

**Government of Guam
Retirement Fund**

Actuarial Valuation as of September 30, 2008

Prepared by:

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June 9, 2009



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**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2008**

At the request of the Trustees, we have made an actuarial valuation of the Government of Guam Retirement Fund as of September 30, 2008. The purpose of this valuation is to determine the required contribution under the provisions of GCA 8137 and to provide the Fund with financial disclosures under GASB Statement No. 25.

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 is reasonable taking into account the experience of the Plan and reasonable expectations. 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. Accordingly, this report may not be distributed outside the Fund except as required by law. 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. If distribution of the report is made outside of the plan sponsor, the report must be provided in its entirety. This report is a complex, technical analysis that assumes a high level of knowledge concerning GGRF operations, and uses GGRF data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for GGRF, except for those presented under GASB Statement No. 25, which are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals and of GASB Statement No. 25. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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 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,



Richard A. Wright, FSA, MAAA
Consulting Actuary

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GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
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 actuarial 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 is **29.31%** of payroll. Of this amount, 22.69% is for the unfunded liability of the defined benefit (DB) plan, 3.73% is for the normal cost of the DB plan, and 2.89% is for contributions to the defined contribution (DC) plan.
- Public Law 28-150 provided that the current employer contribution rate will increase over a 5-year period until it reaches the actuarial contribution rate. The employer contribution rate for the 2008-09 fiscal year is 25.20%. This rate is scheduled to increase to 26.33% for the 2009-10 fiscal year.
- The defined benefit payroll for the 2007-08 fiscal year was \$186.0 million compared with \$180.8 million for the 2006-07 fiscal year. The total defined benefit and defined contribution payroll for the 2007-08 fiscal year, was \$411.4 million compared with \$377.0 million for the 2006-07 fiscal year.
- The unfunded accrued liability increased from \$1.233 billion as of September 30, 2007, to \$1.508 billion as of September 30, 2008, due to investment returns lower than assumed for the fiscal year ending September 30, 2008. The payment required to amortize the unfunded accrued liability under GCA 8137 has increased from \$76.8 million to \$96.6 million. The payment as a percentage of payroll has increased from 19.68% to 22.69%.
- Based on the audited financial statements, we calculated an investment return on the total market value of assets of -14.6% for the fiscal year ending September 30, 2008. The average annual return on the market value of assets for the last 5 fiscal years has been 4.9%.
- There have been no changes in plan provisions or actuarial assumptions since the prior actuarial valuation.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION I. VALUATION SUMMARY

Results of Valuation

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

	<u>9/30/2008</u>		<u>9/30/2007</u>	
Participant Counts				
Active				
– Non-Uniformed (DB)		3,576		3,674
– Uniformed (DB)		<u>376</u>		<u>387</u>
– Total (DB)		3,952		4,061
Retired (DB)		<u>7,085</u>		<u>7,037</u>
Total Actives and Retirees (DB)		11,037		11,098
Inactive and Terminated Members with Accumulated contributions (DB)		6,634		6,738
Active Participants (DC)		6,759		6,686
		<u>(\$millions)</u>		<u>(\$millions)</u>
Actual Payroll for Prior Fiscal Year				
Defined benefit (DB) payroll		\$186.0		\$180.8
Total payroll (DB and DC)		411.4		377.0
Expected Payroll for Next Fiscal Year				
Defined benefit (DB) payroll		\$179.5		\$183.8
Total payroll (DB and DC)		425.8		390.2
Financial Status				
Accrued liability		\$2,718.7		\$2,682.1
Actuarial value of assets		<u>1,211.0</u>		<u>1,448.7</u>
Unfunded accrued liability		\$1,507.7		\$1,233.5
Security ratio		44.54%		54.01%
		<u>% of DB Payroll</u>		<u>% of DB Payroll</u>
Normal Cost				
Total normal cost	\$ 32.9	18.34%	\$ 31.9	17.36%
Estimated employee contributions	<u>(17.1)</u>	<u>(9.50%)</u>	<u>(17.5)</u>	<u>(9.50%)</u>
Government normal cost	\$ 15.9	8.84%	\$ 14.4	7.86%
		<u>% of Total Payroll</u>		<u>% of Total Payroll</u>
Required Contribution per GCA 8137				
Unfunded liability cost	\$ 96.6	22.69%	\$ 76.8	19.68%
Government DB normal cost	15.9	3.73%	14.4	3.70%
Expected government DC contributions	<u>12.3</u>	<u>2.89%</u>	<u>10.3</u>	<u>2.64%</u>
Total DB and DC contribution	\$124.8	29.31%	\$101.6	26.02%
Yield on Market Value of Assets		(14.6%)		14.7%

This work product was prepared solely for the plan sponsor for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION I. VALUATION SUMMARY

5-Year Historical Summary

The following table summarizes the principal valuation results over the last 5 years.

	<i>9/30/2008</i>	<i>9/30/2007</i>	<i>9/30/2006</i>	<i>9/30/2005</i>	<i>9/30/2004</i>
Participant Counts					
Active (DB)	3,952	4,061	4,298	4,705	5,113
Retired (DB)	7,085	7,037	7,055	6,852	6,822
Inactives (DB)	<u>6,634</u>	<u>6,738</u>	<u>6,978</u>	<u>7,063</u>	<u>7,034</u>
Total (DB)	17,671	17,836	18,331	18,620	18,969
Active (DC)	6,759	6,686	5,992	5,703	5,133
Actual Payroll					
DB payroll	\$186.0	\$180.8	\$192.4	\$196.2	\$203.6
DC payroll	<u>225.4</u>	<u>196.3</u>	<u>184.2</u>	<u>163.7</u>	<u>149.6</u>
Total payroll	\$411.4	\$377.0	\$376.6	\$359.9	\$353.2
Financial Status					
Accrued liability	\$2,718.7	\$2,682.1	\$2,656.0	\$2,583.4	\$2,599.7
Actuarial assets	<u>1,211.0</u>	<u>1,448.7</u>	<u>1,320.9</u>	<u>1,293.6</u>	<u>1,245.3</u>
UAL	\$1,507.7	\$1,233.5	\$1,335.1	\$1,289.8	\$1,354.4
Security ratio	44.54%	54.01%	49.73%	50.07%	47.90%
Contribution Rate					
DB Normal Cost (as % of DB payroll)	8.84%	7.86%	8.44%	8.71%	8.33%
% of Total Payroll					
UAL Rate	22.69%	19.68%	20.75%	20.66%	21.36%
DB Normal Cost	3.73%	3.70%	3.99%	4.26%	4.64%
DC Contribution	<u>2.89%</u>	<u>2.64%</u>	<u>2.63%</u>	<u>2.55%</u>	<u>2.22%</u>
Actuarial Rate *	29.31%	26.02%	27.38%	27.48%	28.21%
Budget Rate *	tbd	25.20%	24.07%	22.94%	21.81%
Investment Yield	(14.6%)	14.7%	8.0%	9.7%	9.3%

* "Actuarial Rate" is the contribution rate determined in the actuarial valuation. "Budget Rate" is the contribution rate set by the legislature. Contribution rates apply to the fiscal year beginning one year after the valuation date.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION I. VALUATION SUMMARY

Actuarial Assumptions

The following are the major assumptions used in the actuarial valuation, and they 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, 2008, was 7.0%. Milliman's expected long-term returns on various asset classes is shown below. The target asset allocation is the expected long-term asset allocation and is based on the Fund's investment policy.

<i>Asset Class</i>	<i>(a)</i> <i>Target</i> <i>Asset</i> <i>Allocation</i>	<i>x</i>	<i>(b)</i> <i>Expected</i> <i>Nominal</i> <i>Return</i> ¹	<i>=</i>	<i>(c)</i> <i>Component</i> <i>Return</i>
U.S. Equities (large cap)	30%		10.30%		3.09%
U.S. Equities (small cap)	10%		11.83%		1.18%
Non-U.S. Equities	17%		10.37%		1.76%
Non-U.S. Equities (emerging markets)	3%		12.62%		0.38%
U.S. Fixed Income (aggregate)	30%		5.52%		1.66%
Real Estate (REITs)	10%		9.32%		<u>0.93%</u>
Expected average return for one year					9.00%
Expected geometric mean (50 years)					8.27%
25 th to 75 th Percentile Return					7.08% - 9.48%

¹ Assumes annual inflation of 3.0%.

The current assumption of 7.0% is less than the geometric average expected return over the next 50 years, and falls slightly outside 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, 2008, was the Uninsured Pensioner 1994 Table (UP94), with male mortality rates set forward 2 years. The mortality table used for disabled lives is the Uninsured Pensioner 1984 Table (UP84) 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. This assumption is unchanged from the prior valuation.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
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 a return of contributions in lieu of a deferred benefit. This assumption is unchanged from the prior valuation.

