
Government of Guam Retirement Fund

Actuarial Valuation as of September 30, 2013 - REVISED

Prepared by:

Richard A. Wright
FSA, MAAA

Milliman, Inc.
650 California Street, 17th Floor
San Francisco, California 94108
Tel 415 403 1333 Fax 415 403 1334
milliman.com

October 19, 2015



650 California Street, 17th Floor
San Francisco, CA 94108-2702
USA

Tel +1 415 403 1333
Fax +1 415 403 1334

milliman.com

October 19, 2015

Government of Guam Retirement Fund
424 Route 8
Maite, Guam 96910

**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2013**

As part of our engagement with the Board of Trustees, we performed an actuarial valuation of the Government of Guam Retirement Fund as of September 30, 2013. The purpose of this valuation is to determine the required contribution under the provisions of GCA Section 8137 and to provide the Fund with financial disclosures under GASB Statements 25 and 67.

In preparing this report, I relied, without audit, on information (some oral and some in writing) supplied by the Fund's staff. This information includes, but is not limited to, financial information, member census data, and plan provisions. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete the results may be different and the calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the Fund have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Fund.

This valuation report is only an estimate of the Fund's financial condition as of a single date. It can neither predict the Fund's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Fund benefits, only the timing of Fund contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Fund's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Fund and for assisting the Fund and employer in fulfilling their financial accounting requirements under GASB Statements 25, 27, 67 and 68. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in this report have been made on a basis consistent with our understanding of the Fund's funding requirements and goals, and of GASB Statements 25, 27, 67 and 68. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use and benefit of the Government of Guam Retirement Fund. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

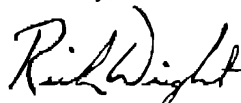
- (a) GGRF may provide a copy of Milliman's work, in its entirety, to its professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit GGRF.
- (b) GGRF may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. 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. Wfight, FSA, MAAA
Consulting Actuary

RAW:jh
N:\gualcorr\2014\gua2013v_e (final).doc

TABLE OF CONTENTS

Section	Page
I VALUATION SUMMARY	
Introduction	1
Highlights	1
Results of Valuation	3
5-Year Historical Summary	4
Actuarial Assumptions	5
Funding Method	6
II FUND ASSETS	
Exhibit 1. Summary of DB Plan Assets	7
Exhibit 2. DB Plan Asset Allocation.....	8
Exhibit 3. Changes in DB Plan Assets	9
Exhibit 4. Actuarial Value of Assets	10
Exhibit 5. Historical Returns on DB Plan Assets	11
III MEMBERSHIP DATA	
Exhibit 6. Active Employees.....	12
Exhibit 7. Active Employees by Agency	13
Exhibit 8. Retired Employees	14
Exhibit 9. Terminated and Inactive Members	15
Exhibit 10. Reconciliation of Membership Data.....	16
IV VALUATION EXHIBITS	
Exhibit 11. Actuarial Accrued Liability	17
Exhibit 12. Calculation of Unfunded Actuarial Accrued Liability	18
Exhibit 13. Calculation of Actuarial Gain/Loss.....	19
Exhibit 14. Normal Cost	20
Exhibit 15. Amortization of Unfunded Actuarial Accrued Liability	21
Exhibit 16. Contribution Requirements.....	22
Exhibit 17. Projection of Contribution Rate.....	23-24
Exhibit 18. Projection of Security Ratio	25-26
V ACCOUNTING EXHIBITS	
Exhibit 19. GASB No. 25 Schedule of Funding Progress.....	27
Exhibit 20. GASB No. 25 Schedule of Employer Contributions.....	28
Exhibit 21. GASB No. 67/68 Net Pension Liability	29
Exhibit 22. GASB No. 67/68 Change in Net Pension Liability	30
Exhibit 23. GASB No. 67/68 Net Pension Liability by Component Unit	31
Exhibit 24. GASB No. 67/68 Schedule of Funding Progress.....	32
VI APPENDICES	
Appendix A. Summary of Pension Plan	33-37
Appendix B. Actuarial Cost Method and Assumptions.....	38-40
Appendix C. Summary of Participant Data.....	41-47
Appendix D. Glossary of Key Terms	48

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 and 67.
- 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 Section 8137 is **29.85%** of payroll. Of this amount, 24.09% is for the unfunded liability of the defined benefit (DB) plan, 2.05% is for the normal cost of the DB plan, and 3.71% is for contributions and expenses for the defined contribution (DC) plan.

The primary reasons for the decrease in the contribution rate are the recognition of 1/3rd of the investment gains from the 2011-12 and 2012-13 fiscal years. These decreases were partially offset by the final recognition of 1/3rd of the investment loss from the 2010-11 fiscal year and a smaller than expected increase in total payroll.

Contribution rate from 9/30/12 actuarial valuation	30.03%
2010-11 investment loss (final 1/3 rd recognition) *	0.56%
2011-12 investment gain (second 1/3 rd recognition) *	(0.81%)
2012-13 investment gain (first 1/3 rd recognition) *	(0.54%)
Total payroll increase of 0.7% (vs. assumption of a 3.0% increase)	0.55%
Other factors, including demographic changes	<u>0.06%</u>
Contribution rate in 9/30/13 actuarial valuation	29.85%

* Investment returns that differ from the actuarial assumption of 7% are recognized over a 3 year period.

- 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 2013-14 fiscal year is 30.03%.
- The defined benefit payroll for the 2012-13 fiscal year was \$164.3 million compared with \$169.9 million for the 2011-12 fiscal year. The total defined benefit and defined contribution payroll for the 2012-13 fiscal year, was \$460.3 million compared with \$457.0 million for the 2011-12 fiscal year, an increase of 0.7%. The long term assumption is a 3.0% annual growth in total payroll. If total payroll had increased by 3.0%, the required contribution rate would have been 29.30%.

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.

SECTION I. VALUATION SUMMARY

- Based on the audited financial statements, we calculated an investment return on the total market value of assets of 14.1% for the fiscal year ending September 30, 2013. The average annual return on the market value of assets for the last 5 fiscal years has been 9.8%. The investment return on the actuarial value of assets, which recognizes investment gains and losses over a 3 year period, was 10.9%.
- The unfunded actuarial accrued liability decreased from \$1.483 billion as of September 30, 2012, to \$1.442 billion as of September 30, 2013. The primary cause for the decrease was the return on the actuarial value of assets of 10.9%. The payment required to amortize the unfunded actuarial accrued liability under GCA Section 8137 has increased from \$113.0 million to \$114.2 million. The payment as a percentage of payroll has increased from 24.01% to 24.09%, due to the lower than expected increase in total payroll.
- No changes have been made to the actuarial assumptions. These continue to be based upon the actuarial experience study for the period from October 1, 2007, to September 30, 2011.

SECTION I. VALUATION SUMMARY

RESULTS OF VALUATION

	9/30/2013		9/30/2012	
Participant Counts				
Active				
– Non-Uniformed (DB)	2,572		2,767	
– Uniformed (DB)	<u>306</u>		<u>323</u>	
– Total (DB)	2,878		3,090	
Retired (DB)	<u>7,196</u>		<u>7,155</u>	
Total Actives and Retirees (DB)	10,074		10,245	
Inactive and Terminated Members assumed to withdraw contributions (DB)	5,232		5,346	
Inactive and Terminated Members <u>not</u> assumed to withdraw contributions (DB)	162		161	
Active Participants (DC)	7,885		7,766	
	(\$millions)		(\$millions)	
Actual Payroll for Prior Fiscal Year				
Defined benefit (DB) payroll	\$164.3		\$169.9	
Total payroll (DB and DC)	460.3		457.0	
Expected Payroll for Next Fiscal Year				
Defined benefit (DB) payroll	\$152.4		\$158.4	
Total payroll (DB and DC)	474.2		470.7	
Financial Status				
Actuarial accrued liability	\$2,855.4		\$2,811.4	
Actuarial value of assets	<u>1,413.0</u>		<u>1,328.8</u>	
Unfunded actuarial accrued liability (UAAL)	\$1,442.3		\$1,482.6	
Security ratio	49.49%		47.26%	
	% of DB Payroll		% of DB Payroll	
Normal Cost				
Total normal cost	\$ 24.3*	15.92%	\$ 26.3*	16.61%
Estimated employee contributions	<u>(14.6)</u>	<u>(9.55%)</u>	<u>(15.1)</u>	<u>(9.50%)</u>
Government normal cost	\$ 9.7	6.37%	\$ 11.3	7.11%
	% of Total Payroll		% of Total Payroll	
Required Contribution per GCA §8137				
Unfunded actuarial accrued liability cost	\$ 114.2	24.09%	\$ 113.0	24.01%
Government DB normal cost	9.7	2.05%	11.3	2.39%
Expected government DC contributions	<u>17.6*</u>	<u>3.71%</u>	<u>17.0*</u>	<u>3.62%</u>
Total DB and DC contribution	\$ 141.5	29.85%	\$ 141.3	30.03%
Yield on Market Value of Assets	14.1%		18.1%	

* Includes budgeted administrative expenses.

SECTION I. VALUATION SUMMARY

5-YEAR HISTORICAL SUMMARY

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

	9/30/2013	9/30/2012	9/30/2011	9/30/2010	9/30/2009
Participant Counts					
Active (DB)	2,878	3,090	3,361	3,594	3,732
Retired (DB)	7,196	7,155	7,117	7,082	7,112
Inactives (DB)	<u>5,394</u>	<u>5,507</u>	<u>5,833</u>	<u>6,466</u>	<u>6,525</u>
Total (DB)	15,468	15,752	16,311	17,142	17,369
Active (DC)	7,885	7,766	7,690	7,471	7,107
Actual Payroll					
DB payroll	\$164.3	\$169.9	\$179.0	\$175.8	\$182.0
DC payroll	<u>296.0</u>	<u>287.1</u>	<u>282.2</u>	<u>253.3</u>	<u>241.8</u>
Total payroll	\$460.3	\$457.0	\$461.2	\$429.0	\$423.8
Financial Status					
Accrued liability	\$2,855.4	\$2,811.4	\$2,906.9	\$2,790.5	\$2,738.8
Actuarial assets	<u>1,413.0</u>	<u>1,328.8</u>	<u>1,264.1</u>	<u>1,245.9</u>	<u>1,294.6</u>
UAAL	\$1,442.3	\$1,482.6	\$1,642.8	\$1,544.7	\$1,444.2
Security ratio	49.49%	47.26%	43.49%	44.65%	47.27%
Contribution Rate					
DB Normal Cost (as % of DB payroll)	6.37%	7.11%	8.02%	7.57%	7.50%
% of Total Payroll					
UAAL Rate	24.09%	24.01%	24.33%	23.75%	21.75%
DB Normal Cost	2.05%	2.39%	3.00%	3.03%	3.03%
DC Contribution	<u>3.71%</u>	<u>3.62%</u>	<u>3.43%</u>	<u>3.31%</u>	<u>3.28%</u>
Actuarial Rate *	29.85%	30.03%	30.76%	30.09%	28.06%
Budget Rate	**	30.03%	30.09%	28.30%	27.46%
Investment Yield (Market Value)	14.1%	18.1%	(1.1%)	11.7%	7.2%

* "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.

** The budget rate for 2014-15 has not yet been determined.

SECTION I. VALUATION SUMMARY

ACTUARIAL ASSUMPTIONS

The following are the major assumptions used in the actuarial valuation. The assumptions are the same as those used for the prior valuation, based upon recommendations from the actuarial experience study for the period October 1, 2007, through September 30, 2011. To the extent that actual experience differs from the assumptions below, future pension costs will differ.

