

Fiscal Year 2015

GASB Statements No. 67 and 68

Hampshire County Retirement System

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Hampshire County Retirement System GASB Statements No. 67 and 68

August 12, 2015

Hampshire County Retirement System 99 Industrial Drive Suite 2 Northampton, MA 01060

Dear Members of the Board:

For the purpose of satisfying the requirements of the Government Accounting Standards Board (GASB) Statements No. 67 and 68, Stone Consulting, Inc. has prepared a set of illustrative tables and other Required Supplementary Information (RSI) based on the January 1, 2014 actuarial valuation of the Hampshire County Retirement System performed by Stone Consulting, Inc. The valuation and this report were prepared using generally accepted actuarial principles and practices and meet the parameters set by the Governmental Accounting Standards Board (GASB).

For GASB 67 the results are as of a valuation date of January 1, 2014 and a reporting date of December 31, 2014. For GASB 68 the results are as of a valuation date of January 1, 2014, a measurement date of December 31, 2014 and a reporting date of June 30, 2015. To the best of our knowledge, this report is complete and accurate, and the assumptions used represent our best estimate of anticipated experience of the system. The methods, assumptions, and plan provisions used to prepare these exhibits are consistent with those used in the valuation, and are outlined in the January 1, 2014 valuation report.

We are pleased to present these exhibits. If the Hampshire County Retirement Board has any questions on the content of this report, we would be glad to respond. Please note that this report is meant to be used in its entirety. Use of excerpts of this report may result in a misleading or inaccurate understanding of the results.

The undersigned is a consultant for Stone Consulting, Inc. and 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.

Respectfully submitted, STONE CONSULTING, INC. Actuaries for the Plan

Lawrence B. Stone Member, American Academy of Actuaries



## GASB Statements No. 67 and 68 - Net Pension Liability

The components of the Net Pension Liability of the Hampshire County Retirement System as of December 31, 2014 were as follows:

Total Pension Liability (TPL)	\$ 444,932,878
Plan Fiduciary Net Position (FNP)	 258,416,666
System's Net Pension Liability (NPL)	\$ 186,516,212
Plan FNP as a percentage of the TPL	58.1%
Covered Payroll	\$ 79,873,997
Plan NPL as a percentage of Covered Payroll	233.5%

## Changes to the Net Pension Liability [GASB 68, Paragraph 44]

	Total Pension Liability (a)	' Position I Lia	
Balances at beginning of Measurement Period (1/1/2014) <sup>(1)</sup>	\$ 426,123,349	\$ 246,653,426	\$ 179,469,923
Changes for the Year:			
Service Cost	9,850,427		9,850,427
Interest	33,371,689		33,371,689
Change in benefit terms	0		0
Differences between expected and actual experience	0		0
Change in assumptions	0		0
Contributions - employer		17,440,375	(17,440,375)
Contributions - employee		7,559,814	(7,559,814)
Net investment income		12,016,956	(12,016,956)
Benefit payments, including refunds of employee contributions	(24,412,587)	(24,412,587)	0
Administrative expense <sup>(2)</sup>		(841,318)	841,318
Other changes		0	0
Net Changes	18,809,529	11,763,240	7,046,289
Balances at end of Measurement Period (12/31/2014) <sup>(3)</sup>	\$ 444,932,878	\$ 258,416,666	\$ 186,516,212

<sup>(1)</sup> Includes liability for net 3(8)(c) payments – see page 3 for additional information

<sup>(2)</sup> As part of administrative expense, we included the asset consultants. We believe this is appropriate since asset consulting expenses are not directly related to asset size and therefore we do not include them in the investment expense.

<sup>(3)</sup> The Fiduciary Net Position includes a receivable contribution of \$5,982

Update procedures were used to roll the Total Pension Liability forward from the valuation date (1/1/2014) to the measurement date (12/31/2014). [GASB Statement No. 68, Paragraph 45 a.]



### TOTAL PENSION LIABILITY (TPL)

The Total Pension Liability at the beginning of the measurement period (1/1/2014) is equal to the Actuarial Accrued Liability (AAL) calculated as of that date. GASB Statement No. 68, Paragraph 32 requires that the AAL be calculated under the Entry Age Normal Cost Method. For future measurements, the value of the TPL at the beginning of the measurement period will be calculated by projecting the previous TPL. Any future differences between projected amounts and the actual value that are not the result of changes in assumptions or plan provisions will be recognized as "Differences between actual and expected experience".

The TPL is projected to the end of each measurement period (12/31/2014) by adding all of the changes resulting from experience, assumption changes, and changes to plan provisions. Interest is given to the TPL, Service Cost, and paid benefits, and added to the total, less the projected benefit payments for the year. Changes due to expected and actual gains on pension plan assets will be recognized over a five-year period [GASB Statement No. 68, Paragraph 33b], and liabilities arising from changes in plan structure or assumptions will be spread over the lifetime of the current employees [GASB Statement No. 68, Paragraph 33a].

The TPL shown is different from the AAL shown in the January 1, 2014 actuarial valuation report. This is due to a different treatment of net 3(8)(c) payments. In the funding valuation we fund the net 3(8)(c) payments on a pay-as-you-go basis. For GASB Statements No. 67 and 68 we have developed a liability amount of \$9,570,241, which we have added to the funding AAL to derive the Total Pension Liability. The liability is calculated by assuming that every dollar of 3(8)(c) net benefit generates the same amount of liability as a dollar of the total retirement benefit.

