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## **BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION PENSION FUND**

### **GASB 67 VALUATION REPORT**

**Fiscal Year: January 1, 2014 to December 31, 2014**

#### **Prepared by**

**Timothy J. Herman, FSA, MAAA, EA**  
Principal and Consulting Actuary

**Robert A. Behar, FSA, MAAA, EA**  
Principal and Consulting Actuary

Milliman, Inc.  
71 South Wacker Drive, 31st Floor  
Chicago, IL 60606  
Tel +1 312 726 0677  
Fax +1 312 499 5695  
[milliman.com](http://milliman.com)

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## Certification

Actuarial computations presented in this report under Statement No. 67 of the Governmental Accounting Standards Board are for purposes of assisting the Bloomington Fire Department Relief Association in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year January 1, 2014 to December 31, 2014. The reporting date for determining plan assets and obligations is December 31, 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, we relied, without audit, on information as of December 31, 2014 furnished by the Bloomington Fire Department Relief Association. This information includes, but is not limited to, statutory provisions, member census data, and financial information. The membership as of January 1, 2015 includes 125 active participants, 17 terminated vested and other inactive participants, and 187 retirees and beneficiaries. Please see Milliman's funding valuation report dated February 14, 2015 for more information on the plan's participant group as of January 1, 2015 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them 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 our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan 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 factors such as, but not limited to, 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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.



## Certification

Milliman's work is prepared solely for the internal use and benefit of the Bloomington Fire Department Relief Association. 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) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor'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 the Fund; and (b) the Plan Sponsor 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 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.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



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Timothy J. Herman, FSA, MAAA, EA  
Principal and Consulting Actuary



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Robert A. Behar, FSA, MAAA, EA  
Principal and Consulting Actuary

## Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released new accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

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. Note that a plan's fiscal year might not be the same as the employer's fiscal year. 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 participating 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 participating 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.

## **Executive Summary**

### **Relationship Between Valuation Date, Measurement Date, and Reporting Date**

The Valuation Date is January 1, 2015. This is the date as of which the actuarial valuation is performed. The Measurement Date is December 31, 2014. This is the date as of which the net pension liability is determined. The Reporting Date is December 31, 2014. This is the plan's and/or employer's fiscal year ending date.

### **Significant Changes**

There have been no significant changes between the valuation date and fiscal year end.

## Schedule of Employer Contributions

Fiscal Year Ending December 31	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2005	\$1,376,446	\$2,162,105	(\$785,659)	\$8,517,612	25.38%
2006	361,942	1,447,591	(1,085,649)	8,721,504	16.60%
2007	(520,335)	517,023	(1,037,358)	8,672,256	5.96%
2008	(150,559)	439,902	(590,461)	9,970,800	4.41%
2009	3,451,507	372,096	3,079,411	10,235,786	3.64%
2010	3,316,111	3,625,942	(309,831)	9,790,704	37.03%
2011	2,105,542	3,486,392	(1,380,850)	10,059,924	34.66%
2012	2,199,801	2,214,207	(14,406)	9,069,840	24.41%
2013	3,016,121	2,312,826	703,295	9,668,988	23.92%
2014	1,630,173	3,170,255	(1,540,082)	10,110,384	31.36%



## Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the January 1, 2015 funding valuation. Please see the valuation report dated February 14, 2015 for further details.

