

HAMPDEN COUNTY REGIONAL RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

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Financial Section

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Independent Auditor's Report

To the Honorable Hampden County Regional Retirement Board
Hampden County Regional Retirement System
Agawam, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Hampden County Regional Retirement System (HCRRS) as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Hampden County Regional Retirement System's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Hampden County Regional Retirement System as of December 31, 2019, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis; the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 28, 2020 on our consideration of the Hampden County Regional Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Hampden County Regional Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Hampden County Regional Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.



December 28, 2020

Management's Discussion and Analysis

As management of the Hampden County Regional Retirement System (System), we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2019. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by \$410.4 million (net position).
- The System's net position increased by \$52.7 million for the year ended December 31, 2019.
- Total investment income was \$57.6 million; investment expenses were \$2 million; and net investment income was \$55.6 million.
- Total contributions were \$45 million including \$31 million from employers and \$11.3 million from members.
- Retirement benefits, refunds and transfers amounted to \$47.1 million.
- Administrative expenses were \$839,000.
- The total pension liability is \$817.1 million as of December 31, 2019 while the net pension liability is \$406.7 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 50.23%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System's fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System’s financial position. The System’s net position exceeded liabilities by \$410.4 million at the close of 2019.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end the system’s net position includes investments of \$400 million, cash of \$9.5 million and current accounts receivable of \$928,000.

In 2019 the System’s contributions were \$45 million while retirement benefit payments, refunds, transfers and administration expenses were \$47.9 million which resulted in a current deficiency of \$3 million. In 2018 the System’s contributions were \$41.9 million while retirement benefit payments, refunds, transfers and administration expenses were \$45.2 million which resulted in a prior year deficiency of \$3.3 million. Therefore, for these two years the System supported these deficiencies with net investment income and a draw on prior year reserves.

In 2019 net investment income was \$55.6 million, while the net investment loss was \$8.6 million in 2018. The annual money weighted rate of return was 16.36% and -2.52% in 2019 and 2018 respectively. The system’s investment policy is designed to achieve a long-term rate of return of 7.15% and fluctuation in annual investment returns is expected.

The following tables present summarized financial information for the past two years.

	2019	2018
Statement of Fiduciary Net Position		
Cash.....	\$ 9,484,169	\$ 6,592,963
Investments.....	400,023,887	350,183,030
Receivables.....	927,844	1,008,321
Other assets.....	4,177	4,177
Net Position Restricted for Pension Benefits.....	\$ 410,440,077	\$ 357,788,491

Statement of Changes in Fiduciary Net Position	2019	2018
Additions:		
Contributions:		
Member contributions.....	\$ 11,274,416	\$ 10,837,968
Employer contributions.....	30,986,922	28,726,521
Other contributions.....	2,691,885	2,297,247
Total contributions.....	44,953,223	41,861,736
Net investment income (loss):		
Total investment income (loss).....	57,608,857	(6,655,082)
Less, investment expenses.....	(1,968,364)	(1,926,974)
Net investment income (loss).....	55,640,493	(8,582,056)
Total additions.....	100,593,716	33,279,680
Deductions:		
Administration.....	838,798	890,776
Retirement benefits, refunds and transfers.....	47,103,332	44,273,927
Total deductions.....	47,942,130	45,164,703
Net increase (decrease) in fiduciary net position....	52,651,586	(11,885,023)
Fiduciary net position at beginning of year.....	357,788,491	369,673,514
Fiduciary net position at end of year.....	\$ 410,440,077	\$ 357,788,491

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 16 Hunt Street, Suite 116, Agawam, Massachusetts, 01001.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2019

Assets	
Cash and cash equivalents.....	\$ 9,484,169
Investments:	
Investments in Pension Reserve Investment Trust.....	398,679,746
Pooled real estate funds.....	<u>1,344,141</u>
Total investments.....	<u>400,023,887</u>
Receivables, net of allowance for uncollectibles:	
Member contributions.....	722,823
Employer pension appropriation.....	<u>205,021</u>
Total receivables.....	<u>927,844</u>
Other assets.....	<u>4,177</u>
Total Assets.....	<u>410,440,077</u>
Net Position Restricted for Pensions.....	\$ <u>410,440,077</u>

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2019

Additions:	
Contributions:	
Employer pension appropriation.....	\$ 30,986,922
Member contributions.....	11,274,416
Transfers from other systems.....	1,416,897
3(8)(c) contributions from other systems.....	852,033
Workers' compensation settlements.....	9,448
State COLA reimbursements.....	245,140
Members' makeup payments and redeposits.....	159,652
Interest not refunded.....	66
Reimbursement of 91A overearnings.....	8,649
	<hr/>
Total contributions.....	44,953,223
	<hr/>
Net investment income:	
Investment income.....	57,608,857
Less: investment expense.....	(1,968,364)
	<hr/>
Net investment income.....	55,640,493
	<hr/>
Total additions.....	100,593,716
	<hr/>
Deductions:	
Administration.....	838,798
Retirement benefits and refunds.....	42,681,499
Transfers to other systems.....	798,370
3(8)(c) transfer to other systems.....	3,623,463
	<hr/>
Total deductions.....	47,942,130
	<hr/>
Net increase in fiduciary net position.....	52,651,586
	<hr/>
Fiduciary net position at beginning of year.....	357,788,491
	<hr/>
Fiduciary net position at end of year.....	\$ 410,440,077
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See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Hampden County Regional Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Hampden County Regional Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 25 hours per week. The System has 35 participating employers.

Originally established in 1937, the System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The legislative body for the System is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement system; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 7% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of \$30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2035.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Hampden County Regional Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

HCRRS is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market

values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the System's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions and pension fund contributions. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The HCRRS did not have any elements that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The HCRRS did not have any elements that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the County Chairman/Treasurer who is elected by the board, a second member who is the treasurers representative and elected by the advisory council, a third and fourth member who shall be elected by the members in or retired from the service in such system, and a fifth member appointed by the board.

Chairman	Richard M. Theroux	Term Expires:	12/31/2021
Board Member	Laurel A. Placzek	Term Expires:	12/31/2021
Board Member	Patricia C. Donovan	Term Expires:	12/31/2022
Board Member	Karl. J. Schmaelzle	Term Expires:	12/31/2020
Board Member	Patrick E. O'Neil	Term Expires:	12/1/2024

Board members are required to meet at least once a month and the Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:)	MACRS Blanket Policy
Ex-Officio Member:)	\$50,000,000 Fiduciary Liability
Elected Members:)	\$1,000,000 Fidelity (ERISA) Bond
Appointed Members:)	St. Paul Travelers Insurance Company
Staff Employees:)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2019, the carrying amount of the System’s deposits totaled \$9,484,169, of which \$1,165,914 was with PRIT and \$8,318,255 was with banks. The bank balance of \$8,956,954 was covered by Federal Depository Insurance and the PRIT balance was uninsured.