#### PLAN FIDUCIARY NET POSITION (FNP)

GASB Statement No. 67, Paragraph 18 requires that Market Value of Assets be used for the Fiduciary Net Position. Net investment income is the portion of the change in assets during the measurement period not attributed to employee/employer contributions, benefits payments, administrative expense, or other changes. It also includes a receivable of \$5,982 for a contribution made by the Belchertown Housing Authority on January 2, 2015.

The projected Net Pension Liability (NPL) for the end of the year is the portion of the TPL not covered by the FNP. This amount is presented as a percentage of covered employee payroll. The NPL ratio for Hampshire County is 233.5%.

#### Discount Sensitivity [GASB 68, Paragraph 42 g.]

The following presents Hampshire County's Net Pension Liability calculated at the valuation discount rate of 7.875%, as well as at discount rates one percent higher (8.875%) and one percent lower (6.875%).

Fiscal Year	1% Decrease (6.875%)		
2015	\$ 235,044,593	\$ 186,516,212	\$ 146,626,645



Hampshire County Retirement System
GASB Statements No. 67 and 68

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions [GASB 68, Paragraph 44 h.]

	Deferred Outflows Of Resources		d Inflows sources
Differences between expected and actual experience	\$	0	\$ 0
Changes of assumptions		0	0
Changes of benefit terms		0	0
Net difference between projected and actual earnings on pension plan investments		5,917,609	0
Contributions made subsequent to the Measurement Date		<u>5,982</u>	 0
Total	\$	5,923,591	\$ 0

Year Ending December 31, *	Recognition
2015	\$ 1,485,384
2016	1,479,402
2017	1,479,402
2018	1,479,402
2019	0
Thereafter	0

\*The years are based on measurement date. For GASB 68, the reporting date is six months later, so the year ending December 31, 2015 is Fiscal 2016 (reporting date of June 30, 2016)

### **Distribution of the Member Population**

As of January 1, 2014, the following employees were covered by the benefits terms:

Inactive employees or beneficiaries currently receiving benefits	1,140
Inactive employees entitled to a return of contributions	883
Active employees	<u>    1,899</u>
TOTAL	3,922

#### Long-Term Expected Real Rate of Return

The long-term expected real rate of return reflects the expected rate of return on plan assets minus the expected rate of inflation. Note that the discount rate includes the effect of inflation. The long-term real rate of return removes the effect of inflation on the return amounts. It is a long-term assumption and is meant to reflect a best estimate of future experience, based on the expected asset allocation. The allocation percentages are based on information provided by the Hampshire County Retirement System and NEPC. The real rates of return on the following page are based on 30-year return estimates provided by NEPC, adjusted using a 3.00% inflation assumption.



# Hampshire County Retirement System GASB Statements No. 67 and 68

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return (Geometric Average)
Cash	1%	0.73%
Large Cap Equities	9%	4.61%
Small/Mid Cap Equities	6%	4.85%
International Equities (Unhedged)	11%	5.10%
International Equities (Hedged)	0%	5.34%
Emerging International Equities	6%	6.31%
Core Bonds	7%	1.42%
High-Yield Bonds	3%	2.91%
Bank Loans	3%	3.16%
Global Bonds (Unhedged)	3%	0.00%
EMD (Local Currency)	6%	4.13%
Private Equity	8%	6.55%
Private Debt	2%	5.10%
Real Estate (Core)	8%	3.40%
Hedge Funds	11%	3.88%
Global Asset Allocation	16%	4.17%

### **Development of Exhibits**

## **DISCOUNT RATE**

Projections were made using a discount rate assumption of 7.875%, which is consistent with the assumption used in the valuation. One of the objectives of the provisions introduced by GASB 68 is to examine how benefit payments and plan contributions and investment earnings interact on a cash flow basis. GASB requires that these amounts be calculated with Market Value of Assets and using the Entry Age Normal cost method. Projected contributions for each year are the sum of the projected normal cost, the amortization of the unfunded liability, administrative expense, and other benefit costs such as 3(8)(c) payments. The amortization bases and periods are consistent with those seen in the valuation report. Administrative expenses are increased by 4.25% per year.

Hampshire County's Fiduciary Net Position was projected to be available to make all future benefit payments of current active and inactive employees. Thus, the long-term expected rate of return on investments was applied for all benefit periods when calculating the Net Pension Liability. GASB Statement No. 67, Paragraph 30 b. 4 requires that a return rate for the measurement period be developed using the market value of assets at the beginning of the measurement period, along with monthly cash flows. This has been done for the 2014 calendar year, and is shown below and on page 13.

Calendar Year	2014
Money-Weighted Rate of Return	4.84%



#### (Amounts in Thousands)

Fiscal Year *	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
TOTAL PENSION LIABILITY						•	•			•
Service cost	9,850									
Interest	33,372									
Change of benefit terms	-									
Differences between expected and actual experience	-									
Change of assumptions	-									
Benefit payments , including refunds of employee contributions	(24,413)									
Net change in total pension liability	18,810									
Total pension liability - beginning	426,123									
Total pension liability - ending	444,933									
PLAN FIDUCIARY NET POSITION										
Contributions - employer	17,440									
Contributions - employee	7,560									
Net Investment Income	12,017	,	* Information	not available	for years prio	r to 2015				
Benefit payments , including refunds of employee contributions	(24,413)									
Administrative expense	(841)									
Other	-									
Net change in plan fiduciary net position	11,763									
Plan fiduciary net position - beginning	246,653									
Plan fiduciary net position - end	258,417									
Hampshire County net pension liability - ending	186,516									
Plan fiduciary net position as a percentage of the total pension liability	58.1%									
Covered-employee payroll*	77,140									
Hampshire County's net pension liability as a percentage of covered employee payroll	241.8%									

\* Employee payroll figure based on employee data as of 12/31/2013, projected for calendar year 2014.

