

Hampshire County Retirement System

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

December 31, 2021

Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

HAMPSHIRE COUNTY RETIREMENT SYSTEM

DECEMBER 31, 2021

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INDEPENDENT AUDITORS' REPORT

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

Opinion

We have audited the accompanying schedule of employer allocations of Hampshire County Retirement System as of and for the year ended December 31, 2021, and the related notes. 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, 2021, and the related notes.

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, 2021, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of Hampshire County Retirement System, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of the schedules in accordance with accounting principles generally accepted in the United States of America, and for 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' Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedules as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in

accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedules.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedules, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedules.
- Obtain an understanding of internal control relevant to the audit 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 Hampshire County Retirement System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management as well as evaluate the overall presentation of the schedules.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

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, 2021, and our report thereon, dated December 29, 2022, 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
December 29, 2022

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

Employer	2021	
	Actual Employer Contributions	Employer Allocation Percentage
Hampshire County Group Insurance Trust	\$ 104,644	0.37253%
Town of Amherst	7,423,375	26.42730%
Amherst Housing Authority	242,331	0.86270%
Amherst-Pelham Regional School District	1,663,550	5.92226%
Town of Belchertown	3,843,858	13.68418%
Belchertown Housing Authority	19,276	0.06862%
Belchertown Water District	68,844	0.24509%
Town of Chesterfield	104,644	0.37253%
Chesterfield/Goshen Regional School District	93,628	0.33332%
Town of Cummington	71,598	0.25489%
Foothills Health District	16,523	0.05882%
Gateway Regional School District	625,104	2.22538%
Town of Goshen	63,337	0.22548%
Town of Granby	1,307,487	4.65467%
Granby Housing Authority	22,030	0.07843%
Town of Hadley	1,604,642	5.71254%
Hadley Housing Authority	-	0.00000%
Hampshire County Regional Housing Authority	11,205	0.03989%
Hampshire County Regional School District	593,145	2.11160%
Town of Hatfield	680,179	2.42145%
Hatfield Housing Authority	8,261	0.02941%
Town of Huntington	134,463	0.47869%
Town of Middlefield	57,829	0.20587%
Town of Pelham	253,346	0.90191%
Town of Plainfield	79,858	0.28430%
Quabbin Health District	74,997	0.26699%
South Hadley Fire District #1	680,179	2.42145%
South Hadley Fire District #2	278,130	0.99015%
Town of South Hadley	3,774,831	13.43844%
South Hadley Housing Authority	68,844	0.24509%
So Hadley-Granby-Easthampton Veterans District	16,523	0.05882%
Town of Southampton	961,939	3.42451%
Town of Ware	2,318,539	8.25403%
Ware Housing Authority	74,984	0.26694%
Town of Westhampton	225,808	0.80388%
Town of Williamsburg	295,613	1.05239%
Town of Worthington	226,252	0.80546%
Total	\$ 28,089,796	100.00000%