Investments

The System's investments are as follows:

<u>Investment Type:</u>	<u>December 31, 2019</u>
PRIT Pooled Funds.....	\$ 398,679,746
Pooled Real Estate Funds.....	<u>1,344,141</u>
Total Investments.....	<u>\$ 400,023,887</u>

Approximately 99% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT). This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool’s shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. The effective weighted duration rate for PRIT investments ranged from 0.14 to 16.03 years.

Approximately 0.3% of the System's funds are invested in pooled real estate funds where the fair value, classified in level 3, are valued using either a discounted cash flow or market comparable company's technique.

The Administration's annual money-weighted rate of return on pension plan investments was 16.36%. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The retiree pension defined benefit plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures. The plan chooses a tabular format for disclosing the levels within the fair value hierarchy.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

The System has the following recurring fair value measurements as of December 31, 2019:

Investment Type	12/31/2019	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Pooled Real Estate Funds.....	\$ 1,344,141	\$ -	\$ -	\$ 1,344,141
Investments measured at NAV				
PRIT Investments.....	398,679,746			
Total Investments.....	\$ 400,023,887			

Pooled Real Estate Funds classified in level 3 are valued using either a discounted cash flow or market comparable company's technique.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2019:

Active members.....	2,995
Inactive members.....	429
Retirees and beneficiaries currently receiving benefits....	1,820
Total.....	<u>5,244</u>

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2019, were as follows:

Total pension liability.....	\$ 817,118,011
The pension plan's fiduciary net position.....	<u>410,440,077</u>
The net pension liability.....	\$ <u>406,677,934</u>
The pension plan's fiduciary net position as a percentage of the total pension liability.....	50.23%

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled back to December 31, 2019:

Valuation date.....	January 1, 2020
Actuarial cost method.....	Entry Age Normal Cost Method.
Amortization method.....	Appropriations increase 8.00% per year through fiscal 2030 and 3.75% per year thereafter.
Inflation rate.....	3.25%
Projected salary increases.....	Varies by length of service with ultimate rates of 4.00% for Group 1 employees with 11 or more years of service, 4.25% for Group 2 with 9 or more years of service and 4.50% for Group 4 employees with 8 or more years of service.
Cost of living adjustments.....	3.0% of the first \$18,000 of retirement income.
Rates of retirement.....	Varies based upon age for general employees, police and fire employees.
Mortality Rates:	
Pre-Retirement.....	RP-2014 Blue Collar Employee Mortality Table set forward one year for females and projected generationally with Scale MP-2017.
Healthy Retiree.....	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females and projected generationally with Scale MP-2017.
Disabled Retiree.....	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females and projected generationally with Scale MP-2017.
Investment rate of return/Discount rate.....	7.15% (previously 7.50%).

Investment policy: The System's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected future real rates of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting investment expenses and a risk margin.

Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of January 1, 2019, are summarized in the following table:

Asset Class	Long-Term Expected Asset Allocation	Long-Term Expected Real Rate of Return
Domestic Equity.....	21.00%	6.15%
International Developed Markets Equity.....	13.00%	6.78%
International Emerging Market Equity.....	5.00%	8.65%
Core Fixed Income.....	15.00%	1.11%
High Yield Fixed Income.....	8.00%	3.51%
Real Estate.....	10.00%	4.33%
Commodities.....	4.00%	4.13%
Hedge Fund, GTAA, Risk Parity.....	11.00%	3.19%
Private Equity.....	13.00%	9.99%
Total.....	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.15%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future 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.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.15%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.15%) or 1-percentage-point higher (8.15%) than the current rate:

	1% Decrease 6.15%	Current Discount 7.15%	1% Increase 8.15%
Hampden County Regional Retirement System's net pension liability as of December 31, 2019.....	\$ 500,646,099	\$ 406,677,934	\$ 327,555,736

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the system's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

The System has no significant commitments and contingencies at year-end.

NOTE 8 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through December 28, 2020, which is the date the financial statements were available to be issued.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

In May of 2020, the GASB issued Statement #95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. The objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. This Statement postponed the required implementation of many of the upcoming Statements for one year or longer.

There were no GASB pronouncements required to be implemented in 2019 that impacted the Hampden County Regional Retirement System's financial statements.

None of the issued GASB statements that are required to be implemented in future years are anticipated to impact the Association's financial statements.

