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October 19, 2015

Ms. Paula M. Blas  
Director  
Government of Guam Retirement Fund  
424 Route 8  
Maite, Guam 96910

**GASB 67 and 68 Disclosures as of September 30, 2014 - REVISED**

Dear Ms. Blas:

As requested, we have revised certain language in the GASB 67 and 68 disclosure report as of September 30, 2014 (dated May 22, 2015), to identify the Government of Guam Retirement Fund as a single employer and to change the term used to describe the agencies listed in Exhibit 5 from "employer" to "component unit". This is a change in language only and no numbers have been changed from the prior report.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheet of the employer. Changes in the Net Pension Liability are immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

If you have any questions or would like to review the report, please call me at (415) 394-3716.

Sincerely,

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

Rich Wright

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enc.

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## Government of Guam Retirement Fund

GASB 67 and 68 Disclosures as of September 30, 2014

Prepared by:

**Richard A. Wright**  
FSA, MAAA

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October 19, 2015

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**Government of Guam Retirement Fund –  
GASB 67 and 68 Disclosures as of September 30, 2014**

As part of our engagement with the Board of Trustees, we performed an actuarial valuation of the Government of Guam Retirement Fund (GGRF) as of September 30, 2013, for the fiscal year ending September 30, 2014, to comply with Statements No. 67 and 68 of the Governmental Accounting Standards Board (GASB).

Actuarial computations presented in this report under GASB 67 and 68 are for purposes of assisting GGRF in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year October 1, 2013 to September 30, 2014. The reporting date for determining plan assets and obligations is September 30, 2014. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

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, plan provisions, employee data, and financial information. I 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. Please see Milliman's Actuarial Valuation as of September 30, 2013, dated May 6, 2014 for more information on the plan's participant group as of September 30, 2013, as well as a summary of the plan provisions and actuarial methods and assumptions.

All costs, liabilities, rates of interest, and other factors for GGRF have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of GGRF and reasonable expectations). 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 plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, I did not perform an analysis of the potential range of future measurements.

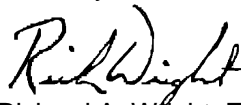
Milliman's work is prepared solely for the internal business use of the Government of Guam Retirement Fund. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. 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 exceptions:

- (a) GGRF may provide a copy of Milliman's work, in its entirety, to GGRF's 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, I hereby certify that, to the best of my 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

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**SECTION I. SUMMARY****Introduction**

Milliman, Inc. (Milliman) has been retained by the Government of Guam Retirement Fund to provide disclosures required by GASB Statements No. 67 and 68.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

The results contained in this report represent our best estimates based on the assumptions used in the valuation. However, variation from these or any other estimates of future benefits is not only possible but probable. To the extent that actual experience differs from the anticipated experience, actual plan costs will vary as well.

These calculations were based upon Milliman's Actuarial Valuation as of September 30, 2013, dated May 6, 2014. Please refer to that report for more information on the plan's participant group as of September 30, 2013.

**Plan Description**

The Government of Guam Defined Benefit Fund covers employees of the Government of Guam hired on or before September 30, 1995. Employees hired after September 30, 1995 participate in the Government of Guam Defined Contribution Fund. Persons with less than 20 years of service prior to September 30, 1995, could elect to transfer to the Government of Guam Defined Contribution Fund. Participants have an annual opportunity to transfer. Appendix A provides a summary of plan provisions for the Defined Benefit plan.