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	December 31, 2021 Net Pension Liability	2021 Deferred Outflows of Resources					2021 Deferred Inflows of Resources					2021 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	Proportionate Share of Pension Expense (Income)	Net Amortization of Deferred Amounts from Changes in Proportion	Total Employer Pension Expense		
Hampshire County Group Insurance Trust	\$ 463,520	\$ 17,935	\$ 24,875	\$ 80,233	\$ 115,636	\$ 238,699	\$ 14,698	\$ 209,766	\$ 9,818	\$ 1,339,617	\$ (16,835)	\$ (214,101)	\$ (230,936)			
Town of Amherst	34,300,592	1,272,297	1,764,597	5,695,224	516,666	9,250,794	1,042,684	14,880,684	696,465	1,424,604	(1,194,246)	(96,332)	(1,290,580)			
Amherst Housing Authority	1,119,719	41,533	57,604	185,917	301,121	898,175	34,038	485,770	22,736	160,129	(38,985)	24,595	(14,390)			
Amherst-Pelham Regional School District	7,696,631	285,117	1,276,277	1,866,988	1,173,532	2,143,532	233,662	3,394,705	156,075	282,592	(287,626)	4,749	(282,877)			
Town of Becherstown	17,761,006	688,801	913,717	2,949,012	1,199,888	5,721,418	539,907	7,705,867	360,633	4,964	(618,387)	247,359	(371,028)			
Becherstown Housing Authority	86,067	3,304	4,562	14,789	5,024	27,699	2,708	38,640	1,808	100,746	(3,101)	(16,477)	(19,578)			
Becherstown Water District	318,102	11,799	16,365	52,817	143,868	224,849	9,670	138,003	6,459	81,777	(11,075)	3,791	(7,284)			
Town of Cheslerfield	483,520	17,935	26,375	80,283	43,022	166,115	14,898	209,766	9,818	40,777	(16,835)	3,335	(13,500)			
Chesterfield/Goshen Regional School District	432,619	16,047	22,596	71,832	58,560	168,695	13,151	187,684	8,784	108,388	(15,063)	(1,535)	(16,598)			
Town of Cummington	330,827	12,271	17,019	54,930	111,908	196,128	10,057	143,523	6,717	70,887	(11,518)	13,793	2,275			
Foothills Health District	76,347	2,832	3,928	12,676	5,341	24,777	2,321	33,122	1,550	-	(2,658)	2,814	156			
Gateway Regional School District	2,888,368	107,137	148,592	479,560	-	735,309	87,802	1,253,066	58,648	528,062	(100,565)	(142,505)	(243,070)			
Town of Goshen	292,656	10,855	15,056	48,592	24,476	98,979	8,896	126,964	5,942	128,624	(10,189)	(21,639)	(31,828)			
Town of Granby	6,041,400	224,091	310,800	1,003,105	661,379	2,198,375	183,649	2,620,951	122,669	164,769	(210,344)	69,173	(141,171)			
Granby Housing Authority	101,792	3,776	5,237	16,901	438	26,352	3,094	44,161	2,067	76,034	(3,544)	(13,405)	(16,949)			
Granby Housing Authority	7,414,440	275,020	381,437	1,231,063	1,262,106	3,149,646	225,388	3,216,620	150,548	52,783	(258,150)	266,746	8,596			
Hadley Housing Authority	-	-	-	-	229	229	-	-	-	64,938	-	(10,668)	(10,668)			
Hampshire County Regional Housing Authority	51,774	1,920	2,664	8,596	17,608	30,788	1,574	22,461	1,051	7,774	(1,803)	2,931	1,128			
Hampshire County Regional School District	2,740,697	101,659	140,995	465,061	147,767	845,482	83,313	1,189,002	55,649	275,179	(95,423)	(37,593)	(133,016)			
Town of Halifax	3,142,848	116,576	161,694	521,834	301,005	1,010,099	95,938	1,363,467	63,815	364,017	(109,425)	6,627	(102,798)			
Halifax Housing Authority	38,171	1,416	1,984	6,338	287	10,085	1,160	16,560	775	43,593	(1,329)	(7,952)	(9,281)			
Town of Huntington	621,302	23,046	31,963	103,160	77,568	235,737	18,687	269,541	12,815	152,551	(21,632)	(19,632)	(41,264)			
Town of Middlefield	267,206	9,911	13,746	44,366	35,557	103,580	8,123	115,922	5,426	31,711	(9,303)	(47)	(9,350)			
Town of Pelham	1,170,615	43,421	60,222	194,367	127,229	425,239	35,995	507,850	23,769	100,769	(40,757)	(13,648)	(54,405)			
Town of Plainfield	368,993	13,687	18,983	61,267	34,284	128,221	11,217	160,081	7,492	96,969	(12,847)	(7,663)	(20,510)			
Quabbin Health District	346,533	12,854	17,827	57,538	33,076	121,295	10,534	150,337	7,036	17,972	(12,065)	6,677	(5,388)			
South Hadley Fire District #1	3,142,848	116,576	161,694	521,834	88,279	888,373	95,538	1,363,467	63,815	221,260	(109,425)	(68,220)	(167,645)			
South Hadley Fire District #2	1,285,133	47,669	66,114	213,382	73,985	401,150	39,066	557,531	26,094	250,358	(44,745)	(44,149)	(88,894)			
Town of South Hadley	17,442,058	646,970	897,308	2,896,054	946,233	5,866,565	530,212	7,566,919	354,157	595,298	(607,282)	(69,622)	(667,104)			
South Hadley Housing Authority	318,102	11,799	16,365	52,817	5,037	86,018	9,670	138,003	6,459	13,722	(11,075)	490	(10,585)			
So Hadley-Granby-Easthampton Veterans District	76,347	2,832	3,928	12,676	405	19,841	2,321	33,122	1,550	11,388	(2,658)	(2,741)	(5,399)			
Town of Southampton	4,444,754	164,867	228,661	738,001	305,775	1,437,304	135,114	1,928,275	90,250	2,153,639	(154,754)	78,167	(76,587)			
Town of Ware	10,713,086	397,375	551,136	1,718,786	704,367	3,431,664	325,661	4,647,677	217,527	6,130,670	(372,999)	(41,887)	(414,886)			
Ware Housing Authority	346,473	12,852	17,824	57,528	33,622	121,826	10,532	150,311	7,035	2,158	(170,036)	8,596	(3,477)			
Town of Westhampton	1,043,373	38,701	53,676	173,240	31,071	296,688	31,717	452,648	21,185	113,005	(36,327)	(11,107)	(47,434)			
Town of Williamsburg	1,365,915	50,665	70,270	226,795	60,856	408,586	41,522	592,577	27,795	284,816	(47,557)	(19,713)	(67,270)			
Town of Worthington	1,045,424	38,777	53,782	173,581	460,673	728,813	31,779	453,538	21,227	31,925	(36,399)	101,003	64,604			
Total	\$ 129,792,268	\$ 4,814,323	\$ 6,677,176	\$ 21,550,522	\$ 8,123,014	\$ 41,165,035	\$ 3,945,486	\$ 56,308,004	\$ 2,635,369	\$ 8,123,011	\$ (4,518,994)	\$ -	\$ (4,518,994)			