Interest Rate: The interest rate used as of September 30, 2013, was 7.0%. This assumption is unchanged from the prior valuation. 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.

Asset Class	(a) Target Asset Allocation	x	(b) Expected Nominal Return ¹	=	(c) Component Return
U.S. Equities (large cap)	30.00%		8.34%		2.50%
U.S. Equities (small cap)	10.00%		10.09%		1.01%
Non-U.S. Equities	14.25%		8.46%		1.21%
Non-U.S. Equities (emerging markets)	5.75%		11.38%		0.65%
U.S. Fixed Income (aggregate)	30.00%		4.84%		1.45%
Real Estate (REITs)	10.00%		8.38%		<u>0.84%</u>
Expected average return for one year					7.66%
Expected geometric mean (30 years)					6.89%
25 th to 75 th Percentile Return					5.27% - 8.48%

¹ Assumes annual inflation of 2.75%.

The current assumption of 7.0% is close to the expected geometric average return over the next 30 years, and is also close to the midpoint of 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, 2013, was the RP-2000 combined mortality table, set forward by 4 years for males and 1 year for females. The mortality table used for disabled lives was the RP-2000 disability mortality table for males and females. These mortality assumptions are unchanged from the prior valuation.

Salary Increases. Salaries were assumed to increase 7.5% per year for employees in their first 5 years of service, 6.0% for service between 6 and 10 years, 5.0% for service between 11 and 15 years, and 4.5% for service after 15 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 3.0% per year. This assumption is unchanged from the prior valuation.

Retirement Age. We have assumed 40% of employees will retire when first eligible for unreduced retirement. Thereafter, 15% of employees will retire at each year until age 65, and 20% of employees will retire from age 65 until age 70, at which time all remaining employees are assumed to retire. This assumption is unchanged from the prior valuation.

SECTION I. VALUATION SUMMARY

Return of Contributions. We have assumed that any current employees who terminate employment prior to retirement and who have less than 20 years of service will elect a return of contributions in lieu of a deferred benefit. Employees with at least 20 years of service who terminate employment are assumed to retire upon eligibility for unreduced benefits. This assumption is unchanged from the prior valuation.

Current terminated or inactive members with at least 5 years of service and a contributions balance that exceeds \$10,000 who have not withdrawn their contributions and for whom sufficient earnings data are available to value their retirement benefits are assumed to retire upon eligibility for unreduced benefits. All other terminated and inactive members are assumed to elect to withdraw their contributions.

Administrative Expenses. Total administrative expenses are assumed to be \$5,487,000, which is the amount budgeted for the year ending September 30, 2014. Of this amount, \$4,008,000 is allocated to the defined benefit plan and \$1,479,000 to the defined contribution plan.

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

Probability of Marriage. We have assumed that 75% of retirees will be married at retirement. This assumption is unchanged from the prior valuation.

Asset Valuation Method. Investment gains/losses relative to the assumed investment return are phased in over a period of 3 years. Certain receivables and liabilities whose payments are deducted from employer contributions to the Fund are excluded from the actuarial value of assets. This valuation method is unchanged from the prior valuation.

A complete summary of actuarial assumptions is in Appendix B.

FUNDING METHOD

GCA Section 8137 requires a contribution sufficient to fully fund the unfunded actuarial accrued 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 actuarial accrued liability over the remaining 17.58 years as a level percentage of total payroll (including both defined benefit and defined contribution members).

Exhibits 17 and 18 project the employer and employee contributions, fund balance, actuarial accrued liability and security ratio forward 40 years based upon the current funding method.

SECTION II. FUND ASSETS**EXHIBIT 1. SUMMARY OF DB PLAN ASSETS**

Listed below are the assets reported for the defined benefit (DB) pension plan in the Fund's financial statements, excluding certain receivables and liabilities whose payments are deducted from employer contributions to the Fund.

	9/30/2013	9/30/2012
Investments		
Common stocks	\$ 969,334,249	\$ 831,846,693
Mutual funds	156,848,845	141,150,650
U.S. government securities	189,991,596	202,542,843
Corporate bonds and notes	166,735,779	180,336,742
Money market funds	<u>49,016,947</u>	<u>64,696,700</u>
Total investments	1,531,927,416	1,420,573,628
Receivables		
Employer contributions, net	2,089,394	1,717,520
Employer contributions, unfunded liability	3,616,088	2,615,577
Member contributions	678,724	591,143
Accrued investment income	4,075,645	4,780,898
Due from brokers for unsettled trades	7,627,324	4,815,852
Notes receivable for service credits	798,635	1,083,922
Notes receivable ERIP	993,746	2,290,473
Interest and penalties	274,402	231,896
Supplemental/insurance benefits advanced	3,511,711	3,511,711
Other receivables	658,183	812,412
Due from DC plan	<u>184,894</u>	<u>260,250</u>
Total receivables	24,508,746	22,711,654
Cash and cash equivalents	4,296,618	3,398,096
Property and equipment	<u>802,844</u>	<u>908,472</u>
Total assets	\$ 1,561,535,624	\$ 1,447,591,850
Liabilities		
Accounts payable and accrued expenses	\$ 2,173,721	\$ 2,064,479
Due to brokers for unsettled trades	<u>33,226,876</u>	<u>54,105,484</u>
Total liabilities	\$ 35,400,597	\$ 56,169,963
Valuation Assets	<u>\$ 1,526,135,027</u>	<u>\$ 1,391,421,887</u>
Excluded Assets ¹		
Receivable – ERIP employer share	\$ 0	\$ 0
Supplemental/COLA benefits receivable	50,818,265	56,350,125
Deferred revenue for service credits	<u>(2,597,509)</u>	<u>(4,097,948)</u>
Total excluded assets	\$ 48,220,756	\$ 52,252,177

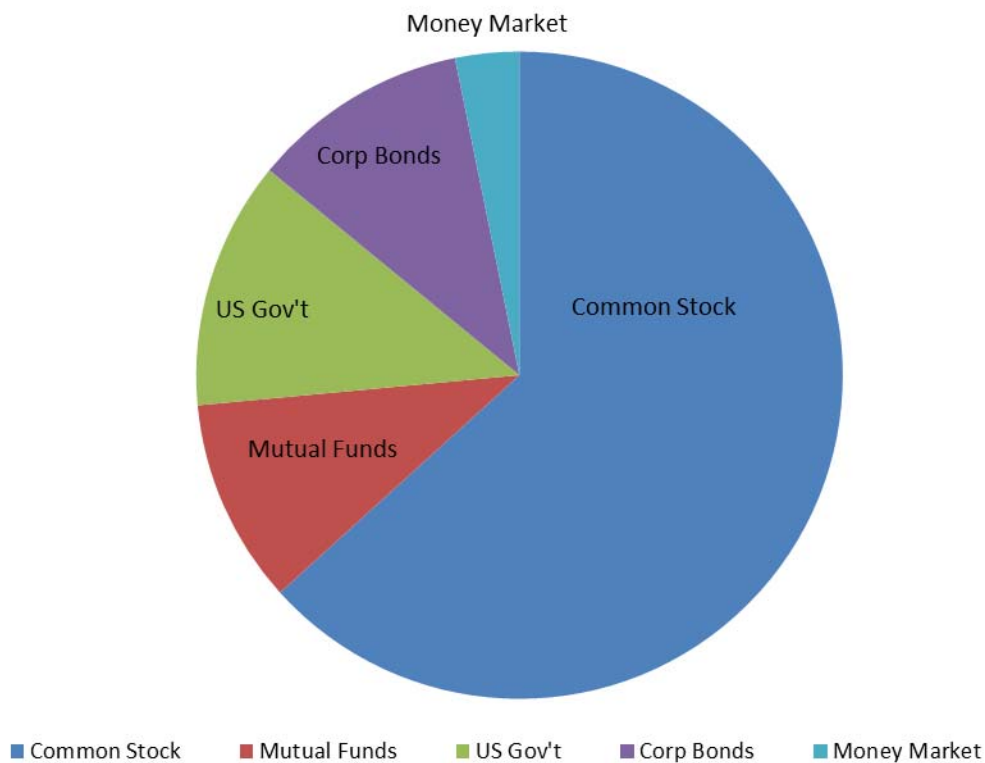
¹ Excluded because payments towards these receivables are deducted from employer contributions.

SECTION II. FUND ASSETS

EXHIBIT 2. DB PLAN ASSET ALLOCATION

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

	DB ASSET ALLOCATION	
	9/30/2013	9/30/2012
Common stocks	63.3%	58.6%
Mutual funds	10.2%	9.9%
U.S. government securities	12.4%	14.3%
Corporate bonds and notes	10.9%	12.7%
Money market funds	<u>3.2%</u>	<u>4.5%</u>
Total	100.0%	100.0%



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.

SECTION II. FUND ASSETS

EXHIBIT 3. CHANGES IN DB PLAN ASSETS

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.

	FISCAL YEAR ENDING	
	9/30/2013	9/30/2012
Beginning Balance	\$ 1,391,421,887	\$ 1,216,210,136
Contributions		
Employer contributions	117,909,509	116,512,456
Member contributions	16,290,014	16,712,987
Decrease/(increase) in excluded assets	<u>4,031,421</u>	<u>(2,636,803)</u>
Total contributions	138,230,944	130,588,640
Investment Income		
Net appreciation in fair value	162,486,174	207,622,587
Interest	17,175,304	17,266,613
Dividends	17,019,088	15,288,485
Other investment income	1,412,466	538,358
Investment expenses	<u>(5,316,971)</u>	<u>(4,867,456)</u>
Total investment income	192,776,061	235,848,587
Benefit Payments		
Age and service annuities	158,484,501	153,185,692
Disability annuities	6,798,408	7,146,937
Survivor annuities	24,997,522	24,047,722
Refunds to separated employees	2,413,061	2,709,194
Interest on refunded contributions	914,543	1,294,416
Balances transferred to DC plan	<u>0</u>	<u>33,891</u>
Total benefit payments	193,608,035	188,417,852
Administrative Expenses	2,685,830	2,807,624
Ending Balance	\$ 1,526,135,027	\$ 1,391,421,887

SECTION II. FUND ASSETS

EXHIBIT 4. ACTUARIAL VALUE OF ASSETS

The actuarial value of assets as of September 30, 2013, is equal to the market value of DB plan assets adjusted to phase in gains and losses relative to the assumed rate of return over a 3-year period, and to exclude certain receivables and liabilities whose payments are deducted from employer contributions to the Fund.

	9/30/2013	9/30/2012
Valuation assets at market value	\$ 1,526,135,027	\$ 1,391,421,887
(Gains)/Losses excluded from actuarial value (see below)	<u>(113,110,062)</u>	<u>(62,668,438)</u>
Actuarial value of assets	\$ 1,413,024,965	\$ 1,328,753,449
Actuarial value as % of market value	92.6%	95.5%

3-Year Phase-in of Gains and (Losses)

Year	Expected Return ¹	Actual Return	Gain/(Loss)	Percent Excluded	Excluded From Market Value
2012/2013	\$ 95,401,701	\$192,776,061	\$ 97,374,360	66.67%	\$ 64,916,240
2011/2012	91,267,121	235,848,587	144,581,466	33.33%	48,193,822
2010/2011	87,565,216	(13,592,402)	(101,157,618)	0.00%	<u>0</u>
Total					\$ 113,110,062

¹ Expected return is based on the assumed investment return, which is 7.0%.