Note: sums may not total due to rounding

## (Amounts in Thousands)

Fiscal Year	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Actuarially determined contribution	\$ 17,350									
Contributions in relation to the actuarially determined contribution	(17,350)									
Contribution deficiency / (excess)	-	*	Informatio	on not avai	lable for ye	ars prior to	0 2015			
Covered-employee payroll**	\$ 79,029									
Contributions as a percentage of covered-employee payroll	22.0%									

\*\* Here the employee payroll figure is projected for Fiscal Year 2015, based on employee data as of 12/31/2013



## Hampshire County Retirement System GASB Statements No. 67 and 68

# Components of Hampshire County's Pension Expense for the Fiscal Year Ended June 30, 2015 [GASB 68, Paragraph 33]

NOTE*	Description	Fiscal 2015
А	Service Cost	\$ 9,850,427
A, B	Interest on the Total Pension Liability	33,371,689
С	Differences between Expected and Actual Experience	0
D	Changes of Assumptions	0
D	Changes to Benefit Provisions	0
А	Employee Contributions	(7,559,814)
E	Projected Earnings on Pension Plan Investments	(19,413,967)
F	Differences between Projected and Actual Earnings on Plan Investments	1,479,402
A	Pension Plan Administrative Expense	841,318
А	Other Changes in Fiduciary Net Position	0
	Total Pension Expense	\$ 18,569,055

\* Notes shown on following page. Amounts are based on the following dates:

- Valuation date: January 1
- Measurement date: December 31
- Reporting date: following June 30

## CHANGES IN METHODS, ASSUMPTIONS, AND PLAN PROVISIONS

The assumptions and methods used to generate these exhibits are consistent with those used in the January 1, 2014 actuarial valuation of Hampshire County performed by Stone Consulting, Inc. unless otherwise noted. There are no changes in assumptions or benefit provisions to reflect as this is the first year in which Hampshire County will satisfy the requirements of GASB Statements No. 67 and 68. Any gains or losses resulting from future changes will be recognized over the average service lifetime of plan members.

## **RESULTS BY EMPLOYER**

Exhibits are provided beginning on page 14 which provide individual results for the various employers that make up the Hampshire County Retirement System. The Net Pension Liability for the individual employers has been calculated in the following manner: the liability related to future ERI payments was removed from the Net Pension Liability, with the remainder of the NPL then being allocated using the same employer percentages as the non-ERI portion of the FY2015 appropriation. Liabilities associated with ERI payments, as well as any deferred outflows resulting from contributions made subsequent to the measurement date, have been directly allocated to the employers associated with them. All other deferred outflows and inflows, as well the pension expense, have been allocated using the non-ERI contribution percentages from the FY2015 appropriation.



## NOTES

- A. See the RSI schedule of changes to the net pension liability, on page 2.
- B. Events that impact the total pension liability are assumed to happen evenly throughout the period. In addition, the amount of interest on the total pension liability is calculated using an interest rate equal to the discount rate that was used to determine the service cost. The amount is determined as follows:

Description	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Interest on the Total Pension Liability (a) x (b) x (c)
Beginning total pension liability	\$ 426,123,349	100%	7.875%	\$ 33,557,214
Service cost	9,850,427	100%	7.875%	775,721
Benefit payments	(24,412,587)	50%	7.875%	(961,246)
Total interest on the net pension liabilit	\$ 33,371,689			

- C. Differences between expected and actual experience recognized in the current period in accordance with paragraph 33a of Statement 68. For the detailed calculation of this amount, see the schedule on page 10.
- D. Assumption and plan provision changes recognized in pension expense in the current period in accordance with paragraph 33a of Statement 68. For detailed calculations of these amounts, see the schedules on pages 10-11.
- E. Changes in the amounts invested are assumed to occur evenly throughout the period. In addition, the amount of projected earnings on pension plan investments is calculated using the assumed rate of return on pension plan investments as of the beginning of the period. The amount is determined as follows:

Description	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning plan fiduciary net position	\$ 246,653,426	100%	7.875%	\$ 19,423,957
Employer contributions	17,440,375	50%	7.875%	686,715
Employee contributions	7,559,814	50%	7.875%	297,668
Benefit payments, including refunds of employee contributions	(24,412,587)	50%	7.875%	(961,246)
Administrative expense and other	(841,318)	50%	7.875%	(33,127)
Total projected earnings			• •	\$ 19,413,967

F. Differences between projected and actual earnings recognized in the current period in accordance with paragraph 33b of Statement 68. For detailed calculation of this amount, see the schedule on page 11.



Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Year	Differences between actual and expected experience	Recognition period (years)	2015	2016	2017	2018	2019	2020	2021	2022
2006	\$ -	0								
2007	\$ -	0								
2008	\$ -	0								
2009	\$ -	0								
2010	\$ -	0	*	Information no	ot available prior	to 2015				
2011	\$ -	0								
2012	\$ -	0								
2013	\$ -	0								
2014	\$ -	0								
2015	\$ -		\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Net increa	se (decrease) in pens	ion expense	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-

#### Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Year	Change o assumptio		Recognition period (years)	2015	2016	2017	2018	2019	2020	2021	2022
2006	\$	-	0								
2007	\$	-	0								
2008	\$	-	0								
2009	\$	-	0								
2010	\$	-	0	*	Information no	ot available prio	to 2015				
2011	\$	-	0								
2012	\$	-	0								
2013	\$	-	0								
2014	\$	-	0								
2015	\$	-		\$-	\$-	\$-	\$-	\$ -	\$-	\$-	\$-
Net increas	e (decrease) ir	n pens	ion expense	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes to Benefit Provisions

