

Commonwealth of Massachusetts Public Employee Retirement Administration Commission

Annual Statement

2017











Public Employee Retirement Administration Commission Members

Philip Y. Brown

Chairman

The Honorable Suzanne Bump

Auditor of the Commonwealth Vice Chairman

Kathleen M. Fallon

Practice Area Director, Public Consulting Group

Kate Fitzpatrick

Town Manager, Town of Needham

James M. Machado

Sergeant, Fall River Police Department

Robert B. McCarthy

President Emeritus of the Professional Firefighters of Massachusetts

Jennifer F. Sullivan

Assistant Secretary for Capital, Finance, Administration & Finance

Joseph E. Connarton

Executive Director

John Parsons

General Counsel / Deputy Director



Audit Unit Staff

Caryn Shea, Chief Auditor | Scott Henderson, Deputy Chief Auditor

Walter Kloc, Auditor | Michael Nicolazzo, Auditor | George Nsia, Auditor

Carol Poladian, Auditor | Elaine Pursley, Auditor | Richard Wrona, Auditor

You may leave messages for any member of PERAC's Audit Staff at telephone extension 929 in our Somerville offices.





Commonwealth of Massachusetts

Public Employee Retirement Administration Commission

Five Middlesex Avenue, Suite 304 | Somerville, MA 02145

ph 617 666 4446

fax 617 628 4414

tty 617 591 8917

web www.mass.gov/perac

Annual Statement for the Year Ended December 31, 2017 of the Conditions and Affairs of (Name of Retirement System)

Organized Under the Laws of the Commonwealth of Massachusetts to the Public Emplo	yee Retirement Administration Commission
---	--

Date of Certificate November 1	6, 1936	Effective Date_Ju		
ADMINISTRATIVE OFFICE 99 Industrial Drive, Suite 2		Northampton, MA 010	30	(413) 584-9100
Street & Number		City/Town, State and Zip Code		Telephone Number
Street & Number		City/ fown, State and Zip	Code	relephone Number
ast, all of the herein-described iens or claims thereon, except contained, annexed, or referred changes in fund balances, and contained.	board members assets were the as stated, and t I to, are a full a of the condition	s of said retirement system, e absolute property of said the following statements, w nd correct exhibit of all the ns and affairs of the said ret	and that on retirement s with the sched assets, liabi irement syst	nt certify under the penalties of the thirty-first day of December ystem, free and clear from any dules and explanations therein lities, income and disbursements, em on the said thirty-first day of ormation, knowledge, and belief,
BOARD OF RETIREMENT	Ex-Officio Mer	mber	Terr	Expires: December 31, 2020
Please identify the	Patrick E. Br	ock, Chairman	Ta	hick - Towell
name of the Board	(Name Typed)		(Signa	iture)
Member who serves	Ammainted Mi	ombor	Torm	Expires December 31, 2020
as Chairperson by inserting the title next	Appointed McGire McGire		ieriii	Expires
to his or her name.	(Name Typed)		(Signa	ture)
	Elected Memi	har	Torm	Expires December 31, 2020
	Edward R. N		lerin.	2 miles
	(Name Typed)	WOTHEON	(Signa	iture)
	Elected Memi	hor	Torra	Expires December 31, 2019
	Joseph A. V		//	/
	(Name Typed)	viiiiGiiii, iii	/(Signa	optillus
		ointed by Other Members		Expires December 16, 2020
		-	c	Expires
	Joyce Karpi	nski	(Ciana	440
	(Name Typed)		(Signa	iture)
INVESTMENT MANAGERS	See Attache	ed		
	(Name)		(Addr	ess)
Please compile/ submit a complete list. Attach the list to this page.	(Name)		(Addr	ess)
	(Name)		(Addr	ess)
INVESTMENT CONSULTANT	(Name)		(Addr	ess)
CUSTODIAN	New Englan (Name)	d Pension Consultants	Bost (Addr	ess)

ANNUAL STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2017 OF THE CONDITIONS AND AFFAIRS OF THE HAMPSHIRE COUNTY RETIREMENT SYSTEM

INVESTMENT MANAGERS

BARINGS TOWER SQUARE SPRINGFIELD, MA

RBC GLOBAL ASSET MANAGENT BOSTON, MA

SHENKMAN CAPITAL MANAGEMENT NEW YORK, NY

RHUMBLINE ADVISERS BOSTON, MA

MFS INSTITUTIONAL ADVISORS, INC. BOSTON, MA

ASCENT VENTURE PARTNERS BOSTON, MA

COLCHESTER GLOBAL INVESTORS NEW YORK, NY

PRIM BOSTON, MA

INTERCONTINENTAL REAL ESTATE CORP BOSTON, MA

MELLON CAPITAL MANAGEMENT SAN FRANCISCO, CA

LEXINGTON PARTNERS NEW YORK, NY

PERELLA WEINBERG PARTNERS NEW YORK, NY

GLOUSTON CAPITAL PARTNERS, LLC BOSTON, MA

PORTFOLIO ADVISERS DARIEN, CT

ANNUAL STATEMENT BALANCE TESTS

1 ASSET BALANCE

Assets Previous Year	275,385,223.05	
Income Current Year	75,949,387.24	
Disbursements Current Year	33,207,030.04	
Assets Current Year	318,127,580.25	
2 ASSET DIFFERENCE		
Assets Current Year	318,127,580.25	
Assets Previous Year	275,385,223.05	
Difference	42,742,357.20	
3 INCOME DIFFERENCE		
Income Current Year	75,949,387.24	
Disbursements Current Year	33,207,030.04	
Difference	42,742,357.20	
4 FUND CHANGE DIFFERENCE - Add inte	erfund transfer credits and	debits respectively to income ar

NOTE: The difference as a result of tests 2, 3, and 4 should be the same.

Total Fund Change Debits Current Year

Difference

Total Fund Change Credits Current Year 81,712,241.95

38,969,884.75

42,742,357.20

ASSETS & LIABILITIES

		2017	<u>2016</u>	<u>2015</u>
1040	Cash	8,213,745.64	2,934,087.30	15,207,179.35
1100	Individually Owned Short Term Investments	0.00	0.00	0.00
1180	Fixed Income Securities (Market Value)	0.00	0.00	0.00
1170	Equities	0.00	0.00	0.00
1101	Pooled Short Term Funds	0.00	0.00	0.00
1172	Pooled Domestic Equity Funds	60,890,908.41	51,111,657.87	42,590,365.75
1173	Pooled International Equity Funds	87,217,585.62	60,355,422.28	44,092,679.48
1174	Pooled Global Equity Funds	0.00	18,450,199.91	24,545,212.70
1181	Pooled Domestic Fixed Income Funds	59,610,647.71	42,195,783.17	35,158,450.44
1182	Pooled International Fixed Income	0.00	0.00	0.00
1183	Funds Pooled Global Fixed Income Funds	27,610,015.00	24,423,002.00	7,777,009.00
1193	Pooled Alternative	31,017,750.24	30,289,997.38	29,965,329.35
1194	Investments/Private Equity Pooled Real Estate Funds	42,776,535.71	32,250,646.26	30,927,197.31
1195	Pooled Domestic Balanced Funds	0.00	0.00	0.00
1196	Pooled International Balanced Funds	0.00	0.00	0.00
1197	Hedge Funds	0.00	12,686,364.20	25,503,811.30
1198	PRIT Cash Fund	0.00	0.00	0.00
1199	PRIT Core Fund	0.00	0.00	0.00
1350	Prepaid Expenses	0.00	0.00	0.00
1550	Interest Due & Accrued	0.00	0.00	0.00
1398	Accounts Receivable (A)	791,665.12	688,513.08	1,151,029.29
2020	Accounts Payable (A)	(1,273.20)	(450.40)	(12,432.05)
	TOTAL	318,127,580.25	275,385,223.05	256,905,831.92
FUNDS				
		2017	<u>2016</u>	<u>2015</u>
3293	Annuity Savings Fund	80,393,312.57	78,241,775.13	76,651,349.00 22,625,792,46
3294	Annuity Reserve Fund	24,481,103.25 57,377,51	23,782,058.73	22,625,792.46
3295	Special Military Service Fund	57,377.51	58,575.24	58,516.73
3296	Pension Fund	17,671,994.97	18,329,057.66	0.00
3298	Expense Fund	0.00	0.00	0.00
3297	Pension Reserve Fund	195,523,791.95	154,973,756.29	157,570,173.73
	TOTAL ASSETS AT MARKET VALUE	318,127,580.25	275,385,223.05	256,905,831.92