Administrative Expenses. Annual administrative expenses for the defined benefit plan are assumed to be \$3,031,871, which is the amount of defined benefit plan expenses for the year ending September 30, 2008, as reported in the Fund's audited financial statements, and is net of the adjustment for bad debts. The prior valuation assumed annual expenses of \$2,172,356.

Rates of Withdrawal and Disability. The assumed rates of withdrawal and disability are shown in Appendix B. These assumptions are unchanged from the prior valuation.

Probability of Marriage. We have assumed 65% of retirees will be married at retirement. This assumption is unchanged from the prior valuation.

A complete 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 22.58 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 covered by the defined benefit plan, and develops contribution requirements that decrease as a percentage of payroll.

Exhibits 19 and 20 project the employer and employee contributions, fund balance, accrued liability and security ratio forward 40 years under current funding requirements. Any study of alternative funding strategies should consider the effect on the projected fund balance and security ratio.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
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, 2008, excluding certain receivables and liabilities whose payments are deducted from employer contributions to the Fund, along with the audited assets as of September 30, 2007.

	<u>9/30/2008</u>	<u>9/30/2007</u>
Investments		
Common stocks	\$ 531,049,327	\$ 708,474,204
Mutual funds	95,152,521	148,728,892
U.S. government securities	257,225,870	273,223,515
Non-U.S. fixed income	4,758,395	1,900,973
Corporate bonds and notes	201,550,038	213,266,240
Money market funds	<u>36,492,500</u>	<u>40,184,479</u>
Total investments	1,126,228,651	1,385,778,303
Receivables		
Employer contributions, net	13,534,195	14,207,137
Member contributions	6,027,201	6,378,562
Accrued investment income	5,249,384	5,141,940
Due from brokers for unsettled trades	850,640	7,874,768
Notes receivable for service credits	2,909,255	3,200,847
Notes receivable ERIP	7,056,299	8,267,846
Interest and penalties	10,077,564	7,702,344
Supplemental/insurance benefits advanced	4,328,570	4,349,391
Other receivables	2,687,398	2,399,744
Due from DC plan	<u>529,347</u>	<u>763,421</u>
Total receivables	53,249,853	60,286,000
Cash and cash equivalents	3,808,929	2,369,452
Property and equipment	<u>1,036,025</u>	<u>1,076,538</u>
Total assets	\$ 1,184,323,458	\$ 1,449,510,293
Liabilities		
Accounts payable and accrued expenses	\$ 1,292,216	\$ 1,590,397
Due to brokers for unsettled trades	<u>2,135,989</u>	<u>3,109,934</u>
Total liabilities	\$ 3,428,205	\$ 4,700,331
Valuation Assets	<u>\$ 1,180,895,253</u>	<u>\$ 1,444,809,962</u>
Excluded Assets ¹		
Receivable – ERIP employer share	\$ 2,168,379	\$ 4,472,325
Supplemental/COLA benefits receivable	78,085,596	83,028,774
Deferred revenue for service credits	<u>(12,517,759)</u>	<u>(16,126,469)</u>
Total excluded assets	\$ 67,736,216	\$ 71,374,630

¹ Excluded because payments towards these receivables are deducted from employer contributions.

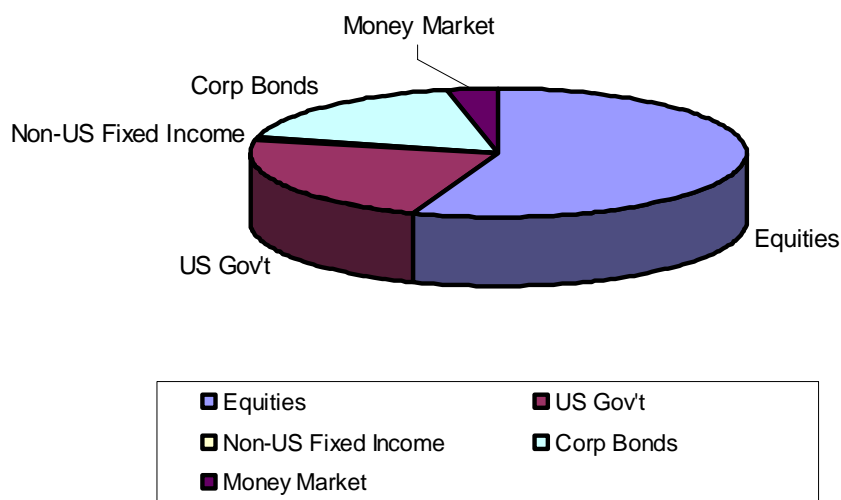
GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION II. FUND ASSETS

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>	
	<i>9/30/2008</i>	<i>9/30/2007</i>
Common stocks and mutual funds	55.6%	61.9%
U.S. government securities	22.8%	19.7%
Non-U.S. fixed Income	0.4%	0.1%
Corporate bonds and notes	17.9%	15.4%
Money market funds	<u>3.3%</u>	<u>2.9%</u>
Total	100.0%	100.0%

**Asset Allocation
9/30/2008**



GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
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>9/30/2008</u>	<u>9/30/2007</u>
Beginning Balance	\$ 1,444,809,962	\$ 1,320,721,075
Contributions		
Employer contributions	83,167,134	78,125,268
Member contributions	18,404,779	18,827,804
Decrease/(increase) in excluded assets	<u>3,638,414</u>	<u>(1,151,871)</u>
Total contributions	105,210,327	95,801,201
Investment Income		
Net appreciation in fair value	(241,778,449)	153,611,200
Interest	40,075,777	38,353,338
Dividends	11,313,550	11,016,556
Other investment income	2,450,074	3,176,347
Investment expenses	<u>(3,541,598)</u>	<u>(3,108,904)</u>
Total investment income	(191,480,646)	203,048,537
Benefit Payments		
Age and service annuities	143,290,225	140,597,358
Disability annuities	8,245,070	8,552,592
Survivor annuities	17,173,563	16,097,528
Refunds to separated employees	4,511,024	4,723,687
Interest on refunded contributions	1,376,549	1,958,572
Balances transferred to DC plan	<u>16,088</u>	<u>658,758</u>
Total benefit payments	174,612,519	172,588,495
Administrative Expenses		
Administrative expenses	3,141,597	2,805,167
Bad debts (recoveries)	<u>(109,726)</u>	<u>(632,811)</u>
Net administrative expenses	3,031,871	2,172,356
Ending Balance	\$ 1,180,895,253	\$ 1,444,809,962

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION II. FUND ASSETS

Exhibit 4. Actuarial Value of Assets

The actuarial value of assets is based upon the market value of Fund assets, but excludes certain receivables and liabilities whose payments are deducted from employer contributions to the Fund. In addition, fixed income investments are valued at their amortized cost instead of market value.

	<u>9/30/2008</u>	<u>9/30/2007</u>
Valuation assets at market value	\$ 1,180,895,253	\$ 1,444,809,962
Amortized cost of bonds	493,599,278	492,235,565
Market value of bonds	<u>463,534,303</u>	<u>488,390,728</u>
Adjustment to valuation assets	30,064,975	3,844,837
Actuarial value of assets	\$ 1,210,960,228	\$ 1,448,654,799
Actuarial value as % of market value	102.5%	100.3%

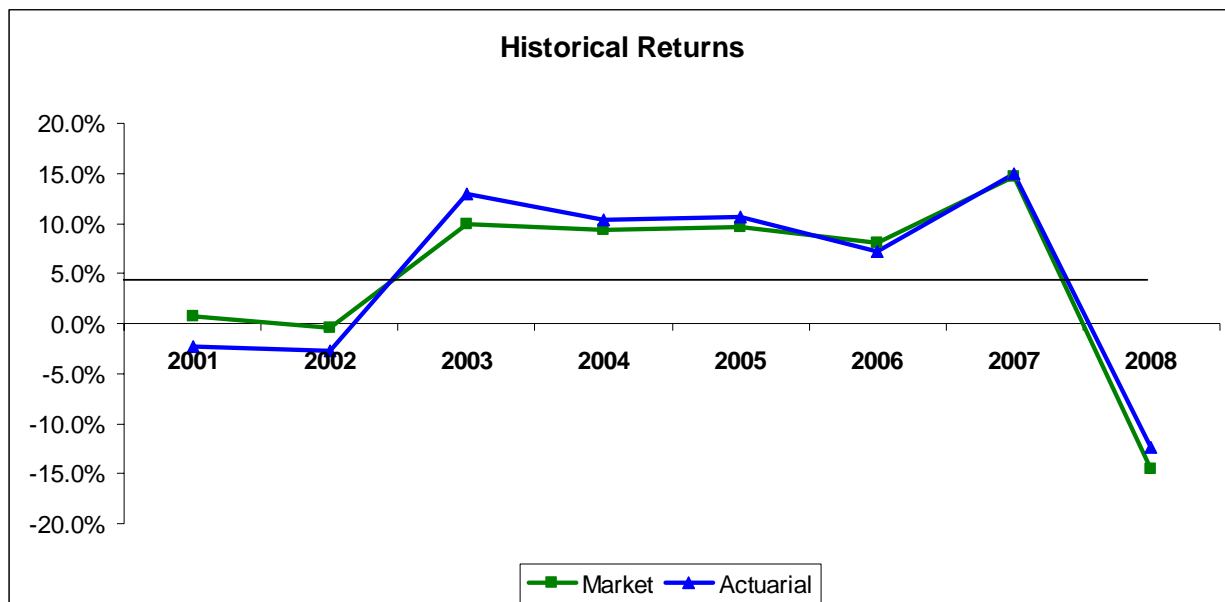
GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION II. FUND ASSETS