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

HAMPSHIRE COUNTY RETIREMENT SYSTEM
 NOTES TO SCHEDULES
 DECEMBER 31, 2021

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 2021.

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, 2021, 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	1,156	738	1,680	3,574
Group 2 & 4	252	112	355	719
	<u>1,408</u>	<u>850</u>	<u>2,035</u>	<u>4,293</u>

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2021

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 - 6/30/96:	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, 2021, employers were required to contribute \$28,089,796. 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, 2021

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, 2021, were as follows:

	2021
Total pension liability	\$605,153,839
Plan fiduciary net position	475,361,581
Employer's net pension liability (asset)	\$129,792,258
 Plan fiduciary net position as a % of total pension liability	78.6%

Actuarial assumptions. The total pension liability as of the December 31, 2021 measurement date was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all 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	6.9% 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-2020. 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-2020.

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, 2021

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

Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2021 (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>
Cash	2.0%	0.00%
Domestic Equity	22.0%	3.90%
Non-US Developed Equity	11.0%	4.00%
Emerging Equity	6.0%	6.30%
Private Equity	18.0%	7.70%
Core Bonds	11.0%	0.70%
Value Add Fixed Income - Public	12.0%	4.00%
Real Estate	18.0%	3.60%
Total	100.0%	

Discount rate. The discount rate used to measure the total pension liability was 6.9%. The discount rate at the Plan's prior fiscal year end was 7.15%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rates and that contributions from participating employers will be made in accordance with Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The municipal bond rate used was 2.06%, based on the December 2021 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 6.9%, 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 (5.9%) or 1-percentage-point higher (7.9%) than the current rate:

	<u>1% Decrease (5.9%)</u>	<u>Current Discount Rate (6.9%)</u>	<u>1% Increase (7.9%)</u>
Employer's net pension liability (asset)	\$ 199,705,364	\$ 129,792,258	\$ 70,648,467

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2021

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, 2021.