Required Supplementary Information

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
AND RELATED RATIOS**

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Total pension liability:						
Service cost.....	\$ 13,453,422	\$ 13,991,559	\$ 14,551,221	\$ 15,456,357	\$ 16,386,887	\$ 16,819,341
Interest.....	44,294,119	46,197,308	48,122,945	52,743,788	54,206,895	56,291,147
Changes in benefit terms.....	-	-	-	-	-	-
Differences between expected and actual experience.....	-	-	8,215,868	(6,187,366)	-	3,340,090
Changes in assumptions.....	-	-	36,253,033	20,207,084	-	29,220,129
Benefit payments.....	(33,022,469)	(35,213,923)	(37,378,079)	(39,758,337)	(42,031,857)	(44,563,969)
Net change in total pension liability.....	24,725,072	24,974,944	69,764,988	42,461,526	28,561,925	61,106,738
Total pension liability - beginning.....	565,522,816	590,247,890	615,222,834	684,987,822	727,449,348	756,011,273
Total pension liability - ending (a).....	<u>\$ 590,247,890</u>	<u>\$ 615,222,834</u>	<u>\$ 684,987,822</u>	<u>\$ 727,449,348</u>	<u>\$ 756,011,273</u>	<u>\$ 817,118,011</u>
Plan fiduciary net position:						
Employer pension appropriation.....	\$ 21,373,733	\$ 22,876,301	\$ 24,644,961	\$ 26,603,693	\$ 28,726,521	\$ 30,986,922
Member contributions.....	9,339,992	9,676,034	9,992,326	10,231,077	10,837,968	11,274,416
Other contributions.....	1,389,820	1,599,102	1,880,923	1,980,443	2,297,247	2,691,885
Net investment income (loss).....	21,257,662	3,012,669	21,516,801	52,667,942	(8,582,056)	55,640,493
Administrative expenses.....	(739,359)	(764,647)	(913,882)	(943,440)	(890,776)	(838,798)
Retirement benefits and refunds.....	(33,022,469)	(35,213,923)	(37,378,079)	(39,758,337)	(42,031,857)	(44,563,969)
Other retirement deductions.....	(1,389,819)	(1,599,102)	(1,880,923)	(1,807,638)	(2,242,070)	(2,539,363)
Net increase (decrease) in fiduciary net position.....	18,209,560	(413,566)	17,862,127	48,973,740	(11,885,023)	52,651,586
Fiduciary net position - beginning of year.....	285,041,653	303,251,213	302,837,647	320,699,774	369,673,514	357,788,491
Fiduciary net position - end of year (b).....	<u>\$ 303,251,213</u>	<u>\$ 302,837,647</u>	<u>\$ 320,699,774</u>	<u>\$ 369,673,514</u>	<u>\$ 357,788,491</u>	<u>\$ 410,440,077</u>
Net pension liability - ending (a)-(b).....	<u>\$ 286,996,677</u>	<u>\$ 312,385,187</u>	<u>\$ 364,288,048</u>	<u>\$ 357,775,834</u>	<u>\$ 398,222,782</u>	<u>\$ 406,677,934</u>
Plan fiduciary net position as a percentage of the total pension liability.....	51.38%	49.22%	46.82%	50.82%	47.33%	50.23%
Covered payroll.....	\$ 100,077,260	\$ 104,080,350	\$ 107,528,616	\$ 109,713,930	\$ 114,355,356	\$ 120,106,229
Net pension liability as a percentage of covered payroll.....	286.78%	300.14%	338.78%	326.10%	348.23%	338.60%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Actuarially determined contribution.....	\$ 21,373,733	\$ 22,876,301	\$ 24,644,961	\$ 26,603,693	\$ 28,726,521	\$ 30,980,826
Contributions in relation to the actuarially determined contribution.....	<u>(21,373,733)</u>	<u>(22,876,301)</u>	<u>(24,644,961)</u>	<u>(26,603,693)</u>	<u>(28,726,521)</u>	<u>(30,986,622)</u>
Contribution deficiency (excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (5,796)</u>
Covered payroll.....	\$ 100,077,260	\$ 104,080,350	\$ 107,528,616	\$ 109,713,930	\$ 114,355,356	\$ 120,106,229
Contributions as a percentage of covered payroll.....	21.36%	21.98%	22.92%	24.25%	25.12%	25.80%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

<u>Year</u>	<u>Annual money-weighted rate of return, net of investment expense</u>
December 31, 2019.....	16.36%
December 31, 2018.....	-2.52%
December 31, 2017.....	16.51%
December 31, 2016.....	7.15%
December 31, 2015.....	1.00%
December 31, 2014.....	7.57%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the systems total pension liability, changes in the systems net position, and the ending net pension liability. It also demonstrates the System's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the system's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONSChanges in Assumptions

The following assumption changes were reflected in the January 1, 2020 actuarial valuation:

- The discount rate was lowered from 7.50% to 7.15%.

Changes in Plan Provisions

None.

Audit of Specific Elements, Accounts and Items of Financial Statements



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Independent Auditor's Report

To the Honorable Hampden County Regional Retirement Board
Hampden County Regional Retirement System
Agawam, Massachusetts

We have audited the accompanying schedule of employer allocations of the Hampden County Regional Retirement System (HCRRS) as of and for the year ended December 31, 2019, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense and contributions included in the accompanying schedule of pension amounts by employer of the HCRRS Pension Plan as of and for the year ended December 31, 2019, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources and total pension expense contributions for the total of all participating entities for the Hampden County Regional Retirement System as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Hampden County Regional Retirement System as of and for the year ended December 31, 2019, and our report thereon, dated December 28, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Hampden County Regional Retirement System management, the Hampden County Regional Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

A handwritten signature in black ink, appearing to read "Bowers & Silve LLC". The signature is written in a cursive, flowing style.