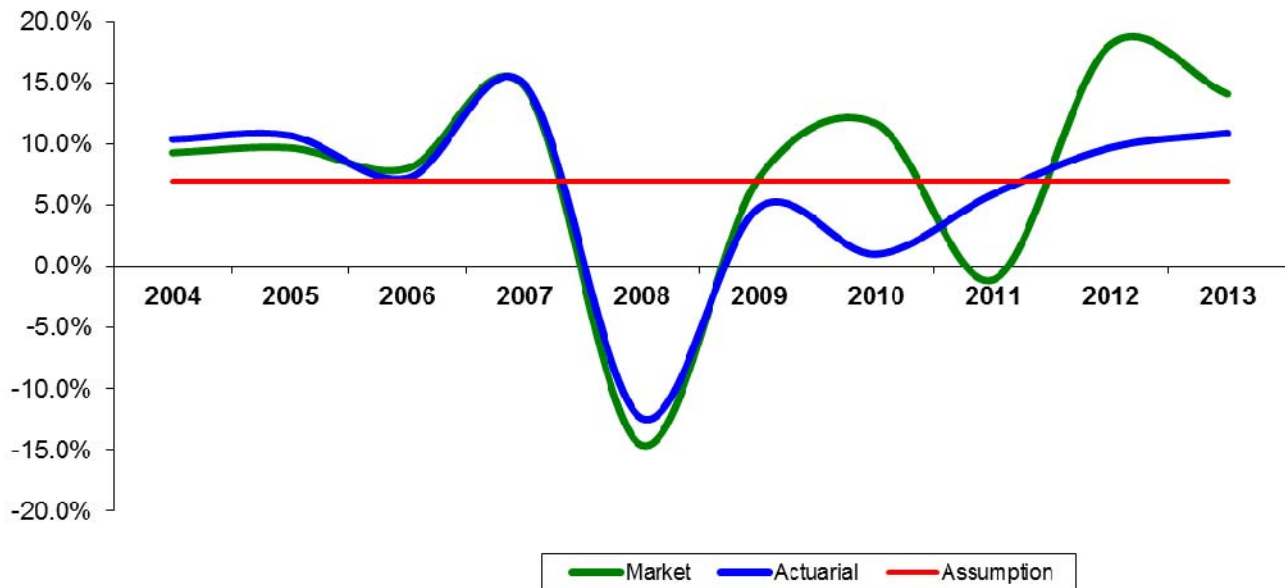
SECTION II. FUND ASSETS

EXHIBIT 5. HISTORICAL RETURNS ON DB PLAN ASSETS

The following table shows the historical return on DB plan assets over the last 10 years. The assumed actuarial valuation rate is 7.0%.

Fiscal Year Ending 9/30	Return on Market Value	Return on Actuarial Value
2013	14.1%	10.9%
2012	18.1%	9.7%
2011	(1.1)%	5.9%
2010	11.7%	1.0%
2009	7.2%	4.8%*
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%)
Average of last 5 years	9.8%	6.4%
Average of last 10 years	7.3%	6.0%

* Based on the asset valuation method as of September 30, 2008 (i.e., fixed income investments are valued at amortized cost).



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.

SECTION III. MEMBERSHIP DATA**EXHIBIT 6. ACTIVE EMPLOYEES (DB)**

	9/30/2013	9/30/2012
Reconciliation of Census		
Members reported in raw data	8,319	8,651
Number excluded due to:		
Reported as inactive	5,147	5,241
Reported as terminated	231	235
Zero earnings	15	16
Refund of contributions	1	15
Duplicate inactive records	43	39
Duplicate retiree records	<u>4</u>	<u>15</u>
Total exclusions	5,441	5,561
Active employees in valuation	2,878	3,090
Active Employees – Non-Uniformed		
Number vested	2,548	2,733
Number not vested	<u>24</u>	<u>34</u>
Total	2,572	2,767
Average age	52.2	51.7
Average service	23.5	23.0
Average earnings	\$ 52,388	\$ 50,539
Average accumulated contributions	\$ 130,489	\$ 121,474
Active Employees – Uniformed		
Number vested	305	322
Number not vested	<u>1</u>	<u>1</u>
Total	306	323
Average age	49.0	48.2
Average service	24.9	24.2
Average earnings	\$ 72,552	\$ 71,821
Average accumulated contributions	\$ 171,297	\$ 162,195
Active Employees – Total		
Number vested	2,853	3,055
Number not vested	<u>25</u>	<u>35</u>
Total	2,878	3,090
Average age	51.8	51.3
Average service	23.7	23.1
Average earnings	\$ 54,532	\$ 52,763
Average accumulated contributions	\$ 134,828	\$ 125,730

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.

SECTION III. MEMBERSHIP DATA

EXHIBIT 7. ACTIVE EMPLOYEES BY AGENCY

	9/30/2013 (DC)	9/30/2013 (DB)	9/30/2012 (DC)	9/30/2012 (DB)
Agency For Human Resources Development	26	12	26	16
Bureau of Budget & Management Research	9	8	7	11
Bureau of Statistics and Plans	12	19	13	23
Chamorro Land Trust	4	2	4	3
Chief Medical Examiner	3	0	3	0
Customs & Quarantine	111	43	93	42
Dept of Administration	85	50	93	54
Dept of Agriculture	35	31	34	34
Dept of Corrections	133	43	154	49
Dept of Labor	32	12	36	15
Dept of Land Management	27	24	19	26
Dept of Law	134	38	131	40
Dept of Mental Health & Substance Abuse	161	34	161	36
Dept of Military Affairs	29	9	31	10
Dept of Parks and Recreation	32	20	29	22
Dept of Public Health & Social Services	288	107	272	112
Dept of Public Works	186	126	190	141
Dept of Revenue and Taxation	113	54	102	60
Dept of Youth Affairs	55	26	48	26
D.I.S.I.D.	16	10	15	9
Governor's Office	85	8	86	7
Guam CAHA*	0	0	0	0
Guam Energy Office	6	3	7	3
Guam Environmental Protection Agency	44	9	39	10
Guam Fire Dept	162	131	137	141
Guam Legislature	44	9	53	5
Guam Police Dept	237	114	236	116
Guam Public Library*	0	0	0	0
Judiciary Of Guam	259	96	247	102
Lt. Governor's Office	16	0	19	0
Public Auditors	13	1	11	1
Public Defender	37	19	38	20
General Fund Total	2,394	1,058	2,334	1,134
Dept of Chamorro Affairs*	26	12	27	12
Dept of Education	2,782	935	2,766	1,002
Government of Guam Retirement Fund	22	13	24	14
Guam Airport Authority	132	78	141	76
Guam Community College	206	70	187	78
Guam Economic Development Agency	28	7	23	7
Guam Housing & Urban Renewal Agency	70	22	77	25
Guam Housing Corporation	18	6	20	6
Guam Memorial Hospital Authority	794	163	771	188
Guam Power Authority	358	173	359	185
Guam Visitors Bureau	25	6	21	7
Guam Waterworks Authority	236	67	226	74
KGTF	3	6	1	6
Mayor's Council	207	18	183	17
Port Authority Of Guam	231	92	259	98
University Of Guam	353	152	347	161
Others Total	5,491	1,820	5,432	1,956
GRAND TOTAL	7,885	2,878	7,766	3,090

* The Dept. of Chamorro Affairs' member count includes Guam CAHA and Guam Public Library.

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.

SECTION III. MEMBERSHIP DATA

EXHIBIT 8. RETIRED EMPLOYEES (DB)

	9/30/2013	9/30/2012
Service Retirees		
Count	5,054	4,986
Average age	68.1	67.7
Average benefit	\$31,665	\$30,819
Disabled Retirees		
Count	313	331
Average age	65.7	64.9
Average benefit	\$21,269	\$21,088
Survivors		
Count	1,588	1,561
Average age	70.5	70.3
Average benefit	\$15,476	\$14,983
Child Pensioners		
Count	241	277
Average age	15.7	15.9
Average benefit	\$2,880	\$2,880
Total Retirees and Survivors		
Count	7,196	7,155
Average age*	68.6	68.1
Average benefit*	\$27,500	\$26,757

* Excludes child pensioners.

SECTION III. MEMBERSHIP DATA**EXHIBIT 9. TERMINATED AND INACTIVE MEMBERS (DB)**

	9/30/2013	9/30/2012
Reported as Inactive		
Count	5,136	5,241
Accumulated contributions	\$ 11,992,810	\$ 11,648,767
Reported as Terminated		
Count	231	235
Accumulated contributions	\$ 545,876	\$ 585,877
Zero Earnings		
Count	26	16
Accumulated contributions	\$ 1,164,605	\$ 456,034
Refund of Contributions		
Count	1	15
Accumulated contributions	\$ 186	\$ 114,629
Total Terminateds and Inactives		
Count	5,394	5,507
Accumulated contributions	\$ 13,703,477	\$ 12,805,307
<hr/>		
Assumed to Withdraw Contributions		
Count	5,232	5,346
Accumulated contributions	\$ 3,677,872	\$ 3,306,403
Not Assumed to Withdraw Contributions		
Count	162	161
Average age	52.5	51.8
Average benefit	13,438	12,749
Accumulated contributions	\$ 10,025,605	\$ 9,498,905

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.

SECTION III. MEMBERSHIP DATA

EXHIBIT 10. RECONCILIATION OF MEMBERSHIP DATA (DB)

	Assumed to Withdraw Contributions					No With'd	Ret	Surv	Disab	Child	Total
	Act	Inact	Term	Zero	Refund	Inact					
9/30/2012	3,090	5,087	235	10	14	161	4,986	1,561	331	277	15,752
Additions from:											
Actives		5	0	7	1	13	133	0	2	0	161
Inactives	14		0	0	0	8	5	0	0	0	27
Terminations	0	2		0	0	0	0	0	0	0	2
Zero earnings	0	2	0		0	0	0	0	0	0	2
Refunds	0	0	0	0		0	7	0	0	0	7
Inactives no w/d	11	1	0	0			3	0	0	0	15
Retiree	0	0	0	0	0	0		0	0	0	0
Survivor	0	0	0	0	0	0	0		0	1	1
Disability	0	0	0	0	0	0	0	0		0	0
Child	0	0	0	0	0	0	0	0	0		0
Other adds ¹	3	5	0	0	0	0	78	114	0	16	216
Subtotal	28	15	0	7	1	21	226	114	2	17	431
Subtractions due to:											
Actives		-14	0	0	0	-11	0	0	0	0	-25
Inactives	-5		-2	-2	0	-1	0	0	0	0	-10
Terminations	0	0		0	0	0	0	0	0	0	0
Zero earnings	-7	0	0		0	0	0	0	0	0	-7
Refunds	-1	0	0	0		0	0	0	0	0	-1
Inactives no w/d	-13	-8	0	0	0		0	0	0	0	-21
Retiree	-133	-5	0	0	-7	-3		0	0	0	-148
Survivor	0	0	0	0	0	0	0		0	0	0
Disability	-2	0	0	0	0	0	0	0		0	-2
Child	0	0	0	0	0	0	0	-1	0		-1
Other drops ²	-79	-90	-2	0	-7	-5	-158	-86	-20	-53	-500
Subtotal	-240	-117	-4	-2	-14	-20	-158	-87	-20	-53	-715
9/30/2013	2,878	4,985	231	15	1	162	5,054	1,588	313	241	15,468

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.).

