

GREENFIELD
RETIREMENT SYSTEM
AUDIT REPORT
JANUARY 1, 2014 - DECEMBER 31, 2018



PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chairman*

JOHN W. PARSONS, ESQ., *Executive Director*

Auditor SUZANNE M. BUMP | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES M. MACHADO | RICHARD MacKINNON, Jr. | JENNIFER F. SULLIVAN

June 3, 2021

The Public Employee Retirement Administration Commission has completed an examination of certain activities of the Greenfield Retirement System pursuant to G.L. c. 32, § 21. The examination covered the period from January 1, 2014 to December 31, 2018. Based on an assessment in accordance with the policy outlined in PERAC Memo #18/2019, the scope of this audit was modified as noted below and was conducted in accordance with the accounting and management standards established by the Public Employee Retirement Administration Commission in regulation 840 CMR 25.00.

The specific objectives of our audit were to determine: 1) that the Board is exercising appropriate fiduciary oversight, 2) that cash balances are accurately stated, 3) that investment balances are accurately stated, 4) that travel expenses were properly documented and accounted for, 5) that retirement contributions are accurately deducted, 6) that retirement allowances were correctly calculated, and 7) that required member documentation is maintained.

To achieve these objectives, we inspected certain records of the Greenfield Retirement Board in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, verified cash and investment balances, and tested a sample of travel expenses for Board approvals, supporting documentation, and proper accounting. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over \$30,000. We also tested a sample of members who retired during our audit period to verify that their retirement allowance was calculated in accordance with the statute. We also reviewed a sample of member files for accuracy and completeness.

In our opinion, for those areas tested, the financial records are being maintained and the management functions are being performed in conformity with the standards established by PERAC.

We commend the Greenfield Retirement Board for the exemplary operation of they system.

In closing, I acknowledge the work of the auditors who conducted this examination, and express appreciation to the Board and staff for their courtesy and cooperation.

Sincerely,



John W. Parsons, Esq.
Executive Director



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ANNUAL STATEMENTS (as submitted)

STATEMENT OF LEDGER ASSETS AND LIABILITIES

AS OF DECEMBER 31,					
	2018	2017	2016	2015	2014
Net Assets Available For Benefits:					
Cash	\$285,107	\$290,866	\$150,253	\$503,361	\$286,697
PRIT Cash Fund	551,110	450,489	350,239	70,047	250,037
PRIT Core Fund	66,669,301	69,780,205	60,934,336	57,752,198	58,362,058
Accounts Receivable	<u>1,078,357</u>	<u>609,811</u>	<u>583,681</u>	<u>613,312</u>	<u>589,306</u>
Total	<u>\$68,583,875</u>	<u>\$71,131,371</u>	<u>\$62,018,509</u>	<u>\$58,938,918</u>	<u>\$59,488,098</u>
Fund Balances:					
Annuity Savings Fund	\$15,730,614	\$15,360,393	\$14,734,636	\$14,325,709	\$13,425,596
Annuity Reserve Fund	7,088,948	6,884,720	6,843,638	6,474,669	6,409,452
Pension Fund	1,520,238	1,290,819	423,131	148,682	18,167
Military Service Fund	22,337	22,315	22,293	18,185	46,307
Expense Fund	0	0	0	0	0
Pension Reserve Fund	<u>44,221,738</u>	<u>47,573,124</u>	<u>39,994,811</u>	<u>37,971,673</u>	<u>39,588,576</u>
Total	<u>\$68,583,875</u>	<u>\$71,131,371</u>	<u>\$62,018,509</u>	<u>\$58,938,918</u>	<u>\$59,488,098</u>

