



WORCESTER REGIONAL RETIREMENT SYSTEM

FINANCIAL REPORTING AND DISCLOSURES UNDER

GASB 67 and GASB 68

as of

December 31, 2018

Prepared by:

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September, 2019



September 30, 2019

Mr. Kevin Blanchette
Chairman/CEO
Worcester Regional Retirement System
23 Midstate Drive, Suite 106
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Dear Kevin:

We are pleased to present the enclosed report providing financial reporting and disclosures under Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans (GASB 67), and GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68) for the Worcester Regional Retirement System and participating employers as of December 31, 2018. Results are based on liabilities developed in an actuarial valuation performed as of January 1, 2018 and rolled forward to the plan's measurement date of December 31, 2018.

The Principal Valuation Results are provided in Section 1. The Notes to the Financial Statements and the Required Supplementary Information are provided in Sections 2 and 3, respectively. Employer Reporting Amounts Under GASB 68 are provided in Section 4. Finally, a Glossary of Terms is provided in Section 5.

The financial reporting and disclosures contained in this report are based on the member data provided by the Worcester Regional Retirement Board, asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Retirement Board and plan provisions contained in Chapter 32 of the Massachusetts General Laws. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a long-term investment return rate of 7.75%, net of investment expense, compounded annually.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions used in the determination of costs are reasonably related to the experience of the Plan and to reasonable expectations, and represent our best estimate of anticipated long-term experience under the Plan.

K M S A C T U A R I E S

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Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

This report is intended for the sole use of the Worcester Regional Retirement System and participating employers and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,



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INTRODUCTION

GASB 67 and GASB 68

In June 2012, the GASB approved two related Statements that significantly change the way pension plans and governments account and report pension liabilities. The Worcester Regional Retirement System implemented GASB Statement No. 67, Financial Reporting for Pension Plans for the fiscal year ending December 31, 2014.

GASB 67 requires defined benefit pension plans, such as the Worcester Regional Retirement System, to present a statement of fiduciary net position (pension plan assets) and a statement of changes in fiduciary net position. Further, the statement requires that notes to financial statements include descriptive information such as the types of benefits provided, the classes of plan members covered and the composition of the pension plan's retirement board. Finally, GASB 67 requires pension plans to present in required supplementary information the sources of the changes in the net pension liability and information about the actuarially determined contributions compared with the actual contributions made to the plan and related ratios.

GASB 67 and GASB 68 require projected benefit payments be discounted to their actuarial present value using the single rate that reflects:

- (1) a long-term expected rate of return on pension plan investments *to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return and*
- (2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

The pension plan's fiduciary net position was projected to be available to make all projected benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

GASB 68 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources and pension expense by state and local governments.

Fiduciary Net Position

Pension plan investments are reported at market value as of the measurement date. The fiduciary net position as of the current and prior measurement dates are shown in Exhibit 1.1.

INTRODUCTION

Total Pension Liability

The Total Pension Liability is based on liabilities developed in an actuarial valuation performed as of January 1, 2018 and rolled forward to the plan's measurement date of December 31, 2018.

Benefit Changes

All benefits remained the same since the prior measurement date.

Assumption Changes

All assumptions remained the same from the prior measurement date.

Pension Expense

The Pension Expense for the fiscal year ending December 31, 2018 is \$116,960,934 and is developed in Exhibit 4.2. Pension Expense, as well as the Net Pension Liability and Deferred Outflows of Resources and Deferred Inflows of Resources, are developed for each member unit and are shown in Appendix C. Amounts by employer are developed using a proportionate share, the proportion of each employer's contribution to the aggregate amount of employer contributions, as shown in Exhibit 4.3.

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.1 - Plan Assets

Asset information was provided by the Worcester Regional Retirement System. The Trust Fund Composition, Asset Activity and the Computed Rate of Return for the current and prior fiscal years are as follows:

Fiscal Year Ended December 31	2018	2017
Trust Fund Composition at Fiscal Year-End		
External Investment Pools	\$ 688,874,681	\$ 705,763,910
Real Estate	0	449,652
Alternative	1,367,019	2,863,638
Cash and Cash Equivalents	2,840,100	2,919,956
Receivables	4,447,865	4,281,182
Liabilities	(7,230,927)	(10,285,051)
Other	(4,760,725)	0
Total Market Value of Assets	\$ 685,538,013	\$ 705,993,287
Asset Activity		
Market value as of beginning of year	\$ 705,993,287	\$ 606,584,812
Contributions - employer	55,674,504	50,599,326
Contributions - member	33,362,836	31,592,837
Net investment income	(17,770,572)	103,123,070
Benefit payments, including refunds of member contributions	(83,571,930)	(77,717,794)
Administrative expenses	(1,178,272)	(1,145,509)
Other	(6,971,840)	(7,043,455)
Market Value as of end of year	\$ 685,538,013	\$ 705,993,287
Money-Weighted Rate of Return	-2.75%	16.71%
(Gain) / Loss on Pension Plan Investments		
Projected earnings	\$ 54,446,778	\$ 46,866,382
Actual earnings	(17,770,572)	103,123,070
(Gain) / Loss on pension plan investments	\$ 72,217,350	\$ (56,256,688)

SECTION 1 - PRINCIPAL VALUATION RESULTS

Exhibit 1.2 - Actuarial Liabilities

The Total Pension Liability, developed using the Entry Age Normal funding method, is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service. The total pension liability as of the December 31, 2018 measurement date was developed from an actuarial valuation as of January 1, 2018 and rolled forward to the pension plan's fiscal year-end.

The Service Cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year. Only active employees who have not reached the age at which the probability of retirement is 100% incur a service cost.

Actuarial gains and losses arise from the difference between estimates and actual experience, excluding amounts related to benefit changes and changes in assumptions or other inputs.

The development of the Total Pension Liability from the beginning of the measurement period, December 31, 2017 to the end of the measurement period, December 31, 2018 is shown below:

<u>Measurement Date</u>		<u>December 31, 2018</u>
1. Total Pension Liability, beginning of year:		
a. Actives	\$ 892,658,032	
b. Retired and Disabled Members and Beneficiaries	609,881,245	
c. Inactive Members	18,881,862	
d. Total Pension Liability at 7.75% (a. + b. + c.)		\$ 1,521,421,139
2. Service Cost		\$ 44,445,482
3. Benefit Payments		\$ (83,571,930)
4. Interest [7.75% x (1.c. + 2. + .5 x 3)]		\$ 118,116,251
5. Changes of benefit terms		\$ -
6. Differences between expected and actual experience		\$ (8,110,737)
7. Changes of assumptions or other inputs		\$ -
8. Total Pension Liability, end of year (1.d. + 2. + 3. + 4. + 5. + 6. + 7.)		
a. Actives	\$ 823,211,447	
b. Retired and Disabled Members and Beneficiaries	749,122,660	
c. Inactive Members	19,966,098	
d. Total Pension Liability at 7.75% (a. + b. + c.)		\$ 1,592,300,205

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.1 - Plan Description

Plan administration:

The Worcester Regional Retirement System (the "System") is a cost-sharing, multiple-employer defined benefit pension plan that provides pensions for eligible employees of 97 participating employers. The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws. The System does not have the authority to amend benefit provisions.

The System is governed by a Retirement Board made up of five elected and appointed members.

Plan membership:

At December 31, 2018, pension plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	3,837
Inactive plan members entitled to but not yet receiving benefits	1,839
Active plan members	7,815
	<u>13,491</u>

The pension plan membership information was provided in the 2018 PERAC Annual Statement.

Benefits provided:

The System provides retirement, disability and death benefits. Retirement benefits are determined as a percentage of the member's 3-year (5-year for members hired after April 1, 2012) final average compensation times the member's years of service. The percentage is based on the age of the member at retirement and his or her Group classification. Cost-of-living adjustments of 3% of the first \$16,000 of the annual retirement allowance are provided at the discretion of the System's Retirement Board. A summary of the benefits is outlined in the January 1, 2018 actuarial valuation report.

Contributions:

Plan members are required to contribute a percentage of their annual compensation that varies according to their membership date, as follows:

Prior to 1975:	5% of Salary
1975 - 1983:	7% of Salary
1984 - June 30, 1996:	8% of Salary
July 1, 1996 - present:	9% of Salary
1979 - present:	An additional 2% of Salary in excess of \$30,000.
Group 1 members hired on or after April 2, 2012:	6% of Salary with 30 or more years of creditable service.

Employer contributions are determined in accordance with the requirements set forth in Section 22D and Section 22F of Chapter 32 of the Massachusetts General Laws ("M.G.L."). The appropriation is comprised of the annual employer normal cost and amortization payments to pay the unfunded actuarial accrued liability.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

The components of the Net Pension Liability at December 31, 2018, were as follows:

Total Pension Liability	\$ 1,592,300,205
Fiduciary Net Position	(685,538,013)
Net Pension Liability	<u>\$ 906,762,192</u>

Fiduciary Net Position as a percentage of the Total Pension Liability 43.05%

Actuarial assumptions:

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2018, rolled forward to the measurement date of December 31, 2018 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Investment rate of return	7.75%, net of pension plan investment expense, including inflation

Mortality rates were based on the RP-2000 Mortality Table (base year 2009) with full generational mortality improvement using Scale BB. For disabled lives, the mortality rates were based on the RP-2000 Mortality Table (base year 2012) with full generational mortality improvement using Scale BB.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2018 (see the discussion of the pension plan's investment policy) are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rates of Return¹</u>
Global Equity	39%	4.75%
Fixed Income	23%	2.28%
Private Equity	13%	8.15%
Real Estate	10%	3.43%
Timber/Natural Resources	4%	4.00%
Portfolio Completion Strategies	11%	3.76%
Total	100%	

¹ Provided by NEPC. Inflation of 3% is added to the long-term expected real rates of return to approximate the long-term expected rate of return.

Discount rate:

The discount rate used to measure the Total Pension Liability is 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rates and that contributions from participating employers will be made in accordance with Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Exhibit 2.2 - Net Pension Liability

Sensitivity of the Net Pension Liability to changes in the discount rate:

The following presents the Net Pension Liability calculated using the discount rate of 7.75%, as well as what the Net Pension Liability would be if it were calculated using a discount rate 1-percentage point lower (6.75%) or 1-percentage point higher (8.75%) than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	\$ 1,092,251,619	\$ 906,762,192	\$ 750,061,573

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios

Fiscal Year Ended December 31	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 44,445,482	\$ 42,736,040	\$ 35,984,130	\$ 31,996,981	\$ 31,996,981
Interest	118,116,251	112,224,318	99,124,367	91,276,045	84,568,061
Changes of benefit terms	-	-	-	49,721,211	-
Differences between expected and actual experience	(8,110,737)	-	8,235,183	-	-
Changes of assumptions	-	-	94,194,565	31,534,870	-
Benefit payments, including refunds of member contributions	(83,571,930)	(77,717,794)	(72,799,275)	(68,086,158)	(61,338,289)
Net change in Total Pension Liability	\$ 70,879,066	\$ 77,242,564	\$ 164,738,970	\$ 136,442,949	\$ 55,226,753
Total Pension Liability—beginning	\$1,521,421,139	\$1,444,178,575	\$1,279,439,605	\$1,142,996,656	\$1,087,769,903
Total Pension Liability—ending (a)	\$1,592,300,205	\$1,521,421,139	\$1,444,178,575	\$1,279,439,605	\$1,142,996,656
Fiduciary Net Position					
Contributions—employer	\$ 55,674,504	\$ 50,599,326	\$ 48,574,831	\$ 44,986,040	\$ 39,519,038
Contributions—member	33,362,836	31,592,837	29,032,767	52,111,046	27,066,085
Net investment income	(17,770,572)	103,123,070	40,509,286	1,177,960	40,135,521
Benefit payments, including refunds of member contributions	(83,571,930)	(77,717,794)	(72,799,275)	(68,086,158)	(61,338,289)
Administrative expenses	(1,178,272)	(1,145,509)	(1,170,184)	(1,055,662)	(1,054,297)
Other	(6,971,840)	(7,043,455)	(7,195,247)	(7,429,438)	(3,178,354)
Net change in Fiduciary Net Position	\$ (20,455,274)	\$ 99,408,475	\$ 36,952,178	\$ 21,703,788	\$ 41,149,704
Fiduciary Net Position—beginning	705,993,287	606,584,812	569,632,634	547,928,846	506,779,142
Fiduciary Net Position—ending (b)	\$ 685,538,013	\$ 705,993,287	\$ 606,584,812	\$ 569,632,634	\$ 547,928,846
Net Pension Liability—ending (a) – (b)	\$ 906,762,192	\$ 815,427,852	\$ 837,593,763	\$ 709,806,971	\$ 595,067,810
Fiduciary Net Position as a percentage of the Total Pension Liability	43.05%	46.40%	42.00%	44.52%	47.94%
Covered Payroll ¹	\$ 273,888,022	\$ 271,037,131	\$ 282,918,805	\$ 269,899,678	\$ 252,829,591
Net Pension Liability as a percentage of Covered Payroll	331.07%	300.85%	296.05%	262.99%	235.36%

¹ Covered Payroll for 2018 is the pension payroll provided by the Worcester Regional Retirement System.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Schedule of Employer Contributions

Fiscal Year Ended December 31	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially Determined Contribution	\$ 55,674,504	\$ 50,599,326	\$ 48,574,831	\$ 44,986,040	\$ 39,519,038
Contributions in relation to the Actuarially Determined Contribution	<u>55,674,504</u>	<u>50,599,326</u>	<u>48,574,831</u>	<u>44,986,040</u>	<u>39,519,038</u>
Contribution deficiency (excess)	<u>\$ -</u>				
Covered Payroll	\$ 273,888,022	\$ 271,037,131	\$ 282,918,805	\$ 269,899,678	\$ 252,829,591
Contributions as a percentage of Covered Payroll	20.33%	18.67%	17.17%	16.67%	15.63%

The contribution shown above, \$55,674,504, represents the actual contributions made by member units of the Worcester Regional Retirement System for the 2019 fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Investment Returns

Fiscal Year Ended December 31	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	-2.75%	16.71%	7.06%	0.05%	7.79%

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. The rate of return is then calculated by solving, through an iterative process, for the rate that equates the sum of the weighted external cash flows into and out of the pension plan investments to the ending fair value of pension plan investments.

Appendix A shows the details of the calculation of the money-weighted rate of return for the current fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.4 - Notes to the Required Supplementary Information

Changes of benefit terms:

None.

Changes of assumptions:

The assumption for net 3(8)(c) transfers was increased from \$3,000,000 to \$3,500,000.

Methods and assumptions used in calculations of Actuarially Determined Contributions:

The Actuarially Determined Contributions in the schedule of employers' contributions are calculated as of July 1 of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contributions reported in that schedule:

Actuarial cost method	Entry Age Normal
Amortization method	UAAL: Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2035. The annual increase in appropriation is further limited to 9.95%. 2002, 2003 & 2010 ERI Increasing dollar amount at 4% to reduce the 2002 and 2003 ERI Actuarial Accrued Liability to zero on or before June 30, 2028 and the 2010 ERI Actuarial Accrued Liability to zero on or before June 30, 2022.
Asset valuation method	The Actuarial Value of Assets is the market value of assets as of the valuation date reduced by the sum of: a) 80% of gains and losses of the prior year, b) 60% of gains and losses of the second prior year and c) 40% of gains and losses of the third prior year. d) 20% of gains and losses of the fourth prior year. Investment gains and losses are determined by the excess or deficiency of the expected return over the actual return on the market value. The actuarial valuation of assets is further constrained to be not less than 80% or more than 120% of market value.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.4 - Notes to the Required Supplementary Information

Inflation	3% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Payroll growth	4% per year
Investment rate of return	7.75%, net of pension plan investment expense, including inflation.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between expected and actual experience are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Experience Losses	Experience Gains	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2014	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 8,235,183	\$ -	\$ 4,215,963	\$ 4,019,220	\$ -
2017	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ -	\$ 8,110,737	\$ (1,388,825)	\$ -	\$ 6,721,912
				<u>\$ 4,019,220</u>	<u>\$ 6,721,912</u>

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes of assumptions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Increases in the Total Pension Liability	Decreases in the Total Pension Liability	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
	(a)	(b)		Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2014	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 31,534,870	\$ -	\$ 21,164,344	\$ 10,370,526	\$ -
2016	\$ 94,194,565	\$ -	\$ 48,222,474	\$ 45,972,091	\$ -
2017	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ -	\$ -	\$ -	\$ -	\$ -
				<u>\$ 56,342,617</u>	<u>\$ -</u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between projected and actual earnings on Pension Plan investments are recognized in Pension Expense over five years.

Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2014	\$ 447,378	\$ -	\$ 447,378	\$ -	\$ -
2015	\$ 43,477,381	\$ -	\$ 34,781,904	\$ 8,695,477	\$ -
2016	\$ 3,499,405	\$ -	\$ 2,099,643	\$ 1,399,762	\$ -
2017	\$ -	\$ 56,256,688	\$ (22,502,676)	\$ -	\$ 33,754,012
2018	\$ 72,217,350	\$ -	\$ 14,443,470	\$ 57,773,880	\$ -
Subtotal				\$ 67,869,119	\$ 33,754,012
				\$ 34,115,107	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes in proportion and differences between employer contributions and proportionate share of contributions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

Year	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (Outflows) (a)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (Inflows) (b)	Amounts Recognized in Pension Expense through December 31, 2018 (c)	Balances at December 31, 2018	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2015	\$ 39,045,388	\$ 39,045,388	\$ 26,204,958	\$ 12,840,430	\$ 12,840,430
2016	\$ 1,803,974	\$ 1,803,974	\$ 923,536	\$ 880,438	\$ 880,438
2017	\$ 22,317,342	\$ 22,317,342	\$ 7,616,839	\$ 14,700,503	\$ 14,700,503
2018	\$ 2,319,170	\$ 2,319,170	\$ 397,120	\$ 1,922,050	\$ 1,922,050
				\$ 30,343,421	\$ 30,343,421

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources will be recognized in Pension Expense as follows:

Year ended December 31		
2019	\$	33,969,230
2020	\$	25,062,108
2021	\$	16,835,661
2022	\$	13,054,645
2023	\$	(1,166,612)
Thereafter	\$	-

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.2 - Pension Expense

The Pension Expense and deferred outflows and inflows of resources primarily result from changes in the components of the net pension liability (NPL). Most changes in the NPL are included in the Pension Expense in the period of the change, including service cost, interest on total pension liability, changes in benefit terms and projected earnings on the pension plan's investments. Other changes in the net pension liability are included in Pension Expense over the current and future periods. These include the effects on the total pension liability of changes of economic and demographic assumptions and differences between expected and actual experience. In addition, the effect on the net pension liability of differences between the projected earnings on pension plan investments and actual experience with regard to those earnings are included in Pension Expense over the current and future periods. The Pension Expense for the reporting period ending December 31, 2018 is presented below:

Fiscal Year Ended December 31	<u>2018</u>
1. Service cost	\$ 44,445,482
2. Interest on the total pension liability	
a. Total Pension Liability, beginning of year	1,521,421,139
b. Service cost, beginning of year	44,445,482
c. Benefit payments, including refunds of employee contributions	<u>(83,571,930)</u>
d. Interest on Total Pension Liability	118,116,251
3. Differences between expected and actual experience	16,496
4. Changes of benefit terms	-
5. Changes of assumptions	21,365,244
6. Employee contributions	(33,362,836)
7. Projected earnings on pension plan investments	
a. Fiduciary Net Position, beginning of year	705,993,287
b. Employer contributions	55,674,504
c. Employee contributions	33,362,836
d. Benefit payments, including refunds of employee contributions	<u>(83,571,930)</u>
e. Administrative expenses and other	<u>(8,150,112)</u>
f. Total projected earnings	(54,446,778)
8. Differences between projected and actual earnings on plan investments	12,676,963
9. Pension plan administrative expenses	1,178,272
10. Other changes in Fiduciary Net Position	<u>6,971,840</u>
11. Total Pension Expense	<u><u>\$116,960,934</u></u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
010 Ashburnham	738,689	1.326799%	673,313	1.330676%
020 Ashburnham-Westminster Regional	602,476	1.082140%	549,269	1.085526%
025 Athol	1,329,300	2.387628%	1,214,566	2.400360%
026 Athol Housing Authority	38,167	0.068554%	34,263	0.067714%
027 Athol-Royalston Regional School District	528,350	0.948998%	478,043	0.944762%
030 Auburn	2,884,358	5.180752%	2,633,613	5.204838%
040 Auburn Housing Authority	61,048	0.109652%	55,533	0.109750%
050 Auburn Water District	95,200	0.170994%	85,812	0.169591%
060 Barre	293,130	0.526507%	272,096	0.537746%
070 Barre Housing Authority	15,271	0.027429%	13,640	0.026957%
080 Berlin	461,279	0.828528%	419,681	0.829420%
090 Berlin-Boylston Regional	122,776	0.220525%	111,699	0.220752%
100 Blackstone	733,583	1.317628%	666,186	1.316591%
105 Blackstone Housing Authority	18,506	0.033240%	17,102	0.033799%
110 Blackstone-Millville Regional	489,785	0.879729%	445,596	0.880636%
120 Bolton	410,977	0.738178%	374,912	0.740943%
130 Boylston	605,133	1.086912%	555,757	1.098349%
135 Boylston Water District	10,427	0.018729%	9,366	0.018510%
140 Brookfield	270,221	0.485359%	247,043	0.488234%
150 Charlton	1,165,224	2.092922%	1,063,085	2.100986%
160 Cherry Valley-Rochdale Water	46,094	0.082792%	40,675	0.080386%
165 Cherry Valley Sewer District	1,747	0.003138%	1,519	0.003002%
170 Douglas	998,134	1.792803%	914,509	1.807354%
180 Dudley	802,934	1.442193%	732,393	1.447436%
190 Dudley Housing Authority	14,002	0.025150%	11,953	0.023623%
200 Dudley-Charlton Regional	928,512	1.667751%	845,764	1.671493%
210 East Brookfield	137,783	0.247480%	127,037	0.251065%
220 Grafton	1,678,129	3.014179%	1,527,028	3.017882%
230 Grafton Housing Authority	50,350	0.090436%	46,298	0.091499%
240 Hardwick	191,746	0.344405%	173,984	0.343846%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
250 Harvard	836,356	1.502224%	756,788	1.495648%
260 Hillcrest Water District	7,347	0.013196%	6,452	0.012751%
270 Holden	2,075,442	3.727814%	1,878,211	3.711929%
280 Holden Housing Authority	28,888	0.051887%	26,631	0.052631%
290 Hopedale	911,521	1.637232%	833,168	1.646599%
300 Hopedale Housing Authority	5,000	0.008981%	4,348	0.008593%
310 Hubbardston	255,716	0.459305%	238,741	0.471826%
320 Lancaster	560,308	1.006400%	508,868	1.005681%
325 Lancaster Housing Authority	14,766	0.026522%	13,397	0.026477%
327 Lancaster Sewer	1,586	0.002849%	-	0.000000%
330 Leicester	1,161,943	2.087029%	1,055,412	2.085822%
340 Leicester Housing Authority	38,234	0.068674%	34,326	0.067839%
350 Leicester Water District	44,900	0.080647%	40,028	0.079108%
360 Lunenburg	1,221,814	2.194566%	1,106,982	2.187741%
370 Lunenburg Housing Authority	1,346	0.002418%	1,285	0.002540%
380 Lunenburg Water District	49,960	0.089736%	43,998	0.086954%
390 Mendon	568,755	1.021572%	519,386	1.026468%
400 Mendon-Upton Regional	709,531	1.274427%	649,442	1.283499%
410 Millbury	1,749,124	3.141697%	1,590,876	3.144066%
420 Millbury Housing Authority	90,482	0.162520%	82,506	0.163058%
430 Millville	154,122	0.276827%	148,282	0.293051%
440 Narragansett Regional	370,470	0.665421%	336,860	0.665740%
450 Nashoba Regional	979,158	1.758719%	896,139	1.771049%
455 Nashoba Valley Dispatch	17,063	0.030648%	-	0.000000%
460 New Braintree	50,451	0.090618%	45,267	0.089462%
470 Northboro	1,886,814	3.389009%	1,699,113	3.357976%
480 Northboro Housing Authority	62,318	0.111933%	56,695	0.112047%
490 Northboro-Southboro Regional	353,655	0.635219%	324,449	0.641212%
500 North Brookfield	424,197	0.761923%	384,681	0.760249%
510 North Brookfield Housing Authority	18,244	0.032769%	16,072	0.031763%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
530 Oakham	64,138	0.115202%	58,451	0.115517%
540 Oxford	1,908,579	3.428102%	1,705,012	3.369634%
550 Oxford Housing Authority	57,696	0.103631%	52,150	0.103065%
555 Oxford-Rochdale Sewer District	29,467	0.052927%	26,515	0.052402%
560 Paxton	654,321	1.175261%	598,706	1.183229%
570 Petersham	151,368	0.271880%	138,452	0.273624%
580 Phillipston	123,033	0.220986%	112,731	0.222792%
590 Princeton	353,988	0.635817%	317,271	0.627026%
600 Quabbin Regional	961,940	1.727793%	859,367	1.698376%
610 Quaboag Regional	330,446	0.593532%	301,439	0.595737%
620 Royalston	52,449	0.094206%	47,264	0.093408%
630 Rutland	559,439	1.004839%	511,543	1.010968%
640 Southboro	1,777,093	3.191933%	1,611,713	3.185246%
650 Southboro Housing	14,698	0.026400%	14,141	0.027947%
660 Spencer	840,649	1.509935%	762,375	1.506690%
670 Spencer-East Brookfield Regional	576,493	1.035470%	523,348	1.034298%
680 Spencer Housing Authority	39,634	0.071189%	35,499	0.070157%
690 Sterling	929,676	1.669842%	847,421	1.674767%
700 Sterling Housing Authority	8,849	0.015894%	8,167	0.016141%
710 Sturbridge	1,275,676	2.291311%	1,171,263	2.314780%
720 Sutton	1,066,773	1.916089%	966,685	1.910470%
730 Tantasqua Regional	628,020	1.128021%	574,007	1.134416%
740 Templeton	737,540	1.324736%	667,573	1.319332%
750 Templeton Housing Authority	40,190	0.072187%	37,368	0.073851%
760 Upton	564,142	1.013286%	511,372	1.010630%
770 Uxbridge	1,729,739	3.106878%	1,566,330	3.095555%
780 Uxbridge Housing Authority	47,624	0.085540%	42,581	0.084153%
790 Wachusett Regional	1,825,956	3.279699%	1,678,385	3.317011%
800 Warren	358,868	0.644582%	330,813	0.653789%
810 Warren Water District	15,342	0.027557%	14,096	0.027858%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2018 and 2017, based on employer contributions made for the 2019 fiscal year and 2018 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2018		2017	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
820 Westboro	3,750,330	6.736171%	3,394,054	6.707706%
825 Westboro Housing Authority	36,891	0.066262%	33,774	0.066748%
830 West Boylston	1,158,181	2.080272%	1,058,022	2.090980%
835 West Boylston Housing Authority	10,385	0.018653%	9,208	0.018198%
840 West Boylston Water District	50,900	0.091424%	45,645	0.090209%
850 West Brookfield	258,800	0.464845%	233,082	0.460642%
860 Westminster	812,024	1.458520%	735,164	1.452913%
870 Winchendon	1,407,627	2.528315%	1,274,147	2.518111%
880 Winchendon Housing Authority	92,698	0.166500%	84,054	0.166117%
Total	55,674,504	100.000000%	50,599,326	100.000000%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

The schedule of Pension Amounts by Employer is provided in Appendix C. The schedule shows the Net Pension Liability, the various categories of Deferred Outflows of Resources and Deferred Inflows of Resources and Pension Expense for each employer. The schedule includes the differences between expected and actual experience, differences between projected and actual investment earnings and changes of assumptions. Further, each employer is required to recognize Deferred Outflows of Resources and Deferred Inflows of Resources related to (1) the net impact from changes in proportion between periods and (2) differences between actual contributions made by an employer and their proportionate share of contributions.

Each employer's allocation of Pension Expense and Net Pension Liability can be based on the proportion of its contributions to the aggregate amount of employer contributions.

Under GASB 68, gains and losses (investment, experience or assumption changes) and changes in employer's proportionate shares related to pensions are recognized in Pension Expense systematically over time.

The first amortized amounts are recognized in Pension Expense for the year the gain or loss occurs. The remaining amounts are categorized as Deferred Inflows and Deferred Outflows to be recognized in future Pension Expense.

The amortization period differs depending on the source of the gain or loss:

Difference between projected and actual earnings	5 year straight-line amortization
All other amounts	Straight-line amortization over the average expected remaining service lives of all members that are provided with benefits (actives, inactive and retirees) as of the beginning of the measurement period

For 2018:

- ◆ Net Pension Liability, Deferred Outflows of Resources, Deferred Inflows of Resources and Pension Expense are allocated to each employer based on its proportionate share of Total Employer Contribution shown in Exhibit 4.3.
- ◆ The difference between expected and actual experience is amortized over the average of the expected future service lives of all participants. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2016.
- ◆ Net difference between projected and actual investment earnings (loss on pension plan investments for 2018) is amortized over 5 years, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2014.
- ◆ The change in Total Pension Liability as a result of changes in assumptions is amortized over the average of the expected future service lives of all participants, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2015.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

For 2018 (continued):

- ◆ There are no differences between employer contributions and the proportionate share of contributions because the Plan utilizes employer contributions as the method of allocation.

- ◆ The net effect of the change in the employer's proportionate shares of the collective Net Pension Liability, collective Deferred Outflows and Deferred Inflows is amortized over the average expected remaining service lives of all members, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in 2015.

- ◆ No adjustments have been made for employer contributions made subsequent to the measurement date as defined in paragraph 57 of GASB 68.

SECTION 5 - GLOSSARY OF TERMS

Actuarial Assumptions – Assumptions, based upon past experience or standard tables, used to predict the occurrence of future events affecting the commencement, amount and duration of pension benefits, such as: changes in compensation, mortality, withdrawal, disablement and retirement; rates of investment earnings and asset appreciation or depreciation; and any other relevant items.

Actuarial Cost Method (or Funding Method) – A procedure for allocating the Actuarial Present Value of projected benefit payments to the current year (Service Cost) and the past (Total Pension Liability).

Actuarial Gain or Loss (or Experience Gain or Loss) – A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions during the period between the valuation date and the most recent immediately preceding valuation date.

Actuarial Present Value of Projected Benefit Payments – The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

Actuarially Determined Contribution – A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Valuation Date – The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

Deferred Inflow of Resources – Acquisition of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred inflows of resources are made up of experience gains, assumption changes reducing the Total Pension Liability and investment gains that are recognized in future reporting periods.

Deferred Outflow of Resources – Consumption of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred outflows of resources are made up of experience losses, assumption changes increasing the Total Pension Liability and investment losses that are recognized in future reporting periods.

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) a long-term expected rate of return on pension plan investments *to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return and*
- (2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

Entry Age Normal Actuarial Cost Method – A method under which the actuarial present value of the projected benefits of each individual in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.

SECTION 5 - GLOSSARY OF TERMS

Fiduciary Net Position – The fair market value of assets as of the measurement date.

Funded Ratio – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

GASB – Governmental Accounting Standards Board.

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.

Measurement Date – The date as of which the Total Pension Liability and Fiduciary Net Position are measured.

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 – The liability of the employer for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Fiduciary Net Position.

Present Value of Future Benefits – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Reporting Date – The last day of the Plan or employer's fiscal year.

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

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

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

APPENDIX A - CALCULATION OF MONEY-WEIGHTED RATE OF RETURN

	Plan Investments/ Net External Cash Flows (a)	Periods Invested (b)	Period Weight (c)=(b)÷12	(d)=(a) x (1+r _{mw}) ^(c)
Beginning value - January 1, 2018	\$ 705,993,287	12	1.00	\$ 686,592,862
Monthly net external cash flows:				
January	(3,021,411)	11	0.92	(2,945,215)
February	(5,611,132)	10	0.83	(5,482,341)
March	(4,781,109)	9	0.75	(4,682,229)
April	(5,981,349)	8	0.67	(5,871,264)
May	(5,250,304)	7	0.58	(5,165,655)
June	(2,997,719)	6	0.50	(2,956,244)
July	48,704,857	5	0.42	48,142,659
August	(5,116,241)	4	0.33	(5,068,941)
September	(4,673,183)	3	0.25	(4,640,742)
October	(4,350,489)	2	0.17	(4,330,332)
November	(5,242,187)	1	0.08	(5,230,029)
December	(2,824,516)	0	0.00	(2,824,516)
Ending value - December 31, 2018				\$ 685,538,013
Money-weighted rate of return				-2.75%

Note: Beginning and ending values are based on amounts reported in the System's 2018 Annual Statement, adjusted for GAAP financial statement adjustments, and monthly cash flows are based on amounts provided by the Retirement System.

APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Expected and Actual Experience		Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	\$	-	5.96	-	-	-	-	-	-	-	-	-	-
2015	\$	-	5.96	-	-	-	-	-	-	-	-	-	-
2016	\$	8,235,183	5.86	-	-	1,405,321	1,405,321	1,405,321	1,405,321	1,405,321	1,208,578	-	-
2017	\$	-	5.86	-	-	-	-	-	-	-	-	-	-
2018	\$	(8,110,737)	5.84	-	-	-	-	(1,388,825)	(1,388,825)	(1,388,825)	(1,388,825)	(1,388,825)	(1,166,612)
Net Increase (Decrease) in Pension Expense				-	-	1,405,321	1,405,321	16,496	16,496	16,496	(180,247)	(1,388,825)	(1,166,612)

Year	Changes of Assumptions		Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	\$	-	5.96	-	-	-	-	-	-	-	-	-	-
2015	\$	31,534,870	5.96	-	5,291,086	5,291,086	5,291,086	5,291,086	5,291,086	5,079,440	-	-	-
2016	\$	94,194,565	5.86	-	-	16,074,158	16,074,158	16,074,158	16,074,158	16,074,158	13,823,775	-	-
2017	\$	-	5.86	-	-	-	-	-	-	-	-	-	-
2018	\$	-	5.84	-	-	-	-	-	-	-	-	-	-
Net Increase (Decrease) in Pension Expense				-	5,291,086	21,365,244	21,365,244	21,365,244	21,365,244	21,153,598	13,823,775	-	-

Year	Differences between Projected and Actual Earnings on Pension Plan Investments		Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2014	\$	447,378	5	89,476	89,476	89,476	89,476	89,474	-	-	-	-	-
2015	\$	43,477,381	5	-	8,695,476	8,695,476	8,695,476	8,695,476	8,695,477	-	-	-	-
2016	\$	3,499,405	5	-	-	699,881	699,881	699,881	699,881	699,881	-	-	-
2017	\$	(56,256,688)	5	-	-	-	(11,251,338)	(11,251,338)	(11,251,338)	(11,251,337)	(11,251,337)	-	-
2018	\$	72,217,350	5	-	-	-	-	14,443,470	14,443,470	14,443,470	14,443,470	14,443,470	-
Net Increase (Decrease) in Pension Expense				89,476	8,784,952	9,484,833	(1,766,505)	12,676,963	12,587,490	3,892,014	3,192,133	14,443,470	-

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Ashburnham
◆ Current Proportionate Share		1.326799%
◆ Prior Proportionate Share		1.330676%
Beginning Net Pension Liability	\$ 815,427,852	\$ 10,850,701
Ending Net Pension Liability	\$ 906,762,192	\$ 12,030,916
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 53,327
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	452,639
◆ Changes of Assumptions	56,342,617	747,554
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	401,812
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,655,332
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 89,186
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	314,349
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 403,535
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,551,837
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(48,285)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,503,552
Covered Payroll:	\$ 273,888,022	\$ 3,562,028
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 12,030,916
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 14,491,988
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 9,951,813
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 402,420
◆ 2020	\$ 25,062,108	\$ 290,081
◆ 2021	\$ 16,835,661	\$ 321,296
◆ 2022	\$ 13,054,645	\$ 257,704
◆ 2023	\$ (1,166,612)	\$ (19,704)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Ashburnham-Westminster Regional
◆ Current Proportionate Share		1.082140%
◆ Prior Proportionate Share		1.085526%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,851,684
Ending Net Pension Liability	\$ 906,762,192	\$ 9,812,435
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 43,494
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	369,173
◆ Changes of Assumptions	56,342,617	609,706
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	313,620
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,335,993
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 72,740
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	134,530
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 207,270
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,265,681
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	19,866
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,285,547
Covered Payroll:	\$ 273,888,022	\$ 2,956,844
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,812,435
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 11,819,690
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 8,116,715
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 387,461
◆ 2020	\$ 25,062,108	\$ 293,283
◆ 2021	\$ 16,835,661	\$ 257,544
◆ 2022	\$ 13,054,645	\$ 206,750
◆ 2023	\$ (1,166,612)	\$ (16,315)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System		Athol
◆ Current Proportionate Share			2.387628%
◆ Prior Proportionate Share			2.400360%
Beginning Net Pension Liability	\$ 815,427,852	\$	19,573,204
Ending Net Pension Liability	\$ 906,762,192	\$	21,650,107
Total Deferred Outflows of Resources:			
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$	95,964
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107		814,542
◆ Changes of Assumptions	56,342,617		1,345,252
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421		6,918,667
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$</u>	<u>9,174,425</u>
Total Deferred Inflows of Resources:			
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$	160,494
◆ Changes of Assumptions	-		-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421		5,342,042
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$</u>	<u>5,502,536</u>
Employer Pension Expense:			
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$	2,792,592
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-		2,149,955
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$</u>	<u>4,942,547</u>
Covered Payroll:	\$ 273,888,022	\$	5,627,892
Sensitivity of the Net Pension Liability to changes in the discount rate:			
◆ Current discount rate: 7.75%	\$ 906,762,192	\$	21,650,107
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$	26,078,905
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$	17,908,680
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:			
◆ 2019	\$ 33,969,230	\$	2,961,013
◆ 2020	\$ 25,062,108	\$	2,607,174
◆ 2021	\$ 16,835,661	\$	(977,362)
◆ 2022	\$ 13,054,645	\$	(877,206)
◆ 2023	\$ (1,166,612)	\$	(41,730)
◆ Thereafter	\$ -	\$	-