SECTION IV. VALUATION EXHIBITS

EXHIBIT 11. ACTUARIAL ACCRUED LIABILITY

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

	9/30/2013	9/30/2012
Present Value of Benefits		
Active employees –		
Retirement	\$ 974,788,551	\$ 989,627,993
Disability	28,334,174	29,932,950
Death	27,627,304	28,546,715
Withdrawal	<u>43,472,694</u>	<u>46,498,593</u>
Total active PVB	1,074,222,723	1,094,606,251
Retirees and Survivors		
Retirees	1,614,661,708	1,566,820,432
Disabled retirees	62,566,099	66,400,453
Survivors	<u>230,185,082</u>	<u>222,230,668</u>
Total retirees and survivors	1,907,412,889	1,855,451,553
Terminated and inactive members		
Assumed to retire	14,141,103	13,235,074
Assumed to elect return of contributions	<u>3,677,872</u>	<u>3,306,403</u>
Total terminated and inactive members	17,818,975	16,541,477
Total PVB	\$ 2,999,454,587	\$ 2,966,599,281
Present Value of Future Normal Cost		
Active employees –		
Retirement	\$ 108,435,338	\$ 116,784,287
Disability	8,698,079	9,396,559
Death	6,859,038	7,399,228
Withdrawal	<u>20,098,138</u>	<u>21,619,682</u>
Total active PVFNC	\$ 144,090,593	\$ 155,199,756
Actuarial Accrued Liability		
Active members	\$ 930,132,130	\$ 939,406,495
Retirees and survivors	1,907,412,889	1,855,451,553
Terminations and inactives	<u>17,818,975</u>	<u>16,541,477</u>
Total accrued liability	\$ 2,855,363,994	\$ 2,811,399,525

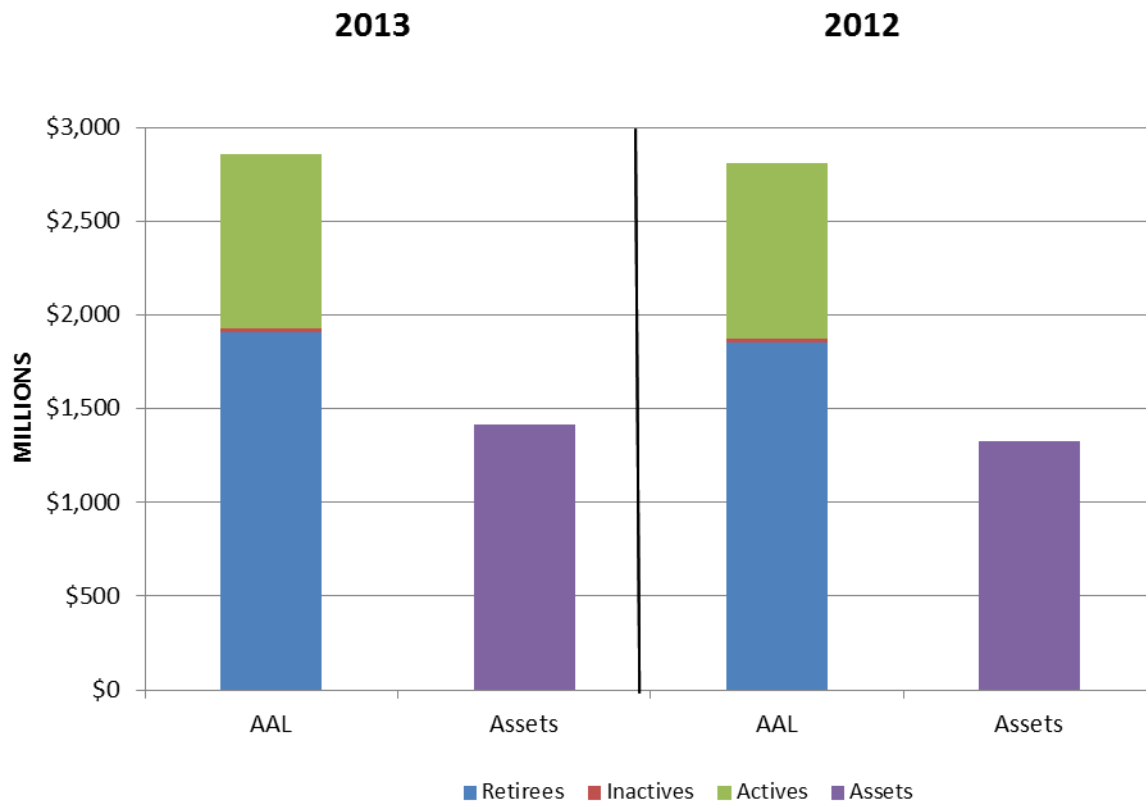
This work product was prepared solely for the plan sponsor for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 12. CALCULATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

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

	9/30/2013	9/30/2012
Actuarial Accrued Liability		
Active members	\$ 930,132,130	\$ 939,406,495
Retirees and survivors	1,907,412,889	1,855,451,553
Terminations and inactives	<u>17,818,975</u>	<u>16,541,477</u>
Total accrued liability	\$ 2,855,363,994	\$ 2,811,399,525
 Actuarial Value of Assets	 1,413,024,965	 1,328,753,449
 Unfunded Actuarial Accrued Liability	 \$ 1,442,339,029	 \$ 1,482,646,076
 Security Ratio = (Assets/AAL)	 49.49%	 47.26%



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.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 13. CALCULATION OF ACTUARIAL GAIN/LOSS

	9/30/2013	9/30/2012
Unfunded Actuarial Accrued Liability, beginning of year	\$ 1,482,646,076	\$ 1,642,818,712
Additions:		
Normal cost	10,891,549	13,833,495
Interest to end of year	<u>104,547,634</u>	<u>115,965,654</u>
Total additions	115,439,183	129,799,149
Deductions:		
Employer contributions for year	121,940,930	113,875,653
Interest on contributions	<u>4,195,749</u>	<u>3,918,238</u>
Total deductions	126,136,679	117,793,891
Other Changes:		
Plan amendments	0	0
Changes in assumptions and methods	<u>0</u>	<u>(33,977,679)</u>
Net other changes	0	(33,977,679)
Expected UAAL, end of year	\$ 1,471,948,580	\$ 1,620,846,291
Actual UAAL, end of year	<u>1,442,339,029</u>	<u>1,482,646,076</u>
Actuarial Gain/(Loss)	\$ 29,609,551	\$ 138,200,215
Components of Actuarial Gain/(Loss):		
Investment gain/(loss) on actuarial value of assets	\$ 51,319,527	\$ 35,003,250
Other gains/(losses)	<u>(21,709,976)</u>	<u>103,196,965</u>
Total actuarial gain/(loss)	\$ 29,609,551	\$ 138,200,215

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.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 14. NORMAL COST

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

	9/30/2013		9/30/2012	
Expected defined benefit payroll for next fiscal year	\$ 152,372,948		\$ 158,430,450	
		% of DB Payroll		% of DB Payroll
Normal cost ¹				
Retirement	\$ 15,257,104	10.01%	\$ 15,899,161	10.04%
Disability	1,244,988	0.82%	1,297,529	0.82%
Withdrawal	2,770,060	1.82%	2,871,643	1.81%
Death	<u>984,445</u>	<u>0.65%</u>	<u>1,020,866</u>	<u>0.64%</u>
Total active normal cost	\$ 20,256,597	13.29%	\$ 21,089,199	13.31%
Assumed DB administrative expenses	<u>4,007,613</u>	<u>2.63%</u>	<u>5,228,000</u>	<u>3.30%</u>
Total normal cost and expenses	\$ 24,264,210	15.92%	\$ 26,317,199	16.61%
Expected member contributions	<u>(14,559,110)</u>	<u>(9.55%)</u>	<u>(15,050,893)</u>	<u>(9.50%)</u>
Government portion of normal cost	\$ 9,705,100	6.37%	\$ 11,266,306	7.11%

¹ Includes interest to mid-year.

SECTION IV. VALUATION EXHIBITS**EXHIBIT 15. AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED 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, 2013, there are 17.58 years remaining in the funding period. The amortization of the unfunded actuarial accrued liability is calculated as a constant percentage of total payroll, which is assumed to grow at 3.0% per year.

	9/30/2013	9/30/2012
Total payroll (DB and DC) for fiscal year following	\$ 474,158,213	\$ 470,694,847
Unfunded actuarial accrued liability	1,442,339,029	1,482,646,076
Remaining funding period	17.58 years	18.58 years
Annual amortization	114,248,248	113,011,781
As % of total payroll (DB and DC)	24.09%	24.01%

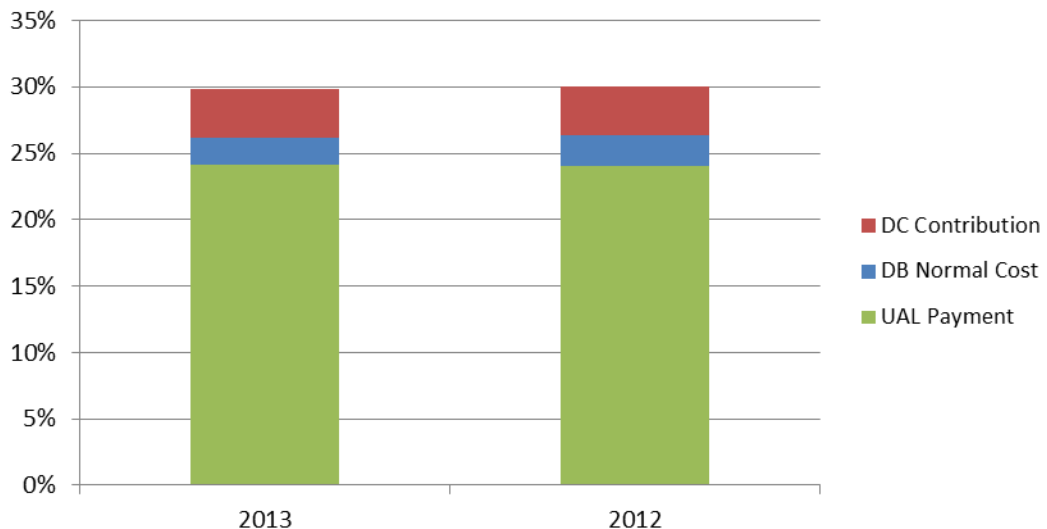
SECTION IV. VALUATION EXHIBITS

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 actuarial accrued 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.

	9/30/2013	9/30/2012
Expected payroll for next fiscal year		
Defined benefit (DB)	\$ 152,372,948	\$ 158,430,450
Defined contribution (DC)	<u>321,785,265</u>	<u>312,264,397</u>
Total payroll (DB and DC)	\$ 474,158,213	\$ 470,694,847
Government normal cost excluding expenses (DB)	9,705,100	11,266,306
As % of DB payroll	6.37%	7.11%
As % of total payroll (DB and DC)	2.05%	2.39%
Amortization of UAAL (DB)	114,248,248	113,011,781
As % of total payroll (DB and DC)	24.09%	24.01%
Government DC contributions	17,568,184	17,048,220
As % of DC payroll	5.46%	5.46%
As % of total payroll (DB and DC)	3.71%	3.62%
Total DB and DC contributions	\$ 141,521,532	\$ 141,326,307
% of total payroll (DB and DC)	29.85%	30.03%