Exhibit 5. Historical Returns on Fund Assets

The following table shows the historical return on Fund assets over the last 5 years:

<i>Fiscal Year Ending 9/30</i>	<i>Return on Market Value</i>	<i>Return on Actuarial Value</i>
2008	(14.6%)	(12.4%)
2007	14.7%	14.9%
2006	8.0%	7.2%
2005	9.7%	10.7%
2004	9.3%	10.4%
2003	9.9%	13.0%
2002	(0.5%)	(2.7%)
2001	0.7%	(2.3%)
Average of last 5 years	4.9%	5.7%
Average since 2001	4.3%	4.4%

The actuarial valuation rate is 7.00%.



GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION III. MEMBERSHIP DATA

Exhibit 6. Active Employees (DB)

	<u>9/30/2008</u>	<u>9/30/2007</u>
Reconciliation of Census		
Members reported in raw data	10,596	10,799
Number excluded due to:		
Reported as inactive	4,838	4,896
Reported as terminated	261	283
Zero earnings	1,519	1,535
Refund of contributions	16	24
Duplicate retiree records	<u>10</u>	<u>0</u>
Total exclusions	6,644	6,738
Active employees in valuation	3,952	4,061
Active Employees – Non-Uniformed		
Number vested	3,521	3,629
Number not vested	<u>55</u>	<u>45</u>
Total	3,576	3,674
Average age	49.3	48.5
Average service	20.2	19.5
Average earnings	\$ 46,344	\$ 44,452
Average accumulated contributions	\$ 82,694	\$ 78,816
Active Employees – Uniformed		
Number vested	376	387
Number not vested	<u>0</u>	<u>0</u>
Total	376	387
Average age	45.0	44.0
Average service	20.9	20.0
Average earnings	\$ 55,420	\$ 54,578
Average accumulated contributions	\$ 113,654	\$ 106,037
Active Employees – Total		
Number vested	3,897	4,016
Number not vested	<u>55</u>	<u>45</u>
Total	3,952	4,061
Average age	48.9	48.1
Average service	20.3	19.5
Average earnings	\$ 47,208	\$ 45,417
Average accumulated contributions	\$ 85,639	\$ 81,410

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION III. MEMBERSHIP DATA

Exhibit 7. Active Employees by Agency

	<u>9/30/2008 (DC)</u>	<u>9/30/2008 (DB)</u>	<u>9/30/2007 (DC)</u>	<u>9/30/2007 (DB)</u>
Agency For Human Resources Development	19	14	15	12
Bureau of Budget & Management Research	7	10	8	11
Bureau of Planning	8	26	9	26
Chamorro Land Trust	6	-	-	1
Chief Medical Examiner	2	1	3	1
Civil Service Commission	6	2	4	2
Customs & Quarantine	88	45	86	47
Dept of Administration	71	65	71	68
Dept of Agriculture	39	39	41	41
Dept of Corrections	141	70	154	68
Dept of Education	2,347	1,314	2,499	1,353
Dept of Labor	23	21	21	21
Dept of Land Management	16	28	14	28
Dept of Law	102	40	82	43
Dept of Mental Health & Substance Abuse	74	41	84	42
Dept of Military Affairs	26	10	23	12
Dept of Parks and Recreation	35	37	38	39
Dept of Public Health & Social Services	259	156	249	159
Dept of Public Works	217	203	221	218
Dept of Revenue and Taxation	77	71	78	74
Dept of Vocational Rehabilitation	22	18	19	18
Dept of Youth Affairs	50	34	51	35
Government of Guam Retirement Fund	29	16	28	16
Governor's office	98	18	105	16
Guam Airport Authority	143	91	139	92
Guam Caha	4	3	4	3
Guam Community College	152	97	127	96
Guam Economic Development Agency	19	6	17	6
Guam Election Commission	7	1	1	1
Guam Energy Office	3	2	4	2
Guam Environmental Protection Agency	38	18	38	18
Guam Fire Dept	138	163	144	169
Guam Housing & Urban Renewal Agency	70	36	69	37
Guam Housing Corporation	19	6	19	6
Guam Legislature	50	18	52	20
Guam Memorial Hospital Authority	674	254	602	253
Guam Police Dept	227	132	217	136
Guam Power Authority	293	223	270	233
Guam Reparation Commission	9	5	7	5
Guam Visitors Bureau	18	8	21	8
Guam Waterworks Authority	174	103	139	105
KGTF	4	-	3	-
Lt. Governor's Office	18	1	17	2
Mayor's Council	139	22	138	21
Nieves M. Flores Memorial Library	24	7	20	8
Port Authority Of Guam	221	117	198	122
Public Defender	24	23	23	24
Supreme Court Of Guam	218	115	214	119
Territorial Auditors	8	5	17	4
University Of Guam	301	216	281	219
Veteran's Affairs Office	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>
TOTAL	6,759	3,952	6,686	4,061

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GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION III. MEMBERSHIP DATA

Exhibit 8. Retired Employees (DB)

	<u>9/30/2008</u>	<u>9/30/2007</u>
Service Retirees		
Count	4,974	4,925
Average age	65.3	64.8
Average benefit	\$28,758	\$28,483
Disabled Retirees		
Count	407	467
Average age	63.2	63.1
Average benefit	\$19,807	\$19,468
Survivors		
Count	1,418	1,353
Average age	68.8	68.5
Average benefit	\$12,074	\$12,148
Child Pensioners		
Count	286	292
Average age	14.9	16.3
Average benefit	\$2,160	\$2,160
Total Retirees and Survivors		
Count	7,085	7,037
Average age*	65.9	65.4
Average benefit*	\$24,743	\$24,582

* Excludes child pensioners.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION III. MEMBERSHIP DATA

Exhibit 9. Terminated and Inactive Members

	<u>9/30/2008</u>	<u>9/30/2007</u>
Reported as Inactive		
Count	4,838	4,896
Accumulated contributions	\$ 1,640,989	\$ 1,770,998
Reported as Terminated		
Count	261	283
Accumulated contributions	\$ 1,086,690	\$ 1,132,448
Zero Earnings		
Count	1,519	1,535
Accumulated contributions	\$11,786,178	\$11,136,938
Refund of Contributions		
Count	16	24
Accumulated contributions	\$ 263,458	\$ 167,297
Total Terminateds and Inactives		
Count	6,634	6,738
Accumulated contributions	\$14,777,316	\$14,207,681

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION III. MEMBERSHIP DATA

Exhibit 10. Reconciliation of Membership Data

	<i>Act</i>	<i>Inact</i>	<i>Term</i>	<i>Zero</i>	<i>Refund</i>	<i>Ret</i>	<i>Surv</i>	<i>Disab</i>	<i>Child</i>	<i>Total</i>
9/30/2007	4,061	4,896	283	1,535	24	4,925	1,353	467	292	17,836
Additions from:										
Actives		0	2	29	12	54	0	4	0	101
Inactives	6		0	6	0	0	0	0	0	12
Terminations	11	0		8	0	0	0	0	0	19
Zero earnings	30	0	0		0	2	0	1	0	33
Refunds	3	0	0	13		0	0	0	0	16
Retiree	0	0	0	0	0		0	0	0	0
Survivor	0	0	0	0	0	0		0	0	0
Disability	0	0	0	0	0	46	0		0	46
Child	0	0	0	0	0	0	0	0		0
Other adds ¹	10	0	0	15	0	97	120	6	38	286
Subtotal	60	0	2	71	12	199	120	11	38	513
Subtractions due to:										
Actives		-6	-11	-30	-3	0	0	0	0	-50
Inactives	0		0	0	0	0	0	0	0	0
Terminations	-2	0		0	0	0	0	0	0	-2
Zero earnings	-29	-6	-8		-13	0	0	0	0	-56
Refunds	-12	0	0	0		0	0	0	0	-12
Retiree	-54	0	0	-2	0		0	-46	0	-102
Survivor	0	0	0	0	0	0		0	0	0
Disability	-4	0	0	-1	0	0	0		0	-5
Child	0	0	0	0	0	0	0	0		0
Other drops ²	-68	-46	-5	-54	-4	-150	-55	-25	-44	-451
Subtotal	-169	-58	-24	-87	-20	-150	-55	-71	-44	-678
9/30/2008	3,952	4,838	261	1,519	16	4,974	1,418	407	286	17,671

1 Other additions indicate members or beneficiaries who were reported this year but who were not included in the prior year's valuation (e.g. a new beneficiary, etc.).

