

**Hampshire County
Retirement System**

**Independent Auditors' Report and
Management's Financial Statements**

December 31, 2017

Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

HAMPSHIRE COUNTY RETIREMENT SYSTEM

DECEMBER 31, 2017

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Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

www.rlbc.com
accting@rlbc.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

We have audited the accompanying financial statements of Hampshire County Retirement System as of and for the year ended December 31, 2017, and the related notes to the 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.

Auditors' 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. 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 auditors' 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 Hampshire County Retirement System, as of December 31, 2017, and the changes in 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 on pages 3.1 through 3.6 and the pension schedules on pages 13 through 17 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.

Ron L. Beaulieu & Co.

Portland, Maine
December 31, 2018

Management's Discussion and Analysis

Year ended December 31, 2017

This section presents Management's Discussion and Analysis (MD&A) of the Hampshire County Retirement System's (HCRS or the "Plan") financial activity and performance as of and for the year ended December 31, 2017. The MD&A is unaudited and is intended to serve as an introduction to the Plan's basic financial statements, as well as to offer readers of the Plan's financial statements a narrative view and analysis of the HCRS' financial activities.

Overview of the Financial Statements

The basic financial statements consist of the: (1) Statements of Fiduciary Net Position; (2) Statements of Changes in Fiduciary Net Position; (3) Notes to the Financial Statements; and (4) Required Supplementary Information.

The Statements of Fiduciary Net Position report the Plan's assets, liabilities, and net position restricted for pensions at the end of the calendar year calculated using the following formula: $\text{Assets} - \text{Liabilities} = \text{Net position restricted for pensions}$.

The Statements of Fiduciary Net Position report the financial position of the Plan at a given point in time, in this case, December 31. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the Plan's financial health.

The Statements of Changes in Fiduciary Net Position report additions to and deductions from the Plan during the calendar year. The formula here is: $\text{Additions} - \text{Deductions} = \text{Net Increase (Decrease) in Plan Fiduciary Net Position}$. The Statements of Changes in Fiduciary Net Position report activity occurring over a specific period of time, in this case, the year beginning January 1 and ending December 31.

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the Plan's financial statements.

The Required Supplementary Information following the Notes to the Financial Statements consists of the schedules of changes in net pension liability and related ratios, investment returns, contributions, and notes to schedule of contributions.

These statements and schedules are prepared in conformity with U.S. generally accepted accounting principles, including the new accounting and financial reporting requirements found in GASB Statement No. 67.

Financial Highlights

Fiduciary net position is the residual of the Plan's assets in excess of the Plan's liabilities as of the date of the Statements of Fiduciary Net Position. The Plan's assets are held in trust to meet future benefit payments.

The fiduciary net position of the Plan as of December 31, 2017 totaled \$ 318.23 million, an increase of \$42.90 million, or 15.58% from December 31, 2016. The increase in net fiduciary net position is due to strong positive net returns on investments of 16.62% plus an increase in employee and employer contributions, offset by an increase in benefits paid to retirees and withdrawing members. Net investment earnings were \$43.35 million, an increase of \$24.32 million. In addition to investment earnings, other contributions increased by \$2.13 million as total deductions increased by \$2.08 million, corresponding to 276 new members, 78 new retirees/survivors, 141 withdrawn/transferred members, 5 member deaths and 43 retiree/survivor deaths.

For reporting purposes in accordance with the Government Accounting Standards Board (GASB), as of December 31, 2017, the Plan's fiduciary net position as a percentage of the total pension liability was 63.1%.

Assets and Liabilities – Fiduciary Net Position

Total assets are comprised of cash and cash equivalents; investments at fair value; and receivables comprised of contributions due from plan members and investments sold but not yet received. Total Assets as of December 31, 2017 was \$318.32 million an increase of \$42.9 million (15.58%) from December 31, 2016.

Total liabilities are comprised of payables for benefits payments due, accrued employee payroll and accrued compensated absences. Total liabilities as of December 31, 2017 were approximately \$87,116 a decrease from the total liabilities as of December 31, 2016.

Fiduciary net position is the residual of the Plan's assets in excess of the Plan's liabilities as of the date of the Statements of Fiduciary Net Position. As of December 31, 2017, the Plan's fiduciary net position was \$318.23 million. The fiduciary net position as a % total pension liability was 63.1%.