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Athol Housing Authority
◆ Current Proportionate Share		0.068554%
◆ Prior Proportionate Share		0.067714%
Beginning Net Pension Liability	\$ 815,427,852	\$ 552,162
Ending Net Pension Liability	\$ 906,762,192	\$ 621,620
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,755
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	23,387
◆ Changes of Assumptions	56,342,617	38,625
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	257,291
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 322,058</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 4,608
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	279,915
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 284,523</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 80,181
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	56,549
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 136,730</u>
Covered Payroll:	\$ 273,888,022	\$ 173,620
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 621,620
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 748,780
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 514,196
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 79,837
◆ 2020	\$ 25,062,108	\$ 68,588
◆ 2021	\$ 16,835,661	\$ (60,164)
◆ 2022	\$ 13,054,645	\$ (50,841)
◆ 2023	\$ (1,166,612)	\$ 115
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Athol-Royalston Regional School District
◆ Current Proportionate Share		0.948998%
◆ Prior Proportionate Share		0.944762%
Beginning Net Pension Liability	\$ 815,427,852	\$ 7,703,849
Ending Net Pension Liability	\$ 906,762,192	\$ 8,605,156
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 38,142
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	323,752
◆ Changes of Assumptions	56,342,617	534,690
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	3,006,656
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 3,903,240</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 63,791
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	2,640,964
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 2,704,755</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,109,957
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	834,172
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,944,129</u>
Covered Payroll:	\$ 273,888,022	\$ 2,290,076
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 8,605,156
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 10,365,447
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,118,070
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 1,156,538
◆ 2020	\$ 25,062,108	\$ 1,011,194
◆ 2021	\$ 16,835,661	\$ (522,401)
◆ 2022	\$ 13,054,645	\$ (440,392)
◆ 2023	\$ (1,166,612)	\$ (6,454)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Auburn
◆ Current Proportionate Share		5.180752%
◆ Prior Proportionate Share		5.204838%
Beginning Net Pension Liability	\$ 815,427,852	\$ 42,441,700
Ending Net Pension Liability	\$ 906,762,192	\$ 46,977,104
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 208,229
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,767,419
◆ Changes of Assumptions	56,342,617	2,918,969
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,733,454
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 6,628,071</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 348,244
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	273,636
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 621,880</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 6,059,458
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	357,910
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 6,417,368</u>
Covered Payroll:	\$ 273,888,022	\$ 14,866,579
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 46,977,101
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 56,586,848
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 38,858,830
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 2,117,772
◆ 2020	\$ 25,062,108	\$ 1,658,493
◆ 2021	\$ 16,835,661	\$ 1,285,327
◆ 2022	\$ 13,054,645	\$ 1,031,289
◆ 2023	\$ (1,166,612)	\$ (86,690)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Auburn Housing Authority
◆ Current Proportionate Share		0.109652%
◆ Prior Proportionate Share		0.109750%
Beginning Net Pension Liability	\$ 815,427,852	\$ 894,936
Ending Net Pension Liability	\$ 906,762,192	\$ 994,280
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 4,407
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	37,408
◆ Changes of Assumptions	56,342,617	61,781
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	25,881
◆ Total Deferred Outflows of Resources	<u><u>\$ 124,820,365</u></u>	<u><u>\$ 129,477</u></u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 7,371
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	85,657
◆ Total Deferred Inflows of Resources	<u><u>\$ 37,065,333</u></u>	<u><u>\$ 93,028</u></u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 128,250
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(36,565)
◆ Total Employer Pension Expense	<u><u>\$ 116,960,934</u></u>	<u><u>\$ 91,685</u></u>
Covered Payroll:	\$ 273,888,022	\$ 249,469
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 994,280
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,197,672
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 822,455
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 682
◆ 2020	\$ 25,062,108	\$ (7,348)
◆ 2021	\$ 16,835,661	\$ 25,149
◆ 2022	\$ 13,054,645	\$ 19,353
◆ 2023	\$ (1,166,612)	\$ (1,387)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Auburn Water District
◆ Current Proportionate Share		0.170994%
◆ Prior Proportionate Share		0.169591%
Beginning Net Pension Liability	\$ 815,427,852	\$ 1,382,894
Ending Net Pension Liability	\$ 906,762,192	\$ 1,550,508
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 6,873
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	58,335
◆ Changes of Assumptions	56,342,617	96,342
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	28,104
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 189,654</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 11,494
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	20,089
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 31,583</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 199,996
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	6,091
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 206,087</u>
Covered Payroll:	\$ 273,888,022	\$ 757,074
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,550,508
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,867,684
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,282,559
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 64,179
◆ 2020	\$ 25,062,108	\$ 48,599
◆ 2021	\$ 16,835,661	\$ 26,092
◆ 2022	\$ 13,054,645	\$ 19,667
◆ 2023	\$ (1,166,612)	\$ (466)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Barre
◆ Current Proportionate Share		0.526507%
◆ Prior Proportionate Share		0.537746%
Beginning Net Pension Liability	\$ 815,427,852	\$ 4,384,933
Ending Net Pension Liability	\$ 906,762,192	\$ 4,774,164
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 21,161
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	179,618
◆ Changes of Assumptions	56,342,617	296,648
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	112,372
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 609,799</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 35,391
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	418,262
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 453,653</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 615,807
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(162,341)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 453,466</u>
Covered Payroll:	\$ 273,888,022	\$ 1,658,812
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 4,774,164
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 5,750,778
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 3,949,125
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 16,509
◆ 2020	\$ 25,062,108	\$ (23,291)
◆ 2021	\$ 16,835,661	\$ 103,409
◆ 2022	\$ 13,054,645	\$ 77,911
◆ 2023	\$ (1,166,612)	\$ (18,392)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Barre Housing Authority
◆ Current Proportionate Share		0.027429%
◆ Prior Proportionate Share		0.026957%
Beginning Net Pension Liability	\$ 815,427,852	\$ 219,814
Ending Net Pension Liability	\$ 906,762,192	\$ 248,716
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,102
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	9,357
◆ Changes of Assumptions	56,342,617	15,454
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	15,359
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 41,272</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,844
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 1,844</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 32,081
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,913
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 36,994</u>
Covered Payroll:	\$ 273,888,022	\$ 144,881
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 248,716
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 299,594
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 205,735
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 14,228
◆ 2020	\$ 25,062,108	\$ 11,703
◆ 2021	\$ 16,835,661	\$ 7,420
◆ 2022	\$ 13,054,645	\$ 5,882
◆ 2023	\$ (1,166,612)	\$ 195
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Berlin
◆ Current Proportionate Share		0.828528%
◆ Prior Proportionate Share		0.829420%
Beginning Net Pension Liability	\$ 815,427,852	\$ 6,763,323
Ending Net Pension Liability	\$ 906,762,192	\$ 7,512,781
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 33,300
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	282,653
◆ Changes of Assumptions	56,342,617	466,815
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	408,454
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,191,222
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 55,693
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	5,601
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 61,294
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 969,054
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	132,812
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,101,866
Covered Payroll:	\$ 273,888,022	\$ 2,142,491
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 7,512,781
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 9,049,613
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 6,214,472
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 414,254
◆ 2020	\$ 25,062,108	\$ 338,212
◆ 2021	\$ 16,835,661	\$ 215,899
◆ 2022	\$ 13,054,645	\$ 172,201
◆ 2023	\$ (1,166,612)	\$ (10,638)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Berlin-Boylston Regional
◆ Current Proportionate Share		0.220525%
◆ Prior Proportionate Share		0.220752%
Beginning Net Pension Liability	\$ 815,427,852	\$ 1,800,073
Ending Net Pension Liability	\$ 906,762,192	\$ 1,999,634
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 8,863
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	75,232
◆ Changes of Assumptions	56,342,617	124,249
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	52,098
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 260,442</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 14,823
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	63,444
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 78,267</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 257,928
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(18,431)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 239,497</u>
Covered Payroll:	\$ 273,888,022	\$ 743,249
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,999,634
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 2,408,684
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,654,071
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 56,480
◆ 2020	\$ 25,062,108	\$ 38,102
◆ 2021	\$ 16,835,661	\$ 50,314
◆ 2022	\$ 13,054,645	\$ 40,100
◆ 2023	\$ (1,166,612)	\$ (2,821)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Blackstone
◆ Current Proportionate Share		1.317628%
◆ Prior Proportionate Share		1.316591%
Beginning Net Pension Liability	\$ 815,427,852	\$ 10,735,847
Ending Net Pension Liability	\$ 906,762,192	\$ 11,947,755
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 52,958
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	449,510
◆ Changes of Assumptions	56,342,617	742,386
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	538,977
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,783,831</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 88,570
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	894,298
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 982,868</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,541,110
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(316,040)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,225,070</u>
Covered Payroll:	\$ 273,888,022	\$ 4,021,888
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 11,947,755
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 14,391,816
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 9,883,023
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 131,550
◆ 2020	\$ 25,062,108	\$ 32,436
◆ 2021	\$ 16,835,661	\$ 361,555
◆ 2022	\$ 13,054,645	\$ 289,663
◆ 2023	\$ (1,166,612)	\$ (14,241)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Blackstone Housing Authority
◆ Current Proportionate Share		0.033240%
◆ Prior Proportionate Share		0.033799%
Beginning Net Pension Liability	\$ 815,427,852	\$ 275,605
Ending Net Pension Liability	\$ 906,762,192	\$ 301,404
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,336
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	11,340
◆ Changes of Assumptions	56,342,617	18,728
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	23,458
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 54,862</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 2,234
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	3,512
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 5,746</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 38,877
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,932
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 44,809</u>
Covered Payroll:	\$ 273,888,022	\$ 104,196
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 301,404
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 363,060
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 249,318
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 17,225
◆ 2020	\$ 25,062,108	\$ 14,228
◆ 2021	\$ 16,835,661	\$ 10,565
◆ 2022	\$ 13,054,645	\$ 8,096
◆ 2023	\$ (1,166,612)	\$ (998)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Blackstone-Millville Regional
◆ Current Proportionate Share		0.879729%
◆ Prior Proportionate Share		0.880636%
Beginning Net Pension Liability	\$ 815,427,852	\$ 7,180,953
Ending Net Pension Liability	\$ 906,762,192	\$ 7,977,054
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 35,358
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	300,121
◆ Changes of Assumptions	56,342,617	495,663
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	48,433
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 879,575</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 59,135
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	226,757
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 285,892</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,028,940
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(39,486)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 989,454</u>
Covered Payroll:	\$ 273,888,022	\$ 2,433,738
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 7,977,054
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 9,608,859
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 6,598,512
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 259,351
◆ 2020	\$ 25,062,108	\$ 180,004
◆ 2021	\$ 16,835,661	\$ 87,018
◆ 2022	\$ 13,054,645	\$ 78,561
◆ 2023	\$ (1,166,612)	\$ (11,251)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Bolton
◆ Current Proportionate Share		0.738178%
◆ Prior Proportionate Share		0.740943%
Beginning Net Pension Liability	\$ 815,427,852	\$ 6,041,853
Ending Net Pension Liability	\$ 906,762,192	\$ 6,693,520
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 29,669
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	251,830
◆ Changes of Assumptions	56,342,617	415,909
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	344,249
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,041,657</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 49,620
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	30,167
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 79,787</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 863,380
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	119,000
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 982,380</u>
Covered Payroll:	\$ 273,888,022	\$ 2,223,858
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 6,693,520
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 8,062,762
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 5,536,790
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 369,752
◆ 2020	\$ 25,062,108	\$ 300,923
◆ 2021	\$ 16,835,661	\$ 166,947
◆ 2022	\$ 13,054,645	\$ 135,873
◆ 2023	\$ (1,166,612)	\$ (11,625)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Boylston</u>
◆ Current Proportionate Share		1.086912%
◆ Prior Proportionate Share		1.098349%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,956,241
Ending Net Pension Liability	\$ 906,762,192	\$ 9,855,709
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 43,685
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	370,801
◆ Changes of Assumptions	56,342,617	612,395
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	627,734
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,654,615</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 73,061
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	238,731
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 311,792</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,271,263
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	64,270
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,335,533</u>
Covered Payroll:	\$ 273,888,022	\$ 2,728,917
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,855,709
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 11,871,817
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 8,152,511
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 433,485
◆ 2020	\$ 25,062,108	\$ 339,871
◆ 2021	\$ 16,835,661	\$ 327,700
◆ 2022	\$ 13,054,645	\$ 266,911
◆ 2023	\$ (1,166,612)	\$ (25,144)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Boylston Water District
◆ Current Proportionate Share		0.018729%
◆ Prior Proportionate Share		0.018510%
Beginning Net Pension Liability	\$ 815,427,852	\$ 150,937
Ending Net Pension Liability	\$ 906,762,192	\$ 169,823
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 753
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	6,389
◆ Changes of Assumptions	56,342,617	10,552
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	12,223
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 29,917</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,259
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	54,299
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 55,558</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 21,905
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(24,593)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ (2,688)</u>
Covered Payroll:	\$ 273,888,022	\$ 69,413
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 169,823
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 204,562
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 140,475
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (18,233)
◆ 2020	\$ 25,062,108	\$ (18,792)
◆ 2021	\$ 16,835,661	\$ 6,255
◆ 2022	\$ 13,054,645	\$ 5,109
◆ 2023	\$ (1,166,612)	\$ 20
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Brookfield
◆ Current Proportionate Share		0.485359%
◆ Prior Proportionate Share		0.488234%
Beginning Net Pension Liability	\$ 815,427,852	\$ 3,981,194
Ending Net Pension Liability	\$ 906,762,192	\$ 4,401,048
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 19,508
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	165,581
◆ Changes of Assumptions	56,342,617	273,464
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	199,210
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 657,763</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 32,625
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	139,260
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 171,885</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 567,680
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(12,948)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 554,732</u>
Covered Payroll:	\$ 273,888,022	\$ 1,000,208
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 4,401,048
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 5,301,337
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 3,640,488
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 151,924
◆ 2020	\$ 25,062,108	\$ 111,037
◆ 2021	\$ 16,835,661	\$ 127,696
◆ 2022	\$ 13,054,645	\$ 104,016
◆ 2023	\$ (1,166,612)	\$ (8,795)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Charlton</u>
◆ Current Proportionate Share		2.092922%
◆ Prior Proportionate Share		2.100986%
Beginning Net Pension Liability	\$ 815,427,852	\$ 17,132,029
Ending Net Pension Liability	\$ 906,762,192	\$ 18,977,826
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 84,119
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	714,003
◆ Changes of Assumptions	56,342,617	1,179,207
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	585,720
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 2,563,049</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 140,684
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	54,127
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 194,811</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,447,901
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	222,613
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,670,514</u>
Covered Payroll:	\$ 273,888,022	\$ 5,437,905
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 18,977,826
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 22,859,976
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 15,698,204
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 933,561
◆ 2020	\$ 25,062,108	\$ 740,434
◆ 2021	\$ 16,835,661	\$ 407,428
◆ 2022	\$ 13,054,645	\$ 320,020
◆ 2023	\$ (1,166,612)	\$ (33,205)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Cherry Valley- Rochdale Water
◆ Current Proportionate Share		0.082792%
◆ Prior Proportionate Share		0.080386%
Beginning Net Pension Liability	\$ 815,427,852	\$ 655,493
Ending Net Pension Liability	\$ 906,762,192	\$ 750,726
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,328
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	28,245
◆ Changes of Assumptions	56,342,617	46,647
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	19,430
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 97,650</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 5,565
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	36,365
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 41,930</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 96,834
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(11,247)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 85,587</u>
Covered Payroll:	\$ 273,888,022	\$ 190,610
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 750,726
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 904,296
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 620,991
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 16,876
◆ 2020	\$ 25,062,108	\$ 10,028
◆ 2021	\$ 16,835,661	\$ 15,602
◆ 2022	\$ 13,054,645	\$ 11,558
◆ 2023	\$ (1,166,612)	\$ 1,656
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Cherry Valley Sewer District
◆ Current Proportionate Share		0.003138%
◆ Prior Proportionate Share		0.003002%
Beginning Net Pension Liability	\$ 815,427,852	\$ 24,479
Ending Net Pension Liability	\$ 906,762,192	\$ 28,453
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 126
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,070
◆ Changes of Assumptions	56,342,617	1,768
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	14,748
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 17,712
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 211
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,203
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 1,414
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,670
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,162
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 6,832
Covered Payroll:	\$ 273,888,022	\$ -
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 28,453
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 34,274
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 23,536
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 4,228
◆ 2020	\$ 25,062,108	\$ 3,974
◆ 2021	\$ 16,835,661	\$ 4,303
◆ 2022	\$ 13,054,645	\$ 3,682
◆ 2023	\$ (1,166,612)	\$ 111
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Douglas
◆ Current Proportionate Share		1.792803%
◆ Prior Proportionate Share		1.807354%
Beginning Net Pension Liability	\$ 815,427,852	\$ 14,737,669
Ending Net Pension Liability	\$ 906,762,192	\$ 16,256,457
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 72,057
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	611,617
◆ Changes of Assumptions	56,342,617	1,010,112
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	655,481
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 2,349,267
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 120,511
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	202,277
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 322,788
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,096,879
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	98,217
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 2,195,096
Covered Payroll:	\$ 273,888,022	\$ 5,241,322
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 16,256,457
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 19,581,916
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 13,447,124
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 707,217
◆ 2020	\$ 25,062,108	\$ 549,303
◆ 2021	\$ 16,835,661	\$ 445,528
◆ 2022	\$ 13,054,645	\$ 361,205
◆ 2023	\$ (1,166,612)	\$ (36,774)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Dudley
◆ Current Proportionate Share		1.442193%
◆ Prior Proportionate Share		1.447436%
Beginning Net Pension Liability	\$ 815,427,852	\$ 11,802,799
Ending Net Pension Liability	\$ 906,762,192	\$ 13,077,264
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 57,965
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	492,006
◆ Changes of Assumptions	56,342,617	812,569
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,362,540</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 96,943
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	767,300
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 864,243</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,686,803
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(309,158)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,377,645</u>
Covered Payroll:	\$ 273,888,022	\$ 3,881,684
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 13,077,264
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 15,752,380
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 10,817,338
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 180,744
◆ 2020	\$ 25,062,108	\$ 61,361
◆ 2021	\$ 16,835,661	\$ 160,736
◆ 2022	\$ 13,054,645	\$ 117,995
◆ 2023	\$ (1,166,612)	\$ (22,539)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Dudley Housing Authority
◆ Current Proportionate Share		0.025150%
◆ Prior Proportionate Share		0.023623%
Beginning Net Pension Liability	\$ 815,427,852	\$ 192,627
Ending Net Pension Liability	\$ 906,762,192	\$ 228,048
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,011
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	8,580
◆ Changes of Assumptions	56,342,617	14,170
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,589
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 33,350</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,691
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	124,062
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 125,753</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 29,415
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(36,157)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ (6,742)</u>
Covered Payroll:	\$ 273,888,022	\$ 61,641
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 228,048
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 274,699
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 188,639
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (27,613)
◆ 2020	\$ 25,062,108	\$ (29,381)
◆ 2021	\$ 16,835,661	\$ (20,002)
◆ 2022	\$ 13,054,645	\$ (16,778)
◆ 2023	\$ (1,166,612)	\$ 1,371
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Dudley-Charlton Regional
◆ Current Proportionate Share		1.667751%
◆ Prior Proportionate Share		1.671493%
Beginning Net Pension Liability	\$ 815,427,852	\$ 13,629,816
Ending Net Pension Liability	\$ 906,762,192	\$ 15,122,534
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 67,031
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	568,955
◆ Changes of Assumptions	56,342,617	939,654
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	165,556
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,741,196</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 112,105
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	31,187
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 143,292</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,950,617
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	55,086
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,005,703</u>
Covered Payroll:	\$ 273,888,022	\$ 5,007,211
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 15,122,534
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 18,216,035
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 12,509,158
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 621,607
◆ 2020	\$ 25,062,108	\$ 471,455
◆ 2021	\$ 16,835,661	\$ 296,139
◆ 2022	\$ 13,054,645	\$ 232,237
◆ 2023	\$ (1,166,612)	\$ (23,534)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	East Brookfield
◆ Current Proportionate Share		0.247480%
◆ Prior Proportionate Share		0.251065%
Beginning Net Pension Liability	\$ 815,427,852	\$ 2,047,251
Ending Net Pension Liability	\$ 906,762,192	\$ 2,244,051
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 9,947
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	84,428
◆ Changes of Assumptions	56,342,617	139,436
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	309,022
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 542,833
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 16,635
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	24,402
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 41,037
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 289,454
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	93,057
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 382,511
Covered Payroll:	\$ 273,888,022	\$ 619,046
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 2,244,051
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 2,703,099
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,856,249
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 177,125
◆ 2020	\$ 25,062,108	\$ 153,593
◆ 2021	\$ 16,835,661	\$ 97,613
◆ 2022	\$ 13,054,645	\$ 80,259
◆ 2023	\$ (1,166,612)	\$ (6,794)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Grafton
◆ Current Proportionate Share		3.014179%
◆ Prior Proportionate Share		3.017882%
Beginning Net Pension Liability	\$ 815,427,852	\$ 24,608,648
Ending Net Pension Liability	\$ 906,762,192	\$ 27,331,432
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 121,146
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,028,290
◆ Changes of Assumptions	56,342,617	1,698,267
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	189,741
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 3,037,444</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 202,610
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	101,413
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 304,023</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,525,411
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,788
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 3,531,199</u>
Covered Payroll:	\$ 273,888,022	\$ 9,044,015
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 27,331,432
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 32,922,415
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 22,608,196
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 1,029,683
◆ 2020	\$ 25,062,108	\$ 762,634
◆ 2021	\$ 16,835,661	\$ 549,345
◆ 2022	\$ 13,054,645	\$ 430,959
◆ 2023	\$ (1,166,612)	\$ (39,200)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Grafton Housing Authority
◆ Current Proportionate Share		0.090436%
◆ Prior Proportionate Share		0.091499%
Beginning Net Pension Liability	\$ 815,427,852	\$ 746,110
Ending Net Pension Liability	\$ 906,762,192	\$ 820,043
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,635
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	30,852
◆ Changes of Assumptions	56,342,617	50,954
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,429
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 94,870</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,079
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	23,225
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 29,304</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 105,775
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,105)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 104,670</u>
Covered Payroll:	\$ 273,888,022	\$ 309,255
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 820,043
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 987,793
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 678,328
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 29,618
◆ 2020	\$ 25,062,108	\$ 21,367
◆ 2021	\$ 16,835,661	\$ 9,445
◆ 2022	\$ 13,054,645	\$ 7,349
◆ 2023	\$ (1,166,612)	\$ (2,213)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Hardwick
◆ Current Proportionate Share		0.344405%
◆ Prior Proportionate Share		0.343846%
Beginning Net Pension Liability	\$ 815,427,852	\$ 2,803,820
Ending Net Pension Liability	\$ 906,762,192	\$ 3,122,938
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 13,842
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	117,494
◆ Changes of Assumptions	56,342,617	194,047
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	10,400
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 335,783
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 23,151
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	352,146
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 375,297
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 402,820
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(114,162)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 288,658
Covered Payroll:	\$ 273,888,022	\$ 759,778
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 3,122,938
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 3,761,774
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 2,583,253
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 2,829
◆ 2020	\$ 25,062,108	\$ (25,728)
◆ 2021	\$ 16,835,661	\$ (3,559)
◆ 2022	\$ 13,054,645	\$ (9,647)
◆ 2023	\$ (1,166,612)	\$ (3,409)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Harvard
◆ Current Proportionate Share		1.502224%
◆ Prior Proportionate Share		1.495648%
Beginning Net Pension Liability	\$ 815,427,852	\$ 12,195,933
Ending Net Pension Liability	\$ 906,762,192	\$ 13,621,603
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 60,378
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	512,485
◆ Changes of Assumptions	56,342,617	846,393
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	43,672
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,462,928
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 100,978
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	431,484
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 532,462
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,757,016
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(183,752)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,573,264
Covered Payroll:	\$ 273,888,022	\$ 4,335,704
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 13,621,603
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 16,408,071
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 11,267,608
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 326,542
◆ 2020	\$ 25,062,108	\$ 199,347
◆ 2021	\$ 16,835,661	\$ 234,272
◆ 2022	\$ 13,054,645	\$ 180,663