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF CHANGES IN FUND BALANCES

	Annuity Savings Fund	Annuity Reserve Fund	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total All Funds
Beginning Balance 2014	\$12,796,088	\$6,377,545	\$911	\$18,149	\$0	\$37,061,417	\$56,254,111
Receipts	1,833,654	190,248	3,724,262	18	437,510	3,846,098	10,031,791
Interfund Transfers	(806,135)	803,913	1,321,160	0	0	(1,318,938)	0
Disbursements	<u>(398,011)</u>	<u>(962,255)</u>	<u>(5,000,026)</u>	<u>0</u>	<u>(437,510)</u>	<u>0</u>	<u>(6,797,802)</u>
Ending Balance 2014	13,425,596	6,409,451	46,308	18,167	0	39,588,577	59,488,100
Receipts	2,119,633	190,061	3,943,172	18	439,650	101,007	6,793,542
Interfund Transfers	(814,446)	815,268	1,717,089	0	0	(1,717,911)	0
Disbursements	<u>(405,075)</u>	<u>(940,113)</u>	<u>(5,557,886)</u>	<u>0</u>	<u>(439,650)</u>	<u>0</u>	<u>(7,342,724)</u>
Ending Balance 2015	14,325,709	6,474,668	148,683	18,185	(0)	37,971,673	58,938,918
Receipts	1,949,965	200,077	4,183,906	4,107	495,463	3,918,899	10,752,417
Interfund Transfers	(1,178,703)	1,191,530	1,882,934	0	0	(1,895,762)	0
Disbursements	<u>(362,335)</u>	<u>(1,022,637)</u>	<u>(5,792,390)</u>	<u>0</u>	<u>(495,463)</u>	<u>0</u>	<u>(7,672,825)</u>
Ending Balance 2016	14,734,636	6,843,638	423,133	22,293	(0)	39,994,810	62,018,510
Receipts	1,980,151	201,040	4,459,960	22	491,548	9,979,806	17,112,527
Interfund Transfers	(922,728)	922,487	2,401,733	0	0	(2,401,492)	0
Disbursements	<u>(431,665)</u>	<u>(1,082,445)</u>	<u>(5,994,006)</u>	<u>0</u>	<u>(491,548)</u>	<u>0</u>	<u>(7,999,664)</u>
Ending Balance 2017	15,360,394	6,884,721	1,290,821	22,315	0	47,573,124	71,131,374
Receipts	2,057,368	204,848	4,927,981	22	523,591	(1,899,216)	5,814,594
Interfund Transfers	(1,222,240)	1,175,815	1,498,595	0	0	(1,452,170)	0
Disbursements	<u>(464,908)</u>	<u>(1,176,436)</u>	<u>(6,197,158)</u>	<u>0</u>	<u>(523,591)</u>	<u>0</u>	<u>(8,362,093)</u>
Ending Balance 2018	\$15,730,614	\$7,088,948	\$1,520,238	\$22,337	(\$0)	\$44,221,738	\$68,583,875

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF RECEIPTS

	FOR THE PERIOD ENDING DECEMBER 31,				
	2018	2017	2016	2015	2014
Annuity Savings Fund:					
Members Deductions	\$1,815,552	\$1,802,476	\$1,719,568	\$1,653,708	\$1,507,281
Transfers from Other Systems	168,039	134,286	181,646	342,695	269,156
Member Make Up Payments and Re-deposits	46,758	19,804	30,024	71,188	2,365
Member Payments from Rollovers	0	0	0	23,957	33,939
Investment Income Credited to Member Accounts	<u>27,020</u>	<u>23,585</u>	<u>18,727</u>	<u>28,085</u>	<u>20,913</u>
Sub Total	<u>2,057,369</u>	<u>1,980,151</u>	<u>1,949,965</u>	<u>2,119,633</u>	<u>1,833,654</u>
Annuity Reserve Fund:					
Investment Income Credited to the Annuity Reserve	<u>204,848</u>	<u>201,040</u>	<u>200,077</u>	<u>190,061</u>	<u>190,248</u>
Pension Fund:					
3 (8) (c) Reimbursements from Other Systems	241,667	218,191	137,274	154,746	153,836
Received from Commonwealth for COLA and Survivor Benefits	58,730	20,853	71,519	45,414	27,377
Pension Fund Appropriation	4,627,585	4,220,916	3,939,342	3,730,547	3,534,306
Settlement of Workers' Compensation Claims	0	0	25,000	6,000	0
Recovery of 91A Overearnings	<u>0</u>	<u>0</u>	<u>10,771</u>	<u>6,465</u>	<u>8,743</u>
Sub Total	<u>4,927,982</u>	<u>4,459,960</u>	<u>4,183,906</u>	<u>3,943,172</u>	<u>3,724,262</u>
Military Service Fund:					
Contribution Received from Municipality on Account of Military Service	0	0	4,089	0	0
Investment Income Credited to the Military Service Fund	<u>22</u>	<u>22</u>	<u>18</u>	<u>18</u>	<u>18</u>
Sub Total	<u>22</u>	<u>22</u>	<u>4,107</u>	<u>18</u>	<u>18</u>
Expense Fund:					
Investment Income Credited to the Expense Fund	<u>523,591</u>	<u>491,548</u>	<u>495,463</u>	<u>439,650</u>	<u>437,510</u>
Pension Reserve Fund:					
Federal Grant Reimbursement	21,015	5,084	36,658	9,453	10,694
Interest Not Refunded	3,608	3,580	990	2,492	2,295
Miscellaneous Income	1,212	2,247	586	19,824	5,652
Excess Investment Income	<u>(1,925,051)</u>	<u>9,968,895</u>	<u>3,880,665</u>	<u>69,238</u>	<u>3,827,457</u>
Sub Total	<u>(1,899,216)</u>	<u>9,979,806</u>	<u>3,918,899</u>	<u>101,007</u>	<u>3,846,098</u>
Total Receipts, Net	\$5,814,596	\$17,112,527	\$10,752,417	\$6,793,542	\$10,031,791