Assets and Liabilities – Fiduciary Net Position 2017

	<u>2017</u>	<u>2016</u>	<u>Total \$ Change</u>	<u>Total % Change</u>
Assets				
Cash and cash equivalents	8,213,746	2,934,088	5,279,658	179.94%
Investments	309,316,225	271,800,130	37,516,095	13.80%
Receivables	791,665	688,513	103,152	14.98%
Total Assets	318,321,636	275,422,731	42,898,905	15.58%
Liabilities				
Payables	1,273	450	823	182.89%
Accrued payroll	7,153	6,978	175	2.51%
Accrued compensated absences	78,690	81,880	-3,190	-3.90%
Total Liabilities	87,116	89,308	-2,192	-2.45%
Fiduciary Net Position	318,234,520	275,333,423	42,901,097	15.58%

Prior Years - Fiduciary Net Position

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Assets				
Cash and cash equivalents	2,934,088	15,207,180	2,141,887	4,932,273
Investments	271,800,130	240,599,412	255,811,148	239,127,751
Receivables	688,513	1,151,029	513,655	2,674,385
Total Assets	275,422,731	256,957,621	258,466,690	246,734,409
Liabilities				
Payables	450	12,432	1,031	39,317
Accrued payroll	6,978	5,511	3,954	2,511
Accrued compensated absences	81,880	79,297	75,273	70,537
Total Liabilities	89,308	97,240	80,258	112,365
Fiduciary Net Position	275,333,423	256,860,381	258,386,432	246,622,045

Revenues - Additions to Plan Fiduciary Net Position

Revenue (Additions to the HCRS' fiduciary net position) includes contributions from active members, employers, non-employer entities, transfers in from other retirement systems and net investment income. For plan year 2018 revenues totaled approximately \$74.22 million. The difference primarily due to significant increases in gross investment earnings combined with a relatively small increase in investment expenses.

Employer contributions are determined by the actuary based on a biennial evaluation and funding schedule. The funding schedule is a 4% increasing phase-in schedule with a target date for full funding in 2034. Total employer contributions for plan year 2018 were \$21.33 million. Distribution of Employer contributions are based on aggregate salaries as of September 30 of the prior year.

Member contributions comprised of regular contributions and makeup/redeposit purchases of prior service totaled approximately \$7.79 million. There were 276 new members enrolled in 2018 with withdrawals/transfers to other systems of 141 members, 5 deaths and 76 retirements. Member contributions are expected to increase annually as new members paying a higher percentage of salary replace retiring members contributing at a lower percentage of salary and due to increases in annual salaries of current active members.

Non-employer contributions which are comprised primarily of Commonwealth's COLA reimbursement for pre-1996 retirees but also includes worker's compensation offset settlements and recovery of 91A overearnings, totaled \$124,318, a decrease of \$206,995. Commonwealth's COLA reimbursement is expected to decrease annually due to declining population of eligible retirees. Additions from worker's compensation offset settlements and recovery of 91A overearnings are situational and are not anticipated on an annual basis.

Transfers from other systems are comprised of both member contributions (annuity savings) of members transferring to HCRS and 3(8)(c) reimbursements of pension payments for retirees with service liabilities from other retirement systems. Transfers from other systems totaled \$1.62 million, an increase of \$349,381. Transfers from other systems varies with increase or decrease in employees/retirees who have changed jobs across public employers within the Commonwealth.

Net Investment Earnings, comprised of the net change in fair value of investments and interest earned on investments minus investment expenses was \$43.36 million, a significant increase of \$24.32 million over 2016. Investments are well diversified into domestic and global fixed income, domestic and international equities, real estate and alternative investments. Overall investment performance for 2017 was a positive 16.62%. Increase in investment performance is primarily relative to overall increase in the global market environment. HCRS maintains a well-diversified portfolio in a relatively conservative approach with a long-term (30 year) horizon. Actuarially, investment gains/losses are smoothed over a 5 year period. HCRS's long-term target return rate was 7.50%. 1985-2017 annualized returns are 8.44%. The actuarial funded ratio for the Plan is 61.5%

