

Hampshire County Retirement System

**Independent Auditors' Report and
Management's Schedule of
Employer Allocations and
Schedule of Pension Amounts
By Employer**

December 31, 2019

Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

HAMPSHIRE COUNTY RETIREMENT SYSTEM

DECEMBER 31, 2019

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INDEPENDENT AUDITORS' REPORT

To the Retirement Board of
Hampshire County Retirement System
Northampton, Massachusetts

We have audited the accompanying schedule of employer allocations of Hampshire County Retirement System as of and for the year ended December 31, 2019, and the related notes to the schedule. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of Hampshire County Retirement System as of and for the year ended December 31, 2019, and the related notes to the schedule.

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 schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column 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 column 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 specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column 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 specified column 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 specified column 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 for the total of all participating entities for Hampshire County 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 Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of Hampshire County Retirement System as of and for the year ended December 31, 2019, and our report thereon, dated January 05, 2021, expressed an unmodified opinion on those financial statements.

Restriction on Use

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

Ron L. Beaulieu & Co.

Portland, Maine
January 05, 2021

HAMPSHIRE COUNTY RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER ALLOCATIONS
AS OF AND YEAR ENDED DECEMBER 31,

Employer	2019	
	Actual Employer Contributions	Employer Allocation Percentage
Hampshire Council of Governments	\$ 314,913	1.29623%
Town of Amherst	6,563,247	27.01535%
Amherst Housing Authority	177,997	0.73266%
Amherst-Pelham Regional School District	1,471,400	6.05651%
Town of Belchertown	3,180,707	13.09229%
Belchertown Housing Authority	33,226	0.13676%
Belchertown Water District	54,586	0.22468%
Town of Chesterfield	87,812	0.36145%
Chesterfield/Goshen Regional School District	94,932	0.39076%
Town of Cummington	66,452	0.27353%
Foothills Health District	14,240	0.05861%
Gateway Regional School District	593,326	2.44222%
Town of Goshen	68,826	0.28330%
Town of Granby	1,034,848	4.25960%
Granby Housing Authority	28,480	0.11723%
Town of Hadley	1,271,770	5.23480%
Hadley Housing Authority	9,493	0.03907%
Hampshire County Regional Housing Authority	9,493	0.03907%
Hampshire County Regional School District	534,839	2.20148%
Town of Hatfield	557,726	2.29569%
Hatfield Housing Authority	14,240	0.05861%
Town of Huntington	125,629	0.51711%
Town of Middlefield	47,466	0.19538%
Town of Pelham	201,732	0.83036%
Town of Plainfield	64,079	0.26376%
Quabbin Health District	67,833	0.27921%
South Hadley Fire District #1	593,326	2.44222%
South Hadley Fire District #2	249,197	1.02573%
Town of South Hadley	3,211,066	13.21725%
South Hadley Housing Authority	61,706	0.25399%
So Hadley-Granby-Easthampton Veterans District	14,240	0.05861%
Town of Southampton	811,816	3.34156%
Town of Ware	1,969,540	8.10694%
Ware Housing Authority	60,378	0.24853%
Town of Westhampton	204,104	0.84012%
Town of Williamsburg	286,176	1.17795%
Town of Worthington	143,665	0.59135%
Total	<u>\$ 24,294,506</u>	<u>100.00000%</u>

See Independent Auditors' Report and management's notes to schedules.

**HAMPSHIRE COUNTY RETIREMENT SYSTEM
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER
AS OF AND YEAR ENDED DECEMBER 31,**

