

**Hampshire County Retirement System**

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

**December 31, 2022**

**Ron L. Beaulieu & Company**

**CERTIFIED PUBLIC ACCOUNTANTS**

HAMPSHIRE COUNTY RETIREMENT SYSTEM

DECEMBER 31, 2022

CONTENTS

	PAGE
INDEPENDENT AUDITORS' REPORT	1 - 2
MANAGEMENT'S SCHEDULES	
SCHEDULE OF EMPLOYER ALLOCATIONS	3
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER	4
NOTES TO SCHEDULES	5 - 11

# Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

[www.rlbco.com](http://www.rlbco.com)  
[accting@rlbco.com](mailto:accting@rlbco.com)

41 Bates Street  
Portland, Maine 04103

Tel: (207) 775-1717  
Fax: (207) 775-7103

## INDEPENDENT AUDITORS' REPORT

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

### Opinions

We have audited the schedule of employer allocations of Hampshire County Retirement System as of and for the year ended December 31, 2022, 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, 2022, and the related notes.

In our opinion, the accompanying 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, 2022, in accordance with accounting principles generally accepted in the United States of America.

### Basis for Opinions

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 opinions.

### Responsibilities of Management 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, and for 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.

### Auditors' Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedules are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. 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 Matter**

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, 2022, and our report thereon, dated December 18, 2023, 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 18, 2023