◆ 2023	\$ (1,166,612)	\$ (10,358)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Hillcrest Water District
◆ Current Proportionate Share		0.013196%
◆ Prior Proportionate Share		0.012751%
Beginning Net Pension Liability	\$ 815,427,852	\$ 103,976
Ending Net Pension Liability	\$ 906,762,192	\$ 119,659
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 530
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	4,502
◆ Changes of Assumptions	56,342,617	7,435
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	45,725
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 58,192</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 887
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	20,553
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 21,440</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 15,435
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	10,813
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 26,248</u>
Covered Payroll:	\$ 273,888,022	\$ 17,709
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 119,659
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 144,137
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 98,981
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 15,296
◆ 2020	\$ 25,062,108	\$ 14,050
◆ 2021	\$ 16,835,661	\$ 9,354
◆ 2022	\$ 13,054,645	\$ (2,279)
◆ 2023	\$ (1,166,612)	\$ 331
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Holden</u>
◆ Current Proportionate Share		3.727814%
◆ Prior Proportionate Share		3.711929%
Beginning Net Pension Liability	\$ 815,427,852	\$ 30,268,102
Ending Net Pension Liability	\$ 906,762,192	\$ 33,802,409
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 149,829
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,271,748
◆ Changes of Assumptions	56,342,617	2,100,348
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	154,913
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 3,676,838</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 250,580
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,096,006
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 1,346,586</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 4,360,086
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(342,200)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 4,017,886</u>
Covered Payroll:	\$ 273,888,022	\$ 9,206,279
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 33,802,409
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 40,717,110
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 27,960,901
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 924,111
◆ 2020	\$ 25,062,108	\$ 600,046
◆ 2021	\$ 16,835,661	\$ 482,115
◆ 2022	\$ 13,054,645	\$ 350,156
◆ 2023	\$ (1,166,612)	\$ (26,176)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Holden Housing Authority
◆ Current Proportionate Share		0.051887%
◆ Prior Proportionate Share		0.052631%
Beginning Net Pension Liability	\$ 815,427,852	\$ 429,169
Ending Net Pension Liability	\$ 906,762,192	\$ 470,494
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,085
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	17,701
◆ Changes of Assumptions	56,342,617	29,235
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,353
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 58,374</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 3,488
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	15,811
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 19,299</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 60,688
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	787
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 61,475</u>
Covered Payroll:	\$ 273,888,022	\$ 139,228
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 470,494
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 566,740
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 389,187
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 18,413
◆ 2020	\$ 25,062,108	\$ 13,600
◆ 2021	\$ 16,835,661	\$ 4,823
◆ 2022	\$ 13,054,645	\$ 3,655
◆ 2023	\$ (1,166,612)	\$ (1,416)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Hopedale
◆ Current Proportionate Share		1.637232%
◆ Prior Proportionate Share		1.646599%
Beginning Net Pension Liability	\$ 815,427,852	\$ 13,426,827
Ending Net Pension Liability	\$ 906,762,192	\$ 14,845,804
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 65,804
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	558,544
◆ Changes of Assumptions	56,342,617	922,460
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	498,159
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 2,044,967
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 110,053
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	487,938
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 597,991
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,914,922
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(100,689)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,814,233
Covered Payroll:	\$ 273,888,022	\$ 4,428,604
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 14,845,804
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 17,882,697
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 12,280,251
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 455,465
◆ 2020	\$ 25,062,108	\$ 318,222
◆ 2021	\$ 16,835,661	\$ 390,025
◆ 2022	\$ 13,054,645	\$ 312,572
◆ 2023	\$ (1,166,612)	\$ (29,308)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Hopedale Housing Authority
◆ Current Proportionate Share		0.008981%
◆ Prior Proportionate Share		0.008593%
Beginning Net Pension Liability	\$ 815,427,852	\$ 70,070
Ending Net Pension Liability	\$ 906,762,192	\$ 81,434
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 361
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	3,064
◆ Changes of Assumptions	56,342,617	5,060
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	3,464
◆ Total Deferred Outflows of Resources	<u><u>\$ 124,820,365</u></u>	<u><u>\$ 11,949</u></u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 604
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	27,004
◆ Total Deferred Inflows of Resources	<u><u>\$ 37,065,333</u></u>	<u><u>\$ 27,608</u></u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 10,504
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(6,748)
◆ Total Employer Pension Expense	<u><u>\$ 116,960,934</u></u>	<u><u>\$ 3,756</u></u>
Covered Payroll:	\$ 273,888,022	\$ -
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 81,434
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 98,093
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 67,361
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (3,697)
◆ 2020	\$ 25,062,108	\$ (4,447)
◆ 2021	\$ 16,835,661	\$ (4,037)
◆ 2022	\$ 13,054,645	\$ (3,796)
◆ 2023	\$ (1,166,612)	\$ 318
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Hubbardston
◆ Current Proportionate Share		0.459305%
◆ Prior Proportionate Share		0.471826%
Beginning Net Pension Liability	\$ 815,427,852	\$ 3,847,404
Ending Net Pension Liability	\$ 906,762,192	\$ 4,164,808
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 18,460
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	156,693
◆ Changes of Assumptions	56,342,617	258,785
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	267,999
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 701,937</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 30,874
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	95,071
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 125,945</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 537,208
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	78,173
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 615,381</u>
Covered Payroll:	\$ 273,888,022	\$ 876,192
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 4,164,808
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 5,016,771
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 3,445,073
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 234,196
◆ 2020	\$ 25,062,108	\$ 190,786
◆ 2021	\$ 16,835,661	\$ 93,859
◆ 2022	\$ 13,054,645	\$ 76,155
◆ 2023	\$ (1,166,612)	\$ (19,004)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lancaster
◆ Current Proportionate Share		1.006400%
◆ Prior Proportionate Share		1.005681%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,200,606
Ending Net Pension Liability	\$ 906,762,192	\$ 9,125,651
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 40,449
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	343,334
◆ Changes of Assumptions	56,342,617	567,032
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	23,589
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 974,404</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 67,649
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	50,793
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 118,442</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,177,094
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(18,782)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,158,312</u>
Covered Payroll:	\$ 273,888,022	\$ 2,813,173
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,125,651
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 10,992,416
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,548,617
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 323,083
◆ 2020	\$ 25,062,108	\$ 234,479
◆ 2021	\$ 16,835,661	\$ 175,887
◆ 2022	\$ 13,054,645	\$ 133,471
◆ 2023	\$ (1,166,612)	\$ (10,958)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lancaster Housing Authority
◆ Current Proportionate Share		0.026522%
◆ Prior Proportionate Share		0.026477%
Beginning Net Pension Liability	\$ 815,427,852	\$ 215,898
Ending Net Pension Liability	\$ 906,762,192	\$ 240,492
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,066
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	9,048
◆ Changes of Assumptions	56,342,617	14,943
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	42,834
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 67,891</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,783
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	27,713
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 29,496</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 31,020
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(2,991)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 28,029</u>
Covered Payroll:	\$ 273,888,022	\$ 19,589
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 240,492
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 289,687
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 198,931
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 6,017
◆ 2020	\$ 25,062,108	\$ 4,222
◆ 2021	\$ 16,835,661	\$ 15,578
◆ 2022	\$ 13,054,645	\$ 12,838
◆ 2023	\$ (1,166,612)	\$ (260)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lancaster Sewer
◆ Current Proportionate Share		0.002849%
◆ Prior Proportionate Share		0.000000%
Beginning Net Pension Liability	\$ 815,427,852	\$ -
Ending Net Pension Liability	\$ 906,762,192	\$ 25,831
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 114
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	972
◆ Changes of Assumptions	56,342,617	1,605
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	17,889
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 20,580</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 191
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 191</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,332
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,696
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 7,028</u>
Covered Payroll:	\$ 273,888,022	\$ 1,310
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 25,831
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 31,115
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 21,367
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 4,664
◆ 2020	\$ 25,062,108	\$ 4,410
◆ 2021	\$ 16,835,661	\$ 4,176
◆ 2022	\$ 13,054,645	\$ 4,067
◆ 2023	\$ (1,166,612)	\$ 3,072
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Leicester
◆ Current Proportionate Share		2.087029%
◆ Prior Proportionate Share		2.085822%
Beginning Net Pension Liability	\$ 815,427,852	\$ 17,008,376
Ending Net Pension Liability	\$ 906,762,192	\$ 18,924,389
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 83,882
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	711,992
◆ Changes of Assumptions	56,342,617	1,175,887
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	24,577
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,996,338
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 140,288
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	839,687
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 979,975
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,441,009
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(394,377)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 2,046,632
Covered Payroll:	\$ 273,888,022	\$ 4,997,991
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 18,924,389
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 22,795,607
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 15,654,002
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 314,569
◆ 2020	\$ 25,062,108	\$ 143,655
◆ 2021	\$ 16,835,661	\$ 330,681
◆ 2022	\$ 13,054,645	\$ 250,491
◆ 2023	\$ (1,166,612)	\$ (23,033)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Leicester Housing Authority
◆ Current Proportionate Share		0.068674%
◆ Prior Proportionate Share		0.067839%
Beginning Net Pension Liability	\$ 815,427,852	\$ 553,177
Ending Net Pension Liability	\$ 906,762,192	\$ 622,711
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,760
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	23,428
◆ Changes of Assumptions	56,342,617	38,693
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	6,400
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 71,281</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 4,616
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	30,582
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 35,198</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 80,322
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(7,789)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 72,533</u>
Covered Payroll:	\$ 273,888,022	\$ 192,364
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 622,711
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 750,095
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 515,099
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 15,540
◆ 2020	\$ 25,062,108	\$ 9,533
◆ 2021	\$ 16,835,661	\$ 6,466
◆ 2022	\$ 13,054,645	\$ 4,435
◆ 2023	\$ (1,166,612)	\$ 109
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Leicester Water District
◆ Current Proportionate Share		0.080647%
◆ Prior Proportionate Share		0.079108%
Beginning Net Pension Liability	\$ 815,427,852	\$ 645,067
Ending Net Pension Liability	\$ 906,762,192	\$ 731,279
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,241
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	27,513
◆ Changes of Assumptions	56,342,617	45,439
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,668
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 85,861</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 5,421
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	133,578
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 138,999</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 94,326
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(41,854)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 52,472</u>
Covered Payroll:	\$ 273,888,022	\$ 280,944
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 731,279
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 880,872
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 604,905
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (14,458)
◆ 2020	\$ 25,062,108	\$ (21,143)
◆ 2021	\$ 16,835,661	\$ (14,141)
◆ 2022	\$ 13,054,645	\$ (4,133)
◆ 2023	\$ (1,166,612)	\$ 737
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lunenburg
◆ Current Proportionate Share		2.194566%
◆ Prior Proportionate Share		2.187741%
Beginning Net Pension Liability	\$ 815,427,852	\$ 17,839,446
Ending Net Pension Liability	\$ 906,762,192	\$ 19,899,499
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 88,204
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	748,679
◆ Changes of Assumptions	56,342,617	1,236,476
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	282,668
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 2,356,027
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 147,517
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 147,517
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,566,785
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	97,863
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 2,664,648
Covered Payroll:	\$ 273,888,022	\$ 5,642,383
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 19,899,499
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 23,970,188
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 16,460,600
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 843,340
◆ 2020	\$ 25,062,108	\$ 646,018
◆ 2021	\$ 16,835,661	\$ 418,835
◆ 2022	\$ 13,054,645	\$ 318,480
◆ 2023	\$ (1,166,612)	\$ (18,163)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lunenburg Housing Authority
◆ Current Proportionate Share		0.002418%
◆ Prior Proportionate Share		0.002540%
Beginning Net Pension Liability	\$ 815,427,852	\$ 20,708
Ending Net Pension Liability	\$ 906,762,192	\$ 21,922
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 97
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	825
◆ Changes of Assumptions	56,342,617	1,362
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u><u>\$ 124,820,365</u></u>	<u><u>\$ 2,284</u></u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 163
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	32,783
◆ Total Deferred Inflows of Resources	<u><u>\$ 37,065,333</u></u>	<u><u>\$ 32,946</u></u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,828
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(10,369)
◆ Total Employer Pension Expense	<u><u>\$ 116,960,934</u></u>	<u><u>\$ (7,541)</u></u>
Covered Payroll:	\$ 273,888,022	\$ 16,439
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 21,922
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 26,407
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 18,134
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (9,547)
◆ 2020	\$ 25,062,108	\$ (9,618)
◆ 2021	\$ 16,835,661	\$ (6,253)
◆ 2022	\$ 13,054,645	\$ (5,083)
◆ 2023	\$ (1,166,612)	\$ (161)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Lunenburg Water District
◆ Current Proportionate Share		0.089736%
◆ Prior Proportionate Share		0.086954%
Beginning Net Pension Liability	\$ 815,427,852	\$ 709,045
Ending Net Pension Liability	\$ 906,762,192	\$ 813,691
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,607
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	30,613
◆ Changes of Assumptions	56,342,617	50,560
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	26,293
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 111,073</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,032
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	93,837
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 99,869</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 104,956
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(29,733)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 75,223</u>
Covered Payroll:	\$ 273,888,022	\$ 255,320
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 813,691
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 980,141
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 673,074
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 750
◆ 2020	\$ 25,062,108	\$ (6,260)
◆ 2021	\$ 16,835,661	\$ 9,562
◆ 2022	\$ 13,054,645	\$ 5,167
◆ 2023	\$ (1,166,612)	\$ 1,985
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Mendon</u>
◆ Current Proportionate Share		1.021572%
◆ Prior Proportionate Share		1.026468%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,370,108
Ending Net Pension Liability	\$ 906,762,192	\$ 9,263,226
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 41,059
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	348,510
◆ Changes of Assumptions	56,342,617	575,580
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	444,729
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,409,878</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 68,669
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	30,748
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 99,417</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,194,840
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	139,200
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,334,040</u>
Covered Payroll:	\$ 273,888,022	\$ 2,788,263
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,263,226
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 11,158,134
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,662,417
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 486,222
◆ 2020	\$ 25,062,108	\$ 393,119
◆ 2021	\$ 16,835,661	\$ 256,118
◆ 2022	\$ 13,054,645	\$ 192,256
◆ 2023	\$ (1,166,612)	\$ (17,254)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Mendon-Upton Regional
◆ Current Proportionate Share		1.274427%
◆ Prior Proportionate Share		1.283499%
Beginning Net Pension Liability	\$ 815,427,852	\$ 10,466,011
Ending Net Pension Liability	\$ 906,762,192	\$ 11,556,024
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 51,222
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	434,772
◆ Changes of Assumptions	56,342,617	718,046
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	287,230
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,491,270</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 85,666
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	86,779
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 172,445</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,490,582
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	90,074
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,580,656</u>
Covered Payroll:	\$ 273,888,022	\$ 4,576,775
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 11,556,024
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 13,919,951
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 9,558,988
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 522,987
◆ 2020	\$ 25,062,108	\$ 406,395
◆ 2021	\$ 16,835,661	\$ 229,185
◆ 2022	\$ 13,054,645	\$ 185,014
◆ 2023	\$ (1,166,612)	\$ (24,756)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Millbury
◆ Current Proportionate Share		3.141697%
◆ Prior Proportionate Share		3.144066%
Beginning Net Pension Liability	\$ 815,427,852	\$ 25,637,587
Ending Net Pension Liability	\$ 906,762,192	\$ 28,487,717
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 126,272
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,071,793
◆ Changes of Assumptions	56,342,617	1,770,114
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	154,963
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 3,123,142
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 211,182
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	621,486
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 832,668
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,674,558
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(269,913)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 3,404,645
Covered Payroll:	\$ 273,888,022	\$ 6,982,817
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 28,487,717
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 34,315,232
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 23,564,659
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 797,296
◆ 2020	\$ 25,062,108	\$ 529,841
◆ 2021	\$ 16,835,661	\$ 567,150
◆ 2022	\$ 13,054,645	\$ 435,420
◆ 2023	\$ (1,166,612)	\$ (39,233)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Millbury Housing Authority
◆ Current Proportionate Share		0.162520%
◆ Prior Proportionate Share		0.163058%
Beginning Net Pension Liability	\$ 815,427,852	\$ 1,329,616
Ending Net Pension Liability	\$ 906,762,192	\$ 1,473,667
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 6,532
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	55,444
◆ Changes of Assumptions	56,342,617	91,568
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	17,930
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 171,474</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 10,924
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	6,276
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 17,200</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 190,084
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,507
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 197,591</u>
Covered Payroll:	\$ 273,888,022	\$ 439,018
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,473,667
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,775,123
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,218,997
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 62,714
◆ 2020	\$ 25,062,108	\$ 47,895
◆ 2021	\$ 16,835,661	\$ 26,274
◆ 2022	\$ 13,054,645	\$ 19,873
◆ 2023	\$ (1,166,612)	\$ (2,482)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Millville
◆ Current Proportionate Share		0.276827%
◆ Prior Proportionate Share		0.293051%
Beginning Net Pension Liability	\$ 815,427,852	\$ 2,389,622
Ending Net Pension Liability	\$ 906,762,192	\$ 2,510,162
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 11,126
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	94,440
◆ Changes of Assumptions	56,342,617	155,972
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	396,446
◆ Total Deferred Outflows of Resources	<u><u>\$ 124,820,365</u></u>	<u><u>\$ 657,984</u></u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 18,608
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	119,921
◆ Total Deferred Inflows of Resources	<u><u>\$ 37,065,333</u></u>	<u><u>\$ 138,529</u></u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 323,779
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	123,272
◆ Total Employer Pension Expense	<u><u>\$ 116,960,934</u></u>	<u><u>\$ 447,051</u></u>
Covered Payroll:	\$ 273,888,022	\$ 679,493
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 2,510,162
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 3,023,646
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 2,076,372
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 217,307
◆ 2020	\$ 25,062,108	\$ 188,756
◆ 2021	\$ 16,835,661	\$ 73,403
◆ 2022	\$ 13,054,645	\$ 60,900
◆ 2023	\$ (1,166,612)	\$ (20,911)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Narragansett Regional
◆ Current Proportionate Share		0.665421%
◆ Prior Proportionate Share		0.665740%
Beginning Net Pension Liability	\$ 815,427,852	\$ 5,428,630
Ending Net Pension Liability	\$ 906,762,192	\$ 6,033,789
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 26,745
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	227,009
◆ Changes of Assumptions	56,342,617	374,916
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 628,670</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 44,729
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	225,913
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 270,642</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 778,283
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(79,468)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 698,815</u>
Covered Payroll:	\$ 273,888,022	\$ 1,646,353
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 6,033,789
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 7,268,075
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 4,991,069
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 146,570
◆ 2020	\$ 25,062,108	\$ 88,977
◆ 2021	\$ 16,835,661	\$ 74,681
◆ 2022	\$ 13,054,645	\$ 55,911
◆ 2023	\$ (1,166,612)	\$ (8,111)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Nashoba Regional
◆ Current Proportionate Share		1.758719%
◆ Prior Proportionate Share		1.771049%
Beginning Net Pension Liability	\$ 815,427,852	\$ 14,441,629
Ending Net Pension Liability	\$ 906,762,192	\$ 15,947,398
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 70,687
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	599,989
◆ Changes of Assumptions	56,342,617	990,908
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	870,672
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 2,532,256</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 118,220
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	606,307
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 724,527</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,057,014
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(53,925)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,003,089</u>
Covered Payroll:	\$ 273,888,022	\$ 6,016,656
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 15,947,398
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 19,209,635
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 13,191,474
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 543,496
◆ 2020	\$ 25,062,108	\$ 396,833
◆ 2021	\$ 16,835,661	\$ 493,776
◆ 2022	\$ 13,054,645	\$ 407,580
◆ 2023	\$ (1,166,612)	\$ (33,956)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Nashoba Valley Dispatch
◆ Current Proportionate Share		0.030648%
◆ Prior Proportionate Share		0.000000%
Beginning Net Pension Liability	\$ 815,427,852	\$ -
Ending Net Pension Liability	\$ 906,762,192	\$ 277,902
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,232
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	10,456
◆ Changes of Assumptions	56,342,617	17,268
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	192,460
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 221,416</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 2,060
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 2,060</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 35,846
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	39,765
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 75,611</u>
Covered Payroll:	\$ 273,888,022	\$ 350,893
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 277,902
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 334,751
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 229,877
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 50,175
◆ 2020	\$ 25,062,108	\$ 47,446
◆ 2021	\$ 16,835,661	\$ 44,924
◆ 2022	\$ 13,054,645	\$ 43,767
◆ 2023	\$ (1,166,612)	\$ 33,044
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	New Braintree
◆ Current Proportionate Share		0.090618%
◆ Prior Proportionate Share		0.089462%
Beginning Net Pension Liability	\$ 815,427,852	\$ 729,495
Ending Net Pension Liability	\$ 906,762,192	\$ 821,688
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,642
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	30,914
◆ Changes of Assumptions	56,342,617	51,056
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	39,347
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 124,959</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,091
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	186,186
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 192,277</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 105,987
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(30,834)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 75,153</u>
Covered Payroll:	\$ 273,888,022	\$ 223,500
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 821,688
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 989,774
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 679,689
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (54)
◆ 2020	\$ 25,062,108	\$ (8,778)
◆ 2021	\$ 16,835,661	\$ (31,695)
◆ 2022	\$ 13,054,645	\$ (26,994)
◆ 2023	\$ (1,166,612)	\$ 203
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Northboro
◆ Current Proportionate Share		3.389009%
◆ Prior Proportionate Share		3.357976%
Beginning Net Pension Liability	\$ 815,427,852	\$ 27,381,868
Ending Net Pension Liability	\$ 906,762,192	\$ 30,730,253
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 136,212
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,156,164
◆ Changes of Assumptions	56,342,617	1,909,456
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	424,866
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 3,626,698
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 227,806
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	329,539
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 557,345
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,963,817
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(62,305)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 3,901,512
Covered Payroll:	\$ 273,888,022	\$ 10,399,313
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 30,730,253
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 37,016,507
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 25,419,655
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 1,088,916
◆ 2020	\$ 25,062,108	\$ 793,778
◆ 2021	\$ 16,835,661	\$ 673,157
◆ 2022	\$ 13,054,645	\$ 519,216
◆ 2023	\$ (1,166,612)	\$ (5,714)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Northboro Housing Authority
◆ Current Proportionate Share		0.111933%
◆ Prior Proportionate Share		0.112047%
Beginning Net Pension Liability	\$ 815,427,852	\$ 913,662
Ending Net Pension Liability	\$ 906,762,192	\$ 1,014,964
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 4,499
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	38,186
◆ Changes of Assumptions	56,342,617	63,066
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	71,691
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 177,442</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 7,524
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,659
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 9,183</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 130,918
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	28,513
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 159,431</u>
Covered Payroll:	\$ 273,888,022	\$ 472,650
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,014,964
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,222,587
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 839,564
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 66,535
◆ 2020	\$ 25,062,108	\$ 55,720
◆ 2021	\$ 16,835,661	\$ 26,240
◆ 2022	\$ 13,054,645	\$ 21,195
◆ 2023	\$ (1,166,612)	\$ (1,431)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Northboro-Southboro Regional
◆ Current Proportionate Share		0.635219%
◆ Prior Proportionate Share		0.641212%
Beginning Net Pension Liability	\$ 815,427,852	\$ 5,228,622
Ending Net Pension Liability	\$ 906,762,192	\$ 5,759,925
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 25,531
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	216,706
◆ Changes of Assumptions	56,342,617	357,899
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	329,770
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 929,906
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 42,699
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	222,163
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 264,862
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 742,958
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(15,383)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 727,575
Covered Payroll:	\$ 273,888,022	\$ 2,049,968
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 5,759,925
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 6,938,189
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 4,764,533
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 200,395
◆ 2020	\$ 25,062,108	\$ 147,442
◆ 2021	\$ 16,835,661	\$ 182,527
◆ 2022	\$ 13,054,645	\$ 148,623
◆ 2023	\$ (1,166,612)	\$ (13,943)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>North Brookfield</u>
◆ Current Proportionate Share		0.761923%
◆ Prior Proportionate Share		0.760249%
<i>Beginning Net Pension Liability</i>	\$ 815,427,852	\$ 6,199,284
<i>Ending Net Pension Liability</i>	\$ 906,762,192	\$ 6,908,832
<i>Total Deferred Outflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 30,623
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	259,931
◆ Changes of Assumptions	56,342,617	429,288
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	15,531
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 735,373</u>
<i>Total Deferred Inflows of Resources:</i>		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 51,216
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	282,286
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 333,502</u>
<i>Employer Pension Expense:</i>		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 891,153
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(99,514)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 791,639</u>
<i>Covered Payroll:</i>	\$ 273,888,022	\$ 2,229,456
<i>Sensitivity of the Net Pension Liability to changes in the discount rate:</i>		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 6,908,832
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 8,322,119
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 5,714,894
<i>Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:</i>		