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF DISBURSEMENTS

FOR THE PERIOD ENDING DECEMBER 31,					
	2018	2017	2016	2015	2014
Annuity Savings Fund:					
Refunds to Members	\$219,688	\$237,382	\$190,398	\$352,902	\$158,129
Transfers to Other Systems	245,220	194,283	171,937	52,173	239,882
Sub Total	<u>464,908</u>	<u>431,665</u>	<u>362,335</u>	<u>405,075</u>	<u>398,011</u>
Annuity Reserve Fund:					
Annuities Paid	1,176,436	1,082,350	1,022,637	940,113	899,643
Option B Refunds	<u>0</u>	<u>95</u>	<u>0</u>	<u>0</u>	<u>62,612</u>
Sub Total	<u>1,176,436</u>	<u>1,082,445</u>	<u>1,022,637</u>	<u>940,113</u>	<u>962,255</u>
Pension Fund:					
Pensions Paid:					
Regular Pension Payments	4,680,929	4,456,468	4,280,561	4,041,006	3,925,097
Survivorship Payments	343,972	325,262	291,704	274,428	261,983
Ordinary Disability Payments	20,216	19,796	19,376	18,956	18,536
Accidental Disability Payments	602,482	645,726	642,175	556,070	465,250
Accidental Death Payments	65,346	78,357	77,097	75,837	74,577
Section 101 Benefits	28,240	27,417	26,619	25,844	25,091
3 (B) (c) Reimbursements to Other Systems	<u>455,973</u>	<u>440,979</u>	<u>454,858</u>	<u>565,745</u>	<u>229,491</u>
Sub Total	<u>6,197,158</u>	<u>5,994,006</u>	<u>5,792,390</u>	<u>5,557,886</u>	<u>5,000,026</u>
Expense Fund:					
Board Member Stipend	17,500	18,000	18,000	18,000	18,000
Salaries	68,269	65,904	82,567	75,742	73,188
Legal Expenses	0	2,333	1,884	2,320	2,916
Medical Expenses	50	0	0	219	27
Travel Expenses	3,334	4,719	2,915	3,857	3,637
Administrative Expenses	19,404	20,898	17,520	11,791	8,402
Professional Services	15,602	6,178	5,814	0	1,750
Education and Training	1,920	2,950	2,800	1,890	1,890
Furniture and Equipment	799	0	0	0	287
Management Fees	365,999	343,932	317,570	301,847	304,464
Service Contracts	26,275	22,290	42,108	19,825	18,900
Fiduciary Insurance	<u>4,439</u>	<u>4,344</u>	<u>4,285</u>	<u>4,159</u>	<u>4,049</u>
Sub Total	<u>523,591</u>	<u>491,548</u>	<u>495,463</u>	<u>439,650</u>	<u>437,510</u>
Total Disbursements	<u>\$8,362,093</u>	<u>\$7,999,664</u>	<u>\$7,672,825</u>	<u>\$7,342,724</u>	<u>\$6,797,802</u>