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

Employer	2022	
	Actual Employer Contributions	Employer Allocation Percentage
Hampshire County Group Insurance Trust	\$ 106,719	0.35336%
Town of Amherst	7,796,557	25.81562%
Amherst Housing Authority	272,725	0.90304%
Amherst-Pelham Regional School District	1,766,011	5.84754%
Town of Belchertown	4,100,480	13.57733%
Belchertown Housing Authority	-	0.00000%
Belchertown Water District	77,074	0.25520%
Town of Chesterfield	112,647	0.37299%
Chesterfield/Goshen Regional School District	115,612	0.38281%
Town of Cummington	87,452	0.28957%
Foothills Health District	51,265	0.16975%
Gateway Regional School District	696,635	2.30667%
Town of Goshen	50,395	0.16687%
Town of Granby	1,433,186	4.74550%
Granby Housing Authority	24,125	0.07988%
Town of Hadley	1,734,867	5.74442%
Hadley Housing Authority	-	0.00000%
Hampshire County Regional Housing Authority	-	0.00000%
Hampshire County Regional School District	668,725	2.21425%
Town of Hatfield	764,816	2.53243%
Hatfield Housing Authority	8,893	0.02945%
Town of Huntington	162,841	0.53919%
Town of Middlefield	65,217	0.21594%
Town of Pelham	290,512	0.96193%
Town of Plainfield	100,790	0.33373%
Quabbin Health District	95,432	0.31599%
South Hadley Fire District #1	782,603	2.59132%
South Hadley Fire District #2	299,404	0.99137%
Town of South Hadley	4,019,387	13.30882%
South Hadley Housing Authority	75,389	0.24962%
So Hadley-Granby-Easthampton Veterans District	20,751	0.06871%
Town of Southampton	978,288	3.23927%
Town of Ware	2,516,037	8.33099%
Ware Housing Authority	83,425	0.27623%
Town of Westhampton	257,903	0.85396%
Town of Williamsburg	344,622	1.14110%
Town of Worthington	240,140	0.79514%
Total	\$ 30,200,925	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, 2022 Net Pension Liability	2022 Deferred Outflows of Resources					2022 Deferred Inflows of Resources					2022 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 (Income)	Proportionate Share of Pension Expense (Income)	Net Amortization of Deferred Amounts from Changes in Proportion	Total Pension Expense	
Hampshire County Group Insurance Trust	\$ 707,676	\$ 14,214	\$ 238,194	\$ 60,349	\$ 68,985	\$ 382,752	\$ 10,430	\$ 136,869	\$ 4,110	\$ 1,104,248	\$ 1,255,657	\$ 88,941	\$ (220,356)	\$ (131,414)		
Town of Amherst	51,700,624	1,038,431	17,401,716	4,408,857	305,690	23,154,724	761,980	9,999,215	300,284	1,965,420	13,026,879	6,497,770	(22,444)	6,275,326		
Amherst Housing Authority	1,806,497	36,325	608,715	154,224	280,174	1,079,438	26,654	349,774	10,503	109,461	496,392	227,293	34,651	261,944		
Amherst-Pelham Regional School District	11,710,793	235,217	3,941,692	998,664	134,307	5,309,880	172,597	2,264,938	66,014	337,968	2,843,517	1,471,820	(11,474)	1,460,346		
Town of Belchertown	27,191,153	546,146	9,152,167	2,318,786	960,018	12,977,117	400,752	5,298,935	157,920	148,652	5,965,239	3,417,403	213,013	3,650,416		
Belchertown Housing Authority						2,343				175,617	175,617		(31,972)	(31,972)		
Belchertown Water District	511,094	10,266	172,027	43,585	130,456	356,334	7,533	98,849	2,968	56,516	165,666	64,235	4,261	68,496		
Town of Chesterfield	746,986	15,004	251,425	63,701	30,247	306,377	11,009	144,472	4,338	30,305	190,124	93,882	3,033	96,915		
Chesterfield/Goshen Regional School District	766,648	15,398	258,043	65,378	104,658	445,477	11,299	148,274	4,452	87,218	251,243	96,353	11,713	108,066		
Town of Cummington	579,913	11,648	195,191	49,453	131,584	387,876	8,547	112,159	3,368	56,800	180,874	72,884	21,582	94,466		
Foothills Health District	339,949	6,828	114,422	28,990	154,566	304,806	5,010	65,748	1,974		72,732	42,725	27,812	70,537		
Gateway Regional School District	4,619,534	92,786	1,554,872	393,941	111,414	2,153,013	68,084	893,446	26,830	389,821	1,378,181	580,586	(19,917)	460,669		
Town of Goshen	334,180	6,712	112,480	28,498	15,835	163,525	4,925	64,632	1,941	178,285	249,783	42,000	(35,249)	6,751		
Town of Granby	9,503,761	190,888	3,198,835	810,454	652,324	4,652,501	140,069	1,838,085	55,195	101,074	2,134,423	1,194,439	90,331	1,284,770		
Granby Housing Authority	159,978	3,213	53,846	13,642	2,322	73,023	2,358	30,941	929	62,501	96,729	20,106	(13,094)	7,012		
Town of Hadley	11,504,271	231,069	3,872,179	981,052	1,012,475	6,096,775	169,554	2,224,966	66,815	33,864	2,495,229	1,445,864	281,590	1,727,444		
Hadley Housing Authority						172				54,206	54,206		(6,065)	(6,065)		
Hampshire County Regional Housing Authority	4,434,457	89,068	1,492,577	378,158	259,415	2,219,218	65,356	857,651	25,754	208,301	1,157,082	557,326	(14,694)	542,632		
Hampshire County Regional School District	5,071,657	101,867	1,707,050	492,497	359,166	2,600,580	74,748	980,889	29,455	277,088	1,362,180	637,409	32,035	669,444		
Hadfield Housing Authority	58,971	1,184	19,849	5,029	269	26,331	869	11,405	342	34,204	46,820	7,412	(8,308)	(8,308)		
Town of Huntington	1,079,853	21,669	363,457	82,085	141,379	615,610	15,915	208,846	6,271	113,694	344,726	135,714	(6,106)	129,608		
Town of Middlefield	432,468	8,686	145,563	36,860	14,949	233,078	6,374	63,642	2,512	24,224	116,752	54,353	2,196	56,549		
Town of Pelham	1,926,447	38,694	648,415	164,282	186,596	1,037,987	28,393	372,987	11,188	63,037	475,205	242,117	(1,314)	240,803		
Town of Plainfield	686,360	13,424	224,961	56,996	96,308	391,689	9,850	129,265	3,862	42,820	185,817	84,000	7,727	96,727		
Quabbin Health District	632,830	12,711	213,002	53,966	90,044	369,723	9,327	122,393	3,675	14,526	149,921	79,534	(17,992)	97,326		
South Hadley Fire District #1	5,188,606	104,236	1,746,750	442,555	306,589	2,600,130	76,486	1,003,702	30,140	147,813	1,258,141	652,233	(20,634)	631,599		
South Hadley Fire District #2	1,995,411	39,878	688,262	169,310	60,141	937,591	29,262	383,991	11,531	185,187	609,971	249,528	(49,367)	200,161		
Town of South Hadley	26,653,407	535,347	8,971,169	2,272,929	738,521	12,517,966	392,826	1,549,932	154,796	499,830	6,202,384	3,349,818	(94,634)	3,255,184		
South Hadley Housing Authority	499,920	10,041	168,266	42,632	8,677	229,616	7,368	96,688	2,903	11,244	118,203	62,830	1,124	63,954		
So Hadley-Granby-Easthampton Veterans District	137,604	2,764	46,316	11,735	13,870	74,685	2,028	26,614	799	8,561	38,002	17,294	(521)	16,773		
Town of Southampton	6,487,235	130,299	2,183,514	553,214	222,394	3,089,421	95,611	1,254,671	37,676	253,899	1,641,857	815,320	41,618	856,938		
Town of Ware	16,684,375	335,114	5,615,731	1,422,797	663,722	8,037,364	245,900	3,226,860	96,899	747,171	4,316,830	2,096,903	(29,147)	2,067,756		
Ware Housing Authority	553,209	11,111	186,203	47,176	37,573	282,063	8,153	106,994	3,213	1,658	120,018	69,528	10,375	79,903		
Town of Westhampton	1,710,209	34,350	575,633	145,842	84,127	893,952	25,206	330,765	9,932	89,764	455,667	214,940	3,269	218,569		
Town of Williamsburg	2,285,262	45,901	769,188	194,881	152,190	1,162,160	33,681	441,984	13,272	216,925	705,667	287,213	6,321	289,574		
Town of Worthington	1,592,419	31,985	535,986	135,797	352,769	1,056,537	23,470	307,984	9,248	34,625	375,327	200,136	94,135	284,271		
Total	\$ 200,268,737	\$ 4,022,494	\$ 67,407,696	\$ 17,078,365	\$ 7,926,172	\$ 96,434,727	\$ 2,951,624	\$ 38,733,196	\$ 1,163,109	\$ 7,926,167	\$ 50,774,096	\$ 25,169,909	\$ -	\$ 25,169,909		