2 Other drops indicate members or beneficiaries who were in the prior year's valuation but who were not reported in this year's census data (e.g. members who received a complete refund, retirees or beneficiaries who are now deceased, children who have reached the maximum age, etc.).

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 11. 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.

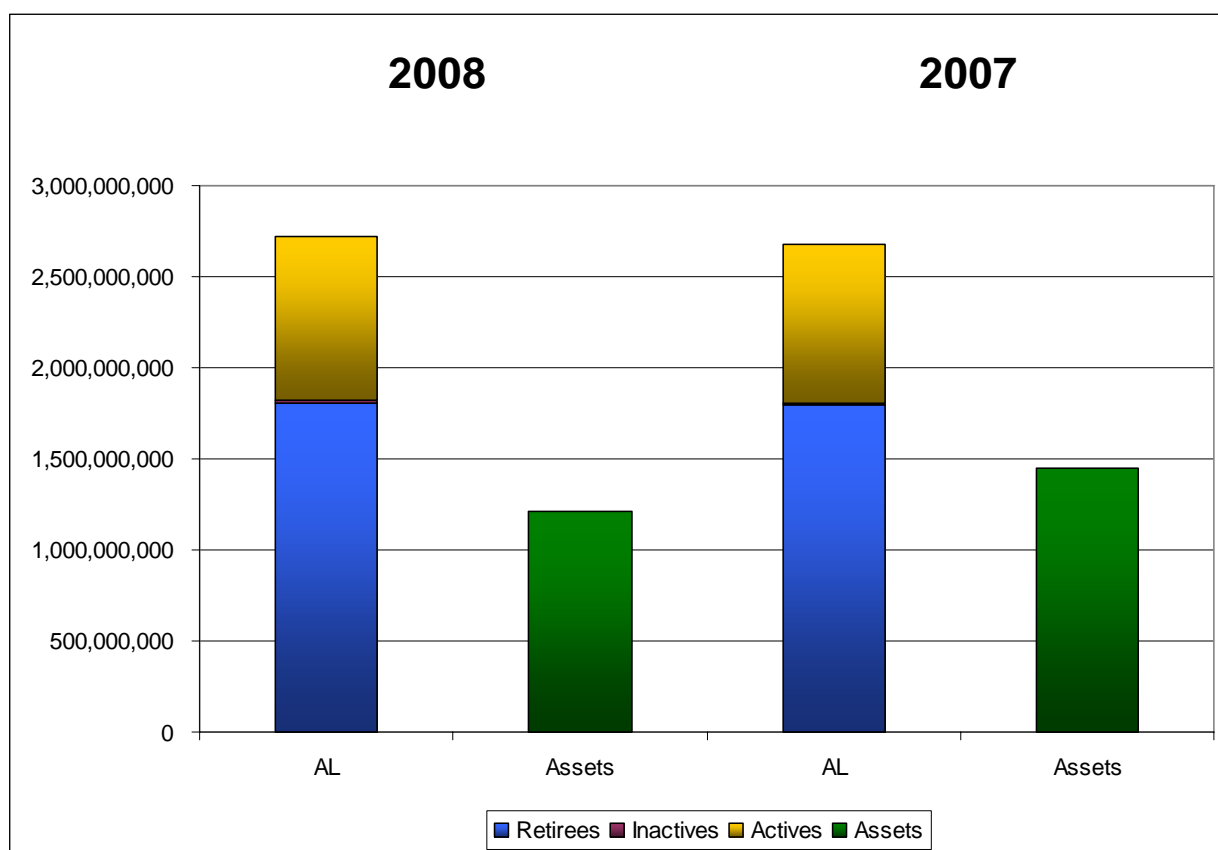
	<u>9/30/2008</u>	<u>9/30/2007</u>
Present Value of Benefits		
Active employees –		
Retirement	\$ 992,400,337	\$ 972,592,029
Disability	71,922,733	72,047,502
Death	19,506,134	27,244,378
Withdrawal	<u>36,925,341</u>	<u>36,380,871</u>
Total active PVB	1,120,754,545	1,108,264,780
Retirees and Survivors		
Retirees	1,553,398,935	1,536,475,980
Disabled retirees	73,153,529	80,919,728
Survivors	<u>180,920,008</u>	<u>175,121,434</u>
Total retirees and survivors	1,807,472,472	1,792,517,142
Terminated and inactive members	14,777,316	14,207,131
Total PVB	\$ 2,943,004,333	\$ 2,914,989,053
Present Value of Future Normal Cost		
Active employees –		
Retirement	\$ 160,871,282	\$ 167,038,911
Disability	30,218,833	30,239,652
Death	9,237,322	11,845,168
Withdrawal	<u>24,013,357</u>	<u>23,747,763</u>
Total active PVFNC	\$ 224,340,794	\$ 232,871,494
Accrued Liability		
Active members	\$ 896,413,751	\$ 875,393,286
Retirees and survivors	1,807,472,472	1,792,517,142
Terminations and inactives	<u>14,777,316</u>	<u>14,207,131</u>
Total accrued liability	\$ 2,718,663,539	\$ 2,682,117,559

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 12. 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>9/30/2008</u>	<u>9/30/2007</u>
Accrued Liability		
Active members	\$ 896,413,751	\$ 875,393,286
Retirees and survivors	1,807,472,472	1,792,517,142
Terminations and inactives	<u>14,777,316</u>	<u>14,207,131</u>
Total accrued liability	\$ 2,718,663,539	\$ 2,682,117,559
Actuarial Value of Assets	1,210,960,228	1,448,654,799
Unfunded accrued liability	\$ 1,507,703,311	\$ 1,233,462,760
Security Ratio = (Assets/AL)	44.54%	54.01%



GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 13. Calculation of Actuarial Gain/Loss

	<u>9/30/2008</u>	<u>9/30/2007</u>
Unfunded Accrued Liability, beginning of year	\$ 1,233,462,760	\$ 1,335,133,097
Additions:		
Normal cost	13,966,116	14,083,491
Interest to end of year	<u>87,320,021</u>	<u>94,445,161</u>
Total additions	101,286,137	108,528,652
Deductions:		
Employer contributions for year	86,805,548	76,973,397
Interest on contributions	<u>2,986,809</u>	<u>2,648,504</u>
Total deductions	89,792,357	79,621,901
Other Changes:		
Plan amendments	0	0
Changes in assumptions	<u>0</u>	<u>0</u>
Net other changes	0	0
Expected UAL, end of year	\$ 1,244,956,540	\$ 1,364,039,848
Actual UAL, end of year	<u>1,507,703,311</u>	<u>1,233,462,760</u>
Actuarial Gain/(Loss)	\$ (262,746,771)	\$ 130,577,088
Components of Actuarial Gain/(Loss):		
Investment gain/(loss)	\$ (257,982,657)	\$ 109,397,951
Other changes	<u>(4,764,114)</u>	<u>21,179,137</u>
Total actuarial gain/(loss)	\$ (262,746,771)	\$ 130,577,088

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 14. Normal Cost

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

	<u>9/30/2008</u>		<u>9/30/2007</u>	
Expected defined benefit payroll for next fiscal year	\$ 179,541,572		\$ 183,752,128	
		<i>% of DB Payroll</i>		<i>% of DB Payroll</i>
Normal cost¹ –				
Retirement	\$ 21,522,859	11.99%	\$ 21,462,736	11.68%
Disability	3,890,588	2.17%	3,729,394	2.03%
Withdrawal	3,255,821	1.81%	3,051,421	1.66%
Death	<u>1,221,174</u>	<u>0.68%</u>	<u>1,487,208</u>	<u>0.81%</u>
Total active normal cost	\$ 29,890,442	16.65%	\$ 29,730,759	16.18%
Assumed administrative expenses	<u>3,031,871</u>	<u>1.69%</u>	<u>2,172,356</u>	<u>1.18%</u>
Total normal cost and expenses	\$ 32,922,313	18.34%	\$ 31,903,115	17.36%
Expected member contributions	<u>(17,056,449)</u>	<u>(9.50%)</u>	<u>(17,456,452)</u>	<u>(9.50%)</u>
Government portion of normal cost	\$ 15,865,864	8.84%	\$ 14,446,663	7.86%

¹ Includes interest to mid-year.

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 15. Amortization of Unfunded Liability

Pursuant to GCA Section 8137, the unfunded liabilities of the Government of Guam Retirement Fund are to be completely funded within 80 years from May 1, 1951. As of September 30, 2008, there are 22.58 years remaining in the funding period. The amortization of the unfunded liability is calculated as a constant percentage of total payroll, which is assumed to grow at 3.5% per year.