Year	Change	e in benefits	Recognition period (years)	20	15	2016		2017		2018		2019	2	2020	2	021	2	022
2006	\$	-	0															
2007	\$	-	0															
2008	\$	-	0															
2009	\$	-	0															
2010	\$	-	0		*	Informatio	on no	t available p	rior 1	o 2015								
2011	\$	-	0															
2012	\$	-	0															
2013	\$	-	0															
2014	\$	-	0															
2015	\$	-		\$	-	\$	-	\$-		\$	-	\$ -	\$	-	\$	-	\$	-
Net increas	se (decre	ase) in pens	ion expense	\$	-	\$	-	\$-		\$	-	\$-	\$	-	\$	-	\$	-

#### Increase / (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Differences between projected and actual earnings on pension plan investments	Recognition period (years)	2015	2016	2017	2018	2019
2006	\$ -	0					
2007	\$ -	0					
2008	\$ -	0					
2009	\$ -	0					
2010	\$ -	0	*	Information no	t available prior t	to 2015	
2011	\$ -	0					
2012	\$ -	0					
2013	\$ -	0					
2014	\$ -	0					
2015	\$ 7,397,011	5	\$ 1,479,402	\$ 1,479,402	\$ 1,479,402	\$ 1,479,402	\$ 1,479,402
Net increas	e (decrease) in pension expense		\$ 1,479,402	\$ 1,479,402	\$ 1,479,402	\$ 1,479,402	\$ 1,479,402

## Deferred Outflows and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

				BALAN JUNE 30	
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through June 30, 2015 (c)		Deferred Inflows of Resources (b) - (c)
2012					
2013	*	Information not ava	ilable prior to 2015		
2014					
2015	\$-	\$-	\$ -	<u>\$                                    </u>	<u>\$</u>
TOTAL				\$-	\$-

## Deferred Outflows and Deferred Inflows of Resources Arising from Changes of Assumptions and Benefit Provisions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Lability (b)	Amounts Recognized in Pension Expense through June 30, 2015 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
	*	No recorded change	es in assumptions or plan provisior	IS	
TOTAL					

## Deferred Outflows and Deferred Inflows of Resources Arising from Differences between Expected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less then Projected (a)	Investment Earnings More than Projected (b)	Amounts Recognized in Pension Expense through June 30, 2015 (c)	eferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2012					
2013	*	Information not ava	ilable prior to 2015		
2014	\$-	\$-	\$ -	\$ -	\$-
2015	\$ 7,397,011	\$-	\$ 1,479,402	\$ 5,917,609	\$
TOTAL				\$ 5,917,609	\$-



	NE	T INVESTMENT AMOUNT	S		
	Beginning of month	Middle of Month	End of Month	Periods Invested**	Investment with Interest
Starting Value* (12/31/2013)	\$ 246,218,356.87			12	\$ 258,123,823.47
Cash Flows:					
January	92,302.00	203,458.54	(1,895,818.97)	11	(1,670,040.26)
February	0.00	829,876.37	(2,116,173.24)	10	(1,336,222.41)
March	0.00	589,375.97	(1,994,536.85)	9	(1,454,614.43)
April	0.00	637,932.70	(2,014,792.65)	8	(1,419,596.98)
Мау	0.00	576,295.03	(1,941,143.14)	7	(1,401,799.24)
June	168,727.00	1,025,310.74	(1,901,679.81)	6	(721,799.81)
July	17,105,057.00	509,263.21	(3,341,117.79)	5	14,626,617.24
August	0.00	553,188.45	(2,002,774.67)	4	(1,471,476.76)
September	0.00	725,791.41	(2,046,731.93)	3	(1,335,180.45)
October	0.00	460,095.19	(2,041,489.11)	2	(1,592,975.46)
November	0.00	568,863.08	(2,265,169.77)	1	(1,701,870.12)
December	70,111.00	<u>1,374,428.70</u>	(2,188,346.41)	0	(740,823.39)
Ending Value* (12/31/2014)	\$257,904,041.39			Sum:	\$ 257,904,041.39

\*\* Middle of period cash flows are given an additional half period of interest, and beginning of period cash flows are given an additional full period.