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

HAMPSHIRE COUNTY RETIREMENT SYSTEM  
 NOTES TO SCHEDULES  
 DECEMBER 31, 2022

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 2022.

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, 2022, 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	1,186	731	1,854	3,771
Group 2 & 4	258	113	374	745
	1,444	844	2,228	4,516

HAMPSHIRE COUNTY RETIREMENT SYSTEM  
NOTES TO SCHEDULES  
DECEMBER 31, 2022

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, 2022, employers were required to contribute \$30,200,925. 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, 2022

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, 2022, were as follows:

	2022
Total pension liability	\$627,371,370
Plan fiduciary net position	427,102,633
Employer's net pension liability (asset)	\$200,268,737

Plan fiduciary net position as a % of total pension liability	68.1%
---	-------

*Actuarial assumptions.* The total pension liability as of the December 31, 2022 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, 2022

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, 2022 (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%	4.50%
Non-US Developed Equity	11.0%	4.30%
Emerging Equity	6.0%	7.00%
Private Equity	18.0%	7.60%
Core Bonds	11.0%	2.10%
Value Add Fixed Income - Public	12.0%	5.20%
Real Estate	18.0%	3.10%
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 6.9%. 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 3.72%, based on the December 2022 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)	\$ 270,720,268	\$ 200,268,737	\$ 138,052,420

HAMPSHIRE COUNTY RETIREMENT SYSTEM  
NOTES TO SCHEDULES  
DECEMBER 31, 2022

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, 2022.