Employer	Do December 31, 2019 Net Pension Liability	2019 Deferred Outflows of Resources					2019 Deferred Inflows of Resources					2019 Pension Expense				
		Differences Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Proportion and Differences Between Employer Contributions and Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Proportion and Differences Between Employer Contributions and Share of Contributions	Total Deferred Inflows of Resources	Share of Plan Pension Expense	Proportionate Share of Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion	Total Employer Pension Expense	
Hampshire Council of Governments	\$ 2,589,487	\$ -	\$ 260,256	\$ 274,720	\$ 226,586	\$ 761,562	\$ 89,066	\$ 386,728	\$ 72,329	\$ 15,928	\$ 574,051	\$ 331,076	\$ 11,651	\$ 342,727		
Town of Amherst	53,968,687	-	5,424,116	5,725,574	397,362	12,107,052	1,856,271	8,268,394	1,507,450	940,232	12,572,347	6,900,101	5,238	6,905,339		
AnneHart Housing Authority	1,483,645	-	147,103	155,279	185,412	491,794	50,343	224,241	40,882	275,255	590,721	187,133	(31,384)	155,749		
AnneHart-Pelham Regional School District	12,099,122	-	1,216,020	1,263,604	2,179,773	2,719,397	416,154	1,853,673	337,962	10,806	2,818,585	1,546,919	31,808	1,578,727		
Town of BecherTown	26,154,522	-	2,628,656	2,774,750	555,703	5,959,109	899,594	4,007,062	730,547	45,553	5,682,786	3,343,954	57,900	3,401,854		
BecherTown Housing Authority	273,213	-	27,459	28,985	17,045	41,858	9,397	41,858	7,631	-	58,886	34,931	24,182	59,113		
BecherTown Water District	448,853	-	45,112	47,619	68,189	180,920	15,438	68,768	12,537	54,315	151,058	57,388	14,952	72,340		
Town of Chesterfield	722,066	-	72,571	76,604	33,581	24,836	24,836	110,626	20,169	49,115	204,746	92,319	(21,039)	71,280		
Chesterfield/Goshen Regional School District	780,613	-	78,455	103,094	103,585	26,849	26,849	119,596	21,804	49,072	217,306	99,804	(1,071)	98,733		
Town of Cummington	546,426	-	54,918	57,971	102,306	18,795	83,716	15,263	4,272	4,272	120,246	86,863	16,096	85,959		
Foothills Health District	117,094	-	11,768	12,423	11,649	4,027	17,940	3,271	-	-	25,238	14,971	6,355	21,326		
Gateway Regional School District	4,878,839	-	490,347	517,599	-	1,007,946	167,809	747,473	136,276	420,232	1,471,790	623,778	(173,170)	450,608		
Town of Goshen	565,947	-	56,880	60,042	45,224	162,146	19,466	86,707	15,808	73,695	195,676	72,358	(5,240)	67,118		
Town of Granby	8,509,415	-	855,237	902,769	110,210	1,868,216	292,684	1,303,704	237,685	315,592	2,149,665	1,067,961	(100,605)	987,356		
Granby Housing Authority	234,187	-	23,537	24,845	447	48,829	8,055	35,879	6,541	17,287	67,762	29,942	(2,687)	27,255		
Hadley Housing Authority	78,060	-	7,845	8,281	263	16,389	2,685	11,959	2,180	271	17,095	9,980	2,744	10,000		
Hampshire County Regional Housing Authority	4,307,909	-	442,011	466,577	97,947	1,006,535	151,268	673,791	122,842	121,677	1,069,578	562,289	8,280	570,569		
Hampshire County Regional School District	4,586,105	-	460,926	486,543	214,418	1,161,887	157,741	702,625	128,099	508,757	1,497,222	586,351	(782)	585,569		
Hadfield Housing Authority	117,094	-	11,768	12,423	4,313	26,504	4,027	17,940	3,271	404	25,642	14,971	3,589	18,560		
Town of Huntington	1,033,030	-	103,825	109,585	99,427	312,847	35,531	186,288	28,855	121,864	344,516	132,077	5,894	137,971		
Town of Middlefield	390,306	-	39,228	41,408	14,153	94,789	13,425	59,798	10,902	35,436	119,961	49,902	(6,131)	43,771		
Town of Pelham	1,658,815	-	166,719	175,965	34,717	377,421	57,056	254,142	46,334	176,232	533,764	212,086	(15,523)	196,963		
Town of Plainfield	526,913	-	52,957	55,901	14,243	123,101	18,123	80,727	14,718	85,286	199,834	67,368	11,223	78,591		
Quabbin Health District	557,782	-	56,060	59,175	53,458	168,693	19,185	85,456	15,580	760	120,981	71,314	9,500	80,814		
South Hadley Fire District #1	4,878,839	-	490,347	517,599	7,791	1,015,737	167,809	747,473	136,276	220,953	1,272,511	623,778	(62,472)	571,306		
South Hadley Fire District #2	2,049,113	-	205,946	217,392	83,049	506,387	70,480	313,939	57,236	226,195	667,850	281,987	(31,457)	230,530		
Town of South Hadley	26,404,160	-	2,653,746	2,801,235	1,055,600	6,510,581	908,180	4,046,309	737,520	1,141,548	6,632,557	3,375,872	258,282	3,634,154		
South Hadley Housing Authority	507,400	-	50,996	53,830	14,471	119,297	17,452	77,737	14,173	1,062	110,424	64,873	2,927	67,800		
So Hadley-Granby-Easthampton Veterans District	117,094	-	11,768	12,423	240	24,431	4,027	17,940	3,271	17,071	42,309	14,971	(2,716)	12,255		
Town of South Hampton	6,675,453	-	670,915	708,203	295,846	1,674,964	229,605	1,022,728	186,458	61,568	1,500,359	853,482	(5,818)	847,664		
Town of Ware	16,195,260	-	1,627,702	1,718,166	100,618	3,446,486	557,042	2,481,231	452,365	651,165	4,141,803	2,070,625	(165,840)	1,904,765		
Ware Housing Authority	498,480	-	49,899	52,672	22,626	125,197	17,077	76,064	13,868	1,890	108,899	63,477	27,346	90,823		
Town of West Hampton	1,678,319	-	168,679	178,054	65,416	412,149	57,726	257,131	46,879	119,199	480,995	214,580	(21,554)	193,026		
Town of Williamsburg	2,353,186	-	236,507	249,651	119,513	605,671	80,939	360,525	65,779	120,009	627,202	300,864	(53,773)	247,091		
Town of Worthington	1,181,338	-	118,730	125,329	287,778	313,837	40,633	180,990	32,997	57,987	312,617	151,039	71,077	222,116		
Total	\$ 199,770,424	\$ -	\$ 20,077,892	\$ 21,193,776	\$ 6,126,970	\$ 47,998,638	\$ 6,871,173	\$ 30,606,276	\$ 5,579,979	\$ 6,126,970	\$ 49,184,398	\$ 25,541,407	\$ -	\$ 25,541,407		