Revenues - Additions to Plan Fiduciary Net Position 2017

	<u>2017</u>	<u>2016</u>	<u>Total \$ change</u>	<u>Total % change</u>
Contributions				
Employer contributions	21,331,218	19,693,436	1,637,782	8.32%
Member contributions	7,792,063	7,446,905	345,158	4.63%
Non-employer entities	124,318	331,313	-206,995	-62.48%
Transfer from other systems	1,618,180	1,268,799	349,381	27.54%
Total Contributions	30,865,779	28,740,453	2,125,326	7.39%

Investment earnings

Net increase(decrease) in fair value of investments	45,207,890	20,818,249	24,389,641	117.16%
Interest	31,443	22,284	9,159	41.10%
Gross investment earnings	45,239,333	20,840,533	24,398,800	117.07%
Less investment expenses	1,881,955	1,804,554	77,401	4.29%
Net Investment Earnings	43,357,378	19,035,979	24,321,399	127.77%
Total Additions (Revenues)	74,223,157	47,776,432	26,446,725	55.36%

Prior Years - Additions to Plan Fiduciary Net Position

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Contributions				
Employer contributions	19,693,436	18,626,735	17,436,197	16,004,397
Member contributions	7,446,905	7,322,347	7,177,431	7,040,511
Non-employer entities	331,313	135,964	227,088	252,013
Transfer from other systems	1,268,799	1,247,378	1,067,545	1,317,726
Total Contributions	28,740,453	27,332,424	25,908,261	24,614,647
Investment earnings				
Net increase(decrease) in fair value of investments	20,818,249	943,203	45,207,890	20,818,249
Interest	22,284	22,340	31,443	22,284
Gross investment earnings	20,840,533	965,543	45,239,333	20,840,533
Less investment expenses	1,804,554	2,070,064	1,881,955	1,804,554
Net Investment Earnings	19,035,979	-1,104,521	43,357,378	19,035,979
Total Additions (Revenues)	47,776,432	26,227,903	74,223,157	47,776,432

Expenses – Deductions to Plan Fiduciary Net Position

Deductions to HCRS' fiduciary net position include benefits paid, refund of contributions to terminated members, transfers to other retirement systems and administrative expenses. Total Deductions for 2017 totaled approximately \$31.32million compared to \$29.30 million in 2016, an increase of \$2.02 million.

Benefits paid totaled \$26.62million, an increase of \$1.64 due to new retirees and cost of living adjustments (3% on first \$13,000). There was a net increase of 35 retirees (78 new retirees/survivors and 43 deceased retirees/survivors).

Overall 141 members terminated from the system by either taking a refund of contributions or transferring to other systems. Refunds to members terminating employment and withdrawing contributions totaled approximately \$911,881, an increase of \$170,041 from 2016. Refunds to terminating members include only the members' contributions and minimal interest; Employer contributions are retained while pension liability is reduced.

Transfers to other systems are comprised of member contributions (annuity savings) of active members and 3(8)(c) reimbursement of benefit payments (service liability) of former members who retired from other systems. Transfers to other systems totaled approximately \$2.98 million. Employer contributions and pension liability for transferred members are retained.

Administrative expenses totaled \$814,052, a minimal increase of \$13,175 (1.65%).

Expenses – Deductions to Plan Fiduciary Net Position - 2017

	<u>2017</u>	<u>2016</u>	<u>Total \$ change</u>	<u>Total % change</u>
Benefits Paid	26,616,377	24,973,457	1,642,920	6.58%
Refunds to terminated members	911,881	741,840	170,041	22.92%
Transfers to other systems	2,979,750	2,787,216	192,534	6.91%
Administrative expenses	814,052	800,877	13,175	1.65%
Total Deductions (Expenses)	31,322,060	29,303,390	2,018,670	6.89%

Prior Years - Deductions to Plan Fiduciary Net Position

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Benefits Paid	24,973,457	23,410,439	22,164,495	20,768,313
Refunds to terminated members	741,840	946,870	801,315	771,934
Transfers to other systems	2,787,216	2,561,166	2,382,307	2,185,893
Administrative expenses	800,877	835,479	754,997	751,211
Total Deductions (Expenses)	29,303,390	27,753,954	26,103,114	24,477,351

Changes in Fiduciary Net Position – Summary

Changes in fiduciary net position as of December 31, 2017 were a net increase of \$42.90 million, bringing net asset balance to \$318.23 million. The increase in total additions of 55.36% is primarily due to the investment performance in global markets from 2016. The increase in total deductions of 6.89% is primarily due to increase in benefits paid with net gain of 35 retirees/survivors.