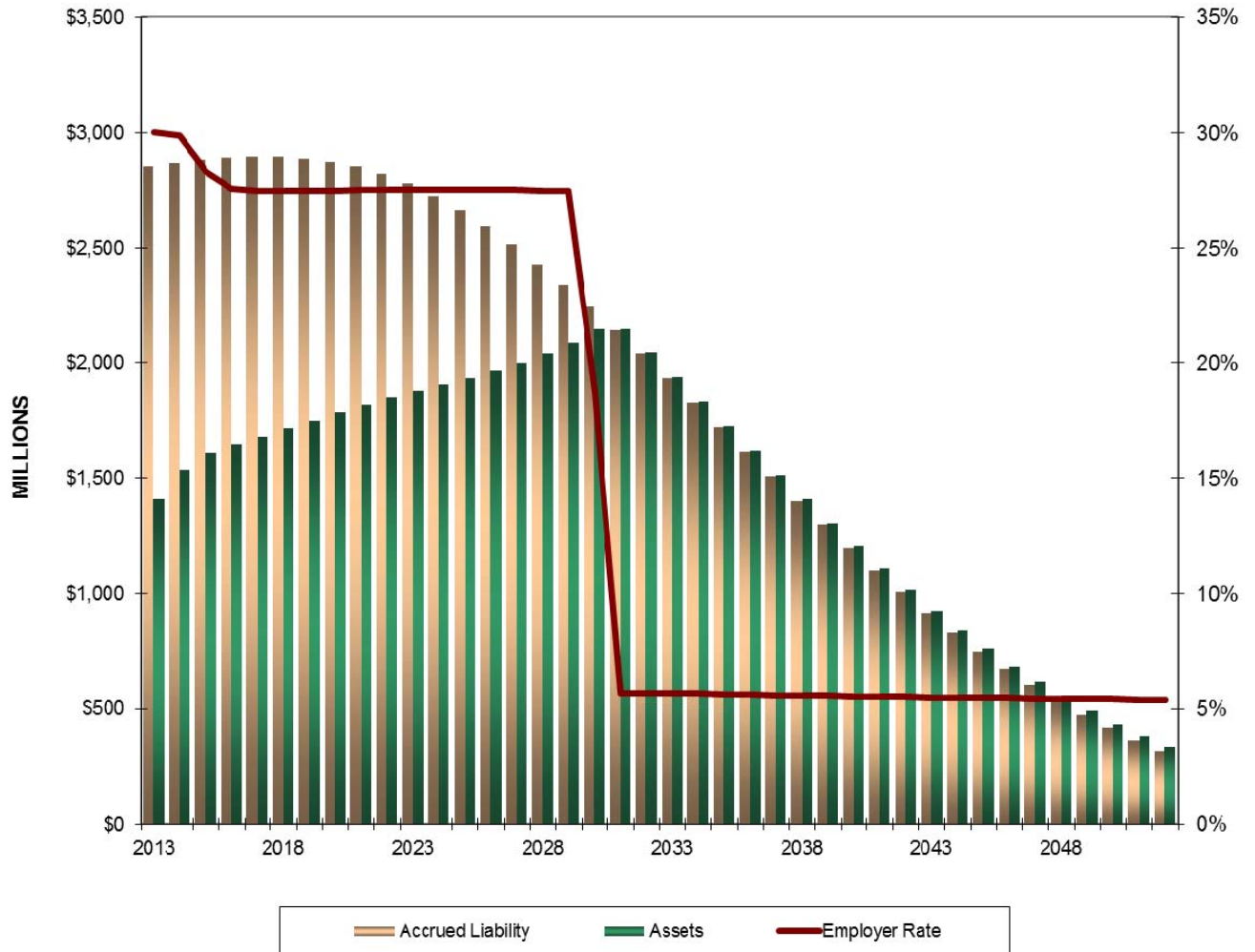
CONTRIBUTION RATE



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.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 17. PROJECTION OF CONTRIBUTION RATE



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.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 17. PROJECTION OF CONTRIBUTION RATE (values)

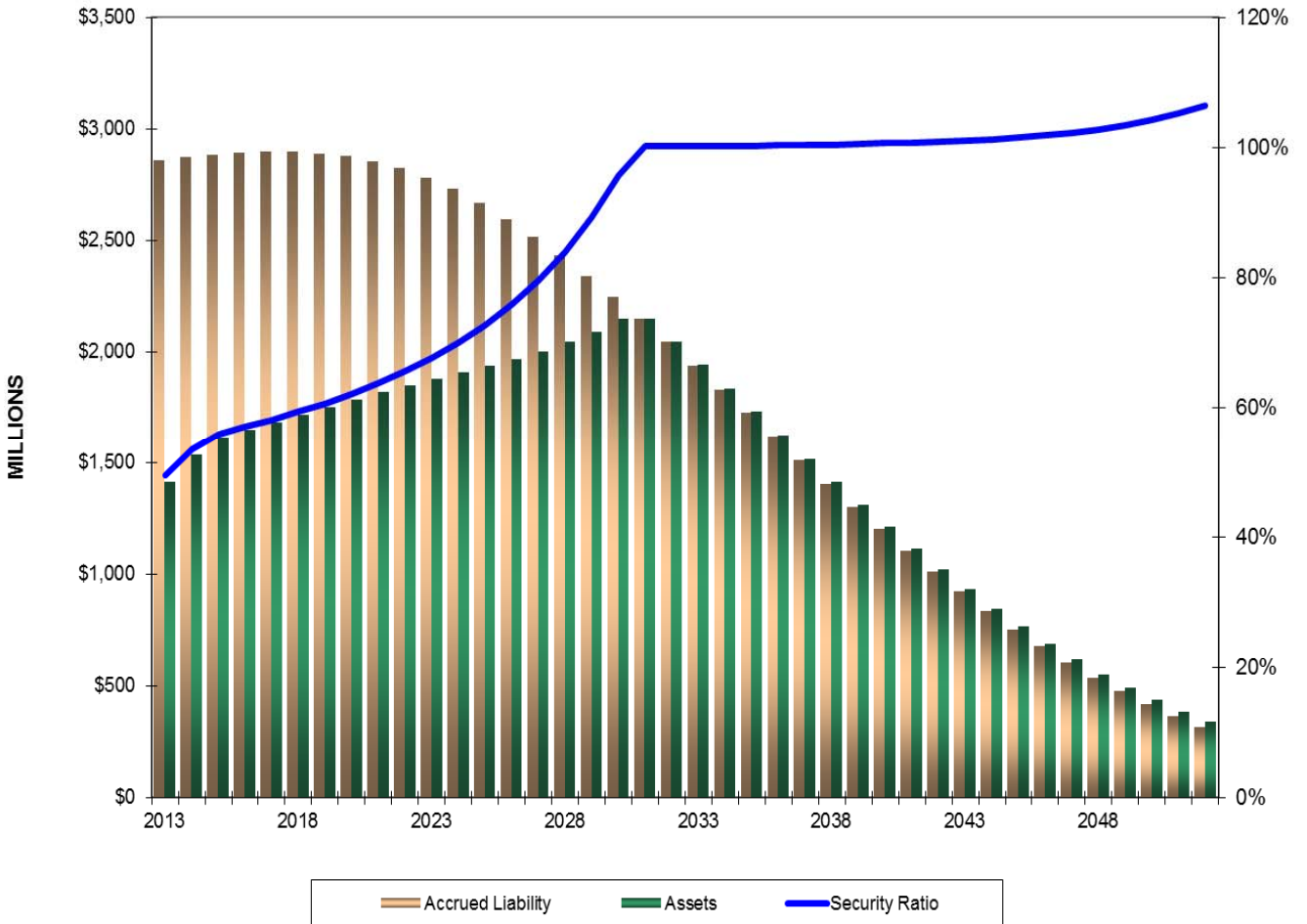
Year Ending	PAYROLL ¹		CONTRIB RATE		CONTRIBUTIONS			Invest Gain ²	Benefits/ Expenses	DB Fund Actuarial
	DB	DC	DB	DC	DB	DC	EE			
2013										\$1,413.02
2014	152.37	321.79	30.03%	24.57%	45.76	79.06	14.52	103.74	(201.11)	1,535.65
2015	147.97	340.42	29.85%	24.41%	44.16	83.10	14.08	106.59	(204.89)	1,611.16
2016	142.66	360.38	28.31%	22.90%	40.39	82.52	13.60	109.29	(208.73)	1,648.24
2017	136.67	381.45	27.57%	22.18%	37.68	84.61	13.03	111.68	(212.82)	1,682.43
2018	130.44	403.23	27.48%	22.12%	35.85	89.18	12.43	113.99	(216.86)	1,717.02
2019	123.01	426.67	27.47%	22.12%	33.79	94.38	11.73	116.32	(221.43)	1,751.80
2020	114.04	452.13	27.48%	22.15%	31.34	100.16	10.89	118.62	(226.91)	1,785.90
2021	103.85	479.30	27.49%	22.18%	28.55	106.33	9.93	120.86	(232.95)	1,818.61
2022	93.07	507.58	27.51%	22.22%	25.60	112.78	8.89	122.98	(239.24)	1,849.64
2023	82.00	536.67	27.52%	22.25%	22.57	119.38	7.85	125.00	(245.29)	1,879.16
2024	71.03	566.20	27.54%	22.27%	19.56	126.12	6.80	126.94	(250.93)	1,907.64
2025	60.65	595.69	27.54%	22.29%	16.70	132.79	5.82	128.86	(255.39)	1,936.42
2026	51.13	624.91	27.54%	22.31%	14.08	139.40	4.92	130.84	(258.80)	1,966.87
2027	43.08	653.23	27.54%	22.31%	11.86	145.73	4.15	133.02	(260.52)	2,001.11
2028	36.31	680.90	27.52%	22.30%	9.99	151.86	3.51	135.54	(260.51)	2,041.50
2029	30.39	708.34	27.50%	22.29%	8.36	157.92	2.94	138.55	(259.45)	2,089.82
2030	25.18	735.71	27.49%	22.28%	6.92	163.95	2.45	142.16	(257.16)	2,148.13
2031	20.65	763.06	18.77%	13.58%	3.88	103.61	2.02	144.17	(253.98)	2,147.83
2032	16.84	790.38	5.67%	0.49%	0.96	3.85	1.64	140.77	(249.72)	2,045.32
2033	13.63	817.81	5.66%	0.48%	0.77	3.92	1.34	133.79	(244.42)	1,940.73
2034	10.78	845.60	5.65%	0.47%	0.61	3.98	1.07	126.70	(238.31)	1,834.76
2035	8.35	873.73	5.63%	0.46%	0.47	4.03	0.83	119.53	(231.55)	1,728.07
2036	6.39	902.14	5.61%	0.45%	0.36	4.07	0.64	112.34	(224.20)	1,621.28
2037	4.82	930.97	5.60%	0.44%	0.27	4.10	0.48	105.18	(216.00)	1,515.31
2038	3.55	960.31	5.58%	0.43%	0.20	4.12	0.36	98.10	(207.35)	1,410.74
2039	2.55	990.23	5.57%	0.42%	0.14	4.14	0.26	91.14	(198.13)	1,308.29
2040	1.76	1,020.81	5.55%	0.41%	0.10	4.15	0.18	84.34	(188.58)	1,208.48
2041	1.14	1,052.11	5.54%	0.40%	0.06	4.16	0.12	77.73	(178.77)	1,111.78
2042	0.68	1,084.16	5.52%	0.38%	0.04	4.17	0.08	71.36	(168.77)	1,018.65
2043	0.36	1,117.03	5.51%	0.37%	0.02	4.17	0.04	65.23	(158.69)	929.43
2044	0.18	1,150.73	5.49%	0.36%	0.01	4.17	0.02	59.38	(148.53)	844.49
2045	0.08	1,185.35	5.48%	0.35%	-	4.17	0.01	53.83	(138.45)	764.05
2046	0.03	1,220.96	5.46%	0.34%	-	4.17	0.00	48.59	(128.50)	688.33
2047	0.01	1,257.62	5.45%	0.33%	-	4.17	0.00	43.68	(118.76)	617.42
2048	-	1,295.36	5.44%	0.32%	-	4.17	-	39.09	(109.27)	551.41
2049	-	1,334.22	5.42%	0.31%	-	4.17	-	34.83	(100.08)	490.33
2050	-	1,374.24	5.41%	0.30%	-	4.17	-	30.90	(91.25)	434.15
2051	-	1,415.47	5.40%	0.29%	-	4.17	-	27.30	(82.79)	382.84
2052	-	1,457.93	5.39%	0.29%	-	4.17	-	24.02	(74.74)	336.29

¹ Payroll is assumed to increase 3.0% per year.