## SECTION I. SUMMARY

## Key Results

	September 30, 2014	September 30, 2013
<b>Valuation Date</b>	September 30, 2013	September 30, 2013
<b>Measurement Date</b>	September 30, 2014	September 30, 2013
<b>Participant Counts as of Valuation Date</b>		
Active		
– Non-Uniformed (DB)	2,572	2,572
– Uniformed (DB)	<u>306</u>	<u>306</u>
– Total (DB)	2,878	2,878
Retired (DB)	<u>7,196</u>	<u>7,196</u>
Total Actives and Retirees (DB)	10,074	10,074
Inactive and Terminated Members assumed to withdraw contributions (DB)	5,232	5,232
Inactive and Terminated Members <u>not</u> assumed to withdraw contributions (DB)	<u>162</u>	<u>162</u>
Total Participants (DB)	15,468	15,468
Active Participants (DC)	7,885	7,885
	<b>(\$millions)</b>	<b>(\$millions)</b>
<b>Covered Employee Payroll – Fiscal Year Ending on Measurement Date</b>		
Defined benefit (DB) payroll	\$169.9	\$164.3
Total payroll (DB and DC)	504.9	460.3
<b>Net Pension Liability</b>		
Total Pension Liability	\$2,871.6	\$2,855.4
Fiduciary Net Position	<u>1,625.3</u>	<u>1,526.1</u>
Net Pension Liability	\$1,246.3	\$1,329.2
Fiduciary Net Position as % of Total Pension Liability	56.60%	53.45%
<b>Required Contribution per GCA §8137</b>		
Unfunded actuarial accrued liability cost	\$ 114.2	\$ 113.0
Government DB normal cost	9.7	11.3
Expected government DC contributions <sup>1</sup>	<u>17.6</u>	<u>17.0</u>
Total DB and DC contribution	\$ 141.5	\$ 141.3
Contribution as a % of Expected Payroll	29.85%	30.03%
<b>Money Weighted Investment Return on Plan Assets</b>	10.04%	14.14%

<sup>1</sup> Includes budgeted administrative expenses.

**SECTION I. SUMMARY**

**Actuarial Assumptions**

**Investment Rate of Return.** The investment rate assumption as of September 30, 2014, 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	Expected Real Return	(b) Expected Nominal Return <sup>1</sup>	(a) x (b) Component Return
U.S. Equities (large cap)	30.00%	5.56%	8.34%	2.50%
U.S. Equities (small cap)	10.00%	7.33%	10.09%	1.01%
Non-U.S. Equities	14.25%	5.70%	8.46%	1.21%
Non-U.S. Equities (emerging markets)	5.75%	8.55%	11.38%	0.65%
U.S. Fixed Income (aggregate)	30.00%	2.09%	4.84%	1.45%
Real Estate (REITs)	10.00%	5.58%	8.38%	<u>0.84%</u>
Expected average return for one year				7.66%
Expected geometric mean (30 years)				6.89%

<sup>1</sup> Assumes annual inflation of 2.75%.

The expected average geometric return over 30 years is less than the expected 1 year return due to expected deviations each year from the average which, due to the compounding effect, lower long term returns.

**Mortality.** The mortality table used as of the valuation date 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.

**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.

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**SECTION I. SUMMARY**

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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.

A complete summary of the actuarial assumptions is presented in Appendix B.

## SECTION II. GASB 67 EXHIBITS

### Exhibit 1. Summary of 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.

	September 30, 2014	September 30, 2013
<b>Investments</b>		
Common stocks	\$ 1,061,632,545	\$ 969,334,249
Mutual funds	155,708,951	156,848,845
U.S. government securities	216,830,055	189,991,596
Corporate bonds and notes	144,343,162	166,735,779
Money market funds	<u>30,336,838</u>	<u>49,016,947</u>
Total investments	1,608,851,551	1,531,927,416
<b>Receivables</b>		
Employer contributions, net	1,059,856	2,089,394
Employer contributions, unfunded liability	2,014,899	3,616,088
Member contributions	353,239	678,724
Accrued investment income	3,966,005	4,075,645
Due from brokers for unsettled trades	4,820,165	7,627,324
Notes receivable for service credits	756,356	798,635
Notes receivable ERIP	354,600	993,746
Interest and penalties	372,063	274,402
Supplemental/insurance benefits advanced	3,511,711	3,511,711
Other receivables	514,632	658,183
Due from DC plan	<u>359,668</u>	<u>184,894</u>
Total receivables	18,083,194	24,508,746
Cash and cash equivalents	7,222,269	4,296,618
Prepaid expenses	32,265	0
Property and equipment	<u>1,000,103</u>	<u>802,844</u>
Total assets	\$ 1,635,189,382	\$ 1,561,535,624
<b>Liabilities</b>		
Accounts payable and accrued expenses	\$ 2,832,410	\$ 2,173,721
Due to brokers for unsettled trades	<u>7,101,618</u>	<u>33,226,876</u>
Total liabilities	\$ 9,934,028	\$ 35,400,597
<b>Valuation Assets</b>	<u>\$ 1,625,255,354</u>	<u>\$ 1,526,135,027</u>
<b>Excluded Assets <sup>1</sup></b>		
Receivable – ERIP employer share	\$ 0	\$ 0
Supplemental/COLA benefits receivable	44,785,528	50,818,265
Deferred revenue for service credits	<u>(1,400,075)</u>	<u>(2,597,509)</u>
Total excluded assets	\$ 43,385,453	\$ 48,220,756

<sup>1</sup> Excluded because payments towards these receivables are deducted from employer contributions.