See Independent Auditors' Report and management's notes to schedules.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
 NOTES TO SCHEDULES
 DECEMBER 31, 2019

NOTE 1 - DESCRIPTION OF PLAN

The following description of the Hampshire County Retirement System, a Massachusetts regional public employee pension plan, is provided for general information purposes only. Participants should refer to Chapter 32 of the Massachusetts General Laws for a more detailed description of the pension plan provisions.

General

The Hampshire County Retirement System (the Plan) is a cost-sharing, multiple-employer, defined benefit pension plan maintained to provide retirement, disability, and death benefits to all member unit employees and beneficiaries deemed eligible by the Retirement Board, with the exception of the school department employees who serve in a teaching capacity. The Plan has 37 participating employers. The Plan was established and is governed in accordance with Chapter 32 and Chapter 34B, Section 19 of the Massachusetts General Laws (M.G.L), and is further regulated by the Code of Massachusetts Regulations 840 CMR 1.00-27.00: Public Employee Retirement Administration (PERAC).

Administration of the Plan

The Plan is administered by a five person Board of Retirement consisting of the Chairperson who shall be appointed by the other four board members, a second member who shall be a member of the regional retirement board advisory council and is elected by the advisory council, a third and fourth member who shall be elected by the members in or retired from the service of the Plan, and a fifth member, who shall not be a member of the Plan, appointed by the other four board members.

Plan Amendments

The Plan did not adopt any significant plan amendments during 2019.

Plan Membership

Participation in the plan is required for nearly all employees who are regularly employed on a full-time basis. There are three classes of membership:

- Group 1: General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2: Certain specified hazardous duty positions.
- Group 4: Police officers, firefighters, and other specified hazardous positions.

At December 31, 2019, Plan membership consisted of the following:

Group	Inactive members receiving benefits	Inactive members entitled to benefits but not yet receiving benefits	Active Members	Total
Group 1	1,152	579	1,663	3,394
Group 2 & 4	233	128	359	720
	1,385	707	2,022	4,114

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2019

NOTE 1 - DESCRIPTION OF PLAN (CONTINUED)

Benefits Provided

Pursuant to M.G.L. Chapter 32, members are eligible to receive benefits once they have met one of the conditions below:

Tier 1 (Membership prior to April 2, 2012):

- Completion of 20 years of service, or
- Reach age 55 if hired prior to 1978, or
- Reach age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 and 2, or
- Disabled or death

Tier 2 (Membership on or after April 2, 2012):

- If classified as Group 1, attain age 60 with 10 years of creditable service, or
- If classified as Group 2, attain age 55 with 10 years creditable service, or
- If classified as Group 4, attain age 55, or
- Disabled or death

The annual amount of a member's retirement allowance is calculated as the member's highest 3-year (5-year for members hired after April 2, 2012) average annual rate of regular compensation multiplied by the member's creditable service and multiplied by a benefit rate. The benefit rate is based upon a member's age at retirement and group classification. The annual retirement allowance may not exceed 80% of the member's highest 3-year (or 5-year) average annual rate of regular compensation.