Changes in Fiduciary Net Position – Summary 2017

	<u>2017</u>	<u>2016</u>	<u>Total \$ change</u>	<u>Total % change</u>
Total Additions (Revenues)	74,223,157	47,776,432	26,446,725	55.36%
Total Deductions (Expenses)	31,322,060	29,303,390	2,018,670	6.89%
Net Position Change	42,901,097	18,473,042	24,428,055	132.24%

Prior Years - Changes in Fiduciary Net Position

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Total Additions (Revenues)	47,776,432	26,227,903	37,867,500	50,705,518
Total Deductions (Expenses)	29,303,390	27,753,954	26,103,114	24,477,351
Net Position Change	18,473,042	-1,526,051	11,764,386	26,228,167

TOTAL FUND BALANCE AT FAIR VALUE

As of December 31, 2017, the Total Fund Balance at Fair Value was \$318.23 million, an increase of 42.90 million (15.58%) from December 31, 2016.

Total Fund Balance at Fair Value 2017

	<u>2017</u>	<u>2016</u>	<u>Total \$ change</u>	<u>Total % change</u>
Beginning Fund Balance	275,333,423	256,860,381	18,473,042	7.19%
Ending Fund Balance	318,234,520	275,333,423	42,901,097	15.58%

Prior Years - Total Fund Balance at Fair Value

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Beginning Fund Balance	256,860,381	258,386,432	246,622,046	220,393,879
Ending Fund Balance	275,333,423	256,860,381	258,386,432	246,622,046

OVERALL FINANCIAL POSITION

HCERS maintains a well-diversified portfolio of assets in domestic and global fixed income, domestic and international equities, real estate and alternative investments (private debt and private equity). The Board has as its primary purpose to grow Plan assets at a rate sufficient to meet promised benefits to members while minimizing the risks associated with achieving that growth. The Board's asset allocation is relatively conservative with an emphasis on protecting assets in down markets rather than capturing all up markets. The Board attempts to outperform actuarial assumptions to reduce the unfunded liability as soon as practicable. However, at no time should the Plan be exposed to unreasonable risk levels.

The Board has adopted a funding schedule in accordance with Massachusetts General Laws, Chapter 32, Section 22 (6a) in order to be 100% funded in the year 2034. HCERS's long-term target return rate is 7.50%. 1985-2017 annualized returns are 8.44%. As of December 31, 2017, with smoothing, the Actuarial Funded Status was 61.5%.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
STATEMENT OF FIDUCIARY NET POSITION
DECEMBER 31,

ASSETS	<u>2017</u>
Cash	\$ 8,213,746
Investments at fair value	309,316,225
Receivables:	
Members receivable, net	<u>791,665</u>
Total receivables	<u>791,665</u>
 TOTAL ASSETS	 <u>318,321,636</u>
 LIABILITIES	
Accounts payable	1,273
Accrued payroll	7,153
Accrued compensated absences	<u>78,690</u>
TOTAL LIABILITIES	<u>87,116</u>
 NET POSITION	
Restricted for pension benefits	<u>\$ 318,234,520</u>

See accompanying independent auditors' report and management's notes to financial statements.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
YEAR ENDED DECEMBER 31,

ADDITIONS TO NET ASSETS ATTRIBUTED TO	<u>2017</u>
Contributions:	
Employer	\$ 21,331,218
Plan member	7,792,063
Nonemployer entities	124,318
Transfers from other systems	<u>1,618,180</u>
Total contributions	30,865,779
Investment earnings	
Net increase (decrease) in fair value of investments	45,207,890
Interest	<u>31,443</u>
Total investment earnings	45,239,333
Less investment expenses	<u>1,881,955</u>
Net investment earnings	<u>43,357,378</u>
TOTAL ADDITIONS	<u>74,223,157</u>
DEDUCTIONS TO NET ASSETS ATTRIBUTED TO	
Benefits paid	26,616,377
Refunds of contributions	911,881
Transfers to other systems	2,979,750
Administrative expenses	<u>814,052</u>
TOTAL DEDUCTIONS	<u>31,322,060</u>
NET INCREASE (DECREASE) IN NET POSITION	42,901,097
NET POSITION - BEGINNING	<u>275,333,423</u>
NET POSITION - ENDING	<u><u>\$ 318,234,520</u></u>

See accompanying independent auditors' report and management's notes to financial statements.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 1 - DESCRIPTION OF PLAN

The following description of the Hampshire County Retirement System (the Plan), a cost sharing multiemployer plan serving 37 employers, provides only general information. Participants should refer to the Plan agreement for a complete description of the Plan's provisions.