	Balance December 31 Prior Year	Receipts	Interfund Transfers	Disbursements	Balance December 31 Current Year
Annuity Savings Fund	78,241,775.13	8,684,124.37	(4,771,561.48)	1,761,025.45	80,393,312.57
Annuity Reserve Fund	23,782,058.73	698,918.70	4,776,109.71	4,775,983.89	24,481,103.25
Pension Fund	18,329,057.66	22,327,190.73	986,745.00	23,970,998.42	17,671,994.97
Special Military Service Fund	58,575.24	57.33	(1,255.06)	0.00	57,377.51
Expense Fund	0.00	2,699,022.28	0.00	2,699,022.28	0.00
Pension Reserve Fund	154,973,756.29	41,540,073.83	(990,038.17)	0.00	195,523,791.95
TOTAL ALL FUNDS	275,385,223.05	75,949,387.24	-	33,207,030.04	318,127,580.25

List below all transfers:

Transfer from <u>Annuity Savings</u> Fund to the <u>Annuity Reserve</u> Fund in the amount of <u>\$ 4,774,854.65</u> on account of <u>Current Year Retirements</u>

Transfer from <u>Annuity Savings</u> Fund to the <u>Pension Reserve</u> Fund in the amount of <u>\$ 65.85</u> on account of <u>Adjustment for Prior Year Retirements</u>

Transfer from Annuity Savings Fund to the Pension Reserve Fund in the amount of \$37,423.48 on account of 10 Year Inactives

Transfer from Special Military Service Fund to Annuity Reserve Fund in the amount of \$1,255.06 on account of Current Year Retirement

Transfer from Pension Reserve Fund to Annuity Savings Fund in the amount of \$40,782.50 on account of Reinstatements

Transfer from Pension Reserve Fund to Pension Fund in the amount of \$986,745.00 on account of Cost of Benefits

Receipts

		<u>2017</u>	<u>2016</u>	<u> 2015</u>
1 Annuit	y Savings Fund:			
(a) 48	91 Member Deductions	7,662,133.92	7,409,682.30	7,248,925.03
	92 Transfers from Other Systems 93	746,525.07	514,455.94	528,162.99
(-)	Member Make-Up Payments & Redeposits	66,800.55	32,197.02	24,105.66
(d) 49	00 Member Payments from Rollovers	63,128.13	5,025.55	49,315.98
(e)	Investment Income Credited to Members Accounts	145,536.70	134,775.83	136,702.72
	Subtotal	8,684,124.37	8,096,136.64	7,987,212.38
2 Annuit	y Reserve Fund:			
	50 Recovery of Annuity from Reinstatement	0.00	0.00	0.00
(b)	Investment Income Credited to Annuity Reserve Fund	698,918.70	676,141.18	642,821.31
	Subtotal	698,918.70	676,141.18	642,821.31
3 Pensio	on Fund:			
(a) 48	98 3(8)(c) Reimbursements From Other			
	Systems	871,654.50	754,342.56	719,214.71
(b) 48	99 Rec'd from Commonwealth for COLA and	00 000 07	004.050.40	400.070.40
	Survivor Benefits	92,026.67	291,359.13	103,970.19
	94 Pension Fund Appropriation	21,331,218.00	19,693,436.00	18,626,735.00
	40 Workers' Compensation Settlements	21,000.00	18,000.00	23,000.00
	751 Recovery of Pension from Reinstatement	0.00	0.00	0.00
(f) 48	41 Recovery of 91A Overearnings	11,291.56	21,953.38	8,993.96
	Subtotal	22,327,190.73	20,779,091.07	19,481,913.86
4 Military	y Service Fund			
(a) 48	90 Contribution Received (For Military			
	Service)	0.00	0.00	0.00
(b)	Investment Income Credited	57.33	58.51	58.48
	Subtotal	57.33	58.51	58.48
5 Expens	se Fund			
(a)	Investment Income Credited to	2,699,022.28	2,601,381.02	2,899,962.74
	Expense Fund			
	Subtotal	2,699,022.28	2,601,381.02	2,899,962.74
6 Pensic	on Reserve Fund:			
(a) 48	97 Federal Grant Reimbursement	0.00	0.00	0.00
(b) 48	95 Pension Reserve Appropriation	0.00	0.00	0.00
(c) 48	322 Interest Not Refunded	31,444.04	22,283.60	22,340.21
(d) 48	325 Miscellaneous Income	49.65	960.56	(11,641.46)
(e)	Excess Investment Income	41,508,580.14	17,407,231.83	(2,709,081.79)
	Subtotal	41,540,073.83	17,430,475.99	(2,698,383.04)
		·		
	TOTAL RECEIPTS	75,949,387.24	49,583,284.41	28,313,585.73