◆ 2019	\$ 33,969,230	\$ 159,305
◆ 2020	\$ 25,062,108	\$ 93,903
◆ 2021	\$ 16,835,661	\$ 90,091
◆ 2022	\$ 13,054,645	\$ 65,636
◆ 2023	\$ (1,166,612)	\$ (7,064)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	North Brookfield Housing Authority
◆ Current Proportionate Share		0.032769%
◆ Prior Proportionate Share		0.031763%
Beginning Net Pension Liability	\$ 815,427,852	\$ 259,007
Ending Net Pension Liability	\$ 906,762,192	\$ 297,137
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,317
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	11,179
◆ Changes of Assumptions	56,342,617	18,463
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	15,059
◆ Total Deferred Outflows of Resources	<u><u>\$ 124,820,365</u></u>	<u><u>\$ 46,018</u></u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 2,203
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	<u><u>\$ 37,065,333</u></u>	<u><u>\$ 2,203</u></u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 38,327
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,051
◆ Total Employer Pension Expense	<u><u>\$ 116,960,934</u></u>	<u><u>\$ 43,378</u></u>
Covered Payroll:	\$ 273,888,022	\$ 84,837
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 297,137
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 357,920
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 245,788
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 16,184
◆ 2020	\$ 25,062,108	\$ 13,157
◆ 2021	\$ 16,835,661	\$ 7,802
◆ 2022	\$ 13,054,645	\$ 5,958
◆ 2023	\$ (1,166,612)	\$ 714
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Oakham
◆ Current Proportionate Share		0.115202%
◆ Prior Proportionate Share		0.115517%
Beginning Net Pension Liability	\$ 815,427,852	\$ 941,961
Ending Net Pension Liability	\$ 906,762,192	\$ 1,044,606
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 4,630
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	39,301
◆ Changes of Assumptions	56,342,617	64,908
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 108,839
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 7,744
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	177,671
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 185,415
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 134,741
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(66,217)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 68,524
Covered Payroll:	\$ 273,888,022	\$ 290,795
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,044,606
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,258,293
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 864,084
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (27,085)
◆ 2020	\$ 25,062,108	\$ (35,709)
◆ 2021	\$ 16,835,661	\$ (5,805)
◆ 2022	\$ 13,054,645	\$ (6,289)
◆ 2023	\$ (1,166,612)	\$ (1,688)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Oxford
◆ Current Proportionate Share		3.428102%
◆ Prior Proportionate Share		3.369634%
Beginning Net Pension Liability	\$ 815,427,852	\$ 27,476,933
Ending Net Pension Liability	\$ 906,762,192	\$ 31,084,736
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 137,783
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,169,501
◆ Changes of Assumptions	56,342,617	1,931,483
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	367,167
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 3,605,934
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 230,434
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,898,036
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 2,128,470
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 4,009,541
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(534,161)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 3,475,380
Covered Payroll:	\$ 273,888,022	\$ 8,010,212
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 31,084,736
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 37,443,504
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 25,712,879
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 630,340
◆ 2020	\$ 25,062,108	\$ 334,517
◆ 2021	\$ 16,835,661	\$ 281,630
◆ 2022	\$ 13,054,645	\$ 207,247
◆ 2023	\$ (1,166,612)	\$ 23,730
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Oxford Housing Authority
◆ Current Proportionate Share		0.103631%
◆ Prior Proportionate Share		0.103065%
Beginning Net Pension Liability	\$ 815,427,852	\$ 840,418
Ending Net Pension Liability	\$ 906,762,192	\$ 939,686
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 4,165
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	35,354
◆ Changes of Assumptions	56,342,617	58,388
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	16,710
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 114,617</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,966
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	13,935
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 20,901</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 121,208
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,670
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 124,878</u>
Covered Payroll:	\$ 273,888,022	\$ 316,434
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 939,686
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,131,910
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 777,296
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 38,872
◆ 2020	\$ 25,062,108	\$ 29,395
◆ 2021	\$ 16,835,661	\$ 14,883
◆ 2022	\$ 13,054,645	\$ 11,158
◆ 2023	\$ (1,166,612)	\$ (592)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Oxford-Rochdale Sewer District
◆ Current Proportionate Share		0.052927%
◆ Prior Proportionate Share		0.052402%
Beginning Net Pension Liability	\$ 815,427,852	\$ 427,300
Ending Net Pension Liability	\$ 906,762,192	\$ 479,925
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,127
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	18,056
◆ Changes of Assumptions	56,342,617	29,821
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	95,597
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 145,601</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 3,558
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 3,558</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 61,904
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	28,959
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 90,863</u>
Covered Payroll:	\$ 273,888,022	\$ 225,853
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 479,925
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 578,099
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 396,987
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 46,937
◆ 2020	\$ 25,062,108	\$ 41,889
◆ 2021	\$ 16,835,661	\$ 29,379
◆ 2022	\$ 13,054,645	\$ 23,882
◆ 2023	\$ (1,166,612)	\$ (44)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Paxton
◆ Current Proportionate Share		1.175261%
◆ Prior Proportionate Share		1.183229%
Beginning Net Pension Liability	\$ 815,427,852	\$ 9,648,380
Ending Net Pension Liability	\$ 906,762,192	\$ 10,656,827
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 47,236
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	400,942
◆ Changes of Assumptions	56,342,617	662,173
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	894,904
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 2,005,255</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 79,000
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	171,891
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 250,891</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,374,597
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	159,767
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,534,364</u>
Covered Payroll:	\$ 273,888,022	\$ 2,848,283
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 10,656,827
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 12,836,813
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 8,815,185
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 558,996
◆ 2020	\$ 25,062,108	\$ 456,799
◆ 2021	\$ 16,835,661	\$ 419,568
◆ 2022	\$ 13,054,645	\$ 341,396
◆ 2023	\$ (1,166,612)	\$ (22,395)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Petersham</u>
◆ Current Proportionate Share		0.271880%
◆ Prior Proportionate Share		0.273624%
Beginning Net Pension Liability	\$ 815,427,852	\$ 2,231,208
Ending Net Pension Liability	\$ 906,762,192	\$ 2,465,308
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 10,927
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	92,752
◆ Changes of Assumptions	56,342,617	153,184
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 256,863</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 18,276
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	447,107
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 465,383</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 317,994
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(217,989)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 100,005</u>
Covered Payroll:	\$ 273,888,022	\$ 695,410
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 2,465,308
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 2,969,617
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 2,039,270
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (125,634)
◆ 2020	\$ 25,062,108	\$ (141,526)
◆ 2021	\$ 16,835,661	\$ 36,089
◆ 2022	\$ 13,054,645	\$ 27,624
◆ 2023	\$ (1,166,612)	\$ (5,073)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Phillipston
◆ Current Proportionate Share		0.220986%
◆ Prior Proportionate Share		0.222792%
Beginning Net Pension Liability	\$ 815,427,852	\$ 1,816,704
Ending Net Pension Liability	\$ 906,762,192	\$ 2,003,820
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 8,882
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	75,390
◆ Changes of Assumptions	56,342,617	124,509
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	101,718
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 310,499</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 14,855
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	28,966
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 43,821</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 258,468
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	44,556
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 303,024</u>
Covered Payroll:	\$ 273,888,022	\$ 503,692
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 2,003,820
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 2,413,726
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,657,533
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 119,621
◆ 2020	\$ 25,062,108	\$ 97,864
◆ 2021	\$ 16,835,661	\$ 30,097
◆ 2022	\$ 13,054,645	\$ 23,642
◆ 2023	\$ (1,166,612)	\$ (4,546)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Princeton
◆ Current Proportionate Share		0.635817%
◆ Prior Proportionate Share		0.627026%
Beginning Net Pension Liability	\$ 815,427,852	\$ 5,112,946
Ending Net Pension Liability	\$ 906,762,192	\$ 5,765,349
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 25,555
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	216,910
◆ Changes of Assumptions	56,342,617	358,236
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	114,114
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 714,815</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 42,739
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	663,080
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 705,819</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 743,658
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(239,055)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 504,603</u>
Covered Payroll:	\$ 273,888,022	\$ 2,280,938
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 5,765,349
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 6,944,722
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 4,769,020
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (23,075)
◆ 2020	\$ 25,062,108	\$ (71,638)
◆ 2021	\$ 16,835,661	\$ 66,794
◆ 2022	\$ 13,054,645	\$ 34,752
◆ 2023	\$ (1,166,612)	\$ 2,163
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Quabbin Regional
◆ Current Proportionate Share		1.727793%
◆ Prior Proportionate Share		1.698376%
Beginning Net Pension Liability	\$ 815,427,852	\$ 13,849,034
Ending Net Pension Liability	\$ 906,762,192	\$ 15,666,971
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 69,444
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	589,438
◆ Changes of Assumptions	56,342,617	973,484
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	184,727
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,817,093</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 116,141
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	668,385
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 784,526</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,020,842
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(195,383)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,825,459</u>
Covered Payroll:	\$ 273,888,022	\$ 4,481,694
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 15,666,971
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 18,871,843
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 12,959,509
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 391,534
◆ 2020	\$ 25,062,108	\$ 242,456
◆ 2021	\$ 16,835,661	\$ 216,577
◆ 2022	\$ 13,054,645	\$ 170,097
◆ 2023	\$ (1,166,612)	\$ 11,903
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Quaboag Regional
◆ Current Proportionate Share		0.593532%
◆ Prior Proportionate Share		0.595737%
Beginning Net Pension Liability	\$ 815,427,852	\$ 4,857,807
Ending Net Pension Liability	\$ 906,762,192	\$ 5,381,924
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 23,855
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	202,484
◆ Changes of Assumptions	56,342,617	334,411
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 560,750</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 39,897
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	157,084
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 196,981</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 694,201
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(65,682)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 628,519</u>
Covered Payroll:	\$ 273,888,022	\$ 1,701,835
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 5,381,924
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 6,482,863
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 4,451,855
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 135,937
◆ 2020	\$ 25,062,108	\$ 85,086
◆ 2021	\$ 16,835,661	\$ 85,119
◆ 2022	\$ 13,054,645	\$ 66,954
◆ 2023	\$ (1,166,612)	\$ (9,327)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Royalston
◆ Current Proportionate Share		0.094206%
◆ Prior Proportionate Share		0.093408%
Beginning Net Pension Liability	\$ 815,427,852	\$ 761,678
Ending Net Pension Liability	\$ 906,762,192	\$ 854,229
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,786
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	32,139
◆ Changes of Assumptions	56,342,617	53,078
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	80,066
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 169,069</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,332
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	40,399
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 46,731</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 110,185
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	28,581
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 138,766</u>
Covered Payroll:	\$ 273,888,022	\$ 253,854
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 854,229
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,028,972
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 706,607
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 60,583
◆ 2020	\$ 25,062,108	\$ 50,695
◆ 2021	\$ 16,835,661	\$ 6,955
◆ 2022	\$ 13,054,645	\$ 4,334
◆ 2023	\$ (1,166,612)	\$ (229)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Rutland
◆ Current Proportionate Share		1.004839%
◆ Prior Proportionate Share		1.010968%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,243,715
Ending Net Pension Liability	\$ 906,762,192	\$ 9,111,498
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 40,387
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	342,802
◆ Changes of Assumptions	56,342,617	566,152
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	564,678
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,514,019</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 67,544
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	337,151
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 404,695</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,175,269
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(13,504)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,161,765</u>
Covered Payroll:	\$ 273,888,022	\$ 2,533,259
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,111,498
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 10,975,368
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,536,909
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 327,834
◆ 2020	\$ 25,062,108	\$ 244,356
◆ 2021	\$ 16,835,661	\$ 306,502
◆ 2022	\$ 13,054,645	\$ 249,035
◆ 2023	\$ (1,166,612)	\$ (18,403)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Southboro
◆ Current Proportionate Share		3.191933%
◆ Prior Proportionate Share		3.185246%
Beginning Net Pension Liability	\$ 815,427,852	\$ 25,973,383
Ending Net Pension Liability	\$ 906,762,192	\$ 28,943,244
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 128,291
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,088,931
◆ Changes of Assumptions	56,342,617	1,798,419
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	224,529
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 3,240,170</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 214,559
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	172,177
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 386,736</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,733,315
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,655)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 3,704,660</u>
Covered Payroll:	\$ 273,888,022	\$ 9,054,955
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 28,943,244
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 34,863,943
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 23,941,465
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 1,055,621
◆ 2020	\$ 25,062,108	\$ 774,824
◆ 2021	\$ 16,835,661	\$ 594,830
◆ 2022	\$ 13,054,645	\$ 458,108
◆ 2023	\$ (1,166,612)	\$ (29,949)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Southboro Housing</u>
◆ Current Proportionate Share		0.026400%
◆ Prior Proportionate Share		0.027947%
Beginning Net Pension Liability	\$ 815,427,852	\$ 227,888
Ending Net Pension Liability	\$ 906,762,192	\$ 239,384
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,061
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	9,006
◆ Changes of Assumptions	56,342,617	14,874
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 24,941</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,775
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	28,502
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 30,277</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 30,878
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(10,909)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 19,969</u>
Covered Payroll:	\$ 273,888,022	\$ 19,830
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 239,384
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 288,353
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 198,015
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (1,942)
◆ 2020	\$ 25,062,108	\$ (3,992)
◆ 2021	\$ 16,835,661	\$ 1,246
◆ 2022	\$ 13,054,645	\$ 1,346
◆ 2023	\$ (1,166,612)	\$ (1,994)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Spencer
◆ Current Proportionate Share		1.509935%
◆ Prior Proportionate Share		1.506690%
Beginning Net Pension Liability	\$ 815,427,852	\$ 12,285,970
Ending Net Pension Liability	\$ 906,762,192	\$ 13,691,523
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 60,688
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	515,116
◆ Changes of Assumptions	56,342,617	850,737
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	386,397
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,812,938</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 101,497
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	208,454
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 309,951</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,766,034
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(6,589)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,759,445</u>
Covered Payroll:	\$ 273,888,022	\$ 3,874,769
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 13,691,523
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 16,492,293
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 11,325,445
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 506,324
◆ 2020	\$ 25,062,108	\$ 376,085
◆ 2021	\$ 16,835,661	\$ 353,579
◆ 2022	\$ 13,054,645	\$ 281,077
◆ 2023	\$ (1,166,612)	\$ (14,078)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Spencer-East Brookfield Regional
◆ Current Proportionate Share		1.035470%
◆ Prior Proportionate Share		1.034298%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,433,957
Ending Net Pension Liability	\$ 906,762,192	\$ 9,389,254
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 41,618
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	353,252
◆ Changes of Assumptions	56,342,617	583,411
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	28,203
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,006,484</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 69,603
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	66,565
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 136,168</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,211,096
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(26,585)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,184,511</u>
Covered Payroll:	\$ 273,888,022	\$ 1,700,471
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,389,254
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 11,309,942
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,766,665
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 325,154
◆ 2020	\$ 25,062,108	\$ 234,285
◆ 2021	\$ 16,835,661	\$ 181,458
◆ 2022	\$ 13,054,645	\$ 140,222
◆ 2023	\$ (1,166,612)	\$ (10,803)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Spencer Housing Authority
◆ Current Proportionate Share		0.071189%
◆ Prior Proportionate Share		0.070157%
Beginning Net Pension Liability	\$ 815,427,852	\$ 572,080
Ending Net Pension Liability	\$ 906,762,192	\$ 645,513
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,861
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	24,286
◆ Changes of Assumptions	56,342,617	40,110
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	32,470
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 99,727</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 4,785
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	25,730
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 30,515</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 83,263
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,708
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 90,971</u>
Covered Payroll:	\$ 273,888,022	\$ 355,637
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 645,513
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 777,561
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 533,960
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 31,889
◆ 2020	\$ 25,062,108	\$ 25,047
◆ 2021	\$ 16,835,661	\$ 7,082
◆ 2022	\$ 13,054,645	\$ 4,899
◆ 2023	\$ (1,166,612)	\$ 295
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Sterling
◆ Current Proportionate Share		1.669842%
◆ Prior Proportionate Share		1.674767%
Beginning Net Pension Liability	\$ 815,427,852	\$ 13,656,520
Ending Net Pension Liability	\$ 906,762,192	\$ 15,141,492
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 67,115
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	569,668
◆ Changes of Assumptions	56,342,617	940,832
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	217,738
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,795,353
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 112,245
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	216,105
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 328,350
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,953,062
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(44,163)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,908,899
Covered Payroll:	\$ 273,888,022	\$ 4,677,931
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 15,141,492
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 18,238,871
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 12,524,840
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 523,068
◆ 2020	\$ 25,062,108	\$ 378,075
◆ 2021	\$ 16,835,661	\$ 330,596
◆ 2022	\$ 13,054,645	\$ 260,114
◆ 2023	\$ (1,166,612)	\$ (24,850)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Sterling Housing Authority
◆ Current Proportionate Share		0.015894%
◆ Prior Proportionate Share		0.016141%
Beginning Net Pension Liability	\$ 815,427,852	\$ 131,614
Ending Net Pension Liability	\$ 906,762,192	\$ 144,122
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 639
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	5,422
◆ Changes of Assumptions	56,342,617	8,955
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,162
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 24,178</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,068
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	2,037
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 3,105</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 18,590
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,385
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 21,975</u>
Covered Payroll:	\$ 273,888,022	\$ -
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 144,122
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 173,604
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 119,216
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 8,787
◆ 2020	\$ 25,062,108	\$ 7,245
◆ 2021	\$ 16,835,661	\$ 3,032
◆ 2022	\$ 13,054,645	\$ 2,463
◆ 2023	\$ (1,166,612)	\$ (454)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Sturbridge
◆ Current Proportionate Share		2.291311%
◆ Prior Proportionate Share		2.314780%
Beginning Net Pension Liability	\$ 815,427,852	\$ 18,875,360
Ending Net Pension Liability	\$ 906,762,192	\$ 20,776,741
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 92,093
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	781,683
◆ Changes of Assumptions	56,342,617	1,290,985
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	617,676
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 2,782,437</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 154,020
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	213,964
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 367,984</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,679,939
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	99,976
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,779,915</u>
Covered Payroll:	\$ 273,888,022	\$ 5,816,847
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 20,776,741
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 25,026,881
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 17,186,243
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 878,317
◆ 2020	\$ 25,062,108	\$ 675,028
◆ 2021	\$ 16,835,661	\$ 507,127
◆ 2022	\$ 13,054,645	\$ 406,290
◆ 2023	\$ (1,166,612)	\$ (52,309)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Sutton
◆ Current Proportionate Share		1.916089%
◆ Prior Proportionate Share		1.910470%
Beginning Net Pension Liability	\$ 815,427,852	\$ 15,578,505
Ending Net Pension Liability	\$ 906,762,192	\$ 17,374,370
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 77,012
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	653,676
◆ Changes of Assumptions	56,342,617	1,079,575
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	150,407
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,960,670</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 128,798
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	542,304
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 671,102</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,241,075
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(238,844)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,002,231</u>
Covered Payroll:	\$ 273,888,022	\$ 5,925,505
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 17,374,370
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 20,928,512
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 14,371,847
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 412,038
◆ 2020	\$ 25,062,108	\$ 252,437
◆ 2021	\$ 16,835,661	\$ 360,035
◆ 2022	\$ 13,054,645	\$ 281,287
◆ 2023	\$ (1,166,612)	\$ (16,229)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Tantasqua Regional
◆ Current Proportionate Share		1.128021%
◆ Prior Proportionate Share		1.134416%
Beginning Net Pension Liability	\$ 815,427,852	\$ 9,250,346
Ending Net Pension Liability	\$ 906,762,192	\$ 10,228,466
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 45,338
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	384,826
◆ Changes of Assumptions	56,342,617	635,556
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	93,544
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,159,264</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 75,825
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	100,831
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 176,656</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,319,344
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(12,273)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,307,071</u>
Covered Payroll:	\$ 273,888,022	\$ 3,703,020
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 10,228,466
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 12,320,826
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 8,460,851
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 370,905
◆ 2020	\$ 25,062,108	\$ 271,322
◆ 2021	\$ 16,835,661	\$ 200,709
◆ 2022	\$ 13,054,645	\$ 159,802
◆ 2023	\$ (1,166,612)	\$ (20,130)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Templeton
◆ Current Proportionate Share		1.324736%
◆ Prior Proportionate Share		1.319332%
Beginning Net Pension Liability	\$ 815,427,852	\$ 10,758,199
Ending Net Pension Liability	\$ 906,762,192	\$ 12,012,202
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 53,244
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	451,935
◆ Changes of Assumptions	56,342,617	746,391
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	47,994
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,299,564</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 89,048
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	929,275
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 1,018,323</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,549,423
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(407,830)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,141,593</u>
Covered Payroll:	\$ 273,888,022	\$ 3,594,982
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 12,012,202
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 14,469,447
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 9,936,333
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 42,171
◆ 2020	\$ 25,062,108	\$ (61,276)
◆ 2021	\$ 16,835,661	\$ 178,189
◆ 2022	\$ 13,054,645	\$ 131,723
◆ 2023	\$ (1,166,612)	\$ (9,566)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Templeton Housing Authority
◆ Current Proportionate Share		0.072187%
◆ Prior Proportionate Share		0.073851%
Beginning Net Pension Liability	\$ 815,427,852	\$ 602,200
Ending Net Pension Liability	\$ 906,762,192	\$ 654,568
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,901
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	24,627
◆ Changes of Assumptions	56,342,617	40,672
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	-
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 68,200</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 4,852
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	64,497
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 69,349</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 84,431
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,126)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 56,305</u>
Covered Payroll:	\$ 273,888,022	\$ 115,715
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 654,568
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 788,468
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 541,450
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ (3,604)
◆ 2020	\$ 25,062,108	\$ (9,088)
◆ 2021	\$ 16,835,661	\$ 7,854
◆ 2022	\$ 13,054,645	\$ 6,344
◆ 2023	\$ (1,166,612)	\$ (2,655)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Upton
◆ Current Proportionate Share		1.013286%
◆ Prior Proportionate Share		1.010630%
Beginning Net Pension Liability	\$ 815,427,852	\$ 8,240,959
Ending Net Pension Liability	\$ 906,762,192	\$ 9,188,095
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 40,726
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	345,684
◆ Changes of Assumptions	56,342,617	570,912
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	418,742
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 1,376,064
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 68,112
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	362,417
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 430,529
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,185,149
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(76,206)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 1,108,943
Covered Payroll:	\$ 273,888,022	\$ 3,910,035
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 9,188,095
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 11,067,634
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 7,600,270
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 268,001
◆ 2020	\$ 25,062,108	\$ 185,144
◆ 2021	\$ 16,835,661	\$ 278,703
◆ 2022	\$ 13,054,645	\$ 222,613
◆ 2023	\$ (1,166,612)	\$ (8,926)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Uxbridge
◆ Current Proportionate Share		3.106878%
◆ Prior Proportionate Share		3.095555%
Beginning Net Pension Liability	\$ 815,427,852	\$ 25,242,018
Ending Net Pension Liability	\$ 906,762,192	\$ 28,171,996
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 124,872
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,059,915
◆ Changes of Assumptions	56,342,617	1,750,496
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	298,142
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 3,233,425</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 208,842
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	671,074
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 879,916</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,633,834
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(131,323)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 3,502,511</u>
Covered Payroll:	\$ 273,888,022	\$ 7,900,674
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 28,171,996
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 33,934,927
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 23,303,499
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 924,062
◆ 2020	\$ 25,062,108	\$ 651,516
◆ 2021	\$ 16,835,661	\$ 485,341
◆ 2022	\$ 13,054,645	\$ 316,494
◆ 2023	\$ (1,166,612)	\$ (23,904)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Uxbridge Housing Authority
◆ Current Proportionate Share		0.085540%
◆ Prior Proportionate Share		0.084153%
Beginning Net Pension Liability	\$ 815,427,852	\$ 686,209
Ending Net Pension Liability	\$ 906,762,192	\$ 775,645
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,438
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	29,182
◆ Changes of Assumptions	56,342,617	48,196
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	37,273
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 118,089</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 5,750
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	108,044
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 113,794</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 100,048
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(11,871)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 88,177</u>
Covered Payroll:	\$ 273,888,022	\$ 196,812
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 775,645
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 934,313
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 641,603
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 17,186
◆ 2020	\$ 25,062,108	\$ 9,017
◆ 2021	\$ 16,835,661	\$ (11,316)
◆ 2022	\$ 13,054,645	\$ (11,105)
◆ 2023	\$ (1,166,612)	\$ 513
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