December 28, 2020

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2019

Employer	Pension	Direct	FY2019	Share of	Percent of
	Fund	Appropriation	Total	Net Pension	Total Net
	Appropriation	E.R.I., and Pension Holiday	Appropriation	Liability	Pension Liability
Town of Agawam.....	\$ 6,817,351	\$ -	\$ 6,817,351	\$ 88,280,976	21.708%
Agawam Housing Authority.....	93,903	-	93,903	1,215,991	0.299%
Town of Blandford.....	65,732	-	65,732	851,193	0.209%
Town of Brimfield.....	341,181	2,888	344,069	4,455,507	1.096%
Brimfield Housing Authority.....	28,171	-	28,171	364,798	0.090%
Town of Chester.....	97,033	-	97,033	1,256,525	0.309%
Chester Electric Light.....	53,212	-	53,212	689,067	0.169%
Town of East Longmeadow.....	3,549,530	13,250	3,562,780	46,136,055	11.345%
East Longmeadow Housing Authority.....	68,862	-	68,862	891,727	0.219%
Town of Granville.....	140,854	3,170	144,024	1,865,033	0.459%
Town of Hampden.....	563,417	-	563,417	7,295,940	1.794%
Hampden Housing Authority.....	25,041	-	25,041	324,289	0.080%
Hampden/Wilbraham Regional School District.....	1,662,081	-	1,662,081	21,523,039	5.292%
Town of Holland.....	300,489	-	300,489	3,891,168	0.957%
Town of Longmeadow.....	3,731,075	-	3,731,075	48,315,385	11.881%
Town of Ludlow.....	2,726,314	-	2,726,314	35,304,277	8.681%
Town of Ludlow - School.....	1,486,796	-	1,486,796	19,253,195	4.734%
Ludlow Housing Authority.....	53,212	8,692	61,904	801,623	0.197%
Town of Monson.....	1,155,006	-	1,155,006	14,956,695	3.678%
Town of Monson - Schools.....	666,711	-	666,711	8,633,545	2.123%
Monson Housing Authority.....	50,082	8,451	58,533	757,970	0.186%
Town of Montgomery.....	37,561	-	37,561	486,395	0.120%
Town of Palmer.....	1,054,843	17,592	1,072,435	14,319,586	3.521%
Town of Palmer - Schools.....	626,019	-	626,019	8,106,604	1.993%
Town of Palmer - Library.....	112,683	-	112,683	1,459,185	0.359%
Town of Palmer - WWTP.....	147,115	-	147,115	1,905,058	0.468%
Palmer Fire District.....	137,724	-	137,724	1,783,449	0.439%
Pathfinder Regional Vocational Technical School....	356,831	-	356,831	4,620,768	1.136%
Town of Russell.....	131,464	-	131,464	1,702,386	0.419%
Town of Southwick.....	1,130,991	8,549	1,139,540	15,472,733	3.805%
Town of Southwick Water.....	84,513	-	84,513	1,094,399	0.269%
Southwick/Tolland Regional School District.....	1,020,411	-	1,020,411	13,213,763	3.249%
Southwick Housing Authority.....	15,650	-	15,650	202,660	0.050%
Three Rivers Fire.....	43,821	-	43,821	567,458	0.140%
Town of Tolland.....	75,122	8,096	83,218	1,077,627	0.265%
Town of Wales.....	128,334	-	128,334	1,661,857	0.409%
Western Hampden Veterans.....	40,691	-	40,691	526,924	0.130%
Town of Wilbraham.....	2,144,116	-	2,144,116	27,765,131	6.827%
Wilbraham Solid Waste.....	34,431	-	34,431	445,861	0.110%
Wilbraham Sewer.....	50,082	-	50,082	648,533	0.159%
Wilbraham Water Department.....	109,553	-	109,553	1,418,651	0.349%
Wilbraham Ambulance.....	50,082	-	50,082	648,533	0.159%
Wilbraham Housing Authority.....	37,561	-	37,561	486,395	0.120%
Total.....	\$ 31,245,651	\$ 70,688	\$ 31,316,339	\$ 406,677,934	100.000%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Agawam	Agawam Housing Authority	Town of Blandford	Town of Brimfield
Net Pension Liability				
Beginning net pension liability.....	\$ 86,517,000	\$ 1,026,677	\$ 829,234	\$ 4,067,344
Ending net pension liability.....	\$ 88,280,976	\$ 1,215,991	\$ 851,193	\$ 4,455,507
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 1,198,714	\$ 16,511	\$ 11,558	\$ 60,499
Changes of assumptions.....	10,102,392	139,151	97,406	509,864
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,170,074	174,872	88,947	314,430
Total Deferred Outflows of Resources.....	\$ 12,471,180	\$ 330,534	\$ 197,911	\$ 884,793
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 671,572	\$ 9,250	\$ 6,475	\$ 33,894
Net difference between projected and actual investment earnings on pension plan investments.....	2,639,502	36,357	25,450	133,215
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	665,374	108,185	61,705	288,473
Total Deferred Inflows of Resources.....	\$ 3,976,448	\$ 153,792	\$ 93,630	\$ 455,582
Pension Expense				
Proportionate share of plan pension expense.....	\$ 11,174,986	\$ 153,926	\$ 107,747	\$ 563,999
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	449,491	61,512	6,486	136,937
Total Employer Pension Expense.....	\$ 11,624,477	\$ 215,438	\$ 114,233	\$ 700,936
Contributions				
Statutory required contribution.....	\$ 6,735,672	\$ 92,778	\$ 65,732	\$ 339,947
Contribution in relation to statutory required contribution.....	(6,741,438)	(92,778)	(65,732)	(339,947)
Contribution deficiency/(excess).....	\$ (5,766)	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.83%	25.83%	26.15%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 2,511,371	\$ 56,099	\$ 30,408	\$ 138,299
June 30, 2022.....	2,416,376	54,792	29,492	133,499
June 30, 2023.....	2,193,483	29,769	15,872	64,320
June 30, 2024.....	205,415	(4,127)	16,401	(9,560)
June 30, 2025.....	1,168,087	40,209	12,108	102,653
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 8,494,732	\$ 176,742	\$ 104,281	\$ 429,211
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 108,679,430	\$ 1,496,961	\$ 1,047,872	\$ 5,485,009
Current discount rate (7.15%).....	\$ 88,280,976	\$ 1,215,991	\$ 851,193	\$ 4,455,507
1% increase (8.15%).....	\$ 71,105,260	\$ 979,411	\$ 685,587	\$ 3,588,655
Covered Payroll.....	\$ 26,072,464	\$ 359,125	\$ 251,387	\$ 1,315,867

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Brimfield Housing Authority	Town of Chester	Chester Electric Light	Town of East Longmeadow	East Longmeadow Housing Authority
Net Pension Liability					
Beginning net pension liability.....	\$ 394,876	\$ 1,184,624	\$ 710,769	\$ 44,565,663	\$ 938,083
Ending net pension liability.....	\$ 364,798	\$ 1,256,525	\$ 689,067	\$ 46,136,055	\$ 891,727
Deferred Outflows of Resources					
Differences between expected and actual experience.....	\$ 4,953	\$ 17,062	\$ 9,356	\$ 626,454	\$ 12,108
Changes of assumptions.....	41,745	143,790	78,853	5,279,558	102,044
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	60,032	49,369	391,502	445,765	58,385
Total Deferred Outflows of Resources.....	<u>\$ 106,730</u>	<u>\$ 210,221</u>	<u>\$ 479,711</u>	<u>\$ 6,351,777</u>	<u>\$ 172,537</u>
Deferred Inflows of Resources					
Differences between expected and actual experience.....	\$ 2,774	\$ 9,559	\$ 5,242	\$ 350,966	\$ 6,784
Net difference between projected and actual investment earnings on pension plan investments.....	10,907	37,569	20,602	1,379,417	26,662
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	27,685	225,837	26,360	727,655	114,942
Total Deferred Inflows of Resources.....	<u>\$ 41,366</u>	<u>\$ 272,965</u>	<u>\$ 52,204</u>	<u>\$ 2,458,038</u>	<u>\$ 148,388</u>
Pension Expense					
Proportionate share of plan pension expense.....	\$ 46,178	\$ 159,056	\$ 87,224	\$ 5,840,099	\$ 112,881
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	10,847	(46,530)	92,601	(472,734)	(18,739)
Total Employer Pension Expense.....	<u>\$ 57,025</u>	<u>\$ 112,526</u>	<u>\$ 179,825</u>	<u>\$ 5,367,365</u>	<u>\$ 94,142</u>
Contributions					
Statutory required contribution.....	\$ 27,671	\$ 95,870	\$ 52,574	\$ 3,520,094	\$ 68,037
Contribution in relation to statutory required contribution.....	(27,671)	(95,870)	(52,574)	(3,520,094)	(68,037)
Contribution deficiency/(excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	25.68%	25.83%	25.83%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense					
June 30, 2021.....	\$ 21,108	\$ (11,266)	\$ 112,052	\$ 1,137,323	\$ 7,935
June 30, 2022.....	20,712	(12,621)	111,310	1,087,686	6,981
June 30, 2023.....	19,019	(13,713)	108,223	922,855	23,643
June 30, 2024.....	5,194	(48,600)	92,000	41,083	(16,813)
June 30, 2025.....	(669)	23,456	3,922	704,792	2,403
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ 65,364</u>	<u>\$ (62,744)</u>	<u>\$ 427,507</u>	<u>\$ 3,893,739</u>	<u>\$ 24,149</u>
Discount Rate Sensitivity					
1% decrease (6.15%).....	\$ 449,089	\$ 1,546,861	\$ 848,285	\$ 56,796,384	\$ 1,097,772
Current discount rate (7.15%).....	\$ 364,798	\$ 1,256,525	\$ 689,067	\$ 46,136,055	\$ 891,727
1% increase (8.15%).....	\$ 293,824	\$ 1,012,059	\$ 555,004	\$ 37,159,944	\$ 718,235
Covered Payroll.....	\$ 107,738	\$ 371,096	\$ 203,506	\$ 13,625,592	\$ 263,358