An annual cost of living adjustment may be voted on and granted by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3% on the base amount of the first \$13,000 of a member's benefit.

Contributions

The contributions of plan members and participating employers are governed by Chapter 32 of M.G.L. Member contribution rates vary depending on the most recent date of membership as follows:

Prior to 1975:	5% of compensation
1975 - 1983:	7% of compensation
1984 - 6/30/19:	8% of compensation
7/1/96 - present:	9% of compensation
1979 to present:	an additional 2% of compensation in excess of \$30,000
Group 1 members hired on or after April 2, 2012:	6% of compensation with 30 or more years of creditable service

Participating employer contributions are set by annual appropriations as determined by the Plan's actuary. For the year ended December 31, 2019, employers were required to contribute \$24,294,506. In addition to member and employer contributions, the Commonwealth of Massachusetts currently reimburses the Plan for cost of living adjustments granted to members after 1981 and prior to July 1, 1998.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
 NOTES TO SCHEDULES
 DECEMBER 31, 2019

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The schedules are prepared using the accrual method of accounting.

Basis of Allocation

The Schedule of Employer Allocations is prepared using the historical measure basis of actual contributions.

NOTE 3 - NET PENSION LIABILITY OF THE PARTICIPATING EMPLOYERS

The net pension liability is the actuarial total liability less the fiduciary net position. The components of the collective net pension liability of the participating employers at December 31, 2019, were as follows:

	2019
Total pension liability	\$ 558,763,173
Plan fiduciary net position	358,992,749
Employer's net pension liability (asset)	\$ 199,770,424
 Plan fiduciary net position as a % of total pension liability	64.2%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all prior periods included in the measurement:

Inflation	2.4 %
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Investment rate of return	7.15% of pension plan investment, net of expense, including inflation

Mortality rates were based on the RP-2014 Blue Collar Mortality Table with full generational mortality improvement using Scale MP-2018. For disabled lives, the mortality rates were based on the RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2018. Mortality assumptions reflect the PERAC local system retiree mortality study completed in 2019.

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.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2019

NOTE 3 - NET PENSION LIABILITY OF THE PARTICIPATING EMPLOYERS (CONTINUED)

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, 2019 (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 Rate of Return</u>
Large Cap Equities	15.5%	5.00%
Small/Mid Cap Equities	4.5%	5.20%
International Equities (Unhedged)	16.5%	5.20%
Emerging International Equities	6.0%	7.10%
Private Equity	10.0%	8.80%
Core Fixed Income	20.0%	0.20%
High-Yield Bonds	3.0%	3.40%
Bank Loans	3.0%	2.70%
EMD (Local Currency)	6.0%	3.20%
Private Debt	1.5%	5.40%
Real Estate	12.0%	3.30%
Cash	2.0%	-0.60%
Total	100.0%	

Discount rate. The discount rate used to measure the total pension liability was 7.15%. The discount rate at the Plan's prior fiscal year end was 7.45%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate 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 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. The municipal bond rate used was 2.74%, based on the December 2019 Bond Buyer Index as published by the Federal Reserve.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the participating employers calculated using the discount rate of 7.15%, as well as what the participating employers' net pension 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:

	<u>1% Decrease (6.15%)</u>	<u>Current Discount Rate (7.15%)</u>	<u>1% Increase (8.15%)</u>
Employer's net pension liability (asset)	\$ 264,415,062	\$ 199,770,424	\$ 145,142,018

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2019

NOTE 4 – COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Net Pension Liability

The Net Pension Liability is the product of the Total Net Pension Liability multiplied by the Employer Allocation Percentage for the year ended December 31, 2019.

Difference between Expected and Actual Experience

The difference between the projected total pension liability and accrued liability is the amount of the difference between expected and actual experience. Each employer's proportionate share of this amount is the product of the Difference between Expected and Actual Experience multiplied by the Employer's Allocation Percentage for the year ended December 31, 2019, as shown in the schedule of employer allocations.

Difference between Projected and Actual Investment Earnings on Pension Plan Investments

The difference between the actual earnings on plan investments compared to the plan's expected rate of return of 7.15% is amortized over a closed period of 5 years. Each employer's proportionate share of this amount is the product of the Total Difference Between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the Employer's Allocation Percentage for the year ended December 31, 2019, as shown in the schedule of employer allocations.