<b>Valuation Timing</b>	Actuarially determined contribution rates are calculated as of January 1 prior to the end of the fiscal year in which the contributions are reported.
<b>Actuarial Cost Method</b>	Entry Age Normal
<b>Amortization Method</b>	<p>For the first plan year in which current assets are less than the actuarial accrued liability, an initial base is established equal to the accrued liability initial unfunded actuarial accrued liability (UAAL) and is amortized as a level dollar amount over 20 years.</p> <p>For subsequent years in which the UAAL exceeds \$0, bases will be established for actuarial losses, assumption changes, and plan amendments to be amortized over 20 years as a level dollar amount from the date of the establishment of the base and will be incorporated into the required contribution development.</p> <p>Otherwise, 10% of the excess of current assets over the actuarial accrued liability is treated as a supplemental credit and any amortization bases that existed prior to the plan's current assets exceeding the actuarial accrued liabilities are considered fully amortized.<sup>1</sup></p>
<b>Asset Valuation Method</b>	Market Value
<b>Salary Increases</b>	4.00%
<b>Investment Rate of Return</b>	6.00%
<b>Cost of Living Adjustments</b>	4.00%
<b>Retirement Age</b>	50 with 20 years of service
<b>Turnover</b>	See the January 1, 2015 Actuarial Valuation
<b>Mortality</b>	<p>Pre-retirement: RP 2000 non-annuitant table with white collar adjustment, generationally projected using Scale AA, and set back two years for males and females.</p> <p>Post-retirement: RP 2000 annuitant mortality table with white collar adjustment, generationally projected using Scale AA for males and females.</p> <p>Post-disability: RP 2000 non-annuitant mortality table with white collar adjustment, set forward eight years for males and females.</p>

<sup>1</sup> Per Minnesota Session Laws 1994, Regular Session, Chapter 541, Section 2. It is Milliman's understanding that this Bloomington special law provision remains valid.



## Statement of Fiduciary Net Position

	<u>December 31, 2013</u>	<u>December 31, 2014</u>
<b>Assets</b>		
Cash and cash equivalents	\$7,511	\$16,829
Receivables and prepaid expenses:		
Total receivables	<u>0</u>	<u>0</u>
Investments:		
Total investments	<u>143,976,618</u>	<u>152,486,631</u>
Total assets	<u>143,984,129</u>	<u>152,503,460</u>
<b>Liabilities</b>		
Accrued expenses and benefits payable	372,438	389,312
Total liabilities	<u>372,438</u>	<u>389,312</u>
<b>Net position restricted for pensions</b>	<u>\$143,611,691</u>	<u>\$152,114,148</u>

## Statement of Changes in Fiduciary Net Position

	<u>December 31, 2014</u>
<b>Additions</b>	
State of Minnesota contributions	\$622,164
City of Bloomington contributions	2,548,091
Total contributions	<u>3,170,255</u>
Investment income (loss):	
Dividends	559,296
Net increase in fair value of investments	9,553,752
Less investment expenses:	
Direct investment expense	130,524
Net investment income	<u>9,982,524</u>
Total additions	<u>13,152,779</u>
<b>Deductions</b>	
Service benefits	4,566,912
Administrative expenses	83,410
Total deductions	<u>4,650,322</u>
Net increase (decrease)	8,502,457
<b>Net position restricted for pensions</b>	
Beginning of year (December 31, 2013)	143,611,691
End of year (December 31, 2014)	<u>\$152,114,148</u>

## Long-Term Expected Rate of Return

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's investment consulting practice as of January 1, 2015.

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Asset Class	Long-Term Expected Geometric Real Rate of Return
Cash	0.43%
Core Fixed Income	2.00%
Broad US Equities	4.07%
Large Cap US Equities	3.97%
Developed Foreign Equities	4.66%

## Depletion Date Projection

GASB 67 generally requires that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 may require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 (paragraph 43) does allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Bloomington Fire Department Relief Association:

- The Bloomington Fire Department Relief Association has a history of paying at least 100% of the Actuarially Determined Contribution (previously termed the Annual Required Contribution).
- The plan is currently over 100% funded and will contribute a portion of the normal cost plus expenses even if over 100% funded.
- GASB 67 specifies that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.



## Net Pension Liability

Net Pension Liability	December 31, 2013	December 31, 2014
Total pension liability	\$129,441,911	\$133,798,748
Fiduciary net position	143,611,691	152,114,148
Net pension liability	(14,169,780)	(18,315,400)
Fiduciary net position as a % of total pension liability	110.95%	113.69%
Covered payroll	10,110,384	10,773,375
Net pension liability as a % of covered payroll	-140.15%	-170.01%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below.