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Granville	Town of Hampden	Hampden Housing Authority	Hampden/ Wilbraham Reg. Sch. Dist.
Net Pension Liability				
Beginning net pension liability.....	\$ 833,231	\$ 6,989,279	\$ 236,926	\$ 20,454,507
Ending net pension liability.....	\$ 1,865,033	\$ 7,295,940	\$ 324,269	\$ 21,523,039
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 25,324	\$ 99,067	\$ 4,403	\$ 292,248
Changes of assumptions.....	213,424	834,907	37,108	2,462,979
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	727,525	570,782	59,254	619,050
Total Deferred Outflows of Resources.....	\$ 966,273	\$ 1,504,756	\$ 100,765	\$ 3,374,277
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 14,188	\$ 55,501	\$ 2,467	\$ 163,730
Net difference between projected and actual investment earnings on pension plan investments.....	55,762	218,140	9,695	643,515
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	213,630	-	31,161	512,106
Total Deferred Inflows of Resources.....	\$ 283,580	\$ 273,641	\$ 43,323	\$ 1,319,351
Pension Expense				
Proportionate share of plan pension expense.....	\$ 236,086	\$ 923,551	\$ 41,047	\$ 2,724,479
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	68,078	232,364	7,347	(99,999)
Total Employer Pension Expense.....	\$ 304,164	\$ 1,155,915	\$ 48,394	\$ 2,624,480
Contributions				
Statutory required contribution.....	\$ 144,024	\$ 556,667	\$ 25,041	\$ 1,642,167
Contribution in relation to statutory required contribution.....	(144,024)	(556,667)	(25,041)	(1,642,167)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	26.15%	25.83%	26.15%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 121,197	\$ 375,304	\$ 10,802	\$ 651,871
June 30, 2022.....	119,195	367,455	10,454	628,712
June 30, 2023.....	150,030	280,681	13,839	452,542
June 30, 2024.....	121,879	87,689	6,184	(56,121)
June 30, 2025.....	170,392	119,986	16,163	377,922
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 682,693	\$ 1,231,115	\$ 57,442	\$ 2,054,926
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 2,295,973	\$ 8,981,761	\$ 399,196	\$ 26,496,214
Current discount rate (7.15%).....	\$ 1,865,033	\$ 7,295,940	\$ 324,269	\$ 21,523,039
1% increase (8.15%).....	\$ 1,502,177	\$ 5,876,461	\$ 261,180	\$ 17,335,573
Covered Payroll.....	\$ 550,810	\$ 2,154,746	\$ 95,768	\$ 6,356,507
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Holland	Town of Longmeadow	Town of Ludlow	Town of Ludlow Schools
Net Pension Liability				
Beginning net pension liability.....	\$ 3,593,353	\$ 48,569,559	\$ 34,827,932	\$ 19,111,921
Ending net pension liability.....	\$ 3,891,168	\$ 48,315,385	\$ 35,304,277	\$ 19,253,195
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 52,836	\$ 656,045	\$ 479,375	\$ 261,428
Changes of assumptions.....	445,284	5,528,948	4,040,030	2,203,230
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	182,616	-	794,461	460,163
Total Deferred Outflows of Resources.....	\$ 680,736	\$ 6,184,993	\$ 5,313,866	\$ 2,924,821
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 29,601	\$ 367,545	\$ 268,567	\$ 146,463
Net difference between projected and actual investment earnings on pension plan investments.....	116,342	1,444,576	1,055,558	575,649
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	61,805	2,573,164	325,312	432,282
Total Deferred Inflows of Resources.....	\$ 207,748	\$ 4,385,285	\$ 1,649,437	\$ 1,154,394
Pension Expense				
Proportionate share of plan pension expense.....	\$ 492,561	\$ 6,115,969	\$ 4,468,967	\$ 2,437,152
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	80,784	(479,374)	142,480	(219,372)
Total Employer Pension Expense.....	\$ 573,345	\$ 5,636,595	\$ 4,611,447	\$ 2,217,780
Contributions				
Statutory required contribution.....	\$ 300,489	\$ 3,686,373	\$ 2,693,650	\$ 1,468,983
Contribution in relation to statutory required contribution.....	(300,489)	(3,686,373)	(2,693,650)	(1,468,983)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	26.15%	25.83%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 133,565	\$ 549,285	\$ 1,219,528	\$ 581,854
June 30, 2022.....	129,380	497,315	1,181,549	561,139
June 30, 2023.....	101,392	665,776	932,835	390,460
June 30, 2024.....	24,424	(373,064)	(102,726)	18,036
June 30, 2025.....	84,227	460,396	433,243	218,938
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 472,988	\$ 1,799,708	\$ 3,664,429	\$ 1,770,427
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 4,790,272	\$ 59,479,276	\$ 43,461,784	\$ 23,701,893
Current discount rate (7.15%).....	\$ 3,891,168	\$ 48,315,385	\$ 35,304,277	\$ 19,253,195
1% increase (8.15%).....	\$ 3,134,113	\$ 38,915,270	\$ 28,435,569	\$ 15,507,344
Covered Payroll.....	\$ 1,149,198	\$ 14,269,224	\$ 10,426,589	\$ 5,686,142

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
FOR THE YEAR ENDED DECEMBER 31, 2019