ANNUAL STATEMENTS (as submitted) (Continued)

INVESTMENT INCOME

	FOR THE PERIOD ENDING DECEMBER 31,				
	2018	2017	2016	2015	2014
Investment Income Received From:					
Cash	\$4,715	\$40	\$50	\$56	\$48
Pooled or Mutual Funds	<u>1,908,269</u>	<u>1,815,376</u>	<u>1,702,586</u>	<u>1,532,640</u>	<u>1,622,100</u>
Total Investment Income	<u>1,912,985</u>	<u>1,815,416</u>	<u>1,702,636</u>	<u>1,532,697</u>	<u>1,622,148</u>
Plus:					
Realized Gains	3,202,282	2,972,767	1,679,524	2,142,335	2,568,892
Unrealized Gains	<u>2,489,516</u>	<u>5,896,907</u>	<u>5,111,250</u>	<u>3,042,363</u>	<u>3,703,109</u>
Sub Total	<u>5,691,798</u>	<u>8,869,674</u>	<u>6,790,774</u>	<u>5,184,698</u>	<u>6,272,001</u>
Less:					
Realized Loss	0	0	32,905	27,865	0
Unrealized Loss	<u>8,774,352</u>	<u>0</u>	<u>3,865,555</u>	<u>5,962,477</u>	<u>3,418,002</u>
Sub Total	<u>8,774,352</u>	<u>0</u>	<u>3,898,460</u>	<u>5,990,342</u>	<u>3,418,002</u>
Net Investment Income	<u>(1,169,569)</u>	<u>10,685,090</u>	<u>4,594,950</u>	<u>727,053</u>	<u>4,476,147</u>
Income Required:					
Annuity Savings Fund	27,020	23,585	18,727	28,085	20,913
Annuity Reserve Fund	204,848	201,040	200,077	190,061	190,248
Military Service Fund	22	22	18	18	18
Expense Fund	<u>523,591</u>	<u>491,548</u>	<u>495,463</u>	<u>439,650</u>	<u>437,510</u>
Total Income Required	<u>755,482</u>	<u>716,195</u>	<u>714,285</u>	<u>657,815</u>	<u>648,690</u>
Net Investment Income	<u>(1,169,569)</u>	<u>10,685,090</u>	<u>4,594,950</u>	<u>727,053</u>	<u>4,476,147</u>
Less: Total Income Required	<u>755,482</u>	<u>716,195</u>	<u>714,285</u>	<u>657,815</u>	<u>648,690</u>
Excess Income (Loss) To The Pension Reserve Fund	<u>(\$1,925,051)</u>	<u>\$9,968,895</u>	<u>\$3,880,665</u>	<u>\$69,238</u>	<u>\$3,827,457</u>

SUPPLEMENTARY INFORMATION

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

AS OF DECEMBER 31, 2018		
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	\$285,107	0.4%
PRIT Cash Fund	551,110	0.8%
PRIT Core Fund	<u>66,669,301</u>	<u>98.8%</u>
Grand Total	<u>\$67,505,518</u>	<u>100.0%</u>

For the year ending December 31, 2018, the rate of return for the investments of the Greenfield Retirement System was -1.70%. For the five-year period ending December 31, 2018, the rate of return for the investments of the Greenfield Retirement System averaged 6.55%. For the 34-year period ending December 31, 2018, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Greenfield Retirement System was 8.37%.

The composite rate of return for all retirement systems for the year ending December 31, 2018 was -2.25%. For the five-year period ending December 31, 2018, the composite rate of return for the investments of all retirement systems averaged 6.22%. For the 34-year period ending December 31, 2018, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.00%.

SUPPLEMENTARY INFORMATION (Continued)

SUMMARY OF PLAN PROVISIONS

The plan is a contributory defined benefit plan covering all Greenfield Retirement System member unit employees deemed eligible by the retirement board, with the exception of school department employees who serve in a teaching capacity. The Teachers' Retirement Board administers the pensions of such school employees.