<u>Pension Amounts as of December 31, 2018</u>	<u>Worcester Regional Retirement System</u>	<u>Wachusett Regional</u>
◆ Current Proportionate Share		3.279699%
◆ Prior Proportionate Share		3.317011%
Beginning Net Pension Liability	\$ 815,427,852	\$ 27,047,828
Ending Net Pension Liability	\$ 906,762,192	\$ 29,739,068
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 131,818
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	1,118,873
◆ Changes of Assumptions	56,342,617	1,847,868
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,767,412
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 4,865,971</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 220,458
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,026,740
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 1,247,198</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 3,835,966
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	49,506
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 3,885,472</u>
Covered Payroll:	\$ 273,888,022	\$ 9,287,357
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 29,739,068
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 35,822,562
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 24,599,760
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 1,163,594
◆ 2020	\$ 25,062,108	\$ 882,006
◆ 2021	\$ 16,835,661	\$ 878,581
◆ 2022	\$ 13,054,645	\$ 773,518
◆ 2023	\$ (1,166,612)	\$ (78,926)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Warren
◆ Current Proportionate Share		0.644582%
◆ Prior Proportionate Share		0.653789%
Beginning Net Pension Liability	\$ 815,427,852	\$ 5,331,180
Ending Net Pension Liability	\$ 906,762,192	\$ 5,844,829
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 25,907
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	219,900
◆ Changes of Assumptions	56,342,617	363,175
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	341,668
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 950,650</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 43,328
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	72,136
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 115,464</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 753,909
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	80,639
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 834,548</u>
Covered Payroll:	\$ 273,888,022	\$ 1,656,945
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 5,844,829
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 7,040,461
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 4,834,764
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 299,600
◆ 2020	\$ 25,062,108	\$ 241,448
◆ 2021	\$ 16,835,661	\$ 171,419
◆ 2022	\$ 13,054,645	\$ 140,273
◆ 2023	\$ (1,166,612)	\$ (17,554)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Warren Water District
◆ Current Proportionate Share		0.027557%
◆ Prior Proportionate Share		0.027858%
Beginning Net Pension Liability	\$ 815,427,852	\$ 227,163
Ending Net Pension Liability	\$ 906,762,192	\$ 249,873
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 1,108
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	9,401
◆ Changes of Assumptions	56,342,617	15,526
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	29,650
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 55,685
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,852
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	2,595
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 4,447
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 32,230
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	9,921
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 42,151
Covered Payroll:	\$ 273,888,022	\$ 114,475
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 249,873
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 300,987
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 206,691
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 19,281
◆ 2020	\$ 25,062,108	\$ 16,593
◆ 2021	\$ 16,835,661	\$ 8,752
◆ 2022	\$ 13,054,645	\$ 7,262
◆ 2023	\$ (1,166,612)	\$ (650)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Westboro
◆ Current Proportionate Share		6.736171%
◆ Prior Proportionate Share		6.707706%
Beginning Net Pension Liability	\$ 815,427,852	\$ 54,696,505
Ending Net Pension Liability	\$ 906,762,192	\$ 61,081,055
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 270,742
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	2,298,052
◆ Changes of Assumptions	56,342,617	3,795,335
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	734,389
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 7,098,518</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 452,800
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	14,687
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 467,487</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 7,878,689
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	304,235
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 8,182,924</u>
Covered Payroll:	\$ 273,888,022	\$ 19,768,185
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 61,081,055
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 73,575,941
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 50,525,433
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 2,592,462
◆ 2020	\$ 25,062,108	\$ 1,982,696
◆ 2021	\$ 16,835,661	\$ 1,190,393
◆ 2022	\$ 13,054,645	\$ 913,042
◆ 2023	\$ (1,166,612)	\$ (47,562)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Westboro Housing Authority
◆ Current Proportionate Share		0.066262%
◆ Prior Proportionate Share		0.066748%
Beginning Net Pension Liability	\$ 815,427,852	\$ 544,281
Ending Net Pension Liability	\$ 906,762,192	\$ 600,838
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 2,663
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	22,605
◆ Changes of Assumptions	56,342,617	37,334
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	25,469
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 88,071</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 4,454
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	3,052
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 7,506</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 77,501
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	6,333
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 83,834</u>
Covered Payroll:	\$ 273,888,022	\$ 158,193
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 600,838
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 723,747
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 497,005
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 28,841
◆ 2020	\$ 25,062,108	\$ 22,912
◆ 2021	\$ 16,835,661	\$ 16,760
◆ 2022	\$ 13,054,645	\$ 13,355
◆ 2023	\$ (1,166,612)	\$ (1,303)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	West Boylston
◆ Current Proportionate Share		2.080272%
◆ Prior Proportionate Share		2.090980%
Beginning Net Pension Liability	\$ 815,427,852	\$ 17,050,437
Ending Net Pension Liability	\$ 906,762,192	\$ 18,863,118
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 83,611
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	709,687
◆ Changes of Assumptions	56,342,617	1,172,080
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	153,889
◆ Total Deferred Outflows of Resources	\$ 124,820,365	\$ 2,119,267
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 139,834
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	442,764
◆ Total Deferred Inflows of Resources	\$ 37,065,333	\$ 582,598
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,433,105
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(162,754)
◆ Total Employer Pension Expense	\$ 116,960,934	\$ 2,270,351
Covered Payroll:	\$ 273,888,022	\$ 5,690,295
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 18,863,118
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 22,721,802
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 15,603,319
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 543,900
◆ 2020	\$ 25,062,108	\$ 365,906
◆ 2021	\$ 16,835,661	\$ 370,838
◆ 2022	\$ 13,054,645	\$ 291,965
◆ 2023	\$ (1,166,612)	\$ (35,940)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	West Boylston Housing Authority
◆ Current Proportionate Share		0.018653%
◆ Prior Proportionate Share		0.018198%
Beginning Net Pension Liability	\$ 815,427,852	\$ 148,391
Ending Net Pension Liability	\$ 906,762,192	\$ 169,139
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 750
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	6,364
◆ Changes of Assumptions	56,342,617	10,510
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	5,189
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 22,813</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 1,254
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	14,086
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 15,340</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 21,817
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(2,044)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 19,773</u>
Covered Payroll:	\$ 273,888,022	\$ 70,913
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 169,139
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 203,738
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 139,909
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 4,293
◆ 2020	\$ 25,062,108	\$ 2,607
◆ 2021	\$ 16,835,661	\$ 405
◆ 2022	\$ 13,054,645	\$ (110)
◆ 2023	\$ (1,166,612)	\$ 278
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	West Boylston Water District
◆ Current Proportionate Share		0.091424%
◆ Prior Proportionate Share		0.090209%
Beginning Net Pension Liability	\$ 815,427,852	\$ 735,587
Ending Net Pension Liability	\$ 906,762,192	\$ 829,001
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 3,675
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	31,189
◆ Changes of Assumptions	56,342,617	51,511
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	10,545
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 96,920</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 6,145
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	62,895
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 69,040</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 106,931
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,234)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 78,697</u>
Covered Payroll:	\$ 273,888,022	\$ 387,451
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 829,001
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 998,583
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 685,738
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 2,821
◆ 2020	\$ 25,062,108	\$ (4,140)
◆ 2021	\$ 16,835,661	\$ 16,545
◆ 2022	\$ 13,054,645	\$ 12,396
◆ 2023	\$ (1,166,612)	\$ 258
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	West Brookfield
◆ Current Proportionate Share		0.464845%
◆ Prior Proportionate Share		0.460642%
Beginning Net Pension Liability	\$ 815,427,852	\$ 3,756,207
Ending Net Pension Liability	\$ 906,762,192	\$ 4,215,036
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 18,683
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	158,582
◆ Changes of Assumptions	56,342,617	261,906
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	26,389
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 465,560</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 31,246
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	273,935
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 305,181</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 543,687
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(123,354)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 420,333</u>
Covered Payroll:	\$ 273,888,022	\$ 971,479
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 4,215,036
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 5,077,274
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 3,486,622
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 34,548
◆ 2020	\$ 25,062,108	\$ (2,453)
◆ 2021	\$ 16,835,661	\$ 66,918
◆ 2022	\$ 13,054,645	\$ 62,209
◆ 2023	\$ (1,166,612)	\$ (843)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Westminster
◆ Current Proportionate Share		1.458520%
◆ Prior Proportionate Share		1.452913%
Beginning Net Pension Liability	\$ 815,427,852	\$ 11,847,454
Ending Net Pension Liability	\$ 906,762,192	\$ 13,225,312
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 58,621
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	497,576
◆ Changes of Assumptions	56,342,617	821,769
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	323,455
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 1,701,421</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 98,040
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	9,377
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 107,417</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 1,705,899
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	149,159
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 1,855,058</u>
Covered Payroll:	\$ 273,888,022	\$ 4,027,276
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 13,225,312
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 15,930,713
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 10,939,801
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 644,608
◆ 2020	\$ 25,062,108	\$ 509,163
◆ 2021	\$ 16,835,661	\$ 255,544
◆ 2022	\$ 13,054,645	\$ 195,592
◆ 2023	\$ (1,166,612)	\$ (10,903)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Winchendon
◆ Current Proportionate Share		2.528315%
◆ Prior Proportionate Share		2.518111%
Beginning Net Pension Liability	\$ 815,427,852	\$ 20,533,375
Ending Net Pension Liability	\$ 906,762,192	\$ 22,925,807
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 101,619
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	862,537
◆ Changes of Assumptions	56,342,617	1,424,519
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	86,577
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 2,475,252</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 169,951
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	1,120,146
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 1,290,097</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 2,957,141
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(314,420)
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 2,642,721</u>
Covered Payroll:	\$ 273,888,022	\$ 5,501,269
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 22,925,807
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 27,615,565
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 18,963,921
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 544,431
◆ 2020	\$ 25,062,108	\$ 322,914
◆ 2021	\$ 16,835,661	\$ 202,232
◆ 2022	\$ 13,054,645	\$ 133,952
◆ 2023	\$ (1,166,612)	\$ (18,374)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2018	Worcester Regional Retirement System	Winchendon Housing Authority
◆ Current Proportionate Share		0.166500%
◆ Prior Proportionate Share		0.166117%
Beginning Net Pension Liability	\$ 815,427,852	\$ 1,354,563
Ending Net Pension Liability	\$ 906,762,192	\$ 1,509,758
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 4,019,220	\$ 6,692
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	34,115,107	56,802
◆ Changes of Assumptions	56,342,617	93,810
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	101,762
◆ Total Deferred Outflows of Resources	<u>\$ 124,820,365</u>	<u>\$ 259,066</u>
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 6,721,912	\$ 11,192
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	30,343,421	5
◆ Total Deferred Inflows of Resources	<u>\$ 37,065,333</u>	<u>\$ 11,197</u>
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 116,960,934	\$ 194,740
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	36,817
◆ Total Employer Pension Expense	<u>\$ 116,960,934</u>	<u>\$ 231,557</u>
Covered Payroll:	\$ 273,888,022	\$ 793,820
Sensitivity of the Net Pension Liability to changes in the discount rate:		
◆ Current discount rate: 7.75%	\$ 906,762,192	\$ 1,509,758
◆ 1% decrease in the discount rate: 6.75%	\$ 1,092,251,619	\$ 1,818,598
◆ 1% increase in the discount rate: 8.75%	\$ 750,061,573	\$ 1,248,852
Deferred Outflows of Resources and Deferred Inflows of Resources recognized in Pension Expense:		
◆ 2019	\$ 33,969,230	\$ 93,374
◆ 2020	\$ 25,062,108	\$ 77,685
◆ 2021	\$ 16,835,661	\$ 43,351
◆ 2022	\$ 13,054,645	\$ 34,983
◆ 2023	\$ (1,166,612)	\$ (1,524)
◆ Thereafter	\$ -	\$ -