	Ludlow Housing Authority	Town of Monson	Town of Monson Schools	Monson Housing Authority
Net Pension Liability				
Beginning net pension liability.....	\$ 711,549	\$ 14,057,532	\$ 7,779,026	\$ 550,286
Ending net pension liability.....	\$ 801,623	\$ 14,956,695	\$ 8,633,545	\$ 757,970
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 10,885	\$ 203,088	\$ 117,230	\$ 10,292
Changes of assumptions.....	91,733	1,711,562	987,976	86,738
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	143,478	937,714	493,380	140,325
Total Deferred Outflows of Resources.....	<u>\$ 246,096</u>	<u>\$ 2,852,364</u>	<u>\$ 1,598,586</u>	<u>\$ 237,355</u>
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 6,098	\$ 113,779	\$ 65,677	\$ 5,766
Net difference between projected and actual investment earnings on pension plan investments.....	23,968	447,188	258,133	22,662
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	7,114	-	755,582	62,330
Total Deferred Inflows of Resources.....	<u>\$ 37,180</u>	<u>\$ 560,967</u>	<u>\$ 1,079,392</u>	<u>\$ 90,758</u>
Pension Expense				
Proportionate share of plan pension expense.....	\$ 101,474	\$ 1,893,283	\$ 1,092,870	\$ 95,945
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	8,113	359,481	(76,720)	8,177
Total Employer Pension Expense.....	<u>\$ 109,587</u>	<u>\$ 2,252,764</u>	<u>\$ 1,016,150</u>	<u>\$ 104,122</u>
Contributions				
Statutory required contribution.....	\$ 61,904	\$ 1,141,168	\$ 658,723	\$ 57,832
Contribution in relation to statutory required contribution.....	(61,934)	(1,141,168)	(658,723)	(57,832)
Contribution deficiency/(excess).....	<u>\$ (30)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	26.15%	25.83%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 60,790	\$ 672,484	\$ 114,814	\$ 25,600
June 30, 2022.....	59,928	656,390	105,531	24,784
June 30, 2023.....	57,617	559,036	134,200	37,290
June 30, 2024.....	9,023	117,958	(49,233)	20,742
June 30, 2025.....	21,558	285,529	213,882	38,181
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ 208,916</u>	<u>\$ 2,291,397</u>	<u>\$ 519,194</u>	<u>\$ 146,597</u>
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 986,848	\$ 18,412,632	\$ 10,628,437	\$ 933,109
Current discount rate (7.15%).....	\$ 801,623	\$ 14,956,695	\$ 8,633,545	\$ 757,970
1% increase (8.15%).....	\$ 645,661	\$ 12,046,759	\$ 6,953,825	\$ 610,501
Covered Payroll.....	\$ 236,747	\$ 4,417,236	\$ 2,549,788	\$ 223,855

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Montgomery	Town of Palmer	Town of Palmer Schools	Town of Palmer Library
Net Pension Liability				
Beginning net pension liability.....	\$ 473,855	\$ 14,630,418	\$ 7,700,059	\$ 1,776,944
Ending net pension liability.....	\$ 486,395	\$ 14,319,586	\$ 8,106,604	\$ 1,459,185
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 6,604	\$ 194,437	\$ 110,075	\$ 19,813
Changes of assumptions.....	55,660	1,638,655	927,675	166,981
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,997	1,378,103	315,323	330,749
Total Deferred Outflows of Resources.....	<u>\$ 64,261</u>	<u>\$ 3,211,195</u>	<u>\$ 1,353,073</u>	<u>\$ 517,543</u>
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 3,700	\$ 108,932	\$ 61,669	\$ 11,100
Net difference between projected and actual investment earnings on pension plan investments.....	14,543	428,140	242,378	43,628
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	21,512	445,350	169,662	408,939
Total Deferred Inflows of Resources.....	<u>\$ 39,755</u>	<u>\$ 982,422</u>	<u>\$ 473,709</u>	<u>\$ 463,667</u>
Pension Expense				
Proportionate share of plan pension expense.....	\$ 61,572	\$ 1,812,635	\$ 1,026,171	\$ 184,710
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(4,864)	(173,748)	47,230	(25,757)
Total Employer Pension Expense.....	<u>\$ 56,708</u>	<u>\$ 1,638,887</u>	<u>\$ 1,073,401</u>	<u>\$ 158,953</u>
Contributions				
Statutory required contribution.....	\$ 37,111	\$ 1,092,557	\$ 618,519	\$ 111,333
Contribution in relation to statutory required contribution.....	(37,111)	(1,092,557)	(618,519)	(111,333)
Contribution deficiency/(excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	25.83%	25.83%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 8,793	\$ 816,312	\$ 246,733	\$ 60,518
June 30, 2022.....	8,270	800,902	238,014	58,949
June 30, 2023.....	6,050	542,479	244,837	(25,624)
June 30, 2024.....	(5,448)	(32,930)	6,840	(8,522)
June 30, 2025.....	6,841	102,010	142,940	(31,445)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ 24,506</u>	<u>\$ 2,228,773</u>	<u>\$ 879,364</u>	<u>\$ 53,876</u>
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 598,783	\$ 17,628,310	\$ 9,979,739	\$ 1,796,348
Current discount rate (7.15%).....	\$ 486,395	\$ 14,319,586	\$ 8,106,604	\$ 1,459,185
1% increase (8.15%).....	\$ 391,763	\$ 11,533,605	\$ 6,529,404	\$ 1,175,290
Covered Payroll.....	\$ 143,649	\$ 4,229,075	\$ 2,394,164	\$ 430,948
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Palmer WWTP	Palmer Fire District	Palmer Housing Authority	Pathfinder Regional Voc. Tech. School
Net Pension Liability				
Beginning net pension liability.....	\$ 1,855,907	\$ 1,540,014	\$ -	\$ 4,304,134
Ending net pension liability.....	\$ 1,905,058	\$ 1,783,449	\$ -	\$ 4,620,768
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 25,868	\$ 24,216	\$ -	\$ 62,743
Changes of assumptions.....	218,004	204,088	-	528,775
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	105,547	215,258		244,716
Total Deferred Outflows of Resources.....	\$ 349,419	\$ 443,562	\$ -	\$ 836,234
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 14,492	\$ 13,567	\$ -	\$ 35,151
Net difference between projected and actual investment earnings on pension plan investments.....	56,959	53,323	-	138,156
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	216,151	70,383	75,578	246,456
Total Deferred Inflows of Resources.....	\$ 287,602	\$ 137,273	\$ 75,578	\$ 419,763
Pension Expense				
Proportionate share of plan pension expense.....	\$ 241,150	\$ 225,757	\$ -	\$ 584,916
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	6,972	4,291	(30,020)	7,514
Total Employer Pension Expense.....	\$ 248,122	\$ 230,048	\$ (30,020)	\$ 592,430
Contributions				
Statutory required contribution.....	\$ 145,352	\$ 137,724	\$ -	\$ 356,831
Contribution in relation to statutory required contribution.....	(145,352)	(137,724)	-	(356,831)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.83%	26.15%	0.00%	26.15%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 32,197	\$ 77,052	\$ (30,052)	\$ 131,686
June 30, 2022.....	30,146	75,135	(30,051)	126,715
June 30, 2023.....	(27,266)	81,426	(15,475)	66,013
June 30, 2024.....	(67)	18,433	-	(2,548)
June 30, 2025.....	26,807	54,243	-	94,605
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 61,817	\$ 306,289	\$ (75,578)	\$ 416,471
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 2,345,246	\$ 2,195,538	\$ -	\$ 5,688,456
Current discount rate (7.15%).....	\$ 1,905,058	\$ 1,783,449	\$ -	\$ 4,620,768
1% increase (8.15%).....	\$ 1,534,415	\$ 1,436,466	\$ -	\$ 3,721,763
Covered Payroll.....	\$ 562,630	\$ 526,715	\$ -	\$ 1,364,675