Disbursements

	2017	2016	2015
1 Annuity Savings Fund:			
(a) 5757 Refunds to Members	911,880.80	741,839.56	946,869.83
(b) 5756 Transfer to Other Systems	849,144.65	1,045,323.74	671,864.28
Sub	total 1,761,025.45	1,787,163.30	1,618,734.11
2 Annuity Reserve Fund:			
(a) 5750 Annuities Paid	4,511,964.74	4,193,177.24	3,866,505.93
(b) 5759 Option B Refunds	264,019.15	72,138.31	15,731.80
Sub	total 4,775,983.89	4,265,315.55	3,882,237.73
3 Pension Fund:			
(a) 5751 Pensions Paid			
Regular Pension Payments	17,969,910.41	17,000,368.80	15,956,772.78
Survivorship Payments	1,020,317.34	1,002,225.54	914,102.30
Ordinary Disability Payments	108,941.04	106,189.50	103,970.96
Accidental Disability Payments	2,321,058.10	2,288,859.50	2,261,601.25
Accidental Death Payments	259,615.49	162,749.33	150,269.88
Section 101 Benefits	160,550.64	147,748.63	141,484.47
(b) 5755 3(8)(c) Reimbursements To Othe Systems	r 2,130,605.40	1,741,892.11	1,889,301.46
(c) 5752 COLA's Paid	0.00	0.00	0.00
(d) 5753 Chapter 389 Beneficiary Increase	paid 0.00	0.00	0.00
Sub	total 23,970,998.42	22,450,033.41	21,417,503.10
4 Military Service Fund (a) 4880 Return to Municipality for Member	rs 0.00	0.00	0.00
• • •	0.00	0.00	0.00
who withdrew their funds	total 0.00	0.00	0.00
who withdrew their funds			
who withdrew their funds			
who withdrew their funds Sub 5 Expense Fund	total 0.00	0.00	0.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend	72,807.96	72,807.96	72,807.96
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries	72,807.96 474,257.64	72,807.96 458,011.13	72,807.96 434,355.61
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees	72,807.96 474,257.64 1,780,705.14	72,807.96 458,011.13 1,704,553.79	72,807.96 434,355.61 1,970,064.10
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees	72,807.96 474,257.64 1,780,705.14 0.00	72,807.96 458,011.13 1,704,553.79 0.00	72,807.96 434,355.61 1,970,064.10 0.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (m) 5317 Accounting Services (n) 5320 Education and Training	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services (m) 5317 Accounting Services (n) 5320 Education and Training (o) 5589 Administrative Expenses	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00 99,533.08	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00 65,922.87	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00 73,234.53
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services (m) 5317 Accounting Services (n) 5320 Education and Training (o) 5589 Administrative Expenses (p) 5599 Furniture & Equipment	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00 99,533.08 8,365.71	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00 65,922.87 455.88	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00 73,234.53 77,087.96
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services (m) 5317 Accounting Services (n) 5320 Education and Training (o) 5589 Administrative Expenses (p) 5599 Furniture & Equipment (q) 5719 Travel Expense	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00 99,533.08 8,365.71 16,913.44	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00 65,922.87 455.88 21,354.29	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00 73,234.53 77,087.96 20,443.27
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services (m) 5317 Accounting Services (n) 5320 Education and Training (o) 5589 Administrative Expenses (p) 5599 Furniture & Equipment	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00 99,533.08 8,365.71	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00 65,922.87 455.88	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00 73,234.53 77,087.96
who withdrew their funds Sub 5 Expense Fund (a) 5118 Board Member Stipend (b) 5119 Staff Salaries (c) 5304 Management Fees (d) 5305 Custodial Fees (e) 5307 Investment Consultant Fees (f) 5308 Legal Expenses (g) 5309 Medical Expenses (h) 5310 Fiduciary Insurance (i) 5311 Service Contracts (j) 5312 Rent Expense (k) 5315 Professional Services (l) 5316 Actuarial Services (m) 5317 Accounting Services (n) 5320 Education and Training (o) 5589 Administrative Expenses (p) 5599 Furniture & Equipment (q) 5719 Travel Expense (r) 5829 Depreciation Expense: Building	72,807.96 474,257.64 1,780,705.14 0.00 101,250.00 2,106.87 236.20 25,457.00 40,056.80 41,802.44 18,320.00 6,500.00 5,085.00 5,625.00 99,533.08 8,365.71 16,913.44	72,807.96 458,011.13 1,704,553.79 0.00 100,000.00 8,869.41 0.00 25,098.00 33,286.33 39,716.36 30,360.00 23,150.00 9,920.00 7,875.00 65,922.87 455.88 21,354.29	72,807.96 434,355.61 1,970,064.10 0.00 100,000.00 11,918.20 0.00 24,355.00 34,071.23 38,184.88 22,550.00 7,900.00 0.00 12,990.00 73,234.53 77,087.96 20,443.27

INVESTMENT INCOME

(c) Fixed Income Securities (from sch 3A and 3C) (d) Equities (from schedules 4A and 4C) (e) Pooled Funds (from schedule 5) (f) Commission Recapture & Securities Litigation 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.2 Plus: 4884 Realized Gains (Profits) 4886 Unrealized Gains (Increase in Market Value) 1550	00 0.00 00 0.00 00 0.00 65 6,421,657.75 00 0.00 0 6,427,004.14
(b) Short Term Investments (from schedule 2) 0.00 0 (c) Fixed Income Securities (from sch 3A and 3C) 0.00 0 (d) Equities (from schedules 4A and 4C) 0.00 0 (e) Pooled Funds (from schedule 5) 8,707,435.31 7,158,796 (f) Commission Recapture & Securities Litigation 0.00 0 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.3 Plus: 4884 Realized Gains (Profits) 18,973,451.90 10,675,017 4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	00 0.00 00 0.00 00 0.00 65 6,421,657.75 00 0.00 0 6,427,004.14
(b) Short Term Investments (from schedule 2) 0.00 0 (c) Fixed Income Securities (from sch 3A and 3C) 0.00 0 (d) Equities (from schedules 4A and 4C) 0.00 0 (e) Pooled Funds (from schedule 5) 8,707,435.31 7,158,796 (f) Commission Recapture & Securities Litigation 0.00 0 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.3 Plus: 4884 Realized Gains (Profits) 18,973,451.90 10,675,017 4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	00 0.00 00 0.00 65 6,421,657.75 00 0.00 0 6,427,004.14 20 10,913,204.65
(d) Equities (from schedules 4A and 4C) 0.00 0 (e) Pooled Funds (from schedule 5) 8,707,435.31 7,158,796 (f) Commission Recapture & Securities Litigation 0.00 0 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.3 Plus: 4884 Realized Gains (Profits) 18,973,451.90 10,675,017 4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	00 0.00 65 6,421,657.75 00 0.00 0 6,427,004.14 20 10,913,204.65
(e) Pooled Funds (from schedule 5) 8,707,435.31 7,158,796 (f) Commission Recapture & Securities Litigation 0.00 0 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.3 Plus: 4884 Realized Gains (Profits) 18,973,451.90 10,675,017 4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	65 6,421,657.75 00 0.00 0 6,427,004.14 20 10,913,204.65
(f) Commission Recapture & Securities Litigation 0.00 0 4821 TOTAL INVESTMENT INCOME 8,739,037.63 7,167,388.3 Plus: 4884 Realized Gains (Profits) 18,973,451.90 10,675,017 4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	0.00 0 6,427,004.14 20 10,913,204.65
## 4821 TOTAL INVESTMENT INCOME ## 8,739,037.63 Plus: ## 4884 Realized Gains (Profits) ## 4886 Unrealized Gains (Increase in Market Value) ## 1550 Interest/Dividends Due and Accrued-Current Year ## 0.00 ## 0.00 ## 167,388.3 ## 10,675,017 ## 36,675,608.73 ## 0.00 ## 0.00 ## 0.00 ## 0.00 ## 18,973,451.90 ## 10,675,017 ## 32,315,872 ## 0.00 ##	6,427,004.14 20 10,913,204.65
Plus: 4884 Realized Gains (Profits) 4886 Unrealized Gains (Increase in Market Value) 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	20 10,913,204.65
4884 Realized Gains (Profits) 4886 Unrealized Gains (Increase in Market Value) 1550 Interest/Dividends Due and Accrued-Current Year 18,973,451.90 36,675,608.73 32,315,872 0.00 0	
4884 Realized Gains (Profits) 4886 Unrealized Gains (Increase in Market Value) 1550 Interest/Dividends Due and Accrued-Current Year 18,973,451.90 36,675,608.73 32,315,872 0.00 0	
4886 Unrealized Gains (Increase in Market Value) 36,675,608.73 32,315,872 1550 Interest/Dividends Due and Accrued-Current Year 0.00 0	DR 27 532 784 43
Interest/Dividends Due and Accrued-Current Year 0.00 0	70 21,002,104.43
55,649,060.63 42,990,890.	0.00
	8 38,445,989.08
Less:	
1020	0.00
Paid Accrued Interest on Fixed Income Securities	4) (3,906,963.48)
4885 Realized Losses (2,973,510.35) (2,861,186.4887 Unrealized Losses (Decrease in Market Value) (16,362,472.76) (26,477,503.4887 Unrealized Losses)	, , , , ,
	0.00
(19,335,983.11) (29,338,690.	
(10,000,000.17, 120,000,000.17)	
NET INVESTMENT INCOME 45,052,115.15 20,819,588.	7 970,463.46
Income Beguired	
Income Required: Annuity Savings Fund (from supplementary schedule) 145,536.70 134,775	33 136,702.72
Annuity Reserve Fund 698,918.70 676,141	•
Expense Fund 2,699,022.28 2,601,381	•
Special Military Service Credit Fund 57.33 58	· · · · · · · · · · · · · · · · · · ·
St.33 30	31 00.40
TOTAL INCOME REQUIRED 3,543,535.01 3,412,356.	4 3,679,545.25
Net Investment Income 45,052,115.15 20,819,588	37 970,463.46
Less: Income Required (3,543,535.01) (3,412,356.	
EXCESS INCOME TO PENSION RESERVE FUND 41,508,580.14 17,407,231.	· ·