Return Rate: 4.84%



#### **Results by Employer**

							Proportionate Discount		
Employer		Covered payroll*		Proportionate Share of NPL	Proportionate share of NPL as a percentage of covered payroll		1% Increase (8.875%)		1% Decrease (6.875%)
Hampshire County Retirement	\$	322,608	\$	-	0.0%	\$	-	\$	-
Council of Government	\$	912,654	\$	2,289,222	250.8%	\$	1,786,614	\$	2,900,680
Town of Amherst	\$	20,519,508	\$	50,316,687	245.2%	\$	39,694,096	\$	63,239,795
Amherst Housing Authority	\$	654,762	\$	1,507,980	230.3%	\$	1,176,896	\$	1,910,765
Amherst-Pelham RSD	\$	5,066,961	\$	11,097,497	219.0%	\$	8,688,167	\$	14,028,611
Town of Belchertown	\$	9,341,978	\$	24,040,779	257.3%	\$	18,958,848	\$	30,223,295
Belchertown Housing	\$	115,474	\$	127,179	110.1%	\$	99,256	\$	161,149
Belchertown Water District	\$	103,894	\$	345,200	332.3%	\$	269,410	\$	437,404
Town of Chesterfield	\$	246,299	\$	781,243	317.2%	\$	609,717	\$	989,915
Chesterfield/Goshen RSD	\$	262,318	\$	708,569	270.1%	\$	553,000	\$	897,830
Town of Cummington	\$	168,327	\$	399,705	237.5%	\$	311,948	\$	506,468
Foothills Health District	\$	31,904	\$	72,674	227.8%	\$	56,718	\$	92,085
Gateway RSD	\$	2,410,426	\$	5,541,372	229.9%	\$	4,324,740	\$	7,021,487
Town of Goshen	\$	305,853	\$	563,221	184.1%	\$	439,564	\$	713,659
Town of Granby	\$	3,184,581	\$	8,541,077	268.2%	\$	6,765,991	\$	10,700,590
Granby Housing Authority	\$	102,594	\$	236,190	230.2%	\$	184,333	\$	299,277
Town of Hadley	\$	3,341,222	\$	8,919,963	267.0%	\$	6,997,286	\$	11,259,031
Hadley Housing Authority	\$	30,377	\$	72,674	239.2%	\$	56,718	\$	92,085
Hampshire County Regional Housing	\$	25,335	\$	54,505	215.1%	\$	42,538	\$	69,064
Hampshire RSD	\$	1,644,386	\$	4,091,813	248.8%	\$	3,254,132	\$	5,110,909
Town of Hatfield	\$	1,873,935	\$	4,324,087	230.7%	\$	3,374,715	\$	5,479,062
Hatfield Housing Authority	\$	41,994	\$	90,842	216.3%	\$	70,897	\$	115,106
Town of Huntington	\$	430,075	\$	944,758	219.7%	\$	737,333	\$	1,197,106
Town of Middlefield	\$	147,884	\$	399,705	270.3%	\$	311,948	\$	506,468
Town of Pelham	\$	787,488	\$	1,671,496	212.3%	\$	1,304,512	\$	2,117,957
Town of Plainfield	\$	186,567	\$	454,211	243.5%	\$	354,487	\$	575,532
Ouabbin Health District	\$	177,717	\$	460,873	259.3%	\$	369,127	\$	572,488
South Hadley Fire District #1	\$	1,825,660	\$	4,887,308	267.7%	\$	3,814,279	\$	6,192,721
South Hadley Fire District #2	\$	662,691	\$	2,125,706	320.8%	\$	1,658,999	\$	2,693,489
Town of South Hadley	\$	10,413,324	\$	23,456,939	225.3%	\$	18,375,008	\$	29,639,454
South Hadley Housing	\$	200,365	\$	454,211	225.5%	<i>ہ</i> \$	354,487	چ \$	575,532
South Hadley/Granby/Easthampton Vet.	\$	51,335	\$	127,179	247.7%	\$	99,256	\$	161,149
Town of Southampton	چ \$	2,637,805	۶ \$	6,173,025	247.7%	р \$	4.840.714	م \$	7,793,873
Town of Ware	\$	6,722,631	р \$	16,108,849	234.0%	۶ \$	12,662,390	۶ \$	20,301,701
Ware Housing Authority	۵ ۶	155,856	⊅ \$	320,518	205.6%	⊅ \$	256,695	⊅ \$	398,163
Town of Westhampton	\$ \$	676,985	⊅ \$	1,671,496	205.6%	⊅ \$	1,304,512	⊅ \$	2,117,957
Town of Williamsburg	\$		⊅ \$			⊅ \$			
0	\$ \$	1,131,182	≯ \$	2,449,126	216.5%	≯ \$	1,918,595	\$ \$	3,094,553
Town of Worthington	Þ	224,978	Þ	688,334	306.0%	Þ	548,720	Þ	858,183
TOTAL	\$	77,139,934	\$	186,516,212	241.8%	\$	146,626,645	\$	235,044,593

\* Covered payroll figure projected for calendar year 2014 based on employee data as of 12/31/2013