² Investment earnings are assumed to be 7.0% per year on the market value of assets.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 18. PROJECTION OF SECURITY RATIO



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.

SECTION IV. VALUATION EXHIBITS

EXHIBIT 18. PROJECTION OF SECURITY RATIO (values)

Year Ending	EMPLOYER CONTRIBUTIONS					Security Ratio
	Payroll ¹	DB Rate	Contribs DB Plan	DB Fund Actuarial ²	Accrued Liability	
2013				\$1,413.02	\$2,855.36	49.49%
2014	\$ 474.16	30.03%	124.82	1,535.65	2,871.36	53.48%
2015	488.38	29.85%	127.27	1,611.16	2,883.85	55.87%
2016	503.03	28.31%	122.91	1,648.24	2,892.51	56.98%
2017	518.13	27.57%	122.29	1,682.43	2,896.62	58.08%
2018	533.67	27.48%	125.03	1,717.02	2,895.94	59.29%
2019	549.68	27.47%	128.17	1,751.80	2,889.54	60.63%
2020	566.17	27.48%	131.50	1,785.90	2,875.82	62.10%
2021	583.15	27.49%	134.88	1,818.61	2,853.56	63.73%
2022	600.65	27.51%	138.39	1,849.64	2,821.75	65.55%
2023	618.67	27.52%	141.95	1,879.16	2,779.98	67.60%
2024	637.23	27.54%	145.67	1,907.64	2,727.92	69.93%
2025	656.35	27.54%	149.50	1,936.42	2,666.18	72.63%
2026	676.04	27.54%	153.48	1,966.87	2,595.24	75.79%
2027	696.32	27.54%	157.60	2,001.11	2,516.39	79.52%
2028	717.21	27.52%	161.85	2,041.50	2,431.08	83.97%
2029	738.72	27.50%	166.28	2,089.82	2,340.09	89.31%
2030	760.88	27.49%	170.87	2,148.13	2,244.38	95.71%
2031	783.71	18.77%	107.49	2,147.83	2,144.63	100.15%
2032	807.22	5.67%	4.81	2,045.32	2,041.79	100.17%
2033	831.44	5.66%	4.69	1,940.73	1,936.81	100.20%
2034	856.38	5.65%	4.58	1,834.76	1,830.45	100.24%
2035	882.07	5.63%	4.50	1,728.07	1,723.31	100.28%
2036	908.54	5.61%	4.42	1,621.28	1,616.04	100.32%
2037	935.79	5.60%	4.37	1,515.31	1,509.55	100.38%
2038	963.87	5.58%	4.32	1,410.74	1,404.41	100.45%
2039	992.78	5.57%	4.28	1,308.29	1,301.36	100.53%
2040	1,022.57	5.55%	4.25	1,208.48	1,200.90	100.63%
2041	1,053.24	5.54%	4.22	1,111.78	1,103.51	100.75%
2042	1,084.84	5.52%	4.20	1,018.65	1,009.63	100.89%
2043	1,117.38	5.51%	4.19	929.43	919.61	101.07%
2044	1,150.91	5.49%	4.18	844.49	833.80	101.28%
2045	1,185.43	5.48%	4.18	764.05	752.45	101.54%
2046	1,221.00	5.46%	4.17	688.33	675.75	101.86%
2047	1,257.63	5.45%	4.17	617.42	603.79	102.26%
2048	1,295.36	5.44%	4.17	551.41	536.65	102.75%
2049	1,334.22	5.42%	4.17	490.33	474.37	103.36%
2050	1,374.24	5.41%	4.17	434.15	416.90	104.14%
2051	1,415.47	5.40%	4.17	382.84	364.21	105.11%
2052	1,457.93	5.39%	4.17	336.29	316.19	106.36%

¹ Payroll is assumed to increase 3.0% per year.

² Investment earnings are assumed to be 7.0% per year on the market value of assets.

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 19. GASB 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.

Actuarial Valuation Date	Actuarial Value of Assets	Entry Age Normal Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Total Government Covered Payroll	UAAL as a Percentage of Covered Payroll
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%
9/30/2009	1,294,604,000	2,738,765,000	1,444,161,000	47.3%	438,606,000	329.3%
9/30/2010	1,245,850,000	2,790,532,000	1,544,682,000	44.7%	444,061,000	347.9%
9/30/2011	1,264,080,000	2,906,899,000	1,642,819,000	43.5%	477,353,000	344.2%
9/30/2012	1,328,753,000	2,811,400,000	1,482,647,000	47.3%	470,695,000	315.0%
9/30/2013	1,413,025,000	2,855,364,000	1,442,339,000	49.5%	474,158,000	304.2%

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.

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 20. GASB 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.

Fiscal Year Ending	Annual Required Contribution	Employer Contribution	Percentage Contributed
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%
September 30, 2009	107,009,000	92,921,000	86.8%
September 30, 2010	129,196,000	101,232,000	78.4%
September 30, 2011	122,105,000	111,527,000	91.3%
September 30, 2012	129,838,000	113,876,000	87.7%
September 30, 2013	136,434,000	121,941,000	89.4%

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 21. GASB 67/68 NET PENSION LIABILITY

Government Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Pension Plans applies to Pension Plan financial reporting and is effective for fiscal years beginning after June 15, 2013. GASB Statement No. 68 – Accounting and Financial Reporting for Pensions applies to employer financial reporting and is effective for fiscal years beginning after June 15, 2014. GASB 67 and 68 defined the following terms:

- Total Pension Liability (TPL) Equals the Actuarial Accrued Liability (AAL) calculated using the discount rate.
- Fiduciary Net Position (FNP) Equals the market value of plan assets.
- Net Pension Liability (NPL) Equals the Total Pension Liability less the market value of assets.

The liabilities are calculated using a discount rate that is a blend of the expected investment rate of return and a high quality bond index rate. The expected investment rate of return applies for as long as the plan assets (including future contributions) are projected to be sufficient to make the projected benefit payments. If plan assets are projected to “run out” at some point in the future, the rate of return of a high quality bond index is used for the period after the “run out” date.

Valuation Date	9/30/2013	9/30/2012
Total Pension Liability (TPL)	\$ 2,855,363,994	\$ 2,811,399,525
Fiduciary Net Position (FNP)	<u>1,526,135,027</u>	<u>1,391,421,887</u>
Net Pension Liability (NPL)	\$ 1,329,228,967	\$ 1,419,977,638
Funded ratio	53.45%	49.49%
Run out date	N/A	N/A
Discount rate	7.00%	7.00%
Measurement date	9/30/2013	9/30/2012
GASB 68 Reporting date	9/30/2014	9/30/2013

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.

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 22. GASB 67/68 CHANGE IN NET PENSION LIABILITY

Government Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Pension Plans requires disclosure of the changes in the Net Pension Liability.

	For the Fiscal Year Ending	
	9/30/2013	9/30/2012
Total Pension Liability - Beginning of Year	\$ 2,811,399,525	\$ 2,906,898,627
Service cost	26,317,199	31,253,464
Interest on the total pension liability	190,949,402	197,978,580
Changes of benefit terms	0	0
Differences between actual and expected experience with regard to economic or demographic factors	22,991,733	(99,527,991)
Changes of assumptions	0	(33,977,679)
Benefit payments	(193,608,035)	(188,417,852)
Pension plan administrative expense	<u>(2,685,830)</u>	<u>(2,807,624)</u>
Total changes	43,964,469	(95,499,102)
Total Pension Liability - End of Year	\$ 2,855,363,994	\$ 2,811,399,525
Fiduciary Net Position – Beginning of Year	\$ 1,391,421,887	\$ 1,216,210,136
Contributions from employer	117,909,509	116,512,456
Contributions from plan members	16,290,014	16,712,987
Change in excluded assets	4,031,421	(2,636,803)
Pension plan net income	192,776,061	235,848,587
Benefit payments	(193,608,035)	(188,417,852)
Pension plan administrative expense	<u>(2,685,830)</u>	<u>(2,807,624)</u>
Total changes	134,713,140	175,211,751
Fiduciary Net Position – End of Year	\$ 1,526,135,027	\$ 1,391,421,887
Net Pension Liability - Beginning of Year	\$ 1,419,977,638	\$ 1,690,688,491
Change in Total Pension Liability	43,964,469	(95,499,102)
Change in Fiduciary Net Position	<u>(134,713,140)</u>	<u>(175,211,751)</u>
Net Pension Liability - End of Year	\$ 1,329,228,967	\$ 1,419,977,638

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.

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 23. GASB 67/68 NET PENSION LIABILITY BY COMPONENT UNIT

GGRF is a single employer plan under GASB 68. For the purpose of allocating the Net Pension Liability among the component units listed below, we have used the ratio of each component unit's expected contribution to the total expected employer contributions. The expected contributions are based upon a contribution rate of 30.09% of defined benefit (DB) payroll and 25.09% of defined contribution (DC) payroll.

Component Unit	For the Fiscal Year Ending September 30, 2013 To Be Reported as of September 30, 2014				
	DB Payroll	DC Payroll	Expected DB Contributions	% Share	Allocated Net Pension Liability
Gov't of Guam General Fund	\$ 55,611,365	\$ 82,780,689	\$ 37,503,134	30.31%	\$ 402,939,323
Mayors' Council of Guam	1,101,222	4,457,514	1,449,748	1.17%	15,576,311
Department of Chamorro Affairs	512,918	663,089	320,706	0.26%	3,445,714
KGTF	219,583	83,144	86,933	0.07%	934,021
Gov't of Guam Retirement Fund	643,426	861,856	409,847	0.33%	4,403,458
Guam Community College	4,294,037	7,341,286	3,134,005	2.53%	33,672,222
Guam Department of Education	47,560,470	90,758,752	37,082,317	29.97%	398,418,002
Guam Econ. Dev. Authority	446,884	1,179,015	430,282	0.35%	4,623,015
Guam Housing and UR Authority	1,391,390	2,853,570	1,134,630	0.92%	12,190,636
Guam Housing Corporation	287,848	914,852	316,150	0.26%	3,396,763
Guam Int'l Airport Authority	4,681,595	5,832,594	2,872,090	2.32%	30,858,168
Guam Legislature	358,421	1,700,274	534,448	0.43%	5,742,190
Guam Memorial Hosp. Authority	9,410,618	32,773,399	11,054,501	8.94%	118,771,225
Guam Power Authority	11,032,885	16,229,843	7,391,863	5.97%	79,419,290
Guam Visitors Bureau	333,717	1,031,253	359,157	0.29%	3,858,837
Guam Waterworks Authority	4,245,215	9,488,606	3,658,076	2.96%	39,302,920
Judiciary of Guam	5,888,035	10,296,576	4,355,121	3.52%	46,792,076
Port Authority of Guam	5,497,008	10,222,802	4,218,951	3.41%	45,329,045
University of Guam	<u>10,788,614</u>	<u>16,573,416</u>	<u>7,404,564</u>	<u>5.99%</u>	<u>79,555,751</u>
Total	\$164,305,250	\$296,042,530	\$123,716,523	100.00%	\$1,329,228,967

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.

SECTION V. ACCOUNTING EXHIBITS

EXHIBIT 24. GASB 67/68 SCHEDULE OF FUNDING PROGRESS

Government Accounting Standards Board (GASB) Statement No. 67 – Financial Reporting for Pension Plans requires disclosure of the Schedule of Funding Progress. This is similar to the schedule under GASB 25, except the market value of assets is used instead of the actuarial value of assets.