MEMBERSHIP FOR CL	JRRENT YEAR Group 1	Group 2 & 4	<u>Total</u>
Active Membership Dec 21 provious year	1616	377	1993
Active Membership, Dec. 31, previous year Inactive Membership, Dec. 31, previous year	501	142	643
Correction for prior years	-12	-2	-14
Enrolled during current year	253	23	276
Transfers between groups	0	0	0
Reinstatement of disabled members	ő	Ö	0
SUBTOTAL	241	21	262
Deduct:			
Death	5	0	5
Withdrawal	127	14	141
Retirements	69	7	76
(to an office)	201	21	222
Active Membership, Dec. 31, current year	1639	377	2016
Inactive Membership, Dec. 31, current year	518	142	660
RETIRED MEMBERS, BENEFICIARIES AND SURVIVO	ORS .		
Retired, Beneficiary, and Survivor Membership,			
Dec, 31, previous year	1025	218	1243
Retirements during the year:	1020	2.0	.2.0
Superannuation	67	5	72
Ordinary disability	0	Õ	0
Accidental disability	Ō	2	2
Termination Retirement Allowance	Ö	0	0
Beneficiary of Deceased Retiree	2	0	2
Survivor benefits from active membership	2	0	2
SUBTOTAL	71	7	78
Deduct:			
Death of retired members	36	2	38
Termination of Survivor Benefits	5	0	5
Reinstatement of disabled pensions	0	0	0
SUBTOTAL	41	2	43
Retired membership, Dec. 31, current year			
Superannuation	891	150	1041
Ordinary Disability	8	1	9
Accidental Disability	32	44	76
Termination	15	0	15
Beneficiaries from accidental deaths	1	8	9
Beneficiaries from Section 100	0	0	0
Beneficiaries from Section 101	6	6	12
Beneficiaries under Option (C)	32	5	37
Option (D) Survivor Allowance	70	8	78
Section 12B Survivor Allowance	0	1	1
Total Retired, Beneficiary, and Survivor	4000	000	.4070
Membership, Dec. 31, current year	1055 *******	223 *******	1278
TOTAL MEMBERSHIP			
Active, Inactive, Retired, Beneficiary, and			
Survivor, Dec. 31, current year	3212	742	3954

Schedule A

Detail of Accounts Receivable and Accounts Payable		Original Date
Accounts Receivable		
4891 Members Deductions	586,404.54	12/17
4892 Transfers From Other Systems		_
4893 Member Make-Up Payments and Redeposits		
4900 Member Payments from Rollovers		_
4898 3(8)(c) Reimbursements From Other Systems		-
4899 Received from Commonwealth for COLA and Survivor Benefits	-	-
4884 Realized Gain on Sale of Investments		_
4894 Pension Fund Appropriation (Current fiscal year)	191,351.00	12/17
4894 Pension Fund Appropriation (Previous fiscal year)		_
4890 Contributions Received from municipality on a/c of military service		
4897 Federal Grant Reimbursement		•
4895 Pension Reserve Appropriation		-
5750 Annuities Paid	843.14	12/16
5751 Pension Paid	4,453.44	12/16
	T,100.17	12/10
Invesmtent sold but funds not received (list individually) Portfolio Advisors 2017 Distribution received in 2018		
Political Advisors 2017 Distribution recoived in 2010	8,613.00	- 12/17
TOTAL RECEIVABLES	\$ 791,665.12	-
Accounts Payable		
5757 Refunds to Members		_
5756 Transfers to Other Systems		_
5750 Annuities Paid	188.58	12/17
5759 Option B Refunds		_
5751 Pensions Paid	531.29	_ 12/17
5755 3(8)(c) Reimbursements to Other Systems		-
5752 COLA's Paid 5753 Chapter 389 Beneficiary Increase Paid		-
4885 Realized Loss on Sale of Investments		_
4890 Return to Municipality for Members who withdrew their funds		_
5118 Board Members Stipend		-
5119 Salaries	15.30	_ 12/17
5304 Management Fees		-
5305 Custodial Fees 5307 Investment Consultant Fees		-
5308 Legal Expenses		-
5309 Medical Expenses		_
5310 Fiduciary Insurance		_ _
5311 Service Contracts		_
5312 Rent Expense		-
5315 Professional Services 5320 Education and Training		-
5589 Administrative Expenses		-
5599 Furniture & Equipment		-
5719 Travel		- -
5829 Depreciation Expense: Builidng		- 464-
4891 Member Deductions (overpaid)	538.03	_ 12/17
4825 Miscellaneous Income (checks ret to cash then reissued) Investments Purchased but no paid for (listed individually)		-
myeennente Fulcheed out no paid for (need individually)	•	-
	-	- -
	•	-
		-
TOTAL PAYABLES	\$ 1,273.20	- -

03/29/2018 08:05:22

Page: 1 User: PRutkowski



Beginning Balance 3294: 23,782,058.73 Beginning Bal 3294 x.0025: 59,455.15

3294 Jan Adj : 207,653.29 3294 Feb Adj : 594,360.01	5750 Jan Cash Disb: -364,155.17 5750 Feb Cash Disb: -371,187.54	5759 Jan Cash Disb: 0.00 5759 Feb Cash Disb: -50,116.75	Jan Monthly Total: Feb Monthly Total:	23,625,556.85 23,798,612.57
3294 Mar Adj: 71,332.26	5750 Mar Cash Disb: -368,218.15	5759 Mar Cash Disb: -7,516.55	Mar Monthly Total:	23,494,210.13
3294 Apr Adj: 84,463.33	5750 Apr Cash Disb: -366,642.17	5759 Apr Cash Disb: 0.00	Apr Monthly Total:	23,212,031.29
3294 May Adj: 221,030.81	5750 May Cash Disb:-369,145.68	5759 May Cash Disb: 0.00	May Monthly Total:	23,063,916.42
3294 Jun Adj : 0.00	5750 Jun Cash Disb: -362,283.11	5759 Jun Cash Disb: -174,023.28	Jun Monthly Total:	22,527,610.03
3294 Jul Adj : 524,825.41	5750 Jul Cash Disb: -369,208.80	5759 Jul Cash Disb: -25,226.15	Jul Monthly Total:	22,658,000.49
3294 Aug Adj: 993,221.01	5750 Aug Cash Disb:-384,328.24	5759 Aug Cash Disb: 0.00	Aug Monthly Total:	23,266,893.26
3294 Sep Adj: 307,723.72	5750 Sep Cash Disb: -381,969.23	5759 Sep Cash Disb: 0.00	Sep Monthly Total:	23,192,647.75
3294 Oct Adj: 631,587.81	5750 Oct Cash Disb: -389,450.43	5759 Oct Cash Disb: 0.00	Oct Monthly Total:	23,434,785.13
3294 Nov Adj: 465,655.84	5750 Nov Cash Disb: -389,283.62	5759 Nov Cash Disb: 0.00	Nov Monthly Total:	23,511,157.35
3294 Dec Adj: -4,101,727.67	5750 Dec Cash Disb: -396,092.60	5759 Dec Cash Disb: -7,136.42	Dec Monthly Total:	19,006,200.66