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Town of Russell	Town of Southwick	Town of Southwick Water	Southwick Toland Reg. Sch. Dist.
Net Pension Liability				
Beginning net pension liability.....	\$ 1,776,944	\$ 17,035,150	\$ 987,180	\$ 12,872,908
Ending net pension liability.....	\$ 1,702,386	\$ 15,472,733	\$ 1,094,399	\$ 13,213,763
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 23,116	\$ 210,095	\$ 14,860	\$ 179,422
Changes of assumptions.....	194,812	1,770,615	125,237	1,512,111
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	40,069	863,887	77,509	132,153
Total Deferred Outflows of Resources.....	\$ 257,997	\$ 2,844,597	\$ 217,606	\$ 1,823,686
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 12,950	\$ 117,704	\$ 8,325	\$ 100,520
Net difference between projected and actual investment earnings on pension plan investments.....	50,900	462,617	32,721	395,077
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	95,412	1,465,356	81,767	765,876
Total Deferred Inflows of Resources.....	\$ 159,262	\$ 2,045,677	\$ 122,813	\$ 1,261,473
Pension Expense				
Proportionate share of plan pension expense.....	\$ 215,494	\$ 1,958,605	\$ 138,533	\$ 1,672,654
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(12,355)	(44,654)	49,851	(142,336)
Total Employer Pension Expense.....	\$ 203,139	\$ 1,913,951	\$ 188,384	\$ 1,530,318
Contributions				
Statutory required contribution.....	\$ 129,889	\$ 1,117,440	\$ 83,500	\$ 1,008,185
Contribution in relation to statutory required contribution.....	(129,889)	(1,117,440)	(83,500)	(1,008,185)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered payroll.....	25.83%	24.45%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 46,797	\$ 356,361	\$ 18,360	\$ 223,144
June 30, 2022.....	44,966	339,712	17,182	208,927
June 30, 2023.....	17,715	287,706	31,658	107,654
June 30, 2024.....	(17,372)	(105,187)	641	(163,442)
June 30, 2025.....	6,629	(79,672)	26,952	185,930
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 98,735	\$ 798,920	\$ 94,793	\$ 562,213
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 2,095,744	\$ 19,047,907	\$ 1,347,274	\$ 16,266,973
Current discount rate (7.15%).....	\$ 1,702,386	\$ 15,472,733	\$ 1,094,399	\$ 13,213,763
1% increase (8.15%).....	\$ 1,371,174	\$ 12,462,398	\$ 881,476	\$ 10,642,928
Covered Payroll.....	\$ 502,774	\$ 4,569,640	\$ 323,214	\$ 3,902,487
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
FOR THE YEAR ENDED DECEMBER 31, 2019

	Southwick Housing Authority	Three Rivers Fire District	Town of Tolland	Town of Wales
Net Pension Liability				
Beginning net pension liability.....	\$ 197,432	\$ 434,358	\$ 1,098,247	\$ 1,937,888
Ending net pension liability.....	\$ 202,660	\$ 567,458	\$ 1,077,627	\$ 1,661,857
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 2,752	\$ 7,705	\$ 14,632	\$ 22,565
Changes of assumptions.....	23,191	64,937	123,318	190,174
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,320	89,120	7,346	150,544
Total Deferred Outflows of Resources.....	<u>\$ 27,263</u>	<u>\$ 161,762</u>	<u>\$ 145,296</u>	<u>\$ 363,283</u>
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 1,542	\$ 4,317	\$ 8,198	\$ 12,642
Net difference between projected and actual investment earnings on pension plan investments.....	6,059	16,966	32,220	49,688
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	-	123,796	76,702	329,518
Total Deferred Inflows of Resources.....	<u>\$ 7,601</u>	<u>\$ 145,079</u>	<u>\$ 117,120</u>	<u>\$ 391,848</u>
Pension Expense				
Proportionate share of plan pension expense.....	\$ 25,656	\$ 71,831	\$ 136,412	\$ 210,365
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	341	(30,461)	(11,418)	(44,079)
Total Employer Pension Expense.....	<u>\$ 25,997</u>	<u>\$ 41,370</u>	<u>\$ 124,994</u>	<u>\$ 166,286</u>
Contributions				
Statutory required contribution.....	\$ 15,650	\$ 43,821	\$ 82,221	\$ 128,334
Contribution in relation to statutory required contribution.....	(15,650)	(43,821)	(82,221)	(128,334)
Contribution deficiency/(excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	26.15%	26.15%	25.83%	26.15%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 6,041	\$ (20,217)	\$ 14,898	\$ (1,856)
June 30, 2022.....	5,818	(20,824)	13,737	(3,648)
June 30, 2023.....	4,871	20,318	5,237	8,931
June 30, 2024.....	50	12,010	(13,779)	(8,994)
June 30, 2025.....	2,882	25,396	8,083	(22,998)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ 19,662</u>	<u>\$ 16,683</u>	<u>\$ 28,176</u>	<u>\$ (28,565)</u>
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 249,487	\$ 698,576	\$ 1,326,627	\$ 2,045,850
Current discount rate (7.15%).....	\$ 202,660	\$ 567,458	\$ 1,077,627	\$ 1,661,857
1% increase (8.15%).....	\$ 163,231	\$ 457,055	\$ 867,967	\$ 1,338,530
Covered Payroll.....	\$ 59,853	\$ 167,590	\$ 318,261	\$ 490,805

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
FOR THE YEAR ENDED DECEMBER 31, 2019

