10 | 14 | - | - | - | - | - | - | 24 |
| Total | 34 | 595 | 467 | 85 | 38 | 9 | 6 | 1 | 1 | 1,236 |