## SECTION II. GASB 67 EXHIBITS

### Exhibit 2. Changes in 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	
	September 30, 2014	September 30, 2013
<b>Beginning Balance</b>	\$ 1,526,135,027	\$ 1,391,421,887
<b>Contributions</b>		
Employer contributions	129,271,564	117,909,509
Member contributions	16,626,009	16,290,014
Decrease/(increase) in excluded assets	<u>4,835,303</u>	<u>4,031,421</u>
Total contributions	150,732,876	138,230,944
<b>Investment Income</b>		
Net appreciation in fair value	121,293,316	162,486,174
Interest	18,708,555	17,175,304
Dividends	15,704,974	17,019,088
Other investment income	540,907	1,412,466
Investment expenses	<u>(5,647,797)</u>	<u>(5,316,971)</u>
Total investment income	150,599,955	192,776,061
<b>Benefit Payments</b>		
Age and service annuities	162,794,390	158,484,501
Disability annuities	6,628,195	6,798,408
Survivor annuities	25,706,384	24,997,522
Refunds to separated employees	2,961,749	2,413,061
Interest on refunded contributions	1,442,661	914,543
Balances transferred to DC plan	<u>729</u>	<u>0</u>
Total benefit payments	199,534,108	193,608,035
<b>Administrative Expenses</b>	2,678,396	2,685,830
<b>Ending Balance</b>	\$ 1,625,255,354	\$ 1,526,135,027

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**SECTION II. GASB 67 EXHIBITS**

**Exhibit 3a. Money Weighted Investment Return FYE 2014**

GASB 67 requires the disclosure of the money-weighted rate of return on plan investments. The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows with Interest
<b>Beginning Value – September 30, 2013</b>	\$ 1,526,135,027	12.0	1.00	\$ 1,679,293,644
<b>Monthly Net External Cash Flows:</b>				
October	(2,986,203)	11.5	0.96	(3,273,345)
November	(6,422,941)	10.5	0.88	(6,986,885)
December	(3,702,780)	9.5	0.79	(3,993,370)
January	(2,944,176)	8.5	0.71	(3,151,031)
February	(3,255,466)	7.5	0.63	(3,457,637)
March	(5,369,749)	6.5	0.54	(5,654,343)
April	(3,858,521)	5.5	0.46	(4,032,054)
May	(6,250,986)	4.5	0.38	(6,482,333)
June	(4,917,786)	3.5	0.29	(5,056,085)
July	(5,859,638)	2.5	0.21	(5,978,508)
August	(4,455,340)	1.5	0.13	(4,511,077)
September	<u>(1,456,041)</u>	0.5	0.04	<u>(1,461,622)</u>
<b>Ending Value – September 30, 2014</b>	\$ 1,469,820,096			\$ 1,625,255,354

Year Ending September 30	Money Weighted Investment Return
2014	10.04%
2013	14.14%
2012	n/a
2011	n/a
2010	n/a
2009	n/a
2008	n/a
2007	n/a
2006	n/a
2005	n/a

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 3b. Money Weighted Investment Return FYE 2013

GASB 67 requires the disclosure of the money-weighted rate of return on plan investments. The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows with Interest
<b>Beginning Value – September 30, 2012</b>	\$ 1,391,421,887	12.0	1.00	\$ 1,588,174,616
<b>Monthly Net External Cash Flows:</b>				
October	(5,070,075)	11.5	0.96	(5,756,470)
November	(4,530,858)	10.5	0.88	(5,090,110)
December	(5,447,561)	9.5	0.79	(6,047,547)
January	(4,297,754)	8.5	0.71	(4,720,886)
February	(5,561,215)	7.5	0.63	(6,044,447)
March	(2,996,611)	6.5	0.54	(3,218,456)
April	(5,130,828)	5.5	0.46	(5,452,674)
May	(4,554,201)	4.5	0.38	(4,788,937)
June	(5,501,571)	3.5	0.29	(5,716,683)
July	(5,424,269)	2.5	0.21	(5,577,036)
August	(2,302,583)	1.5	0.13	(2,342,515)
September	<u>(7,245,396)</u>	0.5	0.04	<u>(7,283,828)</u>
<b>Ending Value – September 30, 2013</b>	\$ 1,333,358,966			\$ 1,526,135,027

Year Ending September 30	Money Weighted Investment Return
2014	10.04%
2013	14.14%
2012	n/a
2011	n/a
2010	n/a
2009	n/a
2008	n/a
2007	n/a
2006	n/a
2005	n/a

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 4. Net Pension Liability

The Total Pension Liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions listed below and shown in Appendix B, and was then projected forward to the measurement date taking into account any significant changes between the valuation date and the fiscal year end as prescribed by GASB 67 and 68.