	<u>9/30/2008</u>	<u>9/30/2007</u>
Total payroll (DB and DC) for fiscal year following	\$ 425,781,445	\$ 390,245,659
Unfunded accrued liability	1,507,703,311	1,233,462,760
Remaining funding period	22.58 years	23.58 years
Annual amortization	96,603,185	76,787,147
As % of total payroll (DB and DC)	22.69%	19.68%

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 16. Contribution Requirements

The required contribution is equal to the sum of (1) the government normal cost for the defined benefit (DB) plan, (2) the amortization payment towards the unfunded liability of the defined benefit (DB) plan, and (3) the expected government contributions to the defined contribution (DC) plan. The required contribution is then divided by the sum of the DB and DC payroll to determine the contribution rate as a percentage of payroll.

Note that the contribution rate actually received by the defined benefit plan from defined contribution payroll will be 5% less than the total contribution rate shown below, since 5% of defined contribution payroll is deposited into the defined contribution plan.

	<u>9/30/2008</u>	<u>9/30/2007</u>
Expected payroll for next fiscal year		
Defined benefit (DB)	\$ 179,541,572	\$ 183,752,128
Defined contribution (DC)	<u>246,239,873</u>	<u>206,493,531</u>
Total payroll (DB and DC)	\$ 425,781,445	\$ 390,245,659
Government normal cost (DB)	15,865,864	14,446,663
As % of DB payroll	8.84%	7.86%
As % of total payroll (DB and DC)	3.73%	3.70%
Amortization of Unfunded Liability (DB)	96,603,185	76,787,147
As % of total payroll (DB and DC)	22.69%	19.68%
Government DC contributions	12,311,994	10,324,677
As % of DC payroll	5.00%	5.00%
As % of total payroll (DB and DC)	2.89%	2.64%
Total DB and DC contributions	\$ 124,781,043	\$ 101,558,487
% of total payroll (DB and DC)	29.31%	26.02%

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 17. 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 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%
9/30/2004	1,245,305,000	2,599,747,000	1,354,442,000	47.9%	365,592,000	370.5%
9/30/2005	1,293,564,000	2,583,366,000	1,289,802,000	50.1%	368,712,000	349.8%
9/30/2006	1,320,914,000	2,656,047,000	1,335,133,000	49.7%	389,786,000	342.5%
9/30/2007	1,448,655,000	2,682,118,000	1,233,463,000	54.0%	390,246,000	316.1%
9/30/2008	1,210,960,000	2,718,664,000	1,507,704,000	44.5%	425,781,000	354.1%

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

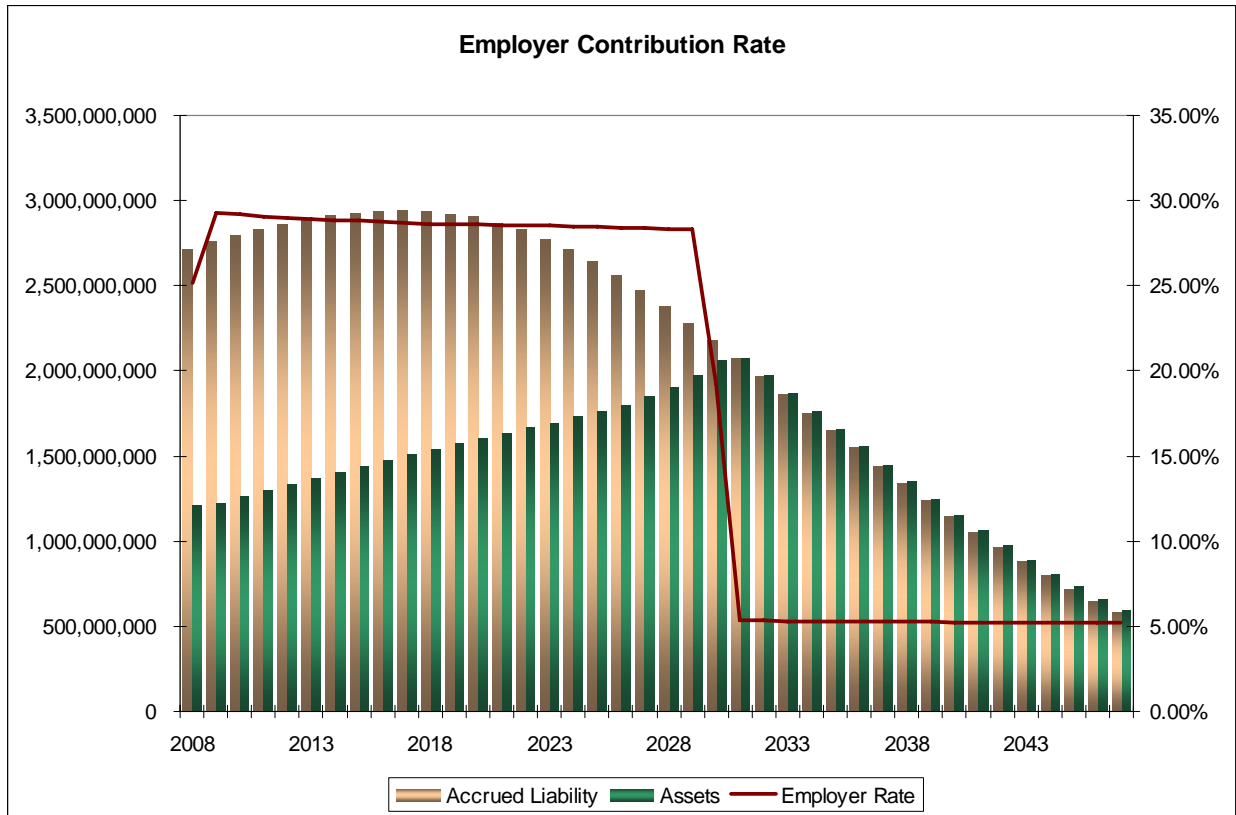
Exhibit 18. GASB No. 25 Schedule of Employer Contributions

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	98,630,000	63,486,000	64.4%
September 30, 2004	115,978,000	63,388,000	54.7%
September 30, 2005	123,958,000	70,658,000	57.0%
September 30, 2006	117,041,000	85,771,000	73.3%
September 30, 2007	113,207,000	76,973,000	68.0%
September 30, 2008	116,063,000	86,806,000	74.8%

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 19. 40-Year Projection of Contribution Rate (Graph)



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GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 19. 40-Year Projection of Contribution Rate (Values)