#### **Results by Employer (Continued)**

Employer	arially determined contribution FY2015	Contributions made FY 2015	Contribution deficiency (excess)	Contributions as a percentage of covered payroll**
Hampshire County Retirement	\$ -	\$ -	\$ -	0.0%
Council of Government	\$ 211,344	\$ (211,344)	\$ -	23.2%
Town of Amherst	\$ 4,696,387	\$ (4,696,387)	\$ -	22.9%
Amherst Housing Authority	\$ 139,219	\$ (139,219)	\$ -	21.3%
Amherst-Pelham RSD	\$ 1,027,805	\$ (1,027,805)	\$ -	20.3%
Town of Belchertown	\$ 2,243,094	\$ (2,243,094)	\$ -	24.0%
Belchertown Housing	\$ 11,964	\$ (11,964)	\$ -	10.4%
Belchertown Water District	\$ 31,869	\$ (31,869)	\$ -	30.7%
Town of Chesterfield	\$ 72,125	\$ (72,125)	\$ -	29.3%
Chesterfield/Goshen RSD	\$ 65,416	\$ (65,416)	\$ -	24.9%
Town of Cummington	\$ 36,902	\$ (36,902)	\$ -	21.9%
Foothills Health District	\$ 6,709	\$ (6,709)	\$ -	21.0%
Gateway RSD	\$ 511,587	\$ (511,587)	\$ -	21.2%
Town of Goshen	\$ 51,998	\$ (51,998)	\$ -	17.0%
Town of Granby	\$ 800,570	\$ (800,570)	\$ -	25.1%
Granby Housing Authority	\$ 21,805	\$ (21,805)	\$ -	21.3%
Town of Hadley	\$ 827,802	\$ (827,802)	\$ -	24.8%
Hadley Housing Authority	\$ 6,836	\$ (6,836)	\$ -	22.5%
Hampshire County Regional Housing	\$ 5,032	\$ (5,032)	\$ -	19.9%
Hampshire RSD	\$ 385,063	\$ (385,063)	\$ -	23.4%
Town of Hatfield	\$ 399,206	\$ (399,206)	\$ -	21.3%
Hatfield Housing Authority	\$ 8,387	\$ (8,387)	\$ -	20.0%
Town of Huntington	\$ 88,874	\$ (88,874)	\$ -	20.7%
Town of Middlefield	\$ 36,902	\$ (36,902)	\$ -	25.0%
Town of Pelham	\$ 154,315	\$ (154,315)	\$ -	19.6%
Town of Plainfield	\$ 41,933	\$ (41,933)	\$ -	22.5%
Quabbin Health District	\$ 44,512	\$ (44,512)	\$ -	25.0%
South Hadley Fire District #1	\$ 451,203	\$ (451,203)	\$ -	24.7%
South Hadley Fire District #2	\$ 196,248	\$ (196,248)	\$ -	29.6%
Town of South Hadley	\$ 2,173,774	\$ (2,173,774)	\$ -	20.9%
South Hadley Housing	\$ 41,933	\$ (41,933)	\$ -	20.9%
South Hadley/Granby/Easthampton Vet.	\$ 11,742	\$ (11,742)	\$ -	22.9%
Town of Southampton	\$ 572,670	\$ (572,670)	\$ -	21.7%
Town of Ware	\$ 1,498,054	\$ (1,498,054)	\$ -	22.3%
Ware Housing Authority	\$ 30,378	\$ (30,378)	\$ -	19.5%
Town of Westhampton	\$ 154,315	\$ (154,315)	\$ -	22.8%
Town of Williamsburg	\$ 226,971	\$ (226,971)	\$ -	20.1%
Town of Worthington	\$ 64,933	\$ (64,933)	\$ -	28.9%
TOTAL	\$ 17,349,877	\$ (17,349,877)	\$ -	22.0%

\*\* Here the covered payroll amount is projected for Fiscal Year 2015, based on employee data as of 12/31/2013



#### **Results by Employer (Continued)**

Employer	Proportion	Pr	oportionate Share of Pension Expense	differe employ and pro	ion changes and ences between ver contributions portionate share ized as expense	Total Pension Expense			
Hampshire County Retirement	0.00%	\$	-	\$	-	\$	-		
Council of Government	1.26%	\$	233,970	\$	-	\$	233,970		
Town of Amherst	26.63%	\$	4,944,939	\$	-	\$	4,944,939		
Amherst Housing Authority	0.83%	\$	154,123	\$	-	\$	154,123		
Amherst-Pelham RSD	6.04%	\$	1,121,571	\$	-	\$	1,121,571		
Town of Belchertown	12.74%	\$	2,365,698	\$	-	\$	2,365,698		
Belchertown Housing	0.07%	\$	12,998	\$	-	\$	12,998		
Belchertown Water District	0.19%	\$	35,281	\$	-	\$	35,281		
Town of Chesterfield	0.43%	\$	79,847	\$	-	\$	79,847		
Chesterfield/Goshen RSD	0.39%	\$	72,419	\$	-	\$	72,419		
Town of Cummington	0.22%	\$	40,852	\$	-	\$	40,852		
Foothills Health District	0.04%	\$	7,428	\$	-	\$	7,428		
Gateway RSD	3.05%	\$	566,356	\$	-	\$	566,356		
Town of Goshen	0.31%	\$	57,564	\$	-	\$	57,564		
Town of Granby	4.45%	\$	826,323	\$	-	\$	826,323		
Granby Housing Authority	0.13%	\$	24,140	\$	-	\$	24,140		
Town of Hadley	4.82%	\$	895,028	\$	-	\$	895,028		
Hadley Housing Authority	0.04%	\$	7,428	\$	-	\$	7,428		
Hampshire County Regional Housing	0.03%	\$	5,571	\$	-	\$	5,571		
Hampshire RSD	2.10%	\$	389,950	\$	-	\$	389,950		
Town of Hatfield	2.38%	\$	441,944	\$	-	\$	441,944		
Hatfield Housing Authority	0.05%	\$	9,285	\$	-	\$	9,285		
Town of Huntington	0.52%	\$	96,559	\$	-	\$	96,559		
Town of Middlefield	0.22%	\$	40,852	\$	-	\$	40,852		
Town of Pelham	0.92%	\$	170,835	\$	-	\$	170,835		
Town of Plainfield	0.25%	\$	46,423	\$	-	\$	46,423		
Quabbin Health District	0.23%	\$	42,709	\$	-	\$	42,709		
South Hadley Fire District #1	2.69%	\$	499,508	\$	-	\$	499,508		
South Hadley Fire District #2	1.17%	\$	217,258	\$	-	\$	217,258		
Town of South Hadley	12.74%	\$	2,365,698	\$	-	\$	2,365,698		
South Hadley Housing	0.25%	\$	46,423	\$	-	\$	46,423		
South Hadley/Granby/Easthampton Vet.	0.07%	\$	12,998	\$	-	\$	12,998		
Town of Southampton	3.34%	\$	620,206	\$	-	\$	620,206		
Town of Ware	8.64%	\$	1,604,366	\$	-	\$	1,604,366		
Ware Housing Authority	0.16%	\$	29,710	\$	-	\$	29,710		
Town of Westhampton	0.92%	\$	170,835	\$	-	\$	170,835		
Town of Williamsburg	1.33%	\$	246,968	\$	-	\$	246,968		
Town of Worthington	0.4%	\$	64,992	\$	-	\$	64,992		
TOTAL	100.00%	\$	18,569,055						