General

The Plan is a defined benefit plan covering all member unit employees deemed eligible by the retirement board, with the exception of the school department employees who serve in a teaching capacity.

Plan Amendments

The Plan did not adopt any significant plan amendments during 2017.

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 appointed 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. The Board of Retirement has the authority to amend or establish policies that are not governed by Massachusetts Law or the Public Employee Retirement Administration Commission.

Contributions

Participation in the plan is required for all full-time employees. 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.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 DECEMBER 31, 2017

NOTE 1 - DESCRIPTION OF PLAN (CONTINUED)

Membership of each group as of December 31, 2017:

<u>Group</u>	Active members	Inactive (retired) members receiving benefits	Inactive (retired) members entitled to benefits but not yet receiving	Total
Group 1	1,639	1,055	518	3,212
Group 2 & 4	377	223	142	742
	<u>2,016</u>	<u>1,278</u>	<u>660</u>	<u>3,954</u>

Member contributions vary depending on the most recent date of membership:

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

Upon termination, a member may withdraw their contributions plus statutory interest.

Employers were required to contribute \$21,331,218, for the year ended December 31, 2017.

Payment of Benefits

Once a member has met one of the conditions below, they are eligible to receive benefits:

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

- 1) Completion of 20 years of service, or
- 2) Reach age 55 if hired prior to 1978, or classified as Group 4, or
- 3) Reach age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 and 2, or
- 4) Disabled or death

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

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

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 1 - DESCRIPTION OF PLAN (CONTINUED)

The amount of benefit is determined by their benefit rate and cannot exceed 80% of the member's highest three year average compensation. The benefit amount may be adjusted for a cost of living adjustment by annual vote of the Retirement Board. Cost of Living adjustment may be granted in an amount determined by the Retirement Board up to a maximum of 3% on the first \$13,000.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The financial statements are prepared using the accrual method of accounting.

Investment Policy

The provisions of Massachusetts General Laws Chapter 32, section 23(2) generally govern the investment practices of the system. The Board establishes the Investment Policy and Asset Allocation of the Plan. The Board retains an investment consultant to advise them on developing and implementing the Policy, and to closely monitor the individual performance of investment managers and the performance of the overall investment strategy.

Investment Valuation and Income Recognition

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Interest income is recorded on the accrual basis. Net appreciation (depreciation) includes the Plan's gains and losses on investments bought, sold, and held.

Payments of Benefits

Benefits are recorded when paid.

NOTE 3 - RISKS AND UNCERTAINTIES

Nature of Operations

The operations of the Plan are subject to the administrative directives, rules and regulations of state regulatory agencies, including, but not limited to Public Employee Retirement Administration Commission (PERAC). Such administrative directives, rules and regulations are subject to change by an act of Legislature and any administrative change mandated by PERAC. Such changes may occur with little notice or inadequate funding to pay for the related costs, including the additional administrative burden, to comply with a change.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 3 - RISKS AND UNCERTAINTIES (CONTINUED)

Current Vulnerabilities Due to Certain Concentrations

Deposits

Custodial credit risk for deposits is the risk that in an event of a bank failure, deposits may not be recovered. The Plan does not have a deposit policy to manage custodial credit risk.

At December 31, 2017, the Plan held deposits of \$8,213,746 at a local bank. The Federal Deposit Insurance Corporation (FDIC) insures \$250,000 of that balance. The remaining balance was collateralized.

Investments

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statement of fiduciary net position.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the plan administrator to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

Significant Estimates

None of the estimates used in preparing the financial statements were significant.

NOTE 4 - INVESTMENTS

Investments are reported at their fair value at year end. Although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at year end.