Actuarial Valuation Date	Total Pension Liability (TPL)	Fiduciary Net Position	Net Pension Liability (NPL)	Funded Ratio	Total Government Covered Payroll	NPL as a Percentage of Covered Payroll
9/30/2004	\$2,599,747,000	\$1,248,628,000	\$1,351,119,000	48.0%	\$365,592,000	369.6%
9/30/2005	2,583,366,000	1,284,201,000	1,299,165,000	49.7%	368,712,000	352.4%
9/30/2006	2,656,047,000	1,320,721,000	1,335,326,000	49.7%	389,786,000	342.6%
9/30/2007	2,682,118,000	1,444,810,000	1,237,308,000	53.9%	390,246,000	317.1%
9/30/2008	2,718,664,000	1,180,895,000	1,537,769,000	43.4%	425,781,000	361.2%
9/30/2009	2,738,765,000	1,201,475,000	1,537,290,000	43.9%	438,606,000	350.5%
9/30/2010	2,790,532,000	1,285,653,000	1,504,879,000	46.1%	444,061,000	338.9%
9/30/2011	2,906,899,000	1,216,210,000	1,690,689,000	41.8%	477,353,000	354.2%
9/30/2012	2,811,400,000	1,391,422,000	1,419,978,000	49.5%	470,695,000	301.7%
9/30/2013	2,855,364,000	1,526,135,000	1,329,229,000	53.5%	474,158,000	280.3%

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.

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 time required to complete degree without having been employed by the government prior to the period during which the degree was earned.

SECTION VI. APPENDICES

- 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: 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 25 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.
- 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 ¼ of 1% per month (3% per year) for each month member's age is less than 60.

SECTION VI. APPENDICES

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.

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.

SECTION VI. APPENDICES

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 25 if they are full-time students in an accredited educational institution, or payable regardless of age if disabled and disability occurred before age 21.

If only a spouse survives the active or retired member, the annuity payable is 60% 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 \$2,880 per year, subject to a maximum payment to five or more minor children of \$14,400 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

SECTION VI. APPENDICES

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 25 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.

SECTION VI. APPENDICES

APPENDIX B. ACTUARIAL COST METHOD AND ASSUMPTIONS

	September 30, 2013		September 30, 2012	
Actuarial Cost Method	Entry Age Normal		Entry Age Normal	
Interest Rate	7.00%		7.00%	
Long-term Expected Rate of Return on Plan Assets	7.00%		7.00%	
Salary Increases	<u>Service</u>	<u>% Increase</u>	<u>Service</u>	<u>% Increase</u>
	0 – 5	7.5%	0 – 5	7.5%
	6 – 10	6.0%	6 – 10	6.0%
	11 – 15	5.0%	11 – 15	5.0%
	16 – 20	4.5%	16 – 20	4.5%
	Over 20	4.5%	Over 20	4.5%
Total Payroll Growth (DB and DC)	3.00%		3.00%	
Cost of Living Adjustment	Specified in Plan		Specified in Plan	
Mortality	RP-2000 Combined Healthy table +4 for males +1 for females No provision was made for future mortality improvement.		RP-2000 Combined Healthy table +4 for males +1 for females No provision was made for future mortality improvement.	
Disability				
Incidence	1974-78 SOA LTD Non-Jumbo, with rates reduced by 50%		1974-78 SOA LTD Non-Jumbo, with rates reduced by 50%	
Post-disability mortality	RP 2000 Disability male/female tables		RP 2000 Disability male/female tables	
Withdrawal Rates	Service-based rates (see attached)		Service-based rates (see attached)	
Retirement Age	40% assumed to retire at earliest eligibility for unreduced benefits.		40% assumed to retire at earliest eligibility for unreduced benefits.	
	15% per year thereafter until age 65		15% per year thereafter until age 65	
	20% per year thereafter until age 70		20% per year thereafter until age 70	
	100% at age 70		100% at age 70	

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.

SECTION VI. APPENDICES

	September 30, 2013	September 30, 2012
Return of Contributions	<p>100% of any current employees who withdraw before retirement and who have less than 20 years of service are assumed to elect a return of contributions</p> <p>Terminated or inactive members with at least 5 years of service who have not withdrawn their contributions are assumed to retire upon eligibility for unreduced benefits. All other employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>	<p>100% of any current employees who withdraw before retirement and who have less than 20 years of service are assumed to elect a return of contributions</p> <p>Terminated or inactive members with at least 5 years of service who have not withdrawn their contributions are assumed to retire upon eligibility for unreduced benefits. All other employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>
Marital Status	<p>Retiree data included spouse information. For active employees, 75% are assumed to have spouses at retirement. The assumed age difference is 3 years (+3 for a male spouse; -3 for a female spouse).</p>	<p>Retiree data included spouse information. For active employees, 75% are assumed to have spouses at retirement. The assumed age difference is 3 years (+3 for a male spouse; -3 for a female spouse).</p>
Sick Leave Adjustments	<p>Assumed to add 1.5 years of service and increase average earnings by 10% at retirement</p>	<p>Assumed to add 1.5 years of service and increase average earnings by 10% at retirement</p>
Administrative Expenses	<p>\$5,486,534 per year (equal to budgeted expense for year ending 9/30/14), allocated 73% to DB and 27% to DC</p>	<p>\$5,362,000 per year (equal to budgeted expense for year ending 9/30/13), allocated 78% to DB and 22% to DC</p>
Survivor Benefit – Minor Children	<p>Assumed to increase value of retirement benefits by 0.67% and survivor benefits by 20% for active members</p>	<p>Assumed to increase value of retirement benefits by 0.67% and survivor benefits by 20% for active members</p>
Asset Valuation Method	<p>3-year phase-in of gains/losses relative to interest rate assumption</p>	<p>3-year phase-in of gains/losses relative to interest rate assumption</p>
Data Inconsistencies	<p>None</p>	<p>None</p>

SECTION VI. APPENDICES

Probabilities of Separation from Active Service
(per 100 working at each age)

MALE					FEMALE				
Age	Death	Disability	Service	Withdrawal	Age	Death	Disability	Service	Withdrawal
20	0.04	0.05	0	15.0	20	0.02	0.05	0	15.0
21	0.04	0.05	1	14.0	21	0.02	0.05	1	14.0
22	0.04	0.05	2	13.0	22	0.02	0.05	2	13.0
23	0.04	0.05	3	12.0	23	0.02	0.05	3	12.0
24	0.04	0.05	4	11.0	24	0.02	0.05	4	11.0
25	0.04	0.05	5	10.0	25	0.02	0.05	5	10.0
26	0.04	0.05	6	9.0	26	0.02	0.05	6	9.0
27	0.05	0.05	7	8.0	27	0.02	0.05	7	8.0
28	0.06	0.05	8	7.0	28	0.02	0.05	8	7.0
29	0.06	0.05	9	6.0	29	0.03	0.05	9	6.0
30	0.07	0.05	10	5.0	30	0.03	0.05	10	5.0
31	0.08	0.05	11	4.5	31	0.04	0.05	11	4.5
32	0.08	0.05	12	4.0	32	0.04	0.05	12	4.0
33	0.09	0.05	13	3.5	33	0.04	0.05	13	3.5
34	0.10	0.05	14	3.0	34	0.05	0.05	14	3.0
35	0.10	0.05	15	2.5	35	0.05	0.05	15	2.5
36	0.11	0.05	16	2.0	36	0.06	0.05	16	2.0
37	0.11	0.05	17	2.0	37	0.06	0.05	17	2.0
38	0.12	0.05	18	2.0	38	0.06	0.05	18	2.0
39	0.13	0.05	19	2.0	39	0.07	0.05	19	2.0
40	0.14	0.10	20 & over	2.0	40	0.08	0.10	20 & over	2.0
41	0.15	0.10			41	0.09	0.10		
42	0.16	0.10			42	0.09	0.10		
43	0.17	0.10			43	0.10	0.10		
44	0.19	0.10			44	0.11	0.10		
45	0.20	0.18			45	0.12	0.18		
46	0.21	0.18			46	0.13	0.18		
47	0.24	0.18			47	0.14	0.18		
48	0.27	0.18			48	0.16	0.18		
49	0.29	0.18			49	0.17	0.18		
50	0.32	0.32			50	0.19	0.32		
51	0.36	0.32			51	0.20	0.32		
52	0.42	0.32			52	0.22	0.32		
53	0.47	0.32			53	0.24	0.32		
54	0.53	0.32			54	0.27	0.32		
55	0.59	0.53			55	0.31	0.53		
56	0.67	0.53			56	0.35	0.53		
57	0.77	0.53			57	0.39	0.53		
58	0.88	0.53			58	0.44	0.53		
59	1.00	0.53			59	0.51	0.53		
60	1.13	0.76			60	0.58	0.76		
61	1.27	0.76			61	0.67	0.76		
62	1.44	0.76			62	0.76	0.76		
63	1.61	0.76			63	0.86	0.76		
64	1.79	0.76			64	0.97	0.76		

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.

SECTION VI. APPENDICES

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	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	26	19	45	\$ 1,132,066	*	\$ 1,132,066
40 – 44	160	187	347	7,205,784	\$ 8,619,867	15,825,651
45 – 49	294	328	622	14,856,932	16,685,294	31,542,226
50 – 54	312	357	669	16,081,095	18,884,337	34,965,432
55 – 59	190	261	451	10,373,720	13,664,395	24,038,115
60 – 64	99	180	279	5,417,380	9,352,971	14,770,351
65 – 69	45	67	112	2,906,875	3,342,897	6,249,772
70 & Over	<u>20</u>	<u>27</u>	<u>47</u>	<u>1,073,550</u>	<u>1,310,462</u>	<u>2,384,012</u>
Total	1,146	1,426	2,572	\$ 59,047,402	\$ 71,860,223	\$130,907,625

* 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	-	-	-	-	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-	-	-	-	-
35 – 39	2	4	5	24	10	-	-	-	-	45
40 – 44	9	10	12	116	194	6	-	-	-	347
45 – 49	5	14	13	73	336	170	11	-	-	622
50 – 54	12	13	14	59	237	223	99	11	1	669
55 – 59	4	9	9	44	173	125	64	23	-	451
60 – 64	3	4	4	35	106	69	40	13	5	279
65 – 69	-	2	2	15	43	26	12	9	3	112
70 & Over	<u>-</u>	<u>1</u>	<u>-</u>	<u>5</u>	<u>20</u>	<u>10</u>	<u>6</u>	<u>1</u>	<u>4</u>	<u>47</u>
Total	35	57	59	371	1,119	629	232	57	13	2,572

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.

SECTION VI. APPENDICES

Active Uniformed

Age	COUNT			ANNUAL SALARIES		
	Males	Females	Total	Males	Females	Total
Under 20	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	7	-	7	*	-	*
40 – 44	52	2	54	\$ 3,417,423	*	\$ 3,417,423
45 – 49	100	6	106	7,162,199	*	7,162,199
50 – 54	97	3	100	7,406,819	*	7,406,819
55 – 59	25	1	26	1,911,633	*	1,911,633
60 – 64	10	-	10	*	-	*
65 – 69	2	-	2	*	-	*
70 & Over	<u>1</u>	<u>-</u>	<u>1</u>	<u>*</u>	<u>-</u>	<u>*</u>
Total	294	12	306	\$19,898,074	*	\$19,898,074

* 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	-	-	-	-	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-	-	-	-	-
35 – 39	-	-	-	6	1	-	-	-	-	7
40 – 44	-	-	1	15	34	4	-	-	-	54
45 – 49	1	-	1	6	58	35	5	-	-	106
50 – 54	-	-	-	8	22	49	20	1	-	100
55 – 59	-	-	-	-	7	6	10	3	-	26
60 – 64	-	-	-	1	5	2	2	-	-	10
65 – 69	-	-	-	-	-	-	1	1	-	2
70 & Over	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
Total	1	0	2	36	127	97	38	5	-	306

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.