	Western Hampden Veterans	Town of Wilbraham	Wilbraham Solid Waste	Wilbraham Sewer
Net Pension Liability				
Beginning net pension liability.....	\$ 513,337	\$ 27,838,657	\$ 473,855	\$ 829,234
Ending net pension liability.....	\$ 526,924	\$ 27,765,131	\$ 445,861	\$ 648,533
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 7,155	\$ 377,007	\$ 6,054	\$ 8,806
Changes of assumptions.....	60,298	3,177,290	51,022	74,215
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	2,235	419,580	10,174	37,946
Total Deferred Outflows of Resources.....	<u>\$ 69,688</u>	<u>\$ 3,973,877</u>	<u>\$ 67,250</u>	<u>\$ 120,967</u>
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 4,008	\$ 211,215	\$ 3,392	\$ 4,934
Net difference between projected and actual investment earnings on pension plan investments.....	15,754	830,146	13,331	19,390
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	15,329	724,483	27,260	142,010
Total Deferred Inflows of Resources.....	<u>\$ 35,091</u>	<u>\$ 1,765,844</u>	<u>\$ 43,983</u>	<u>\$ 166,334</u>
Pension Expense				
Proportionate share of plan pension expense.....	\$ 66,698	\$ 3,514,629	\$ 56,438	\$ 82,094
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,110	82,259	(390)	(17,480)
Total Employer Pension Expense.....	<u>\$ 67,808</u>	<u>\$ 3,596,888</u>	<u>\$ 56,048</u>	<u>\$ 64,614</u>
Contributions				
Statutory required contribution.....	\$ 40,203	\$ 2,118,427	\$ 34,018	\$ 49,482
Contribution in relation to statutory required contribution.....	(40,203)	(2,118,427)	(34,018)	(49,482)
Contribution deficiency/(excess).....	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a percentage of covered payroll.....	25.83%	25.83%	25.83%	25.83%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 10,250	\$ 783,211	\$ 12,140	\$ 728
June 30, 2022.....	9,678	753,336	11,662	34
June 30, 2023.....	7,277	577,865	4,751	(2,942)
June 30, 2024.....	(22)	(181,562)	(5,783)	(23,439)
June 30, 2025.....	7,414	275,183	497	(19,748)
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	<u>\$ 34,597</u>	<u>\$ 2,208,033</u>	<u>\$ 23,267</u>	<u>\$ (45,367)</u>
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 648,677	\$ 34,180,621	\$ 548,883	\$ 798,385
Current discount rate (7.15%).....	\$ 526,924	\$ 27,765,131	\$ 445,861	\$ 648,533
1% increase (8.15%).....	\$ 424,407	\$ 22,363,220	\$ 359,115	\$ 522,356
Covered Payroll.....	\$ 155,619	\$ 8,200,015	\$ 131,678	\$ 191,534
See notes to schedule of employer allocations and schedule of pension amounts by employer.				

(continued)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	Wilbraham Water Dept.	Wilbraham Ambulance	Wilbraham Housing Authority	Totals
Net Pension Liability				
Beginning net pension liability.....	\$ 1,461,035	\$ -	\$ 473,855	\$ 398,160,782
Ending net pension liability.....	\$ 1,418,651	\$ 648,533	\$ 486,395	\$ 406,677,934
Deferred Outflows of Resources				
Differences between expected and actual experience.....	\$ 19,263	\$ 8,806	\$ 6,604	\$ 5,522,034
Changes of assumptions.....	162,343	74,215	55,660	46,537,998
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	702	464,355	46,867	12,817,624
Total Deferred Outflows of Resources.....	\$ 182,308	\$ 547,376	\$ 109,131	\$ 64,877,656
Deferred Inflows of Resources				
Differences between expected and actual experience.....	\$ 10,792	\$ 4,934	\$ 3,700	\$ 3,093,682
Net difference between projected and actual investment earnings on pension plan investments.....	42,416	19,390	14,543	12,159,214
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	95,382	-	-	12,817,624
Total Deferred Inflows of Resources.....	\$ 148,590	\$ 24,324	\$ 18,243	\$ 28,070,520
Pension Expense				
Proportionate share of plan pension expense.....	\$ 179,578	\$ 82,094	\$ 61,571	\$ 51,479,043
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(20,742)	92,869	14,637	-
Total Employer Pension Expense.....	\$ 158,836	\$ 174,963	\$ 76,208	\$ 51,479,043
Contributions				
Statutory required contribution.....	\$ 108,240	\$ 49,482	\$ 37,111	\$ 30,980,826
Contribution in relation to statutory required contribution.....	(108,240)	(49,482)	(37,111)	(30,986,622)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ (5,796)
Contributions as a percentage of covered payroll.....	25.83%	25.83%	25.83%	25.79%
Deferred (Inflows)/Outflows Recognized in Future Pension Expense				
June 30, 2021.....	\$ 19,101	\$ 111,175	\$ 33,977	\$ 11,477,772
June 30, 2022.....	17,573	110,477	33,454	11,040,223
June 30, 2023.....	11,088	107,571	16,630	9,217,939
June 30, 2024.....	(22,455)	92,304	(14)	(355,502)
June 30, 2025.....	8,411	101,525	6,841	5,426,704
Total Deferred (Inflows)/Outflows Recognized in Future Pension Expense.....	\$ 33,718	\$ 523,052	\$ 90,888	\$ 36,807,136
Discount Rate Sensitivity				
1% decrease (6.15%).....	\$ 1,746,449	\$ 798,385	\$ 598,783	\$ 500,646,099
Current discount rate (7.15%).....	\$ 1,418,651	\$ 648,533	\$ 486,395	\$ 406,677,934
1% increase (8.15%).....	\$ 1,142,642	\$ 522,356	\$ 391,763	\$ 327,555,736
Covered Payroll.....	\$ 418,977	\$ 191,534	\$ 143,649	\$ 120,106,229

See notes to schedule of employer allocations and schedule of pension amounts by employer.

(concluded)

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Hampden County Regional Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the system who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2018 were applied to allocate the System's fiscal year 2019 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC completes an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the system's funding schedule.

The allocation percentage of the total net pension liability is a blended rate of the following two items. (1) The proportionate share of active employer's covered payroll is applied to the annual pension fund appropriation calculated by the actuary and (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, and pension expense and contributions for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions. Additionally, the changes in proportion and differences between employer contributions and proportionate share of contributions are presented in accordance with GASB Statements.

NOTE III – Changes in Assumptions and Plan Provisions

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2020 actuarial valuation:

- The discount rate was lowered from 7.50% to 7.15%.

Changes in Plan Provisions

None.