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 be depleted at some point in the future, the rate of return of a high quality bond index is used for the period after the depletion date.

	September 30, 2014	September 30, 2013
Total Pension Liability	\$ 2,871,562,108	\$ 2,885,363,994
Fiduciary Net Position	<u>1,625,255,354</u>	<u>1,526,135,027</u>
Net Pension Liability	\$ 1,246,306,754	\$ 1,329,228,967
Fiduciary Net Position as a % of Total Pension Liability	56.60%	53.45%
Covered Payroll (DB and DC)	\$ 504,943,471	\$ 460,347,780
Net Pension Liability as of % of Covered Payroll	246.82%	288.74%
Valuation Date	9/30/2013	9/30/2013
Measurement date	9/30/2014	9/30/2013
GASB 67 Reporting date	9/30/2014	n/a
Depletion date	None	None
Discount rate	7.00%	7.00%
Expected rate of return, net of investment expenses	7.00%	7.00%
Municipal bond rate	n/a	n/a

Sensitivity Analysis	As of September 30, 2014		
	1% Decrease in Discount Rate 6.00%	Current Discount Rate 7.00%	1% Increase in Discount Rate 8.00%
Total Pension Liability	\$ 3,222,601,736	\$ 2,871,562,108	\$ 2,606,481,001
Fiduciary Net Position	<u>1,625,255,354</u>	<u>1,625,255,354</u>	<u>1,625,255,354</u>
Net Pension Liability	\$ 1,597,346,382	\$ 1,246,306,754	\$ 981,225,647

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 5. 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.

GASB 68 permits an employer to report its net pension liability as of a measurement date one year earlier than the net pension liability reported by the plan. The allocation below is based upon the NPL as of the prior measurement date.

Component Unit	For the Fiscal Year Ending September 30, 2013 To Be Reported as of September 30, 2014				Allocated Net Pension Liability
	DB Payroll	DC Payroll	Expected DB Contributions	% Share	
Gov't of Guam General Fund	\$ 53,262,079	\$ 76,735,733	\$ 35,279,555	28.51%	\$ 379,048,855
Attorney General	2,238,654	5,595,752	2,077,585	1.68%	22,321,886
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
Public Auditor	110,632	449,204	145,994	0.12%	1,568,582
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

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 6. Changes in Net Pension Liability

GASB 67 requires disclosure of the changes in the Net Pension Liability.

	Fiscal Year Ending September 30, 2014		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
<b>Balance as of Beginning of Year</b>	\$ 2,855,363,994	\$ 1,526,135,027	\$ 1,329,228,967
Service cost	5,697,487		5,697,487
Interest on the total pension liability	193,408,726		193,408,726
Changes of benefit terms	0		0
Differences between actual and expected experience with regard to economic or demographic factors	0		0
Changes of assumptions	0		0
Contributions from employer		134,106,867	(134,106,867)
Contributions from employees	16,626,009	16,626,009	0
Net investment income		150,599,955	(150,599,955)
Benefit payments	(199,534,108)	(199,534,108)	0
Administrative expense		(2,678,396)	2,678,396
Other changes	<u>0</u>	<u>0</u>	<u>0</u>
Total changes	16,198,114	99,120,327	(82,922,213)
<b>Balance as of End of Year</b>	\$ 2,871,562,108	\$ 1,625,255,354	\$ 1,246,306,754

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 7. Schedule of Changes in Net Pension Liability

GASB 67 requires a 10-Year schedule of changes in the Net Pension Liability. Changes for the most recent two years are shown below.