SECTION VI. APPENDICES

Active Total

Age	COUNT			ANNUAL SALARIES		
	Males	Females	Total	Males	Females	Total
Under 20	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	33	19	52	\$ 1,132,066	*	\$ 1,132,066
40 – 44	212	189	401	10,623,207	\$ 8,619,867	19,243,074
45 – 49	394	334	728	22,019,131	16,685,294	38,704,425
50 – 54	409	360	769	23,487,914	18,884,337	42,372,251
55 – 59	215	262	477	12,285,353	13,664,395	25,949,748
60 – 64	109	180	289	5,417,380	9,352,971	14,770,351
65 – 69	47	67	114	2,906,875	3,342,897	6,249,772
70 & Over	<u>21</u>	<u>27</u>	<u>48</u>	<u>1,073,550</u>	<u>1,310,462</u>	<u>2,384,012</u>
Total	1,440	1,438	2,878	\$78,945,476	\$71,860,223	\$150,805,699

* 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	-	-	-	-	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-	-	-	-	-
35 – 39	2	4	5	30	11	-	-	-	-	52
40 – 44	9	10	13	131	228	10	-	-	-	401
45 – 49	6	14	14	79	394	205	16	-	-	728
50 – 54	12	13	14	67	259	272	119	12	1	769
55 – 59	4	9	9	44	180	131	74	26	-	477
60 – 64	3	4	4	36	111	71	42	13	5	289
65 – 69	-	2	2	15	43	26	13	10	3	114
70 & Over	<u>-</u>	<u>1</u>	<u>-</u>	<u>5</u>	<u>20</u>	<u>11</u>	<u>6</u>	<u>1</u>	<u>4</u>	<u>48</u>
Total	36	57	61	407	1,246	726	270	62	13	2,878

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.

SECTION VI. APPENDICES

Service Retirees

Age	COUNT			ANNUAL BENEFITS		
	Males	Females	Total	Males	Females	Total
Under 25	-	1	1	-	*	*
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	-	-	-	-	-	-
40 – 44	-	-	-	-	-	-
45 – 49	20	3	23	\$ 710,210	*	\$ 710,210
50 – 54	131	86	217	4,878,597	2,992,079	7,870,676
55 – 59	344	306	650	13,862,415	10,217,587	24,080,002
60 – 64	555	542	1,097	20,441,195	17,003,258	37,444,453
65 – 69	498	534	1,032	17,668,917	16,048,629	33,717,546
70 – 74	380	409	789	13,254,442	11,553,345	24,807,787
75 – 79	285	310	595	8,332,105	7,770,483	16,102,588
80 – 84	170	211	381	4,519,983	4,938,541	9,458,524
85 – 89	89	115	204	2,123,973	2,345,387	4,469,360
90 & Over	<u>26</u>	<u>39</u>	<u>65</u>	<u>526,559</u>	<u>782,831</u>	<u>1,309,390</u>
Total	2,498	2,556	5,054	\$ 86,318,396	\$ 73,652,140	\$ 159,970,536

* Not shown if less than 20 members. The totals only sum the cells that are displayed. Payees receiving benefits under Qualified Domestic Relations Orders (QDROs) are included with service retirees.

Age	ANNUAL BENEFIT LEVEL									Total
	<\$5k	\$5-10k	\$10-15k	\$15-20k	\$20-25k	\$25-30k	\$30-40k	\$40-50k	\$50k+	
Under 40	-	-	-	-	1	-	-	-	-	1
40 – 44	-	-	-	-	-	-	-	-	-	-
45 – 49	-	1	-	4	3	6	3	1	5	23
50 – 54	-	4	7	16	26	29	61	38	36	217
55 – 59	1	5	29	35	80	97	157	132	114	650
60 – 64	2	12	59	73	124	197	322	184	124	1,097
65 – 69	2	13	65	98	155	171	281	139	108	1,032
70 – 74	1	22	73	107	113	126	161	96	90	789
75 – 79	-	31	80	107	85	95	121	39	37	595
80 – 84	-	10	83	91	63	35	52	23	24	381
85 – 89	-	1	59	58	24	27	22	3	10	204
90 & Over	<u>-</u>	<u>-</u>	<u>24</u>	<u>24</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>65</u>
Total	6	99	479	613	679	787	1,183	659	549	5,054

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.

SECTION VI. APPENDICES

Disabled Retirees

Age	COUNT			ANNUAL BENEFITS		
	Males	Females	Total	Males	Females	Total
Under 25	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	1	-	1	*	-	*
40 – 44	1	3	4	*	*	*
45 – 49	8	3	11	*	*	*
50 – 54	13	8	21	*	*	*
55 – 59	22	26	48	\$ 528,003	\$ 541,248	\$ 1,069,251
60 – 64	32	29	61	752,418	569,654	1,322,072
65 – 69	23	34	57	567,159	724,786	1,291,945
70 – 74	27	26	53	567,639	517,651	1,085,290
75 – 79	13	16	29	*	*	*
80 – 84	5	12	17	*	*	*
85 – 89	2	8	10	*	*	*
90 & Over	<u>1</u>	<u>-</u>	<u>1</u>	<u>*</u>	<u>-</u>	<u>*</u>
Total	148	165	313	\$ 2,415,219	\$ 2,353,339	\$ 4,768,558

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

Age	ANNUAL BENEFIT LEVEL									Total
	<\$5k	\$5-10k	\$10-15k	\$15-20k	\$20-25k	\$25-30k	\$30-40k	\$40-50k	\$50k+	
Under 40	-	-	-	1	-	-	-	-	-	1
40 – 44	-	-	-	4	-	-	-	-	-	4
45 – 49	-	-	-	4	1	2	4	-	-	11
50 – 54	-	-	2	7	6	5	1	-	-	21
55 – 59	-	-	3	19	12	7	5	2	-	48
60 – 64	-	-	8	24	12	11	4	2	-	61
65 – 69	-	-	7	18	15	8	7	1	1	57
70 – 74	-	-	7	22	16	5	2	1	-	53
75 – 79	-	-	6	9	6	5	3	-	-	29
80 – 84	-	-	7	6	2	1	1	-	-	17
85 – 89	-	-	8	1	1	-	-	-	-	10
90 & Over	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
Total	-	-	49	115	71	44	27	6	1	313

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.

SECTION VI. APPENDICES

Surviving Spouses and Child Pensioners

Age	COUNT			ANNUAL BENEFITS		
	Males	Females	Total	Males	Females	Total
Under 25	101	101	202	\$ 290,880	\$ 290,880	\$ 581,760
25 – 29	-	1	1	-	*	*
30 – 34	4	4	8	*	*	*
35 – 39	4	9	13	*	*	*
40 – 44	2	22	24	*	306,237	306,237
45 – 49	7	42	49	*	539,438	539,438
50 – 54	11	79	90	*	1,291,963	1,291,963
55 – 59	16	117	133	*	2,060,057	2,060,057
60 – 64	28	191	219	394,819	3,314,584	3,709,403
65 – 69	30	199	229	442,513	3,257,519	3,700,032
70 – 74	55	164	219	828,495	2,646,515	3,475,010
75 – 79	43	197	240	589,372	2,898,333	3,487,705
80 – 84	42	164	206	614,568	2,272,472	2,887,040
85 – 89	31	107	138	435,147	1,490,501	1,925,648
90 & Over	<u>12</u>	<u>46</u>	<u>58</u>	-	<u>589,753</u>	<u>589,753</u>
Total	386	1,443	1,829	\$ 3,595,794	\$20,958,252	\$ 24,554,046

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

Surviving Spouses Only

Age	ANNUAL BENEFIT LEVEL									Total
	<\$5k	\$5-10k	\$10-15k	\$15-20k	\$20-25k	\$25-30k	\$30-40k	\$40-50k	\$50k+	
Under 40	-	4	2	1	1	-	-	-	-	8
40 – 44	-	5	9	3	1	3	-	-	-	21
45 – 49	-	10	15	14	1	-	1	-	-	41
50 – 54	-	15	26	21	18	5	-	-	1	86
55 – 59	-	13	46	30	20	8	7	2	1	127
60 – 64	-	20	95	47	28	12	15	1	1	219
65 – 69	-	27	94	53	30	11	10	1	-	226
70 – 74	-	34	100	45	18	9	7	4	1	218
75 – 79	-	37	127	45	15	9	6	1	-	240
80 – 84	-	35	118	31	9	10	1	2	-	206
85 – 89	-	17	93	14	11	2	-	-	1	138
90 & Over	<u>-</u>	<u>11</u>	<u>37</u>	<u>5</u>	<u>3</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>58</u>
Total	-	228	762	309	155	69	49	11	5	1,588

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.

SECTION VI. APPENDICES

Inactive and Terminated Members Who are Assumed Not to Withdraw Contributions

Age	COUNT			ANNUAL BENEFITS		
	Males	Females	Total	Males	Females	Total
Under 25	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	2	1	3	*	*	*
40 – 44	15	14	29	*	*	*
45 – 49	17	10	27	*	*	*
50 – 54	21	25	46	\$327,473	\$328,602	\$656,075
55 – 59	15	10	25	*	*	*
60 – 64	8	10	18	*	*	*
65 – 69	4	4	8	*	*	*
70 – 74	1	-	1	*	-	*
75 – 79	2	1	3	*	-	*
80 – 84	-	2	2	-	*	*
85 – 89	-	-	-	-	-	-
90 & Over	-	-	-	-	-	-
Total	85	77	162	\$327,473	\$328,602	\$656,075

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

Age	ANNUAL BENEFIT LEVEL									Total
	<\$5k	\$5-10k	\$10-15k	\$15-20k	\$20-25k	\$25-30k	\$30-40k	\$40-50k	\$50k+	
Under 40	-	1	1	-	-	1	-	-	-	3
40 – 44	8	13	4	3	-	1	-	-	-	29
45 – 49	4	3	6	6	4	2	1	1	-	27
50 – 54	3	14	9	8	8	4	-	-	-	46
55 – 59	-	9	6	1	3	2	2	1	1	25
60 – 64	4	7	2	2	1	1	1	-	-	18
65 – 69	2	5	-	-	-	1	-	-	-	8
70 – 74	1	-	-	-	-	-	-	-	-	1
75 – 79	1	2	-	-	-	-	-	-	-	3
80 – 84	-	-	1	-	1	-	-	-	-	2
85 – 89	-	-	-	-	-	-	-	-	-	-
90 & Over	-	-	-	-	-	-	-	-	-	-
Total	23	54	29	20	17	12	4	2	1	162

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.

APPENDIX D. GLOSSARY OF KEY TERMS

Actuarial Accrued Liability or Total Pension Liability. The Present Value of Future Benefits allocated to past service in accordance with the actuarial cost method. GASB 67 uses the term Total Pension Liability.

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 Actuarial 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 Statements No. 25, 27, 67, and 68 are accounting standards issued by GASB that require certain items be disclosed in the Fund's financial statements.

Fiduciary Net Position. The market value of Fund assets.

Net Pension Liability. The dollar value of the Total Pension Liability that exceeds the market value of Fund assets. A fully funded plan will have no Net Pension Liability.

Normal Cost or Service 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 Actuarial Accrued Liability. GASB 67 call this the Service Cost.

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

Unfunded Actuarial Accrued Liability. The dollar value of the Actuarial Accrued Liability that exceeds the Actuarial Value of Assets. A fully funded plan will have no unfunded actuarial accrued liability.