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#### Deferred Outflows of Resources and and Deferred Inflows of Resources by Employer

#### Deferred Outflows of Resources

Employer	Differences between expected and actual experience	Changes of assumptions	P	t difference between rojected and actual iings on pension plan investments	en	hanges in proportion and differences between nployer contributions and proportionate share of contributions	nployer contributions subsequent to the measurement date	Total Deferred Outflows of Resources
Hampshire County Retirement	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -
Council of Government	\$ -	\$ -	\$	74,562	\$	-	\$ -	\$ 74,562
Town of Amherst	\$-	\$ -	\$	1,575,859	\$	-	\$ -	\$ 1,575,859
Amherst Housing Authority	\$ -	\$ -	\$	49,116	\$	-	\$ -	\$ 49,116
Amherst-Pelham RSD	\$-	\$ -	\$	357,424	\$	-	\$ -	\$ 357,424
Town of Belchertown	\$-	\$ -	\$	753,903	\$	-	\$ -	\$ 753,903
Belchertown Housing	\$ -	\$ -	\$	4,142	\$	-	\$ 5,982	\$ 10,124
Belchertown Water District	\$ -	\$ -	\$	11,243	\$	-	\$ -	\$ 11,243
Town of Chesterfield	\$-	\$ -	\$	25,446	\$	-	\$ -	\$ 25,446
Chesterfield/Goshen RSD	\$ -	\$ -	\$	23,079	\$	-	\$ -	\$ 23,079
Town of Cummington	\$ -	\$ -	\$	13,019	\$	-	\$ -	\$ 13,019
Foothills Health District	\$ -	\$ -	\$	2,367	\$	-	\$ -	\$ 2,367
Gateway RSD	\$ -	\$ -	\$	180,487	\$	-	\$ -	\$ 180,487
Town of Goshen	\$ -	\$ -	\$	18,345	\$	-	\$ -	\$ 18,345
Town of Granby	\$-	\$ -	\$	263,334	\$	-	\$ -	\$ 263,334
Granby Housing Authority	\$ -	\$ -	\$	7,693	\$	-	\$ -	\$ 7,693
Town of Hadley	\$ -	\$ -	\$	285,229	\$	-	\$ -	\$ 285,229
Hadley Housing Authority	\$ -	\$ -	\$	2,367	\$	-	\$ -	\$ 2,367
Hampshire County Regional Housing	\$ -	\$ -	\$	1,775	\$	-	\$ -	\$ 1,775
Hampshire RSD	\$ -	\$ -	\$	124,270	\$	-	\$ -	\$ 124,270
Town of Hatfield	\$ -	\$ -	\$	140,839	\$	-	\$ -	\$ 140,839
Hatfield Housing Authority	\$ -	\$ -	\$	2,959	\$	-	\$ -	\$ 2,959
Town of Huntington	\$ -	\$ -	\$	30,772	\$	-	\$ -	\$ 30,772
Town of Middlefield	\$ -	\$ -	\$	13,019	\$	-	\$ -	\$ 13,019
Town of Pelham	\$ -	\$ -	\$	54,442	\$	-	\$ -	\$ 54,442
Town of Plainfield	\$ -	\$ -	\$	14,794	\$	-	\$ -	\$ 14,794
Quabbin Health District	\$-	\$ -	\$	13,611	\$	-	\$ -	\$ 13,611
South Hadley Fire District #1	\$ -	\$ -	\$	159,184	\$	-	\$ -	\$ 159,184
South Hadley Fire District #2	\$ -	\$ -	\$	69,236	\$	-	\$ -	\$ 69,236
Town of South Hadley	\$ -	\$ -	\$	753,903	\$	-	\$ -	\$ 753,903
South Hadley Housing	\$ -	\$ -	\$	14,794	\$	-	\$ -	\$ 14,794
South Hadley/Granby/Easthampton Vet.	\$ -	\$ -	\$	4,142	\$	-	\$ -	\$ 4,142
Town of Southampton	\$ -	\$ -	\$	197,648	\$	-	\$ -	\$ 197,648
Town of Ware	\$ -	\$ -	\$	511,281	\$	-	\$ -	\$ 511,281
Ware Housing Authority	\$ -	\$ -	\$	9,468	\$	-	\$ -	\$ 9,468
Town of Westhampton	\$ -	\$ -	\$	54,442	\$	-	\$ -	\$ 54,442
Town of Williamsburg	\$ -	\$ -	\$	78,704	\$	-	\$ -	\$ 78,704
Town of Worthington	\$ -	\$ -	\$	20,712	\$	-	\$ -	\$ 20,712
TOTAL	\$ -	\$ -	\$	5,917,609		N/A	\$ 5,982	\$ 5,923,591