Worcester Regional Retirement System
Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Under GASB 67, a series of projections and calculations are used to determine the discount rate for the purpose of the measurement of the Total Pension Liability. The discount rate is the single rate that reflects (1) the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of benefits, to the extent that the pension plan's Fiduciary Net Position is projected to be sufficient to make projected benefit payments and pension plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, to the extent that the conditions for use of the long-term expected rate of return are not met.

Projected cash flows into and out of the pension plan are assumed to be contributions to the pension plan, benefit payments, pension plan administrative expenses and pension plan investment earnings. These projected cash flows are used to project the pension plan's Fiduciary Net Position at the beginning of each period. The pension plan's projected Fiduciary Net Position at the beginning of each period is compared to the amount of benefit payments projected to occur in that period.

It is assumed that the pension plan's Fiduciary Net Position is expected to always be invested using a strategy to achieve the long-term expected rate of return on pension plan investments.

The benefit payments that are projected to occur in a period are discounted using the long-term expected rate of return on pension plan investments if the amount of the pension plan's beginning Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period. In periods in which benefit payments are projected to be greater than the amount of the pension plan's Fiduciary Net Position, they are discounted using a municipal bond rate as required by GASB 67.

For purposes of this valuation, the long-term expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 4.1%, based on the December 2018 Bond Buyer Index as published by the Federal Reserve. For each period, the pension plan's Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period, therefore, the resulting single discount rate is based solely on the long-term expected rate of return of 7.75%.

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Contributions from Current Employees (d)	Employer Service Cost and Expense Contributions (e)	UAL Contributions (f)	Total Contributions (g) = (d) + (e) + (f)
1	290,220,245	26,233,690	316,453,935	27,883,609	19,804,864	41,226,019	88,914,492
2	279,503,187	49,608,905	329,112,092	27,017,064	18,551,630	46,718,949	92,287,643
3	269,695,370	72,581,206	342,276,576	26,179,594	17,703,446	52,800,136	96,683,176
4	260,237,301	95,730,338	355,967,639	25,329,897	16,971,665	59,529,775	101,831,337
5	250,400,975	119,805,370	370,206,345	24,469,513	16,308,071	66,974,125	107,751,709
6	240,436,090	144,578,509	385,014,599	23,622,562	15,594,643	75,206,103	114,423,308
7	230,795,607	169,619,576	400,415,183	22,763,221	14,847,212	84,305,954	121,916,387
8	220,998,069	195,433,721	416,431,790	21,864,463	14,164,076	94,361,984	130,390,523
9	211,001,568	222,087,494	433,089,062	20,943,186	13,495,228	105,471,365	139,909,779
10	201,086,267	249,326,357	450,412,624	20,031,396	12,817,065	117,741,010	150,589,471
11	191,166,808	277,262,321	468,429,129	19,170,596	12,142,407	131,288,566	162,601,569
12	182,245,598	304,920,696	487,166,294	18,351,089	11,416,093	146,243,467	176,010,649
13	173,919,046	332,733,900	506,652,946	17,565,323	10,808,207	162,748,118	191,121,648
14	165,697,376	361,221,688	526,919,064	16,791,100	10,261,724	180,959,190	208,012,014
15	157,687,236	390,308,591	547,995,827	16,017,895	9,720,480	198,008,618	223,746,993
16	150,093,966	419,821,694	569,915,660	15,282,079	9,212,063	205,928,963	230,423,105
17	142,951,558	449,760,728	592,712,286	14,598,081	8,732,956	-	23,331,037
18	135,916,714	480,504,063	616,420,777	13,916,950	8,274,168	-	22,191,118
19	129,052,422	512,025,186	641,077,608	13,234,678	7,829,724	-	21,064,402
20	122,406,527	544,314,185	666,720,712	12,581,752	7,413,710	-	19,995,462
21	115,960,684	577,428,856	693,389,540	11,931,728	7,003,292	-	18,935,020
22	109,854,613	611,270,509	721,125,122	11,306,472	6,621,981	-	17,928,453
23	103,572,353	646,397,774	749,970,127	10,663,729	6,270,266	-	16,933,995
24	97,365,870	682,603,062	779,968,932	10,021,692	5,907,847	-	15,929,539
25	91,104,953	720,062,736	811,167,689	9,339,840	5,556,847	-	14,896,687
26	85,169,728	758,444,669	843,614,397	8,640,923	5,236,952	-	13,877,875
27	79,369,711	797,989,262	877,358,973	7,877,349	4,986,233	-	12,863,582
28	73,403,730	839,049,602	912,453,332	7,087,555	4,821,805	-	11,909,360
29	67,310,447	881,641,018	948,951,465	6,299,554	4,657,042	-	10,956,596
30	61,663,873	925,245,651	986,909,524	5,450,775	4,470,118	-	9,920,893

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 1: Projection of Contributions

Year	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Contributions from Current Employees (d)	Employer Service Cost and Expense Contributions (e)	UAL Contributions (f)	Total Contributions (g) = (d) + (e) + (f)
31	55,944,168	970,441,737	1,026,385,905	4,936,514	4,415,445	-	9,351,959
32	50,738,241	1,016,703,100	1,067,441,341	4,391,913	4,014,553	-	8,406,466
33	45,272,038	1,064,866,957	1,110,138,995	3,873,754	3,726,206	-	7,599,960
34	39,978,364	1,114,566,191	1,154,544,555	3,369,922	3,369,772	-	6,739,694
35	34,735,802	1,165,990,535	1,200,726,337	2,906,570	3,026,616	-	5,933,186
36	29,857,329	1,218,898,061	1,248,755,390	2,453,331	2,651,158	-	5,104,489
37	24,932,570	1,273,773,036	1,298,705,606	2,017,772	2,323,842	-	4,341,614
38	20,300,705	1,330,353,125	1,350,653,830	1,600,233	1,971,439	-	3,571,672
39	16,019,880	1,388,660,103	1,404,679,983	1,224,846	1,647,880	-	2,872,726
40	12,371,054	1,448,496,128	1,460,867,182	922,099	1,338,335	-	2,260,434
41	9,361,870	1,509,939,999	1,519,301,869	672,054	1,057,270	-	1,729,324
42	6,862,991	1,573,210,953	1,580,073,944	472,016	825,845	-	1,297,861
43	4,865,265	1,638,411,637	1,643,276,902	332,687	626,063	-	958,750
44	3,440,594	1,705,567,384	1,709,007,978	221,569	445,755	-	667,324
45	2,289,771	1,775,078,526	1,777,368,297	138,789	328,926	-	467,715
46	1,424,681	1,847,038,348	1,848,463,029	65,337	227,574	-	292,911
47	663,776	1,921,737,774	1,922,401,550	30,676	162,612	-	193,288
48	312,417	1,998,985,195	1,999,297,612	13,389	75,528	-	88,917
49	134,554	2,079,134,962	2,079,269,516	5,996	36,598	-	42,594
50	58,398	2,162,381,899	2,162,440,297	2,217	15,533	-	17,750