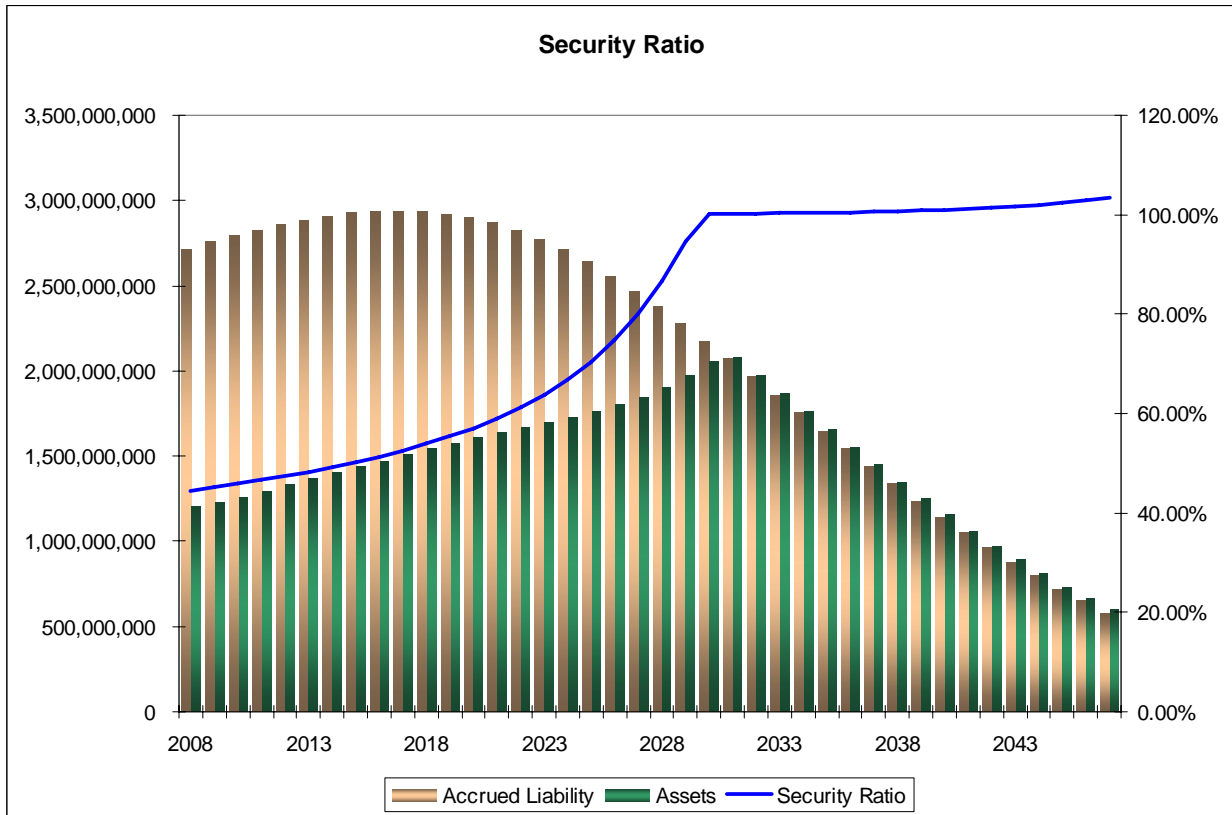
<i>Year Ending</i>	<i>Payroll</i> ¹		<i>Contrib Rate</i>		<i>Contributions</i>			<i>Invest Gain</i> ²	<i>Benefits/ Expenses</i>	<i>DB Fund Balance</i>
	<i>DB</i>	<i>DC</i>	<i>DB</i>	<i>DC</i>	<i>DB</i>	<i>DC</i>	<i>EE</i>			
2008										\$ 1,210.96
2009	\$179.54	\$246.24	25.20%	20.20%	\$45.24	\$49.74	\$17.27	\$ 81.70	\$(176.74)	1,228.17
2010	174.91	265.78	29.31%	24.31%	51.26	64.60	16.81	83.41	(181.56)	1,262.70
2011	170.35	285.75	29.18%	24.18%	49.72	69.11	16.34	85.74	(186.14)	1,297.46
2012	165.69	306.39	29.07%	24.07%	48.17	73.75	15.88	88.09	(190.38)	1,332.98
2013	159.88	328.71	28.99%	23.99%	46.36	78.87	15.30	90.49	(195.15)	1,368.84
2014	152.94	352.76	28.93%	23.93%	44.25	84.43	14.63	92.88	(200.50)	1,404.54
2015	145.09	378.30	28.87%	23.87%	41.88	90.29	13.87	95.25	(206.26)	1,439.57
2016	136.65	405.06	28.81%	23.81%	39.37	96.44	13.07	97.57	(212.06)	1,473.96
2017	128.20	432.47	28.75%	23.75%	36.86	102.70	12.26	99.86	(217.60)	1,508.04
2018	119.49	460.81	28.69%	23.69%	34.28	109.17	11.43	102.14	(222.99)	1,542.07
2019	109.52	491.09	28.64%	23.64%	31.37	116.11	10.47	104.39	(229.06)	1,575.35
2020	98.40	523.23	28.63%	23.63%	28.17	123.62	9.41	106.57	(235.62)	1,607.50
2021	86.67	556.71	28.59%	23.59%	24.78	131.34	8.30	108.67	(242.31)	1,638.28
2022	74.72	591.18	28.57%	23.57%	21.35	139.36	7.15	110.69	(248.81)	1,668.02
2023	62.97	626.24	28.54%	23.54%	17.97	147.43	6.05	112.67	(254.56)	1,697.57
2024	51.92	661.41	28.52%	23.52%	14.81	155.55	4.98	114.67	(259.50)	1,728.09
2025	41.91	696.39	28.48%	23.48%	11.94	163.53	4.03	116.82	(262.86)	1,761.55
2026	33.18	730.96	28.46%	23.46%	9.44	171.45	3.20	119.25	(264.75)	1,800.14
2027	26.32	764.56	28.42%	23.42%	7.48	179.07	2.54	122.13	(264.64)	1,846.73
2028	21.04	797.53	28.39%	23.39%	5.97	186.51	2.03	125.65	(262.81)	1,904.07
2029	16.89	830.32	28.35%	23.35%	4.79	193.91	1.63	129.97	(259.89)	1,974.50
2030	13.44	863.43	28.32%	23.32%	3.81	201.38	1.31	135.28	(255.78)	2,060.49
2031	10.50	897.06	19.20%	14.20%	2.02	127.34	1.02	138.87	(251.01)	2,078.71
2032	8.20	931.12	5.34%	0.34%	0.44	3.21	0.80	136.03	(245.27)	1,973.92
2033	6.44	965.75	5.33%	0.33%	0.34	3.19	0.63	128.94	(238.78)	1,868.24
2034	4.90	1,001.32	5.32%	0.32%	0.26	3.17	0.49	121.82	(231.63)	1,762.34
2035	3.55	1,037.89	5.31%	0.31%	0.19	3.18	0.35	114.70	(224.00)	1,656.76
2036	2.55	1,075.34	5.29%	0.29%	0.14	3.17	0.25	107.62	(215.95)	1,551.99
2037	1.84	1,113.78	5.28%	0.28%	0.10	3.16	0.18	100.63	(207.20)	1,448.86
2038	1.32	1,153.35	5.27%	0.27%	0.07	3.15	0.13	93.76	(198.20)	1,347.77
2039	0.91	1,194.17	5.26%	0.26%	0.05	3.15	0.09	87.05	(188.70)	1,249.41
2040	0.59	1,236.31	5.25%	0.25%	0.03	3.14	0.06	80.54	(179.10)	1,154.09
2041	0.37	1,279.83	5.25%	0.25%	0.02	3.14	0.04	74.25	(169.31)	1,062.24
2042	0.23	1,324.78	5.24%	0.24%	0.01	3.14	0.02	68.21	(159.48)	974.14
2043	0.13	1,371.26	5.23%	0.23%	0.01	3.14	0.01	62.43	(149.64)	890.10
2044	0.06	1,419.32	5.22%	0.22%	-	3.14	0.01	56.93	(139.89)	810.28
2045	0.02	1,469.04	5.21%	0.21%	-	3.14	0.00	51.72	(130.31)	734.84
2046	0.01	1,520.47	5.21%	0.21%	-	3.14	0.00	46.81	(120.90)	663.89
2047	0.00	1,573.69	5.20%	0.20%	-	3.14	0.00	42.20	(111.76)	597.47

¹ Payroll is assumed to increase 3.5% per year.

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

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 20. 40-Year Projection of Security Ratio (Graph)



GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION IV. VALUATION EXHIBITS

Exhibit 20. 40-Year Projection of Security Ratio (Values)

<i>Year Ending</i>	<i>Employer Contributions</i>			<i>Fund Balance</i> ²	<i>Accrued Liability</i>	<i>Security Ratio</i>
	<i>Payroll</i> ¹	<i>DB Rate</i>	<i>Contribs DB Plan</i>			
2008				\$ 1,210.96	\$ 2,718.04	44.55%
2009	\$ 425.78	25.20%	\$ 94.98	1,228.17	2,758.38	44.53%
2010	440.68	29.31%	115.86	1,262.70	2,795.49	45.17%
2011	456.11	29.18%	118.83	1,297.46	2,829.35	45.86%
2012	472.07	29.07%	121.92	1,332.98	2,860.25	46.60%
2013	488.59	28.99%	125.23	1,368.84	2,887.30	47.41%
2014	505.69	28.93%	128.68	1,404.54	2,909.41	48.28%
2015	523.39	28.87%	132.18	1,439.57	2,925.69	49.20%
2016	541.71	28.81%	135.80	1,473.96	2,935.61	50.21%
2017	560.67	28.75%	139.56	1,508.04	2,938.96	51.31%
2018	580.30	28.69%	143.45	1,542.07	2,935.47	52.53%
2019	600.61	28.64%	147.48	1,575.35	2,923.90	53.88%
2020	621.63	28.63%	151.79	1,607.50	2,902.91	55.38%
2021	643.38	28.59%	156.12	1,638.28	2,871.68	57.05%
2022	665.90	28.57%	160.71	1,668.02	2,829.57	58.95%
2023	689.21	28.54%	165.40	1,697.57	2,776.71	61.14%
2024	713.33	28.52%	170.36	1,728.09	2,713.18	63.69%
2025	738.30	28.48%	175.47	1,761.55	2,640.12	66.72%
2026	764.14	28.46%	180.90	1,800.14	2,558.50	70.36%
2027	790.88	28.42%	186.55	1,846.73	2,470.10	74.76%
2028	818.57	28.39%	192.48	1,904.07	2,376.51	80.12%
2029	847.22	28.35%	198.70	1,974.50	2,278.70	86.65%
2030	876.87	28.32%	205.19	2,060.49	2,177.75	94.62%
2031	907.56	19.20%	129.35	2,078.71	2,074.20	100.22%
2032	939.32	5.34%	3.65	1,973.92	1,968.97	100.25%
2033	972.20	5.33%	3.53	1,868.24	1,862.83	100.29%
2034	1,006.23	5.32%	3.43	1,762.34	1,756.47	100.33%
2035	1,041.44	5.31%	3.37	1,656.76	1,650.37	100.39%
2036	1,077.89	5.29%	3.30	1,551.99	1,545.04	100.45%
2037	1,115.62	5.28%	3.25	1,448.86	1,441.30	100.52%
2038	1,154.67	5.27%	3.22	1,347.77	1,339.58	100.61%
2039	1,195.08	5.26%	3.19	1,249.41	1,240.53	100.72%
2040	1,236.91	5.25%	3.17	1,154.09	1,144.48	100.84%
2041	1,280.20	5.25%	3.16	1,062.24	1,051.84	100.99%
2042	1,325.01	5.24%	3.15	974.14	962.91	101.17%
2043	1,371.38	5.23%	3.15	890.10	877.97	101.38%
2044	1,419.38	5.22%	3.14	810.28	797.20	101.64%
2045	1,469.06	5.21%	3.14	734.84	720.73	101.96%
2046	1,520.48	5.21%	3.14	663.89	648.67	102.35%
2047	1,573.69	5.20%	3.14	597.47	581.08	102.82%

¹ Payroll is assumed to increase 3.5% per year.