ADMINISTRATION

There are 104 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

PARTICIPATION

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the retirement board, and approved by PERAC. Membership is optional for certain elected officials.

There are 4 classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the State Police. The other 3 classes are as follows:

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.

SUPPLEMENTARY INFORMATION (Continued)

MEMBER CONTRIBUTIONS

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

Prior to 1975:	5% of regular compensation
1975 - 1983:	7% of regular compensation
1984 to 6/30/96:	8% of regular compensation
7/1/96 to present:	9% of regular compensation
1979 to present:	an additional 2% of regular compensation in excess of \$30,000.

In addition, members of Group 1 who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

RATE OF INTEREST

Interest on regular deductions made after January 1, 1984 is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least 10 financial institutions.

RETIREMENT AGE

The mandatory retirement age for some Group 2 and Group 4 employees is age 65. Most Group 2 and Group 4 members may remain in service after reaching age 65. Group 4 members who are employed in certain public safety positions are required to retire at age 65. There is no mandatory retirement age for employees in Group 1.

SUPERANNUATION RETIREMENT

A person who became a member before April 2, 2012 is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- completion of 20 years of service, or
- attainment of age 55 if hired prior to 1978, or if classified in Group 4, or
- attainment of age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 or 2.

A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- attainment of age 60 with 10 years of service if classified in Group 1, or
- attainment of age 55 with 10 years of service if classified in Group 2, or
- attainment of age 55 if classified in Group 4.

SUPPLEMENTARY INFORMATION (Continued)

AMOUNT OF BENEFIT

A member's annual allowance is determined by multiplying average salary by a benefit rate related to the member's age and job classification at retirement, and the resulting product by his creditable service. The amount determined by the benefit formula cannot exceed 80% of the member's highest three year (or five year as discussed below) average salary. For veterans as defined in G.L. c. 32, s. 1, there is an additional benefit of \$15 per year for each year of creditable service, up to a maximum of \$300.

For employees who become members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

- For persons who became members prior to April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 3 consecutive years that produce the highest average, or, if greater, during the last 3 years (whether or not consecutive) preceding retirement.
- For persons who became members on or after April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 5 consecutive years that produce the highest average, or, if greater, during the last 5 years (whether or not consecutive) preceding retirement.
- The Benefit Rate varies with the member's retirement age. For persons who became members prior to April 2, 2012 the highest rate of 2.5% applies to Group 1 employees who retire at or after age 65, Group 2 employees who retire at or after age 60, and to Group 4 employees who retire at or after age 55. A .1% reduction is applied for each year of age under the maximum age for the member's group. For Group 2 employees who terminate from service under age 55, the benefit rate for a Group 1 employee shall be used.
- For persons who became members on or after April 2, 2012 and retire with less than 30 years of creditable service, the highest rate of 2.5% applies to Group 1 employees who retire at or after age 67, Group 2 employees who retire at or after age 62, and to Group 4 employees who retire at or after age 57. A .15% reduction is applied for each year of age under the maximum age for the member's group.
- For persons who became members on or after April 2, 2012 and retire with more than 30 years of creditable service, the highest rate of 2.5% applies to Group 1 employees who retire at or after age 67, Group 2 employees who retire at or after age 62, and to Group 4 employees who retire at or after age 57. A .125% reduction is applied for each year of age under the maximum age for the member's group.

DEFERRED VESTED BENEFIT

A participant who has attained the requisite years of creditable service can elect to defer his or her retirement until a later date. Certain public safety employees cannot defer beyond age 65. All participants must begin to receive a retirement allowance or withdraw their accumulated deductions no later than April 15 of the calendar year following the year they reach age 72.

SUPPLEMENTARY INFORMATION (Continued)

WITHDRAWAL OF CONTRIBUTIONS

Member contributions may be withdrawn upon termination of employment. The interest rate for employees who first become members on or after January 1, 1984 who voluntarily withdraw their contributions with less than 10 years of service will be 3%. Interest payable on all other withdrawals will be set at regular interest.

DISABILITY RETIREMENT

The Massachusetts Retirement Plan provides 2 types of disability retirement benefits:

ORDINARY DISABILITY

Eligibility: Non-veterans who become totally and permanently disabled by reason of a non-job related condition with at least 10 years of creditable service (or 15 years creditable service in systems in which the local option contained in G.L. c. 32, s. 6(1) has not been adopted).