### Discount Rate

Discount rate	6.00%	6.00%
Long-term expected rate of return, net of investment expense	6.00%	6.00%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

### Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	January 1, 2014	January 1, 2015
Measurement date	December 31, 2013	December 31, 2014
Salary increases including inflation	4.00%	4.00%
Mortality	Pre-retirement: RP 2000 non-annuitant table with white collar adjustment, generationally projected using Scale AA, and set back two years for males and females.  Post-retirement: RP 2000 annuitant mortality table with white collar adjustment, generationally projected using Scale AA for males and females.  Post-disability: RP 2000 non-annuitant mortality table with white collar adjustment, set forward eight years for males and females.	Pre-retirement: RP 2000 non-annuitant table with white collar adjustment, generationally projected using Scale AA, and set back two years for males and females.  Post-retirement: RP 2000 annuitant mortality table with white collar adjustment, generationally projected using Scale AA for males and females.  Post-disability: RP 2000 non-annuitant mortality table with white collar adjustment, set forward eight years for males and females.
Actuarial cost method	Entry Age Normal	Entry Age Normal

## Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a) - (b)
Balances as of December 31, 2013	\$129,441,911	\$143,611,691	(\$14,169,780)
Changes for the year:			
Service cost	3,047,649		3,047,649
Interest on total pension liability	7,443,533		7,443,533
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	(1,567,433)		(1,567,433)
Effect of assumptions changes or inputs	0		0
Benefit payments	(4,566,912)	(4,566,912)	0
Employer contributions		3,170,255	(3,170,255)
Member contributions		0	0
Net investment income		9,982,524	(9,982,524)
Administrative expenses		(83,410)	83,410
Balances as of December 31, 2014	133,798,748	152,114,148	(18,315,400)

### Sensitivity Analysis

The following presents the net pension liability of the Bloomington Fire Department Relief Association, calculated using the discount rate of 6.00%, as well as what the Bloomington Fire Department Relief Association's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.00%) or 1 percentage point higher (7.00%) than the current rate.

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Total pension liability	\$156,811,149	\$133,798,748	\$115,693,257
Fiduciary net position	152,114,148	152,114,148	152,114,148
Net pension liability	4,697,001	(18,315,400)	(36,420,891)

## Schedule of Changes in Net Pension Liability and Related Ratios (in 1,000s)

	Fiscal Year Ending December 31
	2014
<b>Total Pension Liability</b>	
Service cost	\$3,048
Interest on total pension liability	7,444
Effect of plan changes	0
Effect of economic/demographic gains or (losses)	(1,567)
Effect of assumption changes or inputs	0
Benefit payments	(4,567)
Net change in total pension liability	4,357
Total pension liability, beginning	129,442
Total pension liability, ending (a)	133,799
<b>Fiduciary Net Position</b>	
Employer contributions	\$3,170
Member contributions	0
Investment income net of investment expenses	9,983
Benefit payments	(4,567)
Administrative expenses	(83)
Net change in plan fiduciary net position	8,502
Fiduciary net position, beginning	143,612
Fiduciary net position, ending (b)	152,114
Net pension liability, ending = (a) - (b)	(\$18,315)
Fiduciary net position as a % of total pension liability	113.69%
Covered payroll	\$10,773
Net pension liability as a % of covered payroll	-170.01%

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and since prior years were not reported in accordance with the current GASB standards, they have not been reported.



## Glossary

<b>Actuarially Determined Contribution</b>	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.
<b>Deferred Inflows/Outflows of Resources</b>	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.
<b>Discount Rate</b>	<p>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:</p> <ol style="list-style-type: none"><li>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.</li><li>2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.</li></ol>
<b>Fiduciary Net Position</b>	Equal to market value of assets.
<b>Long-Term Expected Rate of Return</b>	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
<b>Money-Weighted Rate of Return</b>	The internal rate of return on pension plan investments, net of investment expenses.
<b>Municipal Bond Rate</b>	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
<b>Net Pension Liability</b>	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
<b>Projected Benefit Payments</b>	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.
<b>Service Cost</b>	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b>Total Pension Liability</b>	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.