	For the Fiscal Year Ending	
	September 30, 2014	September 30, 2013
<b>Total Pension Liability - Beginning of Year</b>	\$ 2,855,363,994	\$ 2,811,399,525
Service cost	5,697,487	4,799,185
Member contributions	16,626,009	16,290,014
Interest on the total pension liability	193,408,726	190,949,402
Changes of benefit terms	0	0
Differences between actual and expected experience with regard to economic or demographic factors	0	25,533,903
Changes of assumptions	0	0
Benefit payments	<u>(199,534,108)</u>	<u>(193,608,035)</u>
Total changes	16,198,114	43,964,469
<b>Total Pension Liability - End of Year</b>	\$ 2,871,562,108	\$ 2,855,363,994
<b>Fiduciary Net Position – Beginning of Year</b>	\$ 1,526,135,027	\$ 1,391,421,887
Contributions from employer	134,106,867	121,940,930
Member contributions	16,626,009	16,290,014
Net investment income	150,599,955	192,776,061
Benefit payments	(199,534,108)	(193,608,035)
Administrative expense	<u>(2,678,396)</u>	<u>(2,685,830)</u>
Total changes	99,120,327	134,713,140
<b>Fiduciary Net Position – End of Year</b>	\$ 1,625,255,354	\$ 1,526,135,027
<b>Net Pension Liability - End of Year</b>	\$ 1,246,306,754	\$ 1,329,228,967
Fiduciary Net Position as a % of Total Pension Liability	56.60%	53.45%
Covered employee payroll	\$ 504,943,471	\$ 460,347,780
Net Pension Liability as a % of Covered Employee Payroll	246.82%	288.74%

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 8. Schedule of Contributions

Plan Year Ending September 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2014	\$134,107,000	\$134,107,000	\$0	\$ 504,943,000	26.56%
2013	121,698,000 <sup>1</sup>	121,941,000	(243,000)	460,348,000	26.49%
2012	121,078,000	113,876,000	7,202,000	456,985,000	24.92%
2011	113,964,000	111,527,000	2,437,000	461,211,000	24.18%
2010	113,944,000	101,232,000	12,712,309	429,044,000	23.59%
2009	95,945,000	92,921,000	3,024,000	423,774,000	21.93%
2008	98,743,000	86,806,000	11,937,000	411,383,000	21.10%
2007	92,207,000	76,973,000	15,234,000	377,049,000	20.41%
2006	110,940,000	85,771,000	25,169,000	376,604,000	22.77%
2005	91,913,000	70,658,000	21,255,000	359,850,000	19.64%

<sup>1</sup> Based upon actuarial valuation as of September 30, 2010.

Actuarially determined contribution rates are calculated as of September 30, two years prior to the end of the fiscal year in which contributions are reported. The methods and assumptions used to determine contribution rates are as follows:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	May 1, 2031 (16.58 years remaining as of September 30, 2014)
Asset valuation method	3-year smoothed market value (effective September 30, 2009)
Inflation	2.75% per year
Total payroll growth	3.00% per year
Salary increases	7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4.5% for service over 15 years.
Investment rate of return	7.00%, net of investment expenses, including inflation of 2.75%
Retirement age	40% are assumed to retire upon first eligibility for unreduced retirement. Thereafter, the probabilities of retirement are 15% until age 65, 20% from 65-69, and 100% at age 70.
Mortality	RP-2000 healthy mortality table set forward by 4 years for males and 1 year for females. Mortality for disabled lives is the RP 2000 disability mortality table with no set forwards.
Other information	Actuarial assumptions are based upon periodic experience studies. The last experience study reviewed experience from 2007-2011, and was first reflected in the actuarial valuation as of September 30, 2012.

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**SECTION II. GASB 67 EXHIBITS**

**Exhibit 9. Projection of Employer Contributions**

GASB 67 requires a projection of plan assets and benefit payments to determine if the plan assets are projected to be depleted at some point in the future. For this purpose, the projected future contributions include contributions expected to be made on behalf of non-covered and future employees towards the unfunded actuarial accrued liability.