*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, 2022, 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, 2022, 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, 2022, as shown in the schedule of employer allocations. All of the actuarial assumptions and methods used in these disclosures are the same as the last measurement date.

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

The Changes in Proportion are the December 31, 2022 Net Pension Liability multiplied by the December 31, 2021 Employer Allocation Percentage less the current year Net Pension Liability plus the December 31, 2022 Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the December 31, 2021 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, 2022

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, 2022:

	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	\$ 4,814,323	\$ -	\$ (791,829)	\$ 4,022,494
			<u>\$ 4,814,323</u>	<u>\$ -</u>	<u>\$ (791,829)</u>	<u>\$ 4,022,494</u>
Difference between projected and actual investments earnings	2018	5 years	\$ 6,677,176	\$ -	\$ (6,677,176)	\$ -
	2022	5 years	-	84,259,620	(16,851,924)	67,407,696
			<u>\$ 6,677,176</u>	<u>\$ 84,259,620</u>	<u>\$ (23,529,100)</u>	<u>\$ 67,407,696</u>
Changes in assumptions	2019	7.2 years	\$ 11,855,911	\$ -	\$ (2,877,649)	\$ 8,978,262
	2021	7.08 years	9,694,611	-	(1,594,508)	8,100,103
			<u>\$ 21,550,522</u>	<u>\$ -</u>	<u>\$ (4,472,157)</u>	<u>\$ 17,078,365</u>
Deferred inflows of resources:						
Differences between expected and actual experience	2017	6.79 years	\$ (114,644)	\$ -	\$ 64,046	\$ (50,598)
	2019	7.12 years	(3,830,842)	-	929,816	(2,901,026)
			<u>\$ (3,945,486)</u>	<u>\$ -</u>	<u>\$ 993,862</u>	<u>\$ (2,951,624)</u>
Difference between projected and actual investments earnings	2019	5 years	\$(10,790,140)	\$ -	\$ 5,395,071	\$ (5,395,069)
	2020	5 years	(9,603,241)	-	3,201,081	(6,402,160)
	2021	5 years	(35,914,623)	-	8,978,656	(26,935,967)
			<u>\$(56,308,004)</u>	<u>\$ -</u>	<u>\$ 17,574,808</u>	<u>\$(38,733,196)</u>
Changes in assumptions	2017	6.79 years	\$ (2,635,399)	\$ -	\$ 1,472,290	\$ (1,163,109)

HAMPSHIRE COUNTY RETIREMENT SYSTEM  
NOTES TO SCHEDULES  
DECEMBER 31, 2022

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, 2022.

Service cost	\$ 15,923,710
Interest cost	41,712,622
Employee contributions	(9,302,082)
Projected earnings on pension plan investments	(32,872,815)
Administrative expenses	784,055
Recognition of deferred outflows and deferred inflows of resources:	
Differences between expected and actual experience	(202,033)
Changes of benefit terms	-
Changes of assumptions	2,999,867
Differences between projected and actual earnings on plan investments	5,954,293
Pension Expense per Actuarial Certification Report	<u>\$ 24,997,617</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	\$ 24,997,617
Year end accruals	<u>172,292</u>
Total Pension Expense	<u>\$ 25,169,909</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>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>Thereafter</u>
\$ 45,660,625	2,397,581	9,006,358	12,207,439	19,471,998	2,386,337	190,912

NOTE 6 - MANAGEMENT REVIEW

Management has reviewed subsequent events as of December 18, 2023, the date the schedules were available to be issued. At that time, there were no material subsequent events.