Jan Mthly Total x .0025: 59,063.89
Feb Mthly Total x .0025: 59,496.53
Mar Mthly Total x .0025: 58,735.53
Apr Mthly Total x .0025: 57,659.79
Jun Mthly Total x .0025: 56,319.03
Jul Mthly Total x .0025: 56,645.00
Aug Mthly Total x .0025: 58,167.23
Sep Mthly Total x .0025: 57,981.62
Oct Mthly Total x .0025: 58,586.96
Nov Mthly Total x .0025: 58,777.89

Total x .0025 No Dec: 698,918.70
Mth Total + x .0025: 19,705,119.36
ASF 3293 Interest: 145,536.70
MSF 3295 Interest: 57.33
EXPF 3298 Interest: 2,699,022.28
PRF Interest: 41,508,580.14

SCHEDULE 1 CASH ACCOUNT ACTIVITY DURING YEAR

DESCRIPTION	BOOK VALUE AT END OF PREVIOUS YEAR	TOTAL DEPOSITS THIS YEAR	INCOME REINVESTED/ REDEPOSITED INTO <u>ACCOUNT</u>	WITHDRAWALS DURING YEAR	TOTAL BOOK VALUE DEC 31ST THIS YEAR	CASH INCOME PAID SYSTEM NOT REINVESTED OR REDEPOSITED	INTEREST DUE AND ACCRUED DECEMBER 31ST
TD BANK - MONEY MARKET TD BANK - OPERATING ACCOUNT TD BANK - PAYROLL ACCOUNT PRIM Private Equity	2,884,232.91 35,012.32 14,842.07	87,755,356.06 9,691,921.89 22,058,794.50	0.00 29,819.64 0.00	82,477,792.94 9,722,142.01 22,056,298.80	8,161,796.03 34,611.84 17,337.77	0.00 0.00 0.00 1,782.68	0.00 0.00 0.00 0.00
SCHEDULE TOTALS	2,934,087.30	119,506,072.45	29,819.64	114,256,233.75	8,213,745.64	1,782.68	0.00

SCHEDULE 2A SHORT TERM SECURITIES OWNED AT END OF YEAR

		07.0				. —	CHANGE IN	INTEREST	INTEREST DUE
			MATURITY			MARKET VALUE	MARKET VALUE	RECEIVED	AND ACCRUED
FUND CUSIP	SECURITY DESCRIPTION	RATE	DATE	PAR VALUE	PRICE	AT END OF YEAR	INCR/DECR	DURING YEAR	AT YEAR END

SCHEDULE 2B SHORT TERM SECURITIES PURCHASED DURING YEAR

PAR VALUE TRADE <u>DATE</u>

FUND CUSIP

SECURITY DESCRIPTION

RATE

MATURITY <u>DATE</u>

NONE

NAME OF BROKER

ACCRUED INT PAID

COST INCLUDING
COMMISSION BUT
EXCLUDING INT

INTEREST

SCHEDULE 2C SHORT TERM SECURITIES SOLD DURING YEAR

MATURITY TRADE PROCEEDS BOOK PROFIT/LOSS RECEIVED

FUND CUSIP SECURITY DESCRIPTION RATE DATE PAR VALUE DATE NAME OF BROKER COMM FROM SALE VALUE ON SALE DURING YEAR

SCHEDULE 3A FIXED INCOME SECURITIES OWNED AT END OF YEAR

							CHANGE IN	INTEREST	INTEREST DUE
		1	MATURITY			MARKET VALUE	MARKET VALUE	RECEIVED	AND ACCRUED
FUND CUSIP	SECURITY DESCRIPTION	RATE	DATE	PAR VALUE	PRICE	AT END OF YEAR	INCR/DECR	DURING YEAR	AT YEAR END

COST INCLUDING

ANNUAL STATEMENT OF THE HAMPSHIRE COUNTY RETIREMENT SYSTEM FOR THE YEAR ENDED DECEMBER 31, 2017

SCHEDULE 3B FIXED INCOME SECURITIES PURCHASED DURING YEAR

			MATURITY		TRADE		,	ACCRUED	COMMISSION BUT
FUND CUSIP	SECURITY DESCRIPTION	RATE	DATE	PAR VALUE	DATE	NAME OF BROKER	<u>COMM</u>	INT PAID	EXCLUDING INT

Page 7

ANNUAL STATEMENT OF THE HAMPSHIRE COUNTY RETIREMENT SYSTEM FOR THE YEAR ENDED DECEMBER 31, 2017

SCHEDULE 3C FIXED INCOME SECURITIES SOLD DURING YEAR

											INTEREST
		1	MATURITY		TRADE			PROCEEDS	BOOK	PROFIT/LOSS	RECEIVED
FUND CUSIP	SECURITY DESCRIPTION	RATE	DATE	PAR VALUE	DATE	NAME OF BROKER	COMM	FROM SALE	VALUE	ON SALE	DURING YEAR

SCHEDULE 4A EQUITIES OWNED AT END OF YEAR

						CHANGE IN	DIVIDENDS
				PRICE	MARKET VALUE	MARKET VALUE	RECEIVED
FUND	<u>CUSIP</u>	SECURITY DESCRIPTION	<u>SHARES</u>	PER SHARE	AT END OF YEAR	INCR/DECR	<u>DURING YEAR</u>