Year	Projected Payroll Covered Employees	Projected Payroll Non-Covered Employees	Total Projected Payroll	Employee Contributions for Covered Employees	Employer Contributions for Covered Employees	Employer Contributions Non-Covered Employees	Total Employer Contributions
1	\$150,293,204	\$354,650,267	\$504,943,471	\$14,277,854	\$38,253,938	\$90,268,681	\$128,522,619
2	145,642,130	374,449,645	520,091,775	13,836,002	34,158,321	87,821,919	121,980,240
3	139,675,570	396,018,958	535,694,528	13,269,179	31,128,738	88,258,599	119,387,337
4	133,671,600	418,093,764	551,765,364	12,698,802	29,100,995	91,021,163	120,122,158
5	127,216,522	441,101,803	568,318,325	12,085,570	27,464,878	95,229,827	122,694,705
6	118,811,417	466,556,458	585,367,875	11,287,085	25,469,502	100,015,308	125,484,810
7	109,277,107	493,651,804	602,928,911	10,381,325	23,248,760	105,024,673	128,273,433
8	98,428,020	522,588,758	621,016,778	9,350,662	20,773,602	110,294,313	131,067,915
9	87,704,659	551,942,622	639,647,281	8,331,943	18,353,461	115,501,931	133,855,392
10	76,299,526	582,537,173	658,836,699	7,248,455	15,829,373	120,855,251	136,684,624

*Note: Years after 10 have been omitted from the table.*

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## SECTION II. GASB 67 EXHIBITS

### Exhibit 10. Projection of Plan Assets

GASB 67 requires a projection of plan assets and benefit payments to determine if the plan assets are projected to be depleted at some point in the future.

Year	Projected Beginning Plan Assets	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Plan Assets
1	\$1,625,255,354	\$142,800,473	(\$200,883,870)	(\$4,007,613)	\$111,631,445	\$1,674,795,789
2	1,674,795,789	135,816,242	(204,723,860)	(4,007,613)	114,726,835	1,716,607,393
3	1,716,607,393	132,656,516	(208,813,120)	(4,007,613)	117,404,224	1,753,847,400
4	1,753,847,400	132,820,960	(212,853,477)	(4,007,613)	119,877,662	1,789,684,932
5	1,789,684,932	134,780,275	(217,420,413)	(4,007,613)	122,296,566	1,825,333,747
6	1,825,333,747	136,771,895	(222,903,761)	(4,007,613)	124,671,839	1,859,866,107
7	1,859,866,107	138,654,758	(228,943,435)	(4,007,613)	126,946,077	1,892,515,894
8	1,892,515,894	140,418,577	(235,228,307)	(4,007,613)	129,076,001	1,922,774,552
9	1,922,774,552	142,187,335	(241,279,223)	(4,007,613)	131,046,767	1,950,721,818
10	1,950,721,818	143,933,079	(246,922,080)	(4,007,613)	132,868,983	1,976,594,187

*Note: Years after 10 have been omitted from the table. Plan assets are not projected to be depleted.*

## SECTION II. GASB 67 EXHIBITS

### Exhibit 11. Actuarial Present Value of Projected Benefit Payments

GASB 67 requires the calculation of the liabilities 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 be depleted at some point in the future, the rate of return of a high quality bond index is used for the period after the depletion date.

Year	Projected Beginning Plan Assets	Projected Benefit Payments	Benefit Payments Prior to Depletion	Benefit Payments After Depletion	Present Value of Funded Benefit Payments <sup>1</sup>	Present Value of Unfunded Benefit Payments <sup>2</sup>	Present Value of Total Benefit Payments <sup>3</sup>
1	\$1,625,255,354	\$200,883,870	\$200,883,870	\$0	\$194,859,851	\$0	\$194,859,851
2	1,674,795,789	204,723,860	204,723,860	0	185,593,168	0	185,593,168
3	1,716,607,393	208,813,120	208,813,120	0	176,916,169	0	176,916,169
4	1,753,847,400	212,853,477	212,853,477	0	168,541,446	0	168,541,446
5	1,789,684,932	217,420,413	217,420,413	0	160,894,984	0	160,894,984
6	1,825,333,747	222,903,761	222,903,761	0	154,161,458	0	154,161,458
7	1,859,866,107	228,943,435	228,943,435	0	147,979,934	0	147,979,934
8	1,892,515,894	235,228,307	235,228,307	0	142,095,538	0	142,095,538
9	1,922,774,552	241,279,223	241,279,223	0	136,215,649	0	136,215,649
10	1,950,721,818	246,922,080	246,922,080	0	130,281,643	0	130,281,643
Total					\$3,000,503,899	\$0	\$3,000,503,899

Note: Years after 10 have been omitted from the table. Plan assets are not projected to be depleted.

<sup>1</sup> Discounted at the expected investment rate of return of 7.00%.

<sup>2</sup> Discounted at the municipal bond rate.

<sup>3</sup> Discounted at the single interest rate that produces a total actuarial present value equal to the sum of the actuarial present value of projected "funded" and "unfunded" benefit payments.