Veterans with ten years of creditable service who become totally and permanently disabled by reason of a non-job related condition prior to reaching “maximum age”. “Maximum age” applies only to those employees classified in Group 4 who are subject to mandatory retirement.

Retirement Allowance: For persons who became members prior to April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member’s final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she is entitled.

For persons in Group 1 who became members on or after April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 60. If the member is a veteran, the benefit is 50% of the member’s final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 60, he or she will receive not less than the superannuation allowance to which he or she would have been entitled had they retired for superannuation.

For persons in Group 2 and Group 4 who became members on or after April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member’s final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she would have been entitled had they retired for superannuation.

SUPPLEMENTARY INFORMATION (Continued)

ACCIDENTAL DISABILITY

Eligibility: Applies to members who become permanently and totally unable to perform the essential duties of the position as a result of a personal injury sustained or hazard undergone while in the performance of duties. There are no minimum age or service requirements.

Retirement Allowance: 72% of salary plus an annuity based on accumulated member contributions, with interest. This amount is not to exceed 100% of pay. For those who became members in service after January 1, 1988 or who have not been members in service continually since that date, the amount is limited to 75% of pay. There is an additional pension of \$924.60 per year (or \$312.00 per year in systems in which the local option contained in G.L. c. 32, s. 7(2)(a)(iii) has not been adopted), per child who is under 18 at the time of the member's retirement, with no age limitation if the child is mentally or physically incapacitated from earning. The additional pension may continue up to age 22 for any child who is a full time student at an accredited educational institution. For systems that have adopted Chapter 157 of the Acts of 2005, veterans as defined in G.L. c. 32, s. 1 receive an additional benefit of \$15 per year for each year of creditable service, up to a maximum of \$300.

ACCIDENTAL DEATH

Eligibility: Applies to members who die as a result of a work-related injury or if the member was retired for accidental disability and the death was the natural and proximate result of the injury or hazard undergone on account of which such member was retired.

Allowance: An immediate payment to a named beneficiary equal to the accumulated deductions at the time of death, plus a pension equal to 72% of current salary and payable to the surviving spouse, dependent children or the dependent parent, plus a supplement of \$924.60 per year, per child (or \$312.00 per year in systems in which the local option contained in G.L. c. 32, s. 9(2)(d)(ii) has not been adopted), payable to the spouse or legal guardian until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

The surviving spouse of a member of a police or fire department or any corrections officer who, under specific and limited circumstances detailed in the statute, suffers an accident and is killed or sustains injuries while in the performance of his duties that results in his death, may receive a pension equal to the maximum salary for the position held by the member upon his death. In addition, an eligible family member may receive a one-time payment of \$300,000.00 from the State Retirement Board. This lump sum payment is also available to the family of a public prosecutor in certain, limited circumstances.

SUPPLEMENTARY INFORMATION (Continued)

DEATH AFTER ACCIDENTAL DISABILITY RETIREMENT

Effective November 7, 1996, Accidental Disability retirees were allowed to select Option C at retirement and provide a benefit for an eligible survivor. For Accidental Disability retirees prior to November 7, 1996, who could not select Option C, if the member's death is from a cause unrelated to the condition for which the member received accidental disability benefits, a surviving spouse will receive an annual allowance of \$6,000. For Systems that accept the provisions of Section 28 of Chapter 131 of the Acts of 2010, the amount of this benefit is \$9,000. For Systems that accept the provisions of Section 63 of Chapter 139 of the Acts of 2012, the amount of this benefit is \$12,000.

DEATH IN ACTIVE SERVICE (OPTION D)

Allowance: An immediate allowance equal to that which would have been payable had the member retired and selected Option C on the day before his or her death. For a member who became a member prior to April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 55 benefit rate is used. For a member classified in Group 1 who became a member on or after April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 60 benefit rate is used. If the member died after age 60, the actual age is used. For a member classified in Group 2 or Group 4, whose death occurred prior to the member's minimum superannuation retirement age, the benefit shall be calculated using an age 55 age factor. The minimum annual allowance payable to the surviving spouse of a member in service who dies with at least two years of creditable service is \$3,000 unless the retirement system has accepted the local option increasing this minimum annual allowance to \$6,000, provided that the member and the spouse were married for at least one year and living together on the member's date of death.