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
1	685,538,013	88,914,492	89,280,271	1,100,000	53,072,397	737,144,630
2	737,144,630	92,287,643	94,847,263	1,144,000	56,985,194	790,426,205
3	790,426,205	96,683,176	100,606,485	1,189,760	61,059,899	846,373,034
4	846,373,034	101,831,337	106,738,276	1,237,350	65,355,819	905,584,564
5	905,584,564	107,751,709	113,022,584	1,286,844	69,928,692	968,955,538
6	968,955,538	114,423,308	119,186,573	1,338,318	74,857,618	1,037,711,573
7	1,037,711,573	121,916,387	125,414,199	1,391,851	80,233,172	1,113,055,082
8	1,113,055,082	130,390,523	131,718,055	1,447,525	86,154,235	1,196,434,260
9	1,196,434,260	139,909,779	138,153,512	1,505,426	92,733,375	1,289,418,476
10	1,289,418,476	150,589,471	144,894,345	1,565,643	100,089,949	1,393,637,908
11	1,393,637,908	162,601,569	151,748,672	1,628,269	108,364,392	1,511,226,928
12	1,511,226,928	176,010,649	158,331,870	1,693,399	117,739,520	1,644,951,828
13	1,644,951,828	191,121,648	164,662,936	1,761,135	128,440,798	1,798,090,203
14	1,798,090,203	208,012,014	170,695,869	1,831,581	140,727,018	1,974,301,785
15	1,974,301,785	223,746,993	176,466,727	1,904,844	154,766,686	2,174,443,893
16	2,174,443,893	230,423,105	181,745,326	1,981,038	170,328,900	2,391,469,534
17	2,391,469,534	23,331,037	186,567,581	2,060,279	178,933,637	2,405,106,348
18	2,405,106,348	22,191,118	190,999,044	2,142,691	179,771,406	2,413,927,136
19	2,413,927,136	21,064,402	194,953,045	2,228,398	180,254,818	2,418,064,914
20	2,418,064,914	19,995,462	198,413,019	2,317,534	180,396,546	2,417,726,368
21	2,417,726,368	18,935,020	201,341,950	2,410,235	180,212,128	2,413,121,331
22	2,413,121,331	17,928,453	203,909,799	2,506,645	179,712,994	2,404,346,334
23	2,404,346,334	16,933,995	206,083,489	2,606,911	178,906,280	2,391,496,209
24	2,391,496,209	15,929,539	207,818,510	2,711,187	177,800,200	2,374,696,251
25	2,374,696,251	14,896,687	208,971,913	2,819,635	176,409,284	2,354,210,674
26	2,354,210,674	13,877,875	209,614,975	2,932,420	174,752,883	2,330,294,037
27	2,330,294,037	12,863,582	210,048,774	3,049,717	172,838,685	2,302,897,814
28	2,302,897,814	11,909,360	210,119,175	3,171,705	170,671,047	2,272,187,341
29	2,272,187,341	10,956,596	209,511,518	3,298,574	168,272,696	2,238,606,541
30	2,238,606,541	9,920,893	208,703,043	3,430,517	165,656,266	2,202,050,139
31	2,202,050,139	9,351,959	207,007,741	3,567,737	162,861,474	2,163,688,094
32	2,163,688,094	8,406,466	205,160,054	3,710,447	159,917,846	2,123,141,905
33	2,123,141,905	7,599,960	202,822,883	3,858,865	156,829,078	2,080,889,195

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
34	2,080,889,195	6,739,694	200,138,124	4,013,219	153,619,211	2,037,096,757
35	2,037,096,757	5,933,186	196,952,804	4,173,748	150,311,256	1,992,214,647
36	1,992,214,647	5,104,489	193,554,782	4,340,698	146,925,984	1,946,349,640
37	1,946,349,640	4,341,614	189,833,145	4,514,326	143,479,370	1,899,823,153
38	1,899,823,153	3,571,672	185,800,849	4,694,899	139,992,986	1,852,892,063
39	1,852,892,063	2,872,726	181,300,088	4,882,695	136,495,870	1,806,077,875
40	1,806,077,875	2,260,434	176,241,290	5,078,003	133,032,505	1,760,051,521
41	1,760,051,521	1,729,324	170,747,235	5,281,123	129,649,905	1,715,402,391
42	1,715,402,391	1,297,861	164,882,342	5,492,368	126,391,957	1,672,717,499
43	1,672,717,499	958,750	158,589,732	5,712,062	123,306,063	1,632,680,518
44	1,632,680,518	667,324	152,129,420	5,940,545	120,433,388	1,595,711,266
45	1,595,711,266	467,715	145,517,945	6,178,167	117,807,523	1,562,290,392
46	1,562,290,392	292,911	138,918,754	6,425,293	115,456,774	1,532,696,030
47	1,532,696,030	193,288	132,105,087	6,682,305	113,413,421	1,507,515,347
48	1,507,515,347	88,917	125,284,819	6,949,597	111,711,801	1,487,081,650
49	1,487,081,650	42,594	118,533,778	7,227,581	110,377,226	1,471,740,111
50	1,471,740,111	17,750	111,913,570	7,516,684	109,432,624	1,461,760,230
51	1,461,760,230	7,127	105,447,862	7,817,352	108,897,667	1,457,399,810
52	1,457,399,810	3,528	99,132,745	8,130,046	108,792,189	1,458,932,737
53	1,458,932,737	-	92,987,326	8,455,248	109,136,387	1,466,626,550
54	1,466,626,550	-	87,010,919	8,793,457	109,951,138	1,480,773,312
55	1,480,773,312	-	81,199,650	9,145,196	111,259,069	1,501,687,535
56	1,501,687,535	-	75,551,410	9,511,004	113,084,615	1,529,709,735
57	1,529,709,735	-	70,063,657	9,891,444	115,454,244	1,565,208,879
58	1,565,208,879	-	64,736,125	10,287,102	118,396,538	1,608,582,190
59	1,608,582,190	-	59,570,216	10,698,586	121,942,204	1,660,255,592
60	1,660,255,592	-	54,569,372	11,126,529	126,124,092	1,720,683,784
61	1,720,683,784	-	49,738,493	11,571,590	130,977,228	1,790,350,929
62	1,790,350,929	-	45,083,053	12,034,454	136,538,894	1,869,772,316
63	1,869,772,316	-	40,612,115	12,515,832	142,848,647	1,959,493,016
64	1,959,493,016	-	36,333,520	13,016,465	149,948,397	2,060,091,428
65	2,060,091,428	-	32,260,933	13,537,124	157,882,411	2,172,175,782
66	2,172,175,782	-	28,406,592	14,078,609	166,697,322	2,296,387,903

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
67	2,296,387,903	-	24,781,483	14,641,753	176,442,412	2,433,407,080
68	2,433,407,080	-	21,398,552	15,227,423	187,169,792	2,583,950,896
69	2,583,950,896	-	18,271,393	15,836,520	198,934,513	2,748,777,496
70	2,748,777,496	-	15,413,903	16,469,981	211,794,755	2,928,688,367
71	2,928,688,367	-	12,837,461	17,128,780	225,812,157	3,124,534,283
72	3,124,534,283	-	10,550,047	17,813,931	241,052,303	3,337,222,608
73	3,337,222,608	-	8,551,502	18,526,489	257,585,480	3,567,730,097
74	3,567,730,097	-	6,837,584	19,267,548	275,487,509	3,817,112,474
75	3,817,112,474	-	5,394,082	20,038,250	294,840,714	4,086,520,857
76	4,086,520,857	-	4,197,250	20,839,780	315,735,181	4,377,219,008
77	4,377,219,008	-	3,221,187	21,673,371	338,269,809	4,690,594,259
78	4,690,594,259	-	2,436,858	22,540,306	362,553,190	5,028,170,284
79	5,028,170,284	-	1,816,694	23,441,918	388,704,426	5,391,616,098
80	5,391,616,098	-	1,333,625	24,379,595	416,853,860	5,782,756,738
81	5,782,756,738	-	963,875	25,354,779	447,143,799	6,203,581,883
82	6,203,581,883	-	685,707	26,368,970	479,729,227	6,656,256,433
83	6,656,256,433	-	480,755	27,423,729	514,778,575	7,143,130,524
84	7,143,130,524	-	332,597	28,520,678	552,474,551	7,666,751,801
85	7,666,751,801	-	226,964	29,661,505	593,015,086	8,229,878,418
86	8,229,878,418	-	152,890	30,847,965	636,614,294	8,835,491,857
87	8,835,491,857	-	101,637	32,081,884	683,503,508	9,486,811,845
88	9,486,811,845	-	66,672	33,365,159	733,932,434	10,187,312,447
89	10,187,312,447	-	43,113	34,699,766	788,170,428	10,940,739,996
90	10,940,739,996	-	27,487	36,087,756	846,507,884	11,751,132,637
91	11,751,132,637	-	17,277	37,531,267	909,257,773	12,622,841,866
92	12,622,841,866	-	10,680	39,032,517	976,757,321	13,560,555,991
93	13,560,555,991	-	6,478	40,593,818	1,049,369,828	14,569,325,523
94	14,569,325,523	-	3,835	42,217,571	1,127,486,649	15,654,590,765
95	15,654,590,765	-	2,220	43,906,274	1,211,529,330	16,822,211,601
96	16,822,211,601	-	1,237	45,662,525	1,301,951,928	18,078,499,767
97	18,078,499,767	-	653	47,489,026	1,399,243,507	19,430,253,595
98	19,430,253,595	-	342	49,388,587	1,503,930,833	20,884,795,499
99	20,884,795,499	-	180	51,364,130	1,616,581,284	22,450,012,474
100	22,450,012,474	-	92	53,418,695	1,737,805,989	24,134,399,676

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 3: Actuarial Present Value of Projected Benefit Payments

Year	Projected Benefit Payments			Actuarial Present Value of Projected Benefit Payments			
	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g)
1	685,538,013	89,280,271	89,280,271	-	86,009,587	-	86,009,587
2	737,144,630	94,847,263	94,847,263	-	84,800,592	-	84,800,592
3	790,426,205	100,606,485	100,606,485	-	83,480,065	-	83,480,065
4	846,373,034	106,738,276	106,738,276	-	82,197,708	-	82,197,708
5	905,584,564	113,022,584	113,022,584	-	80,776,955	-	80,776,955
6	968,955,538	119,186,573	119,186,573	-	79,055,538	-	79,055,538
7	1,037,711,573	125,414,199	125,414,199	-	77,203,039	-	77,203,039
8	1,113,055,082	131,718,055	131,718,055	-	75,251,596	-	75,251,596
9	1,196,434,260	138,153,512	138,153,512	-	73,251,253	-	73,251,253
10	1,289,418,476	144,894,345	144,894,345	-	71,299,632	-	71,299,632
11	1,393,637,908	151,748,672	151,748,672	-	69,301,634	-	69,301,634
12	1,511,226,928	158,331,870	158,331,870	-	67,107,280	-	67,107,280
13	1,644,951,828	164,662,936	164,662,936	-	64,770,891	-	64,770,891
14	1,798,090,203	170,695,869	170,695,869	-	62,314,591	-	62,314,591
15	1,974,301,785	176,466,727	176,466,727	-	59,787,761	-	59,787,761
16	2,174,443,893	181,745,326	181,745,326	-	57,147,262	-	57,147,262
17	2,391,469,534	186,567,581	186,567,581	-	54,444,132	-	54,444,132
18	2,405,106,348	190,999,044	190,999,044	-	51,728,373	-	51,728,373
19	2,413,927,136	194,953,045	194,953,045	-	49,001,612	-	49,001,612
20	2,418,064,914	198,413,019	198,413,019	-	46,284,250	-	46,284,250
21	2,417,726,368	201,341,950	201,341,950	-	43,589,316	-	43,589,316
22	2,413,121,331	203,909,799	203,909,799	-	40,970,060	-	40,970,060
23	2,404,346,334	206,083,489	206,083,489	-	38,428,588	-	38,428,588
24	2,391,496,209	207,818,510	207,818,510	-	35,964,843	-	35,964,843
25	2,374,696,251	208,971,913	208,971,913	-	33,563,295	-	33,563,295
26	2,354,210,674	209,614,975	209,614,975	-	31,245,084	-	31,245,084
27	2,330,294,037	210,048,774	210,048,774	-	29,057,769	-	29,057,769
28	2,302,897,814	210,119,175	210,119,175	-	26,976,805	-	26,976,805
29	2,272,187,341	209,511,518	209,511,518	-	24,964,074	-	24,964,074
30	2,238,606,541	208,703,043	208,703,043	-	23,079,110	-	23,079,110
31	2,202,050,139	207,007,741	207,007,741	-	21,245,139	-	21,245,139
32	2,163,688,094	205,160,054	205,160,054	-	19,541,078	-	19,541,078
33	2,123,141,905	202,822,883	202,822,883	-	17,928,972	-	17,928,972

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 3: Actuarial Present Value of Projected Benefit Payments

Year	Projected Benefit Payments				Actuarial Present Value of Projected Benefit Payments		
	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g)
34	2,080,889,195	200,138,124	200,138,124	-	16,419,162	-	16,419,162
35	2,037,096,757	196,952,804	196,952,804	-	14,995,676	-	14,995,676
36	1,992,214,647	193,554,782	193,554,782	-	13,676,989	-	13,676,989
37	1,946,349,640	189,833,145	189,833,145	-	12,449,198	-	12,449,198
38	1,899,823,153	185,800,849	185,800,849	-	11,308,363	-	11,308,363
39	1,852,892,063	181,300,088	181,300,088	-	10,240,774	-	10,240,774
40	1,806,077,875	176,241,290	176,241,290	-	9,239,004	-	9,239,004
41	1,760,051,521	170,747,235	170,747,235	-	8,307,185	-	8,307,185
42	1,715,402,391	164,882,342	164,882,342	-	7,444,869	-	7,444,869
43	1,672,717,499	158,589,732	158,589,732	-	6,645,700	-	6,645,700
44	1,632,680,518	152,129,420	152,129,420	-	5,916,455	-	5,916,455
45	1,595,711,266	145,517,945	145,517,945	-	5,252,277	-	5,252,277
46	1,562,290,392	138,918,754	138,918,754	-	4,653,446	-	4,653,446
47	1,532,696,030	132,105,087	132,105,087	-	4,106,918	-	4,106,918
48	1,507,515,347	125,284,819	125,284,819	-	3,614,745	-	3,614,745
49	1,487,081,650	118,533,778	118,533,778	-	3,173,979	-	3,173,979
50	1,471,740,111	111,913,570	111,913,570	-	2,781,169	-	2,781,169
51	1,461,760,230	105,447,862	105,447,862	-	2,432,009	-	2,432,009
52	1,457,399,810	99,132,745	99,132,745	-	2,121,912	-	2,121,912
53	1,458,932,737	92,987,326	92,987,326	-	1,847,211	-	1,847,211
54	1,466,626,550	87,010,919	87,010,919	-	1,604,166	-	1,604,166
55	1,480,773,312	81,199,650	81,199,650	-	1,389,353	-	1,389,353
56	1,501,687,535	75,551,410	75,551,410	-	1,199,730	-	1,199,730
57	1,529,709,735	70,063,657	70,063,657	-	1,032,563	-	1,032,563
58	1,565,208,879	64,736,125	64,736,125	-	885,428	-	885,428
59	1,608,582,190	59,570,216	59,570,216	-	756,168	-	756,168
60	1,660,255,592	54,569,372	54,569,372	-	642,867	-	642,867
61	1,720,683,784	49,738,493	49,738,493	-	543,810	-	543,810
62	1,790,350,929	45,083,053	45,083,053	-	457,457	-	457,457
63	1,869,772,316	40,612,115	40,612,115	-	382,451	-	382,451
64	1,959,493,016	36,333,520	36,333,520	-	317,549	-	317,549
65	2,060,091,428	32,260,933	32,260,933	-	261,675	-	261,675
66	2,172,175,782	28,406,592	28,406,592	-	213,839	-	213,839

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Table 3: Actuarial Present Value of Projected Benefit Payments

Year	Projected Benefit Payments			Actuarial Present Value of Projected Benefit Payments			
	Projected Beginning Fiduciary Net Position (a)	Projected Benefit Payments (b)	"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e)	Present Value of "Unfunded" Benefit Payments (f)	Present Value of Benefit Payments Using the Single Discount Rate (g)
67	2,296,387,903	24,781,483	24,781,483	-	173,132	-	173,132
68	2,433,407,080	21,398,552	21,398,552	-	138,745	-	138,745
69	2,583,950,896	18,271,393	18,271,393	-	109,948	-	109,948
70	2,748,777,496	15,413,903	15,413,903	-	86,082	-	86,082
71	2,928,688,367	12,837,461	12,837,461	-	66,537	-	66,537
72	3,124,534,283	10,550,047	10,550,047	-	50,748	-	50,748
73	3,337,222,608	8,551,502	8,551,502	-	38,176	-	38,176
74	3,567,730,097	6,837,584	6,837,584	-	28,329	-	28,329
75	3,817,112,474	5,394,082	5,394,082	-	20,741	-	20,741
76	4,086,520,857	4,197,250	4,197,250	-	14,978	-	14,978
77	4,377,219,008	3,221,187	3,221,187	-	10,668	-	10,668
78	4,690,594,259	2,436,858	2,436,858	-	7,490	-	7,490
79	5,028,170,284	1,816,694	1,816,694	-	5,182	-	5,182
80	5,391,616,098	1,333,625	1,333,625	-	3,531	-	3,531
81	5,782,756,738	963,875	963,875	-	2,368	-	2,368
82	6,203,581,883	685,707	685,707	-	1,564	-	1,564
83	6,656,256,433	480,755	480,755	-	1,017	-	1,017
84	7,143,130,524	332,597	332,597	-	653	-	653
85	7,666,751,801	226,964	226,964	-	414	-	414
86	8,229,878,418	152,890	152,890	-	259	-	259
87	8,835,491,857	101,637	101,637	-	160	-	160
88	9,486,811,845	66,672	66,672	-	97	-	97
89	10,187,312,447	43,113	43,113	-	58	-	58
90	10,940,739,996	27,487	27,487	-	34	-	34
91	11,751,132,637	17,277	17,277	-	20	-	20
92	12,622,841,866	10,680	10,680	-	12	-	12
93	13,560,555,991	6,478	6,478	-	6	-	6
94	14,569,325,523	3,835	3,835	-	4	-	4
95	15,654,590,765	2,220	2,220	-	2	-	2
96	16,822,211,601	1,237	1,237	-	1	-	1
97	18,078,499,767	653	653	-	-	-	-
98	19,430,253,595	342	342	-	-	-	-
99	20,884,795,499	180	180	-	-	-	-
100	22,450,012,474	92	92	-	-	-	-

Worcester Regional Retirement System
 Financial Reporting and Disclosures Under GASB 67 and GASB 68 as of December 31, 2018