The fair value measurement establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy has three levels which are described below.

Level 1 Fair Value Measurements

The fair value of commingled domestic and international investments is based on quoted prices of the funds held by the Plan at year-end.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 4 - INVESTMENTS (CONTINUED)

Level 2 Fair Value Measurements

Investments in certain preferred stocks are valued on the market approach using the quoted market price of the issuer's unrestricted common stock less an appropriate discount.

Level 3 Fair Value Measurements

The fair value of certain investments is not actively traded and significant other observable inputs are not available. In this case, management decides what the best valuation technique to use is.

The investments of the Plan consisted of the following as of:

Description	Fair Value	December 31, 2017		
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant un- observable inputs (Level 3)
Commingled international investments	\$ 28,125,365	\$ 28,125,365	\$ -	\$ -
Commingled domestic fixed income	15,272,689	15,272,689	-	-
Pooled domestic equity (NAV)	60,890,908	N/A	N/A	N/A
Commingled global equity (NAV)	-	N/A	N/A	N/A
Pooled alternative investments (NAV)	31,210,532	N/A	N/A	N/A
Hedge funds (NAV)	-	N/A	N/A	N/A
Commingled international investments (NAV)	59,092,221	N/A	N/A	N/A
Commingled real estate (NAV)	42,776,536	N/A	N/A	N/A
Commingled global fixed investments (NAV)	27,610,015	N/A	N/A	N/A
Commingled domestic fixed income (NAV)	44,337,959	N/A	N/A	N/A
Total	<u>\$ 309,316,225</u>	<u>\$ 43,398,054</u>	<u>\$ -</u>	<u>\$ -</u>

The investments valued using the net asset value (NAV) method had no unfunded commitments. They are redeemable at quarterly intervals and a notice of 30-60 days is required.

The following investments represent 5% or more of fiduciary net position:

Colchester Local Markets Debt	18,897,583
MFS International Equity Fund	28,125,365
PRIM Core Fixed Income	31,502,118
PRIM Core Real Estate	42,776,536
PRIM Emerging Markets	30,816,702
RBC International Fund	28,275,519
Rhumblin S&P 500	39,003,223

The annual money-weighted return for 2017 was 15.77%. This return is net of investment expenses and uses the average investment balance throughout the year.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 DECEMBER 31, 2017

NOTE 5 - PARTICIPANT CONTRIBUTIONS RECEIVABLE

Participant contributions receivable are stated at the amount the administrator expects to collect from balances outstanding at year-end. Balances that are still outstanding after the administrator has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to participant contributions receivable. The allowance for uncollectible accounts was estimated to be \$0 at December 31, 2017.

NOTE 6 - ACCRUED COMPENSATED ABSENCES

Summarized below are the accrued vacation and sick leave liabilities at December 31, 2017:

	Balance 1/1/17	Additions	Deletions	Balance 12/31/2017	Current Portion
Accrued compensated absences	\$ 81,880	\$ -	\$ 3,190	\$ 78,690	\$ -
Totals	<u>\$ 81,880</u>	<u>\$ -</u>	<u>\$ 3,190</u>	<u>\$ 78,690</u>	<u>\$ -</u>

NOTE 7 - NET PENSION LIABILITY

The net pension liability is the actuarial total liability less the fiduciary net position. The components of the net pension liability are as follows:

	2017
Total pension liability	<u>\$ 503,968,562</u>
Plan fiduciary net position	<u>318,234,520</u>
Net pension liability (asset)	<u>\$ 185,734,042</u>

Fiduciary net position as a % of total pension liability 63.1%

Net Pension Liability (Asset) Sensitivity:

- 1) Discount rate 1% higher \$136,774,999
- 2) Discount rate 1% lower \$243,856,160

The following are significant assumptions used to measure the total pension liability and projected cash flows:

- 1) Discount rate is estimated to be 7.45% per year based on prior results.
- 2) Inflation is estimated to be 3%.
- 3) Asset allocation is estimated to be 28% fixed income; 55% equities; 12% real estate; and 5% other.
- 4) Increase in salaries will be 4.25% per year for Group 1 and 4.75% for Group 4.
- 5) Mortality was based upon the RP2000 Table projected with scale BB with base year of 2009. Mortality for disabled lives used a base year of 2012.
- 6) Cost of Living Allowance base is fixed at \$13,000.
- 7) Mortality assumptions reflect the recent experience study published in 2014.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017

NOTE 8 - OPERATING LEASE

The Plan leases office space. Future minimum annual rental payments are as follows:

2018	\$43,844
2019	\$18,665
2020	\$ -
2021	\$ -
2022	\$ -

Operating lease rent expense totaled \$41,802 for the year ended December 31, 2017.