The surviving spouse of such a member in service receives an additional allowance equal to the sum of \$1,440 per year for the first child and \$1,080 per year for each additional child until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

COST OF LIVING

If a system has accepted Chapter 17 of the Acts of 1997, and the Retirement Board votes to pay a cost of living increase (COLA) for that year, the percentage is determined based on the increase in the Consumer Price Index used for indexing Social Security benefits, but cannot exceed 3.0%. Section 51 of Chapter 127 of the Acts of 1999, if accepted, allows boards to grant COLA increases greater than that determined by CPI but not to exceed 3.0%. Only a certain portion of a retiree's total allowance is subject to a COLA. The total COLA for periods from 1981 through 1996 is paid for by the Commonwealth of Massachusetts.

Under the provisions of Chapter 32, Section 103(j) inserted by Section 19 of Chapter 188 of the Acts of 2010, systems may increase the maximum base on which the COLA is calculated in multiples of \$1,000. For many years the COLA base was calculated based upon the first \$12,000 of a retiree's allowance. Now the maximum base upon which the COLA is calculated varies from system to system. Each increase in the base must be accepted by a majority vote of the Retirement Board and approved by the legislative body.

SUPPLEMENTARY INFORMATION (Continued)

METHODS OF PAYMENT

A member may elect to receive his or her retirement allowance in one of 3 forms of payment.

Option A: Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.

Option B: A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided, however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.

Option C: A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

ALLOCATION OF PENSION COSTS

If a member's total creditable service was partly earned by employment in more than one retirement system, the cost of the "pension portion" is allocated between the different systems pro rata based on the member's service within each retirement system. In certain circumstances, if a member received regular compensation concurrently from two or more systems on or after January 1, 2010, and was not vested in both systems as of January 1, 2010, such a pro-ration may not be undertaken. This is because such a person may receive a separate retirement allowance from each system.

SUPPLEMENTARY INFORMATION (Continued)

SIGNIFICANT ACCOUNTING POLICIES

The accounting records of the System are maintained on a calendar year basis in accordance with the standards and procedures established by the Public Employee Retirement Administration Commission.

Cash accounts are considered to be funds on deposit with banks and are available upon demand.

Short Term Investments are highly liquid investments that will mature within twelve months from the date of acquisition.

Investments are reported at their fair value. Securities traded on recognized exchanges are valued at the most recent sales price at year end. If no sale was reported, the mean of the bid and asked price is used when available, or the most recent bid price. Mutual, commingled and pooled funds are valued based on the net asset or unit value at year end. Real estate and alternative investments are valued based on estimates provided by the managers of those respective investments. Purchases and sales of securities are reflected on the date the trade is initiated. Realized gain or loss is largely based on the difference between the cost or the value at the prior year end and the funds realized upon liquidation. Dividend income is generally recorded when received. Interest income is recorded as earned on an accrual basis. Income from alternative investments is recorded as reported by the managing partner. Appreciation or depreciation in the value of investments consists of the unrealized gains and losses reported as the difference between the previous period and the current value.

The system makes estimates and assumptions that affect the reported values of assets and liabilities and the reported amounts added and deducted during the reporting periods. The fair value of real estate and alternative investment holdings are generally estimated in the absence of reliable exchange values. The actual funds realized upon liquidation may differ from these estimates.

The provisions of Massachusetts General Laws Chapter 32, § 23(2) generally govern the investment practices of the system. The Board primarily relies upon the investment strategy of the PRIM board to maintain their progress toward full funding of the system. That strategy seeks to balance the exposure to common deposit and investment risks related to custody, credit concentrations, interest rate and foreign currency fluctuations.

Operating expenses include the ordinary and necessary cost of investment and professional services and the other miscellaneous administrative expenses of the system.

SUPPLEMENTARY INFORMATION (Continued)

The Annuity Savings Fund is the fund in which members' contributions are deposited. Voluntary contributions, re-deposits, and transfers to and from other systems, are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw with less than ten years of service is transferred to the Pension Reserve Fund. Upon retirement, members' contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of ten years of inactivity.