SCHEDULE 4B EQUITIES PURCHASED DURING YEAR

COST

FUND CUSIP SECURITY DESCRIPTION SHARES DATE NAME OF BROKER COMM COMMISSION

SCHEDULE 4C EQUITIES SOLD DURING YEAR

DIVIDENDS

TRADE

TRADE

PROCEEDS

BOOK

PROFIT/LOSS

RECEIVED

FUND

CUSIP

SECURITY DESCRIPTION

SHARES

DATE

NAME OF BROKER

COMM

FROM SALE

VALUE

ON SALE

DURING YEAR

Schedule 5

Schedule of Pooled Funds

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(1)	(J)	(K)
Perac Ledger	Market Value at End of Previous Year	Total Purchases this year at cost	Reinvested Investment Income	Realized Gain	Realized Loss	Unrealized Gain	Unrealized Loss	Total Sales/Redemptions this Year - Amount Received	Cash Dividends/Distributions to System this Year	Fees Paid	=A+B+C+D-E+F-G-H-I-J Market Value at End of Year
Pooled Domestic Equity		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
1172 RhumbLine S&P500	32,028,946.55	0.00	723,423.09	762,103.00	0.00	5,725,069.10	236,318.55	0.00	0.00	0.00	39,003,223.19
RhumbLine S&P400	9,273,944.51	0.00	159,068.98	658,607.85	18,141.22	1,184,131.77	478,701.92	0.00	0.00	0.00	10,778,909.97
RhumbLine S&P600	9,808,766.81	0.00	148,978.07	1,017,113.40	15,842.70	1,414,632.86	1,264,873.19	0.00	0.00	0.00	11,108,775.25
subtotal	51,111,657.87	0.00	1,031,470.14	2,437,824.25	33,983.92	8,323,833.73	1,979,893.66	0.00	0.00	0.00	60,890,908.41
Commingled Global Equity											
1174 Mellon Capital	18,450,199.91	2,000,000.00	5,187.51	3,973,414.60	0.00	1,323,084.82	4,216,599.34	21,535,287.50	0.00	0.00	0.00
subtotal	18,450,199.91	2,000,000.00	5,187.51	3,973,414.60	0.00	1,323,084.82	4,216,599.34	21,535,287.50	0.00	0.00	0.00
Pooled Atternative Investments			·	•							
1193 Ascent Partners III	116,882.07	0.00	1,102.61	0.00	26,042.36	26,042.36	11,467.84	0.00	0.00	0.00	106,516.84
Ascent Partners IV	263,376.74	0.00	1,467.00	44.00	91,355.00	131,601.00	0.00	0.00	0.00	14,940.00	290,193.74
Ascent Partners V	2,712,436.17	60,000.00	(3,228.72)	758.55	152.16	109,779.16	0.00	0.00	0.00	49,849.00	2,829,744.00
PRIM Alternative Inv '05	546,867.81	31.13	6,770.32	154,811.13	0.00	23,772.02	110,170.44	294,224.04	0.00	2,267.08	325,590.85
PRIM Alternative Inv '06	810,978.38	0.00	12,832.97	128,623.89	0.00	14,032.76	102,253.63	225,461.41	0.00	4,362.53	634,390.43
PRIM Alternative Inv '07	1,710,340.68	0.00	70,098.25	456,906.74	0.00	186,916.13	312,783.23	744,750.31	0.00	15,016.28	1,351,711.98
PRIM Alternative Inv '08	2,371,996.93	0.00	44,063.02	627,417.32	0.00	380,720.74	372,068.36	967,807.45	0.00	15,991.20	2,068,331.00
PRIM Alternative Inv '09	822,442.72	19,562.52	19,718.65	161,239.50	0.00	45,189.55	122,512.48	182,765.36	0.00	11,605.14	751,269.96
PRIM Atternative Inv *10	2,507,672.52	0.00	81,851.27	379,016.36	0.00	318,144.90	248,238.43	764,121.89	0.00	28,467.03	2,245,857.70
PRIM Alternative Inv '11	2,603,825.35	0.00	55,856.98	449,870.23	0.00	391,633.20	324,193.14	671,178.90	0.00	37,216.43	2,468,597.29
PRIM Alternative Inv '12	1,689,315.58	89,738.90	31,088.55	228,209.90	0.00	352,426.73	117,074.49	255,485.42	0.00	31,128.89	1,987,090.86
PRIM Alternative Inv '13	1,057,832.55	411,584.76	55,154.04	93,317.55	0.00	229,852.41	60,344.84	111,697.99	0.00	33,884.47	1,641,814.01
PRIM Alternative Inv '14	1,138,940.35	451,502.71	46,222.40	43,291.91	0.00	290,535.59	56,998.94	56,729.79	0.00	37,957.50	1,818,806.73
PRIM Atternative Inv '15	605,850.61	709,247.71	42,606.99	25,303.33	0.00	193,534.41	29,064.24	0.00	0.00	47,040.94	1,500,437.87
PRIM Atternative Inv '16	141,318.61	448,081.70	33,798.39	70.09	3.58	28,304.61	30,754.97	0.00	0.00	33,944.46	586,870.39
PRIM Alternative Inv '17	0.00	207,324.92	5,197.10	0.00	0.00	17,551.37	8,376.45	0.00	0.00	5,685.60	216,011.34
Lexington Capital	896,115.00	44,690.00	(1,957.00)	193,938.00	90.00	25,912.00	119,337.00	289,820.00	0.00	9,380.00	740,071.00
Portfolio Advisors	1,287,133.00	1,032,712.00	(18,778.00)	289,955.00	0.00	43,469.00	15,433.00	1,156,427.00	0.00	29,785.00	1,432,846.00
Glouston Private Equity IV	975,965.62	0.00	(4,778.00)	137,000.00	0.00	13,425.00	123,990.00	252,000.00	0.00	21,392.00	724,230.62
Glouston Private Equity V	1,257,571.00	927,500.00	(9,856.00)	99,218.00	0.00	113,297.00	8,464.00	763,000.00	0.00	43,752.00	1,572,514.00
Perella Weinberg	4,416,812.55	0.00	40,959.00	465,851.00	0.00	0.00	673,514.00	1,312,639.13	0.00	49,184.00	2,888,285.42
Barings Tower Square	2,356,323.14	657,364.13	249,312.00	15,679.00	0.00	49,308.00	11,790.00	457,252.06	0.00	22,376.00	2,836,568.21
subtotel	30,289,997.38	5,059,340.48	759,501.82	3,950,521.50	117,643.10	2,985,447.94	2,858,829.48	8,505,360.75	0.00	545,225.55	31,017,750.24
	 		· · · · · · · · · · · · · · · · · · ·								
Hedge Funds											
1197 PRIM Absolute Return	12,686,364.20	0.00	23,944.79	129,944.36	0.00	51,999.99	12,032.25	12,856,125.31	0.00	24,095.78	(0.00)
subtotal	12,686,364.20	0.00	23,944.79	129,944.36	0.00	51,999.99	12,032.25	12,856,125.31	0.00	24,095.78	(0.00)
Commingled Real Estate (Limited F									_		_
1194 Intercontinental R.E.	454,332.70	0.00	(6,200.00)	0.00	84,717.00	78,335.00	2,078.46	439,510.24	0.00	162.00	0.00
PRIM Core RE Fund	31,796,313.56	8,000,000.00	1,878,916.78	405,874.08	779,176.52	1,810,873.56	149,921.95	0.00	0.00	186,343.80	42,776,535.71
subtotel	32,250,646.26	8,000,000.00	1,872,716.78	405,874.08	863,893.52	1,889,208.56	152,000.41	439,510.24	0.00	186,505.80	42,776,535.71

Schedule 5

Schedule of Pooled Funds

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(1)	(J)	(K)
Perac Ledger	Market Value at End of Previous Year	Total Purchases this year at cost	Reinvested Investment Income	Realized Gain	Realized Loss	Unrealized Gain	Unrealized Loss	Total Sales/Redemptions this Year - Amount Received	Cash Dividends/Distributions to System this Year	Fees Pald	=A+B+C+D-E+F-G-H-I-J Market Value at End of Year
Commingled International Investme	ents										
1173 RBC Global Asset Mgmt	20,452,212.06	2,000,000.00	680,530.47	1,878,700.16	413.69	4,018,818.97	754,329.20	0.00	0.00	0.00	28,275,518.77
MFS Institutional International	19,499,679.98	3,000,000.00	509,641.97	0.00	0.00	5,407,666.70	123,927.27	0.00	0.00	167,696.24	28,125,365.14
PRIM Emerging Markets	20,403,530.24	2,000,000.00	702,972.62	1,915,156.41	0.00	6,333,264.30	407,100.07	0.00	0.00	131,121.79	30,816,701.71
subtotal	60,355,422.28	7,000,000.00	1,893,145.06	3,793,856.57	413.69	15,759,749.97	1,285,356.54	0.00	0.00	298,818.03	87,217,585.62
Commingled Global Fixed Investment											
1183 Colchester Global Bond	8,065,226.00	0.00	273,258.00	126,880.00	481,638.00	1,010,148.00	229,988.00	0.00	0.00	51,454.00	8,712,432.00
Colchester Local Market Del	16,357,776.00	0.00	1,276,153.00	817,160.00	1,405,304.00	3,755,891.00	1,767,575.00	0.00	0.00	136,518.00	18,897,583.00
subtotal	24,423,002.00	0.00	1,549,411.00	944,040.00	1,886,942.00	4,766,039.00	1,997,563.00	0.00	0.00	187,972.00	27,610,015.00
Commingled Domestic Fixed Incom	ne Investments										
1181 Shenkman Floating Rate Fu	10,851,871.58	4,000,000.00	482,324.95	0.00	0.00	148,919.94	151,854.47	0.00	0.00	58,573.03	15,272,688.97
Shenkman High Yield Fund	14,391,304.52	0.00	877,721.11	240,835.01	0.00	425,829.16	520,618.38	2,500,000.00	0.00	79,230.74	12,835,840.68
Mellon Aggregate Bond Inde	16,952,607.07	0.00	0.45	3,009,425.44	0.00	648,311.50	3,115,517.51	17,494,826.95	0.00	0.00	0.00
PRIM Core Fixed Income	0.00	31,000,000.00	212,011.70	87,716.09	70,634.12	353,184.12	72,207.72	0.00	0.00	7,952.01	31,502,118.06
subtotal	42,195,783.17	35,000,000.00	<u>1,572,058.21</u>	3,337,976.54	70,634.12	1,576,244.72	3,860,198.08	19,994,826.95	0.00	145,755.78	59,610,647.71
TOTAL ALL FUNDS	271,763,073.07	57,059,340.48	8,707,435.31	18,973,451.90	2,973,510.35	36,675,608.73	16,362,472.76	63,331,110.75	0.00	1,388,372.94	309,123,442.69