Changes of Assumptions

Since the last measurement date, the discount rate assumption was reduced from 7.45% to 7.15%. Additionally, the mortality and mortality improvement rates were updated. Each employer's proportionate share of this amount is the product of the Change of Assumptions multiplied by the Employer's Allocation Percentage for the year ended December 31, 2019, as shown in the schedule of employer allocations.

Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions

The Changes in Proportion are the December 31, 2019 Net Pension Liability multiplied by the December 31, 2018 Employer Allocation Percentage less the current year Net Pension Liability plus the December 31, 2019 Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the December 31, 2018 Employer Allocation Percentage less the current year Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments. The changes in proportion are amortized over the average expected remaining service life of members. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2019

NOTE 4 – COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED)

Collective Deferred Outflows of Resources and Deferred Inflows of Resources

The following table summarizes the changes in the collective deferred outflows and (deferred inflows) of resources (excluding employer specific amounts) as of December 31, 2019:

	Year of deferral	Amortization period	Balance January 1	Additions	Deletions	Balance December 31
Deferred outflows of resources:						
Difference between projected and actual investments earnings	2015	5 years	\$ 4,268,377	\$ -	\$ (4,268,377)	\$ -
	2016	5 years	92,728	-	(46,364)	46,364
	2018	5 years	26,708,704	-	(6,677,176)	20,031,528
			<u>\$ 31,069,809</u>	<u>\$ -</u>	<u>\$ (10,991,917)</u>	<u>\$ 20,077,892</u>
Changes in assumptions	2016	5.1 years	\$ 6,839,448	\$ -	\$ (3,256,881)	\$ 3,582,567
	2019	7.2 years	-	20,488,858	(2,877,649)	17,611,209
			<u>\$ 6,839,448</u>	<u>\$ 20,488,858</u>	<u>\$ (6,134,530)</u>	<u>\$ 21,193,776</u>
Deferred inflows of resources:						
Differences between expected and actual experience	2016	5.1 years	\$ (1,790,656)	\$ -	\$ 852,693	\$ (937,963)
	2017	6.79 years	(306,782)	-	64,046	(242,736)
	2019	7.12 years	-	(6,620,290)	929,816	(5,690,474)
			<u>\$ (2,097,438)</u>	<u>\$ (6,620,290)</u>	<u>\$ 1,846,555</u>	<u>\$ (6,871,173)</u>
Difference between projected and actual investments earnings	2017	5 years	\$(13,538,991)	\$ -	\$ 4,512,997	\$ (9,025,994)
	2019	5 years	\$ -	\$(26,975,353)	\$ 5,395,071	\$(21,580,282)
			<u>\$(13,538,991)</u>	<u>\$(26,975,353)</u>	<u>\$ 9,908,068</u>	<u>\$(30,606,276)</u>
Changes in assumptions	2017	6.79 years	<u>\$ (7,052,269)</u>	<u>\$ -</u>	<u>\$ 1,472,290</u>	<u>\$ (5,579,979)</u>

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2019

NOTE 4 – COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED)

Collective Pension Expense

Each employer’s proportionate share of the collective pension expense is equal to the Total Pension Expense multiplied by the Employer’s Allocation Percentage for the year ended December 31, 2019.

Service cost	\$ 13,282,271
Interest cost	38,884,736
Employee contributions	(8,334,804)
Projected earnings on pension plan investments	(23,095,981)
Administrative expenses	842,974
Recognition of deferred outflows and deferred inflows of resources:	
Differences between expected and actual experience	(1,846,555)
Changes of assumptions	4,662,240
Differences between projected and actual earnings on plan investments	1,083,849
Pension Expense per Actuarial Certification Report	<u>\$ 25,478,730</u>

Subsequent to the measurement date of the pension liability, there were adjustments made to the financial statements of the Plan.

Below is the reconciliation between the Actuarial Certification report and the Schedule of Pension Amounts by Employer:

Actuarial Certification Report	\$ 25,478,730
Year end accruals	62,677
Total Pension Expense	<u>\$ 25,541,407</u>

NOTE 5 – FUTURE RECOGNITION OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the collective pension expense as follows:

<u>Total</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Thereafter</u>
\$ (1,785,760)	(368,843)	(2,578,979)	1,693,603	(4,660,944)	1,947,833	2,181,570

NOTE 6 - MANAGEMENT REVIEW

Management has reviewed subsequent events as of January 05, 2021, the date the schedules were available to be issued. At that time, there were no material subsequent events.