The Annuity Reserve Fund is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and Special Military Service Credit Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The Special Military Service Credit Fund contains contributions and interest for members while on a military leave for service in the Armed Forces who will receive creditable service for the period of that leave.

The Expense Fund contains amounts transferred from investment income for the purposes of administering the retirement system.

The Pension Fund contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The Pension Reserve Fund contains amounts appropriated by the governmental units for the purposes of funding future retirement benefits. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain of a market valued investment as of the valuation date is credited to the Pension Reserve Fund. Additionally, any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund, and Special Military Service Credit Fund is credited to this Reserve account.

The Investment Income Account is credited with all income derived from interest and dividends of invested funds. At year-end the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Expense Fund, and Special Military Service Credit Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

SUPPLEMENTARY INFORMATION (Continued)

ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by the Public Employee Retirement Administration Commission as of January 1, 2019.

The actuarial liability for active members was	\$44,002,477
The actuarial liability for retired, survivor, and inactive members was	<u>79,964,949</u>
The total actuarial liability was	\$123,967,426
System assets as of that date were (actuarial value)	<u>70,671,074</u>
The unfunded actuarial liability was	<u>\$53,296,352</u>
The ratio of system's assets to total actuarial liability was	57.0%
As of that date the total covered employee payroll was	\$18,450,561

The normal cost for employees on that date was 9.0% of payroll
 The normal cost for the employer including administrative expenses was 9.0% of payroll

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

Investment Return: 7.25% per annum
 Rate of Salary Increase: Varies by group and service

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2019

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2019	\$70,671,074	\$123,967,426	\$53,296,352	57.0%	\$18,450,561	288.9%
1/1/2017	\$63,329,013	\$113,021,266	\$49,692,253	56.0%	\$18,544,831	268.0%
1/1/2015	\$56,837,951	\$101,182,595	\$44,344,644	56.2%	\$16,070,514	275.9%
1/1/2013	\$48,639,532	\$89,811,482	\$41,171,950	54.2%	\$14,906,834	276.2%
1/1/2011	\$48,983,503	\$80,140,798	\$31,157,295	61.1%	\$13,872,127	224.6%

SUPPLEMENTARY INFORMATION (Continued)

MEMBERSHIP EXHIBIT

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Retirement in Past Years										
Superannuation	11	14	10	16	18	9	13	16	11	18
Ordinary Disability	0	0	0	0	0	0	0	0	0	0
Accidental Disability	0	0	0	1	1	3	2	0	0	0
Total Retirements	11	14	10	17	19	12	15	16	11	18
Total Retirees, Beneficiaries and Survivors	226	232	234	244	256	258	268	278	278	293
Total Active Members	381	385	400	421	439	448	450	466	466	450
Pension Payments										
Superannuation	\$2,690,077	\$2,944,076	\$3,126,004	\$3,389,046	\$3,645,535	\$3,925,097	\$4,041,006	\$4,280,561	\$4,456,468	\$4,680,929
Survivor/Beneficiary Payments	176,775	203,819	224,882	236,740	244,688	\$261,983	274,428	291,704	325,262	343,972
Ordinary Disability	27,810	16,886	17,276	28,893	24,980	\$18,536	18,956	19,376	19,796	20,216
Accidental Disability	350,241	355,379	360,960	513,672	420,463	\$465,250	556,070	642,175	645,726	602,482
Other	<u>357,856</u>	<u>342,361</u>	<u>336,283</u>	<u>409,652</u>	<u>516,206</u>	<u>\$329,160</u>	<u>667,426</u>	<u>558,574</u>	<u>546,754</u>	<u>549,559</u>
Total Payments for Year	<u>\$3,602,759</u>	<u>\$3,862,521</u>	<u>\$4,065,405</u>	<u>\$4,578,003</u>	<u>\$4,851,872</u>	<u>\$5,000,026</u>	<u>\$5,557,886</u>	<u>\$5,792,390</u>	<u>\$5,994,006</u>	<u>\$6,197,158</u>



COMMONWEALTH OF MASSACHUSETTS

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