^{*} Lexington - Estimated 4th Quarter numbers were provided by Lexington to close out 2016. Finalized 4th Quarter 2016 was released in June 2017. Adjustment made in 1st Quarter 2017. Glouston IV - Estimated 4th Quarter numbers were provided by Glouston. Finalized 4th Quarter 2016 was released in April 2017. Adjustment made in 1st Quarter 2017. Glouston V - Estimated 4th Quarter numbers were provided by Glouston. Finalized 4th Quarter 2016 was released in April 2017. Adjustment made in 1st Quarter 2017.

Schedule 6 Summary of Investments Owned

	Catagory of Investment	Market Value	Interest Due & Accrued	Paid Accrued Interest on Purchases in Current Year	Commissions Paid During Current Year	Unrealized Gains	Losses	Realized Gains	Losses	Investment Income Received During Year
1 1040-	Cash	8,213,745.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31,602.32
2 1100-	Short Term Securities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 1180-	Fixed Income Securities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 1170-	Equities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5a. 1101-	Pooled Short Term Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5b. 1172-	Pooled Domestic Equity Funds	60,890,908.41	0.00	0.00	0.00	8,323,833.73	1,979,893.66	2,437,824.25	33,983.92	1,031,470.14
5c. 1173-	Pooled International Equity Funds	87,217,585.62	0.00	0.00	0.00	15,759,749.97	1,285,356.54	3,793,856.57	413.69	1,893,145.06
5d. 1174-	Pooled Global Equity Funds	0.00	0.00	0.00	0.00	1,323,084.82	4,216,599.34	3,973,414.60	0.00	5,187.51
5e. 1181-	Pooled Domestic Fixed Income Funds	59,610,647.71	0.00	0.00	0.00	1,576,244.72	3,860,198.08	3,337,976.54	70,634.12	1,572,058.21
5f. 1182-	Pooled International Fixed Income Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5g. 1183-	Pooled Global Fixed Income Funds	27,610,015.00	0.00	0.00	0.00	4,766,039.00	1,997,563.00	944,040.00	1,886,942.00	1,549,411.00
5h. 1193-	Pooled Alternative Investment/Private Equity	31,017,750.24	0.00	0.00	0.00	2,985,447.94	2,858,829.48	3,950,521.50	117,643.10	759,501.82
5i. 11 94 -	Pooled Real Estate Funds	42,776,535.71	0.00	0.00	0.00	1,889,208.56	152,000.41	405,874.08	863,893.52	1,872,716.78
5j. 1195-	Pooled Domestic Balanced Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5k. 1196-	Pooled International Balanced Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5I. 1197-	Hedge Funds	0.00	0.00	0.00	0.00	51,999.99	12,032.25	129,944.36	0.00	23,944.79
5m 1198-	PRIT Cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5n. 1199-	PRIT Fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL	317,337,188.33	0.00	0.00	0.00	36,675,608.73	16,362,472.76	18,973,451.90	2,973,510.35	8,739,037.63

Schedule 7

Summary of Investments Related Fees

		0.	initially of three	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.			
	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Accrued Payable at Year End 2017	Total Paid or Accrued in 2017	Market Value as of 12/31/17	*Payment Methond (N,C,W)
5304- Managmenet Fees				• • •				
RhumbLine Advisers SP500	3,905.00	4,142.00	4,268.00	4,406.00	0.00	16,721.00	39,003,223.19	С
RhumbLine Advisers SP400	1,115.00	1,184.00	1,198.00	1,215.00	0.00	4,712.00	10,778,909.97	С
RhumbLiine Advisers SP600	1,156.00	1,220.00	1,225.00	1,255.00	0.00	4,856.00	11,108,775.25	С
RBC Global Asset Management	44,163.81	47,650.51	50,902.75	55,493.18	0.00	198,210.25	28,275,518.77	С
Mellon Capital EB Daily Valued Global Alpha Expanded Fund	40,599.31	37,510.74	42,157.66	39,176.52	0.00	159,444.23	0.00	С
Mellon Capital EB Aggregate Bond Index Fund	2,130.65	2,107.15	2,161.78	1,989.14	0.00	8,388.72	0.00	С
PRIM Absolute Return	24,095.78	0.00	0.00	0.00	0.00	24,095.78	0.00	N
PRIM Core Real Estate	34,140.42	46,456.40	50,826.35	54,920.63	0.00	186,343.80	42,776,535.71	N
PRIM Emerging Markets	36,795.42	36,384.34	35,800.22	22,141.81	0.00	131,121.79	30,816,701.71	N
PRIM Core Fixed Incomce	0.00	0.00	0.00	7,952.01	0.00	7,952.01	31,502,118.06	N
PRIM Private Equity Vintage Year 2005	929.01	442.83	397.99	497.25	0.00	2,267.08	325,590.85	N
PRIM Private Equity Vintage Year 2006	1,295.20	1,056.12	913.13	1,098.08	0.00	4,362.53	634,390.43	N
PRIM Private Equity Vintage Year 2007	3,596.39	4,529.80	3,525.12	3,364.97	0.00	15,016.28	1,351,711.98	N
PRIM Private Equity Vintage Year 2008	3,812.97	4,412.00	3,756.78	4,009.45	0.00	15,991.20	2,068,331.00	N
PRIM Private Equity Vintage Year 2009	2,850.40	2,917.36	2,968.47	2,868.91	0.00	11,605.14	751,269.96	N
PRIM Private Equity Vintage Year 2010	6,018.00	7,758.64	6,620.09	8,070.30	0.00	28,467.03	2,245,857.70	N
PRIM Private Equity Vintage Year 2011	9,308.92	9,511.77	9,274.70	9,121.04	0.00	37,216.43	2,468,597.29	N
PRIM Private Equity Vintage Year 2012	7,185.07	7,937.90	8,131.30	7,874.62	0.00	31,128.89	1,987,090.86	N
PRIM Private Equity Vintage Year 2013	8,313.98	8,250.64	8,350.37	8,969.48	0.00	33,884.47	1,641,814.01	N
PRIM Private Equity Vintage Year 2014	11,251.00	9,734.08	10,296.76	6,675.66	0.00	37,957.50	1,818,806.73	N
PRIM Private Equity Vintage Year 2015	11,236.07	11,710.87	11,211.13	12,882.87	0.00	47,040.94	1,500,437.87	N
PRIM Private Equity Vintage Year 2016	5,945.80	8,245.45	9,007.42	10,745.79	0.00	33,944.46	586,870.39	N
PRIM Private Equity Vintage Year 2017	0.00	8.12	816.65	4,860.83	0.00	5,685.60	216,011.34	N
Intercontinental Real Estate Investment Fund III	162.00	0.00	0.00	0.00	0.00	162.00	0.00	N
Ascent Venture Partners III	0.00	0.00	0.00	0.00	0.00	0.00	106,516.84	N
Ascent Venture Partners IV	3,735.00	3,735.00	3,735.00	3,735.00	0.00	14,940.00	290,193.74	N
Ascent Venture Partners V	11,576.00	13,669.00	12,302.00	12,302.00	0.00	49,849.00	2,829,744.00	N
Lexington Capital Partners VII	2,425.00	2,503.00	2,269.00	2,183.00	0.00	9,380.00	740,071.00	N
Portfolio Advisers	6,646.00	7,000.00	7,564.00	8,575.00	0.00	29,785.00	1,432,846.00	N
Glouston Private Equity Opportunities IV LP	5,348.00	5,348.00	5,348.00	5,348.00	0.00	21,392.00	724,230.62	N