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, 2021, 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 6.9% 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, 2021, as shown in the schedule of employer allocations.

Changes of Assumptions

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, 2021, as shown in the schedule of employer allocations. Some actuarial assumptions and methods used changed since the last valuation, including decreasing the investment return rate from 7.15% to 6.9% and updating the mortality and mortality improvement rates.

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

The Changes in Proportion are the December 31, 2021 Net Pension Liability multiplied by the December 31, 2020 Employer Allocation Percentage less the current year Net Pension Liability plus the December 31, 2021 Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the December 31, 2020 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, 2021

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, 2021:

	Year of deferral	Amortization period	Balance January 1	Additions	Deletions	Balance December 31
Deferred outflows of resources:						
Difference between expected and actual experience	2021	7.08 years	\$ -	\$ 5,606,152	\$ (791,829)	\$ 4,814,323
			\$ -	\$ 5,606,152	\$ (791,829)	\$ 4,814,323
Difference between projected and actual investments earnings	2018	5 years	\$ 13,354,352	\$ -	\$ (6,677,176)	\$ 6,677,176
			\$ 13,354,352	\$ -	\$ (6,677,176)	\$ 6,677,176
Changes in assumptions	2016	5.1 years	\$ 325,686	\$ -	\$ (325,686)	\$ -
	2019	7.2 years	14,733,560	-	(2,877,649)	11,855,911
	2021	7.08 years	-	11,289,119	(1,594,508)	9,694,611
			\$ 15,059,246	\$ 11,289,119	\$ (4,797,843)	\$ 21,550,522
Deferred inflows of resources:						
Differences between expected and actual experience	2016	5.1 years	\$ (85,270)	\$ -	\$ 85,270	\$ -
	2017	6.79 years	(178,690)	-	64,046	(114,644)
	2019	7.12 years	(4,760,658)	-	929,816	(3,830,842)
			\$ (5,024,618)	\$ -	\$ 1,079,132	\$ (3,945,486)
Difference between projected and actual investments earnings	2017	5 years	\$ (4,512,997)	\$ -	\$ 4,512,997	\$ -
	2019	5 years	(16,185,211)	-	5,395,071	(10,790,140)
	2020	5 years	(12,804,322)	-	3,201,081	(9,603,241)
	2021	5 years	-	(44,893,279)	8,978,656	(35,914,623)
			\$ (33,502,530)	\$ (44,893,279)	\$ 22,087,805	\$ (56,308,004)
Changes in assumptions	2017	6.79 years	\$ (4,107,689)	\$ -	\$ 1,472,290	\$ (2,635,399)

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO SCHEDULES
DECEMBER 31, 2021

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, 2021.

Service cost	\$ 14,760,890
Interest cost	41,320,681
Employee contributions	(8,579,543)
Projected earnings on pension plan investments	(28,654,229)
Administrative expenses	811,905
Recognition of deferred outflows and deferred inflows of resources:	
Differences between expected and actual experience	(287,303)
Changes of benefit terms	(13,562,414)
Changes of assumptions	3,325,553
Differences between projected and actual earnings on plan investments	<u>(15,410,629)</u>
Pension Expense per Actuarial Certification Report	<u>\$ (6,275,089)</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	\$ (6,275,089)
Year end accruals	<u>1,756,095</u>
Total Pension Expense	<u>\$ (4,518,994)</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>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>Thereafter</u>
\$ (29,846,868)	(8,099,797)	(14,454,343)	(7,845,566)	(4,644,485)	2,620,074	2,577,249

NOTE 6 - MANAGEMENT REVIEW

Management has reviewed subsequent events as of December 29, 2022, the date the schedules were available to be issued. At that time, there were no material subsequent events.