NOTE 9 - TAX STATUS

The internal Revenue Service has determined and informed the Plan by a letter, that the Plan and related trust are designed in accordance with applicable section of the Internal Revenue Code (IRC). The Plan Administrator and the Plan's Board believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC.

The plan is not subject to examinations by compliance authorities.

NOTE 10 - MANAGEMENT REVIEW

Management has reviewed subsequent events as of December 31, 2018, the date the financial statements were available to be issued. At that time, there were no material subsequent events.

**HAMPSHIRE COUNTY RETIREMENT SYSTEM
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY - LAST TEN FISCAL YEARS
DECEMBER 31, 2017**

	2017	2016	2015	2014	2013
Total pension liability					
Service cost	\$ 11,029,438	\$ 10,605,229	\$ 10,269,070	\$ 9,850,427	*
Interest	36,888,260	34,627,268	34,842,587	33,371,689	*
Changes of benefit terms	-	-	-	-	*
Differences between expected and actual experience	(434,874)	(4,348,736)	-	-	*
Changes of assumptions	(9,996,849)	16,610,092	-	-	*
Benefit payments, including refunds	(28,662,890)	(26,880,118)	(25,512,793)	(24,412,587)	*
Net change in total pension liability	\$ 8,823,085	\$ 30,613,735	\$ 19,598,864	\$ 18,809,529	*
Total pension liability - beginning	495,145,477	464,531,742	444,932,878	426,123,349	*
Total pension liability - ending	\$ 503,968,562	\$ 495,145,477	\$ 464,531,742	\$ 444,932,878	*
Fiduciary net position					
Contributions - employer	\$ 21,331,218	\$ 19,693,436	\$ 18,626,735	\$ 17,436,197	*
Contributions - member	7,792,063	7,446,905	7,322,347	7,177,431	*
Contributions - nonemployer	124,318	331,313	135,964	227,088	*
Transfers from other systems	1,618,180	1,268,799	1,247,378	1,067,545	*
Net investment earnings	43,357,378	19,035,979	(1,104,522)	11,959,239	*
Benefits paid	(26,616,377)	(24,973,457)	(23,410,439)	(22,164,495)	*
Refunds of contributions	(911,881)	(741,840)	(946,870)	(801,315)	*
Transfers to other systems	(2,979,750)	(2,787,216)	(2,561,166)	(2,382,307)	*
Administrative expenses	(814,052)	(800,877)	(835,479)	(754,997)	*
Net change in fiduciary net position	\$ 42,901,097	\$ 18,473,042	\$ (1,526,052)	\$ 11,764,386	*
Fiduciary net position - beginning	275,333,423	256,860,381	258,386,433	246,622,046	*
Fiduciary net position - ending	\$ 318,234,520	\$ 275,333,423	\$ 256,860,381	\$ 258,386,432	*
Net pension liability (asset) - ending	\$ 185,734,042	\$ 219,812,054	\$ 207,671,361	\$ 186,546,446	*

	2012	2011	2010	2009	2008
Total pension liability					
Service cost	*	*	*	*	*
Interest	*	*	*	*	*
Changes of benefit terms	*	*	*	*	*
Differences between expected and actual experience	*	*	*	*	*
Changes of assumptions	*	*	*	*	*
Benefit payments, including refunds	*	*	*	*	*
Net change in total pension liability	*	*	*	*	*
Total pension liability - beginning	*	*	*	*	*
Total pension liability - ending	*	*	*	*	*
Fiduciary net position					
Contributions - employer	*	*	*	*	*
Contributions - member	*	*	*	*	*
Contributions - nonemployer	*	*	*	*	*
Transfers from other systems	*	*	*	*	*
Net investment earnings	*	*	*	*	*
Benefits paid	*	*	*	*	*
Refunds of contributions	*	*	*	*	*
Transfers to other systems	*	*	*	*	*
Administrative expenses	*	*	*	*	*
Net change in fiduciary net position	*	*	*	*	*
Fiduciary net position - beginning	*	*	*	*	*
Fiduciary net position - ending	*	*	*	*	*
Net pension liability (asset) - ending	*	*	*	*	*

* – Information not available.