## **Appendix A. Summary of Pension Plan**

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.
- 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

## SECTION III. APPENDICES

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,  $\frac{1}{2}$  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  $\frac{1}{4}$  of 1% for each month that the age of the member is less than 60 years (3% per year).

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

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

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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.



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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 annuitant's lifetime, plus an annuity to a designated beneficiary to become payable at death of the

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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 III. APPENDICES**

**Appendix B. Actuarial Cost Method and Assumptions**

The following cost method and assumptions were used in valuing benefits under the plan. Except where indicated, this actuarial valuation excludes the assets and liabilities for retired lives whose benefits have been purchased through the use of annuity contracts with New York Life. Retiree benefits that have not been purchased through annuity contracts are included in this actuarial valuation, including the liabilities associated with future cost of living increases.

In order to calculate the Actuarially Determined Contribution (shown in Exhibit 7), the Unfunded Actuarial Accrued Liability (UAAL) is being amortized as a level percentage of future payroll over a closed period ending on May 1, 2031. As of September 30, 2014, there are 16.58 years remaining in the amortization period.

Measurement Date	September 30, 2014		September 30, 2013	
<b>Valuation Date</b>	September 30, 2013		September 30, 2013	
<b>Actuarial Cost Method</b>	Entry Age Normal Amortization of unfunded liability as a level percent of pay over a closed period ending on May 1, 2031 (16.58 years remaining)		Entry Age Normal Amortization of unfunded liability as a level percent of pay over a closed period ending on May 1, 2031 (16.58 years remaining)	
<b>Investment Rate of Return</b>	7.00% net of investment expenses and including inflation of 2.75%		7.00%	
<b>Discount Rate</b>	7.00%		7.00%	
<b>Inflation Rate</b>	2.75%		2.75%	
<b>Salary Increases</b>	<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%
<b>Total Payroll Growth (DB and DC)</b>	3.00%		3.00%	
<b>Cost of Living Adjustment</b>	Specified in Plan		Specified in Plan	
<b>Mortality</b>	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.	

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**SECTION III. APPENDICES**

Measurement Date	September 30, 2014	September 30, 2013
<b>Disability</b>		
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
<b>Withdrawal Rates</b>	Service-based rates (see attached)	Service-based rates (see attached)
<b>Retirement Age</b>	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
<b>Return of Contributions</b>	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	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
	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.	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.
	Contributions earn 4.5% interest	Contributions earn 4.5% interest
<b>Marital Status</b>	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).	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).
<b>Sick Leave Adjustments</b>	Assumed to add 1.5 years of service and increase average earnings by 10% at retirement	Assumed to add 1.5 years of service and increase average earnings by 10% at retirement
<b>Administrative Expenses</b>	\$5,486,534 per year (equal to budgeted expense for year ending 9/30/14), allocated 73% to DB and 27% to DC	\$5,362,000 per year (equal to budgeted expense for year ending 9/30/13), allocated 78% to DB and 22% to DC

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**SECTION III. APPENDICES**

Measurement Date	September 30, 2014	September 30, 2013
<b>Survivor Benefit – Minor Children</b>	Assumed to increase value of retirement benefits by 0.67% and survivor benefits by 20% for active members	Assumed to increase value of retirement benefits by 0.67% and survivor benefits by 20% for active members
<b>Asset Valuation Method</b>	3-year phase-in of gains/losses relative to interest rate assumption	3-year phase-in of gains/losses relative to interest rate assumption
<b>Data Inconsistencies</b>	None	None

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**SECTION III. 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		

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**SECTION III. 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

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**SECTION III. 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

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**SECTION III. 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

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**SECTION III. 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

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**SECTION III. 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

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**SECTION III. 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>-</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

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**SECTION III. 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

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## Appendix D. Glossary of Key Terms

**Actuarially Determined Contribution.** A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.

**Deferred Inflows/Outflows of Resources.** Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.

**Discount Rate.** Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

- 1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.
- 2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.

**Fiduciary Net Position.** Equal to market value of assets.

**Long-Term Expected Rate of Return.** Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.

**Money-Weighted Rate of Return.** The internal rate of return on pension plan investments, net of investment expenses.

**Municipal Bond Rate.** Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

**Net Pension Liability.** Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).

**Projected Benefit Payments.** All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.

**Service Cost.** The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

**Total Pension Liability.** The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.