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

GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
SECTION V. APPENDICES

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, ½ 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 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

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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 11 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.
- 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 ¼ 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.

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- 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 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.

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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.

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

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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 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 least 20 years of pension credit, and survived by a spouse or minor children, the following benefit options are provided: (a) the surviving spouse or 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 with less than 20 years of pension credit 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, 2008</u>	<u>September 30, 2007</u>
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Interest Rate	7.00%	7.00%
Salary Increases	<u>Service</u> 0 – 5 6 – 10 11 – 15 16 – 20 Over 20	<u>% Increase</u> 8.5% 7.0% 6.0% 5.0% 4.0%
	<u>Service</u> 0 – 5 6 – 10 11 – 15 16 – 20 Over 20	<u>% Increase</u> 8.5% 7.0% 6.0% 5.0% 4.0%
Total Payroll Growth	3.50%	3.50%
Cost of Living Adjustment	Specified in Plan	Specified in Plan
Mortality	1994 U.S. Uninsured Pensioners +2 for males +0 for females	1994 U.S. Uninsured Pensioners +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	Age based rates (see attached)	Age based rates (see attached)
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

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	<i>September 30, 2008</i>	<i>September 30, 2007</i>
Return of Contributions	<p>100% of those who withdraw before retirement and who have less than 20 years of service are assumed to elect a return of contributions</p> <p>All employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>	<p>100% of those who withdraw before retirement and who have less than 20 years of service are assumed to elect a return of contributions</p> <p>All employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>
Marital Status	Retiree data included spouse information. For active employees, 65% are assumed to have spouses at retirement.	Retiree data included spouse information. For active employees, 65% are assumed to have spouses at retirement.
Sick Leave Adjustments	Assumed to add 1.5 years of service and increase average earnings by 10% at retirement	Assumed to add 1.5 years of service and increase average earnings by 10% at retirement
Administrative Expenses	\$3,031,871 per year, net of adjustment for bad debts	\$2,172,356 per year, net of adjustment for bad debts
Asset Valuation Method	Market, except fixed income investments at amortized cost	Market, except fixed income investments at amortized cost
Data Inconsistencies	None	None

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Probabilities of Separation from Active Service
(per 100 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	7.31	0.06	0.13	20	9.67	0.05	0.10
21	6.99	0.06	0.13	21	9.36	0.06	0.10
22	6.71	0.07	0.13	22	9.01	0.06	0.10
23	6.41	0.07	0.13	23	8.66	0.06	0.10
24	6.19	0.07	0.13	24	8.32	0.07	0.10
25	5.99	0.08	0.13	25	7.97	0.07	0.10
26	5.78	0.08	0.13	26	7.61	0.07	0.10
27	5.59	0.08	0.13	27	7.31	0.08	0.10
28	5.42	0.09	0.13	28	7.04	0.08	0.10
29	5.26	0.09	0.13	29	6.80	0.08	0.10
30	5.12	0.09	0.13	30	6.58	0.09	0.10
31	4.97	0.09	0.13	31	6.37	0.09	0.10
32	4.83	0.09	0.13	32	6.16	0.09	0.10
33	4.69	0.09	0.13	33	5.96	0.09	0.10
34	4.54	0.09	0.13	34	5.78	0.09	0.10
35	4.39	0.10	0.13	35	5.60	0.09	0.10
36	4.22	0.10	0.13	36	5.43	0.09	0.10
37	4.04	0.11	0.13	37	5.27	0.10	0.10
38	3.86	0.12	0.13	38	5.11	0.10	0.10
39	3.67	0.12	0.13	39	4.95	0.11	0.10
40	3.48	0.13	0.26	40	4.80	0.12	0.20
41	3.36	0.15	0.26	41	4.65	0.12	0.20
42	3.29	0.16	0.26	42	4.57	0.13	0.20
43	3.23	0.17	0.26	43	4.36	0.15	0.20
44	3.18	0.19	0.26	44	4.22	0.16	0.20
45	3.13	0.20	0.47	45	4.07	0.17	0.36
46	2.99	0.23	0.47	46	3.92	0.19	0.36
47	2.80	0.25	0.47	47	3.75	0.20	0.36
48	2.59	0.28	0.47	48	3.56	0.23	0.36
49	2.36	0.31	0.47	49	3.25	0.25	0.36
50	2.11	0.35	0.82	50	2.87	0.28	0.63
51	1.76	0.39	0.82	51	2.44	0.31	0.63
52	1.36	0.43	0.82	52	2.02	0.35	0.63
53	0.95	0.48	0.82	53	1.63	0.39	0.63
54	0.64	0.53	0.82	54	1.32	0.43	0.63
55	0.42	0.60	1.38	55	1.08	0.48	1.06
56	0.00	0.68	1.38	56	0.00	0.53	1.06
57	0.00	0.76	1.38	57	0.00	0.60	1.06
58	0.00	0.86	1.38	58	0.00	0.68	1.06
59	0.00	0.97	1.38	59	0.00	0.76	1.06
60	0.00	1.09	1.96	60	0.00	0.86	1.51
61	0.00	1.23	1.96	61	0.00	0.97	1.51
62	0.00	1.39	1.96	62	0.00	1.09	1.51
63	0.00	1.56	1.96	63	0.00	1.23	1.51
64	0.00	1.75	1.96	64	0.00	1.56	1.51

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GOVERNMENT OF GUAM RETIREMENT FUND ACTUARIAL VALUATION AS OF 9/30/2008
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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	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-
25 – 29	1	1	2	*	*	*
30 – 34	29	23	52	1,095,403	949,914	2,045,317
35 – 39	182	195	377	6,541,916	7,947,160	14,489,076
40 – 44	328	359	687	13,541,716	15,602,751	29,144,468
45 – 49	398	435	833	17,349,636	20,109,369	37,459,005
50 – 54	295	372	667	14,065,787	17,645,289	31,711,076
55 – 59	210	300	510	10,708,875	13,979,442	24,688,317
60 – 64	124	161	285	6,672,840	7,259,228	13,932,067
65 – 69	47	59	106	2,546,394	3,003,466	5,549,860
70 & Over	29	28	57	1,448,791	1,343,810	2,792,602
Total	1,643	1,933	3,576	\$73,971,358	\$87,840,429	\$161,811,788

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

Age	Service									Total
	0 - 4	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 20	-	-	-	-	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-	-	-	-	-
25 – 29	-	1	1	-	-	-	-	-	-	2
30 – 34	4	6	31	11	-	-	-	-	-	52
35 – 39	13	19	118	219	8	-	-	-	-	377
40 – 44	15	15	75	367	195	20	-	-	-	687
45 – 49	17	14	65	266	275	176	19	1	-	833
50 – 54	5	10	52	202	178	144	67	8	1	667
55 – 59	5	10	39	163	124	103	43	22	1	510
60 – 64	3	6	30	107	58	47	23	8	3	285
65 – 69	-	-	10	38	27	19	3	7	2	106
70 & Over	1	-	3	18	16	10	6	1	2	57
Total	63	81	424	1,391	881	519	161	47	9	3,576

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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	-	-	-	-	-	-
30 – 34	8	-	8	*	-	*
35 – 39	54	3	57	2,575,960	*	2,575,960
40 – 44	108	5	113	5,789,134	*	5,789,134
45 – 49	121	4	125	6,931,154	*	6,931,154
50 – 54	48	2	50	2,965,273	*	2,965,273
55 – 59	17	-	17	*	-	*
60 – 64	5	-	5	*	-	*
65 – 69	1	-	1	*	-	*
70 & Over	-	-	-	-	-	-
Total	362	14	376	\$18,261,521	*	\$18,261,521