#### Deferred Inflows of Resources

Employer	Differences between expected and actual experience	Changes of projected and actual em		di empl	iges in proportion and ifferences between oyer contributions and oportionate share of contributions	Employer contributions subsequent to the measurement date		Total Deferred Inflows of Resources	
Hampshire County Retirement	\$-	\$	-	\$ -	\$	-	N/A	\$	-
Council of Government	\$-	\$	-	\$ -	\$	-	N/A	\$	-
Town of Amherst	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Amherst Housing Authority	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Amherst-Pelham RSD	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Belchertown	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Belchertown Housing	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Belchertown Water District	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Chesterfield	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Chesterfield/Goshen RSD	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Cummington	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Foothills Health District	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Gateway RSD	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Goshen	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Granby	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Granby Housing Authority	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Hadley	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Hadley Housing Authority	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Hampshire County Regional Housing	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Hampshire RSD	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Hatfield	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Hatfield Housing Authority	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Huntington	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Middlefield	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Pelham	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Plainfield	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Quabbin Health District	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
South Hadley Fire District #1	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
South Hadley Fire District #2	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of South Hadley	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
South Hadley Housing	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
South Hadley/Granby/Easthampton Vet.	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Southampton	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Ware	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Ware Housing Authority	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Westhampton	\$ -	\$	-	\$ _	\$	-	N/A	\$	_
Town of Williamsburg	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
Town of Worthington	\$ -	\$	-	\$ -	\$	-	N/A	\$	-
TOTAL	\$ -	\$	-	\$ -	2	N/A	N/A	\$	-



#### Amounts to Be Recognized in Subsequent Years

	AMOUNT TO BE RECOGNIZED FOR THE YEAR ENDED DECEMBER 31,													
Employer	2015		2016		2017		2018		2019		Thereafter			
Hampshire County Retirement	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-			
Council of Government	\$ 18,640	\$	18,640	\$	18,640	\$	18,640	\$	-	\$	-			
Town of Amherst	\$ 393,965	\$	393,965	\$	393,965	\$	393,965	\$	-	\$	-			
Amherst Housing Authority	\$ 12,279	\$	12,279	\$	12,279	\$	12,279	\$	-	\$	-			
Amherst-Pelham RSD	\$ 89,356	\$	89,356	\$	89,356	\$	89,356	\$	-	\$	-			
Town of Belchertown	\$ 188,476	\$	188,476	\$	188,476	\$	188,476	\$	-	\$	-			
Belchertown Housing	\$ 7,018	\$	1,036	\$	1,036	\$	1,036	\$	-	\$	-			
Belchertown Water District	\$ 2,811	\$	2,811	\$	2,811	\$	2,811	\$	-	\$	-			
Town of Chesterfield	\$ 6,361	\$	6,361	\$	6,361	\$	6,361	\$	-	\$	-			
Chesterfield/Goshen RSD	\$ 5,770	\$	5,770	\$	5,770	\$	5,770	\$	-	\$	-			
Town of Cummington	\$ 3,255	\$	3,255	\$	3,255	\$	3,255	\$	-	\$	-			
Foothills Health District	\$ 592	\$	592	\$	592	\$	592	\$	-	\$	-			
Gateway RSD	\$ 45,122	\$	45,122	\$	45,122	\$	45,122	\$	-	\$	-			
Town of Goshen	\$ 4,586	\$	4,586	\$	4,586	\$	4,586	\$	-	\$	-			
Town of Granby	\$ 65,833	\$	65,833	\$	65,833	\$	65,833	\$	-	\$	-			
Granby Housing Authority	\$ 1,923	\$	1,923	\$	1,923	\$	1,923	\$	-	\$	-			
Town of Hadley	\$ 71,307	\$	71,307	\$	71,307	\$	71,307	\$	-	\$	-			
Hadley Housing Authority	\$ 592	\$	592	\$	592	\$	592	\$	-	\$	-			
Hampshire County Regional Housing	\$ 444	\$	444	\$	444	\$	444	\$	-	\$	-			
Hampshire RSD	\$ 31,067	\$	31,067	\$	31,067	\$	31,067	\$	-	\$	-			
Town of Hatfield	\$ 35,210	\$	35,210	\$	35,210	\$	35,210	\$	-	\$	-			
Hatfield Housing Authority	\$ 740	\$	740	\$	740	\$	740	\$	-	\$	-			
Town of Huntington	\$ 7,693	\$	7,693	\$	7,693	\$	7,693	\$	-	\$	-			
Town of Middlefield	\$ 3,255	\$	3,255	\$	3,255	\$	3,255	\$	-	\$	-			
Town of Pelham	\$ 13,611	\$	13,611	\$	13,611	\$	13,611	\$	-	\$	-			
Town of Plainfield	\$ 3,699	\$	3,699	\$	3,699	\$	3,699	\$	-	\$	-			
Quabbin Health District	\$ 3,403	\$	3,403	\$	3,403	\$	3,403	\$	-	\$	-			
South Hadley Fire District #1	\$ 39,796	\$	39,796	\$	39,796	\$	39,796	\$	-	\$	-			
South Hadley Fire District #2	\$ 17,309	\$	17,309	\$	17,309	\$	17,309	\$	-	\$	-			
Town of South Hadley	\$ 188,476	\$	188,476	\$	188,476	\$	188,476	\$	-	\$	-			
South Hadley Housing	\$ 3,699	\$	3,699	\$	3,699	\$	3,699	\$	-	\$	-			
South Hadley/Granby/Easthampton Vet.	\$ 1,036	\$	1,036	\$	1,036	\$	1,036	\$	-	\$	-			
Town of Southampton	\$ 49,412	\$	49,412	\$	49,412	\$	49,412	\$	-	\$	-			
Town of Ware	\$ 127,820	\$	127,820	\$	127,820	\$	127,820	\$	-	\$	-			
Ware Housing Authority	\$ 2,367	\$	2,367	\$	2,367	\$	2,367	\$	-	\$	-			
Town of Westhampton	\$ 13,611	\$	13,611	\$	13,611	\$	13,611	\$	-	\$	-			
Town of Williamsburg	\$ 19,676	\$	19,676	\$	19,676	\$	19,676	\$	-	\$	-			
Town of Worthington	\$ 5,178	\$	5,178	\$	5,178	\$	5,178	\$	-	\$	-			

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