See accompanying independent auditors' report and management's notes to required supplementary information.

**HAMPSHIRE COUNTY RETIREMENT SYSTEM
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF NET PENSION LIABILITY - LAST TEN FISCAL YEARS
DECEMBER 31, 2017**

	2017	2016	2015	2014	2013
Total pension liability	\$ 503,968,562	\$ 495,145,477	\$ 464,531,742	\$ 444,932,878	*
Fiduciary net position	318,234,520	275,333,423	256,860,381	258,386,432	*
Net pension liability (asset)	<u>\$ 185,734,042</u>	<u>\$ 219,812,054</u>	<u>\$ 207,671,361</u>	<u>\$ 186,546,446</u>	*
Fiduciary net position as a percentage of the total pension liability	63.1%	55.6%	55.3%	58.1%	*
Covered payroll	\$ 76,767,518	\$ 78,914,925	\$ 80,914,245	\$ 77,139,934	*
Net pension liability (asset) as a percentage of covered payroll	241.9%	278.5%	256.7%	241.8%	*

	2012	2011	2010	2009	2008
Total pension liability	*	*	*	*	*
Fiduciary net position	*	*	*	*	*
Net pension liability (asset)	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
Fiduciary net position as a percentage of the total pension liability	*	*	*	*	*
Covered payroll	*	*	*	*	*
Net pension liability (asset) as a percentage of covered payroll	*	*	*	*	*

* – Information not available

See accompanying independent auditors' report and management's notes to required supplementary information.

**HAMPSHIRE COUNTY RETIREMENT SYSTEM
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CONTRIBUTIONS - LAST TEN FISCAL YEARS
DECEMBER 31, 2017**

	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 21,331,218	\$ 19,693,436	\$ 18,620,753	\$ 17,349,877	*
Contributions in relation to the actuarially determined contribution	21,331,218	19,693,436	18,620,753	17,349,877	*
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>*</u>
Covered payroll	\$ 76,767,518	\$ 78,914,925	\$ 80,914,245	\$ 79,029,000	*
Contributions as a percentage of covered payroll	27.8%	25.0%	23.0%	22.0%	*

	2012	2011	2010	2009	2008
Actuarially determined contribution	*	*	*	*	*
Contributions in relation to the actuarially determined contribution	*	*	*	*	*
Contribution deficiency (excess)	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
Covered payroll	*	*	*	*	*
Contributions as a percentage of covered payroll	*	*	*	*	*

* – Information not available

See accompanying independent auditors' report and management's notes to required supplementary information.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF INVESTMENT RETURNS - LAST TEN FISCAL YEARS
DECEMBER 31, 2017

	2017	2016	2015	2014	2013
Annual money-weighted rate of return, net of investment expenses	15.77%	7.43%	-0.68%	4.84%	*
	2012	2011	2010	2009	2008
Annual money-weighted rate of return, net of investment expenses	*	*	*	*	*

* – Information not available

See accompanying independent auditors' report and management's notes to required supplementary information.

HAMPSHIRE COUNTY RETIREMENT SYSTEM
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
DECEMBER 31, 2017

NOTE 1 – METHODS AND ASSUMPTIONS USED IN CALCULATIONS OF ACTUARIALLY DETERMINED CONTRIBUTIONS

The actuarially determined contribution rates in the schedule of contributions were calculated as of December 31, 2017. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

Actuarial cost method:	Entry Age Normal
Amortization method:	Increasing dollar amount at 4.00%
Remaining amortization period:	16 years
Asset valuation method:	Market value adjusted by accounts payable and receivables adjusted to phase in over 5 years investment gains or losses above or below the expected rate of investment return. The actuarial value of assets must be no less than 90% of the adjusted market value nor more than 110% of the adjusted market value.
Inflation:	3.00%
Salary increases:	4.25% (Group 1) and 4.75% (Group 2)
Investment rate of return:	7.45%