Schedule 7

Summary of Investments Related Fees

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Accrued Payable at Year End 2017	Total Paid or Accrued in 2017	Market Value as of 12/31/17	"Payment Methond (N,C,W)
Glouston Private Equity Opportunities V LP	10,938.00	10,938.00	10,938.00	10,938.00	0.00	43,752.00	1,572,514.00	N
Perella Weinberg Partners	13,255.00	12,920.00	11,990.00	11,019.00	0.00	49,184.00	2,888,285.42	N
Barings Tower Square	3,215.00	3,215.00	7,973.00	7,973.00	0.00	22,376.00	2,836,568.21	N
Colchester Global Bond Fund	12,433.00	12,706.00	13,201.00	13,114.00	0.00	51,454.00	8,712,432.00	N
Colchester Local Markets Debt Fund	32,218.00	33,802.00	35,576.00	34,922.00	0.00	136,518.00	18,897,583.00	N
MFS Institutional International Equity Fund	36,042.71	39,493.65	43,123.38	49,036.50	0.00	167,696.24	28,125,365.14	N
Shenkman Floating Rate HI Income Fund	13,449.99	13,708.16	14,231.67	17,183.21	0.00	58,573.03	15,272,688.97	N
Shenkman Primus High Yield Fund	19,563.79	19,924.16	20,363.82	19,378.97	0.00	79,230.74	12,835,840.68	N
5304 Management Fees TOTAL	430,851.69	432,132.69	452,424.54	465,296.22		1,780,705.14	309,123,442.69	
5305 Custodial Fees N/A								
5305 Custodial Fees TOTAL							- :	
5307 Investment Consultant Fees	<u> </u>							
New England Pension Consultants	25,000.00	25,000.00	25,000.00	26,250.00	0.00	101,250.00	_ n/a	С
5307 investment Consultant Fees TOTAL	25,000.00	25,000.00	25,000.00	26,250.00		101,250.00	=	
					•		-	

1,881,955.14

Hampshire County Retirement Board Actuarial Valuation as of January 1, 2016

PERAC Information Disclosure

The most recent actuarial valuation of the System was prepared by Stone Consulting, Inc. as of January 1, 2016

The normal cost for employees on that date was:	\$6,776,125	9.0% of payroll
The normal cost for the employer was:	\$3,829,104	5.1% of payroll

The actuarial liability for active members was:	\$219,536,881
The actuarial liability for retired members was (includes inactives):	\$244,853,945
Total actuarial accrued liability:	\$464,390,826
System assets as of that date (\$256,905,831.92 Market Value):	\$271,731,163
Unfunded actuarial accrued liability:	\$192,659,663

The ratio of system's assets to total actuarial liability was:	59%

As of that date the total covered employee payroll was:	\$75,386,731

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:

7.50% per annum

Rate of Salary Increase:

Select and ultimate rate

SCHEDULE OF FUNDING PROGRESS (Dollars in \$000's)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a ‰ of Covered Payroll ((b-a)/c)
1/1/2016	\$271,731	\$464,391	\$192,660	59%	\$75,387	256%
1/1/2014	\$235,618	\$416,553	\$180,936	57%	\$73,422	246%
1/1/2012	\$204,116	\$367,511	\$163,394	56%	\$68,575	238%
1/1/2010	\$179,861	\$312,878	\$133,017	57%	\$68,276	195%
1/1/2007	\$163,497	\$257,885	\$94,388	63%	\$68,108	139%



HAMPSHIRE COUNTY CONTRIBUTORY RETIREMENT SYSTEM

FUNDING SCHEDULE

		Fresh Start	Fresh Start Funding					Adjusted for
Fiscal	Normal	Unfunded	Amortization	ERI	ERI	Net 3(8)(c)	Schedule	Semiannual
Year	Cost	Liability*	of UAAL**	Liability	Amortization	Payments	Contribution	Payment
2017	4,675,689	186,563,367	13,473,436	4,694,220	573,693	967,191	19,690,008	20,063,104
2018	5,137,360	196,524,257	14,450,790	4,445,018	565,231	1,170,087	21,323,468	21,708,958
2019	5,355,698	195,728,977	15,499,042	4,170,772	565,231	1,170,087	22,590,057	22,998,444
2020	5,583,315	193,747,180	16,119,003	3,875,957	565,231	1,170,087	23,437,636	23,861,346
2021	5,820,606	190,950,290	16,763,763	3,559,031	565,231	1,170,087	24,319,687	24,759,343
2022	6,067,982	187,250,516	17,434,314	3,218,336	565,231	1,170,087	25,237,613	25,693,863
2023	6,325,871	182,552,417	18,131,687	2,852,088	565,231	1,170,087	26,192,875	26,666,395
2024	6,594,720	176,752,285	18,856,954	2,458,372	565,231	1,170,087	27,186,992	27,678,483
2025	6,874,996	169,737,481	19,611,232	2,035,127	565,231	1,170,087	28,221,545	28,731,740
2026	7,167,183	161,385,718	20,395,681	1,580,139	565,231	1,170,087	29,298,182	29,827,840
2027	7,471,789	151,564,289	21,211,509	1,091,026	565,231	1,170,087	30,418,615	30,968,528
2028	7,789,340	140,129,239	22,059,969	565,231	565,231	1,170,087	31,584,626	32,155,619
2029	8,120,386	126,924,465	22,942,368	-		1,170,087	32,232,841	32,815,553
2030	8,465,503	111,780,754	23,860,063	-		1,170,087	33,495,652	34,101,193
2031	8,825,287	94,514,743	24,814,465	-	2	1,170,087	34,809,839	35,439,138
2032	9,200,361	74,927,799	25,807,044		*	1,170,087	36,177,492	36,831,516
2033	9,591,377	52,804,812	26,839,325		9	1,170,087	37,600,789	38,280,543
2034	9,999,010	27,912,898	27,912,898		-	1,170,087	39,081,996	39,788,528
2035	10,423,968	-				1,170,087	11,594,055	11,803,655

Amortization of Unfunded Liability as of July 1, 2017

		Original Amort.	Percentage	Original #	Current Amort.	Years
Year	Туре	Amount	Increasing	of Years	Amount	Remaining
2005	ERI-2002	274,609	0.00%	24	274,609	11
2006	ERI-2003	290,622	0.00%	23	290,622	11
2018	Fresh Start	N/A	4.00%	17	N/A	17

Notes on Amortization of Unfunded Liability

Year is the year the amortization base was established. Type is the reason for the creation of the base. Original Amortization Amount is the annual amortization amount when the base was established. Percentage Increasing is the percentage that the Original Amortization Amount increases per year. Original # of Years is the number of years over which the base is being amortized. Current Amortization Amount is the amortization payment amount for this year. Years Remaining is the number of years left to amortize the base.



^{*} Unfunded liability is equal to the total Undunded Actuarial Accrued Liability minus the ERI liability

^{**} The amortization increases by 7.254% in the first two years before reducing to 4.00% increases for the remainder of the schedula