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

<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	-	-	-	-	-	-	-	-	-	-
30 – 34	-	-	7	1	-	-	-	-	-	8
35 – 39	-	1	17	35	4	-	-	-	-	57
40 – 44	-	-	5	63	40	5	-	-	-	113
45 – 49	-	-	7	24	58	33	3	-	-	125
50 – 54	-	-	1	9	11	22	7	-	-	50
55 – 59	-	-	1	6	6	4	-	-	-	17
60 – 64	-	-	-	1	-	1	3	-	-	5
65 – 69	-	-	-	-	1	-	-	-	-	1
70 & Over	-	-	-	-	-	-	-	-	-	-
Total	-	1	38	139	120	65	13	-	-	376

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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	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-
25 – 29	1	1	2	*	*	*
30 – 34	37	23	60	1,385,670	949,914	2,335,584
35 – 39	236	198	434	9,117,876	8,045,431	17,163,307
40 – 44	436	364	800	19,330,851	15,854,965	35,185,816
45 – 49	519	439	958	24,280,790	20,306,887	44,587,677
50 – 54	343	374	717	17,031,060	17,737,925	34,768,985
55 – 59	227	300	527	11,557,812	13,979,442	25,537,254
60 – 64	129	161	290	6,967,518	7,259,228	14,226,745
65 – 69	48	59	107	2,585,643	3,003,466	5,589,109
70 & Over	29	28	57	1,448,791	1,343,810	2,792,602
Total	2,005	1,947	3,952	\$93,706,011	\$88,481,068	\$182,187,079

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

<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	-	1	1	-	-	-	-	-	-	2
30 – 34	4	6	38	12	-	-	-	-	-	60
35 – 39	13	20	135	254	12	-	-	-	-	434
40 – 44	15	15	80	430	235	25	-	-	-	800
45 – 49	17	14	72	290	333	209	22	1	-	958
50 – 54	5	10	53	211	189	166	74	8	1	717
55 – 59	5	10	40	169	130	107	43	22	1	527
60 – 64	3	6	30	108	58	48	26	8	3	290
65 – 69	-	-	10	38	28	19	3	7	2	107
70 & Over	1	-	3	18	16	10	6	1	2	57
Total	63	82	462	1,530	1,001	584	174	47	9	3,952

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Service Retirees

<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	-	1	1	-	*	*
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	-	-	-	-	-	-
40 – 44	9	1	10	*	*	*
45 – 49	66	38	104	2,039,506	1,109,684	3,149,190
50 – 54	268	225	493	9,827,868	6,438,578	16,266,446
55 – 59	510	442	952	17,914,613	12,994,817	30,909,430
60 – 64	474	475	949	16,195,320	13,780,490	29,975,810
65 – 69	419	421	840	13,921,056	11,008,302	24,929,358
70 – 74	345	342	687	9,581,690	8,028,648	17,610,338
75 – 79	255	256	511	6,064,980	5,644,337	11,709,317
80 – 84	149	147	296	3,190,983	2,729,879	5,920,861
85 – 89	46	52	98	830,523	943,417	1,773,940
90 & Over	11	22	33	195,230	323,080	518,310
Total	2,552	2,422	4,974	\$79,761,769	\$63,001,232	\$142,763,000

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

<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	-	-	-	-	1	-	-	-	-	1
40 – 44	-	-	-	2	1	6	1	-	-	10
45 – 49	-	4	5	16	13	15	29	14	8	104
50 – 54	1	12	23	40	71	80	131	79	56	493
55 – 59	2	14	53	66	134	185	279	136	83	952
60 – 64	1	13	57	99	166	164	253	108	88	949
65 – 69	1	28	92	117	134	133	169	84	82	840
70 – 74	1	50	120	108	108	101	115	45	39	687
75 – 79	1	31	130	111	78	49	61	26	24	511
80 – 84	-	16	105	71	34	31	25	5	9	296
85 – 89	-	1	47	28	10	4	3	4	1	98
90 & Over	-	-	20	9	2	1	-	-	1	33
Total	7	169	652	667	752	769	1,066	501	391	4,974

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Disabled Retirees

<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	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	-	3	3	-	*	*
40 – 44	6	3	9	*	*	*
45 – 49	14	8	22	*	*	*
50 – 54	26	27	53	570,794	554,386	1,125,180
55 – 59	38	32	70	842,780	610,968	1,453,747
60 – 64	36	36	72	831,335	712,554	1,543,889
65 – 69	38	31	69	764,525	590,712	1,355,237
70 – 74	21	17	38	438,681	*	438,681
75 – 79	16	24	40	*	374,933	374,933
80 – 84	7	16	23	*	*	*
85 – 89	2	3	5	*	*	*
90 & Over	1	2	3	*	*	*
Total	205	202	407	\$3,448,115	\$2,843,553	\$6,291,667

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

<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	-	-	-	3	-	-	-	-	-	3
40 – 44	-	-	-	4	-	2	3	-	-	9
45 – 49	-	-	2	8	7	3	2	-	-	22
50 – 54	-	-	4	24	13	6	4	2	-	53
55 – 59	-	-	11	28	17	7	5	2	-	70
60 – 64	-	-	11	23	21	9	7	1	-	72
65 – 69	-	-	15	27	17	6	3	1	-	69
70 – 74	-	-	9	11	9	6	3	-	-	38
75 – 79	-	-	19	10	8	2	1	-	-	40
80 – 84	-	-	18	2	3	-	-	-	-	23
85 – 89	-	1	1	3	-	-	-	-	-	5
90 & Over	-	-	3	-	-	-	-	-	-	3
Total	-	1	93	143	95	41	28	6	-	407

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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	135	132	267	291,600	285,120	576,720
25 – 29	1	2	3	*	*	*
30 – 34	2	3	5	*	*	*
35 – 39	2	8	10	*	*	*
40 – 44	4	25	29	*	273,072	273,072
45 – 49	6	53	59	*	697,774	697,774
50 – 54	13	84	97	*	1,102,693	1,102,693
55 – 59	22	135	157	239,581	1,846,575	2,086,157
60 – 64	25	147	172	282,464	1,951,838	2,234,302
65 – 69	48	136	184	586,946	1,724,714	2,311,660
70 – 74	31	182	213	341,677	2,159,696	2,501,373
75 – 79	45	160	205	525,574	1,796,895	2,322,469
80 – 84	36	137	173	378,387	1,493,532	1,871,918
85 – 89	16	73	89	*	774,258	774,258
90 & Over	4	37	41	*	404,211	404,211
Total	390	1,314	1,704	\$2,646,229	\$14,510,378	\$17,156,607

* Not shown if less than 20 members. The totals only sum the cells that are displayed.

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	1	6	2	2	1	-	-	-	-	12
40 – 44	1	14	7	1	-	1	1	-	-	25
45 – 49	2	23	15	13	4	-	-	-	1	58
50 – 54	1	24	45	13	5	2	2	1	-	93
55 – 59	3	43	67	22	12	9	1	-	-	157
60 – 64	2	37	88	24	11	4	3	-	-	169
65 – 69	2	64	75	25	8	7	3	-	-	184
70 – 74	-	73	107	19	8	2	3	-	-	212
75 – 79	2	71	109	13	8	1	1	-	-	205
80 – 84	-	68	91	12	2	-	-	-	-	173
85 – 89	-	31	53	3	1	1	-	-	-	89
90 & Over	-	12	26	3	-	-	-	-	-	41
Total	14	466	685	150	60	27	14	1	1	1,418

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Appendix D. Glossary of Key Terms

Accrued Liability. The Present Value of Future Benefits allocated to past service in accordance with the actuarial cost method.

Actuarial Cost Method. A method of allocating the present value of benefits to past and future periods. Actuarial cost methods take into consideration the effect of wage inflation.

Actuarial Gains and Losses. Changes to the Accrued Liability due to deviations from the actuarial assumptions. These can include gains and losses from investments, employee turnover, disability, retirement, mortality, and administrative expenses.

Actuarial Value of Assets. A method of valuing Fund assets that may smooth gains and losses that occur in the market value over a period of time.

GASB. Government Accounting Standards Board. GASB No. 25 and No. 27 are accounting standards issued by GASB that require certain items be disclosed in the Fund's financial statements.

Normal Cost. The value of benefits earned for one year of service. The normal cost is calculated in accordance with the actuarial cost method. The accumulation of all normal costs assigned to past service equals the Accrued Liability.

Present Value of Benefits. The sum of all benefits expected to be paid in the future by the retirement system, with the payments discounted to the present using the valuation interest rate. This includes benefits to be earned in the future for current employees.

Present Value of Future Normal Cost. The sum of all future normal costs expected for current employees, with the costs discounted back to the present using the valuation interest rate.

Security Ratio. The percentage of the Accrued Liability that is funded by the Fund assets. A fully funded plan will have a security ratio of 100%.

Unfunded Accrued Liability. The dollar value of the Accrued Liability that exceeds the value of the Fund assets. A fully funded plan will have no unfunded accrued liability.