

PERAC AUDIT REPORT



Massachusetts Port Authority Employees'
Contributory Retirement System



JAN. 1, 2012 - DEC. 31, 2015



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PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chairman*

JOSEPH E. CONNARTON, *Executive Director*

Auditor SUZANNE M. BUMP | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES M. MACHADO | ROBERT B. McCARTHY | JENNIFER F. SULLIVAN

February 5, 2018

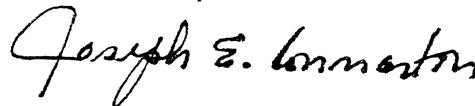
The Public Employee Retirement Administration Commission has completed an examination of the Massachusetts Port Authority Employees' Retirement System pursuant to G.L. c. 32, § 21. The examination covered the period from January 1, 2012 to December 31, 2015. This audit was conducted in accordance with the accounting and management standards established by the Public Employee Retirement Administration Commission in regulation 840 CMR 25.00. Additionally, all supplementary regulations approved by PERAC and on file at PERAC are listed in this report.

In our opinion, the financial records are being maintained and the management functions are being performed in conformity with the standards established by the Public Employee Retirement Administration Commission.

We commend the Massachusetts Port Authority Employees' Retirement Board for the exemplary operation of the system.

In closing, I acknowledge the work of examiners Walter Kloc, Michael Nicolazzo, George Nsia and Elaine Pursley who conducted this examination, and express appreciation to the Board of Retirement and staff for their courtesy and cooperation.

Sincerely,



Joseph E. Connarton
Executive Director



STATEMENT OF LEDGER ASSETS AND LIABILITIES

	AS OF DECEMBER 31,			
	2015	2014	2013	2012
Net Assets Available For Benefits:				
Cash	\$998,540	\$1,059,747	\$699,175	\$335,038
Equities	17,080,593	17,752,035	15,820,353	14,874,717
Pooled Domestic Equity Funds	133,515,933	146,127,701	141,964,432	134,383,067
Pooled International Equity Funds	130,305,111	136,074,436	138,603,996	116,060,171
Pooled Domestic Fixed Income Funds	164,285,646	163,240,311	146,472,176	128,930,790
Pooled Alternative Investment Funds	30,105,984	28,607,216	27,261,399	24,117,746
Pooled Real Estate Funds	49,322,099	44,299,097	38,886,127	27,978,865
Interest Due and Accrued	14,893	18,288	27,185	15,876
Accounts Receivable	668,214	630,209	583,488	455,149
Accounts Payable	(373,585)	(740,725)	(324,193)	(299,997)
Total	<u>\$525,923,429</u>	<u>\$537,068,314</u>	<u>\$509,994,139</u>	<u>\$446,851,420</u>
Fund Balances:				
Annuity Savings Fund	\$110,772,752	\$106,293,472	\$101,402,476	\$96,655,852
Annuity Reserve Fund	36,477,892	34,626,981	32,550,276	31,379,842
Pension Fund	39,617,325	49,623,019	57,766,414	14,189,531
Military Service Fund	14,308	14,768	14,753	14,738
Expense Fund	0	0	0	0
Pension Reserve Fund	<u>339,041,152</u>	<u>346,510,073</u>	<u>318,260,220</u>	<u>304,611,457</u>
Total	<u>\$525,923,429</u>	<u>\$537,068,314</u>	<u>\$509,994,139</u>	<u>\$446,851,420</u>

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 (2012)	\$91,701,926	\$30,620,392	\$21,838,888	\$14,251	\$0	\$254,332,339	\$398,507,797
Receipts	9,452,307	919,354	10,282,518	487	2,301,032	50,239,660	73,195,359
Interfund Transfers	(3,713,156)	3,674,101	(402)	0	0	39,457	0
Disbursements	(785,225)	(3,834,006)	(17,931,473)	0	(2,301,032)	0	(24,851,736)
Ending Balance (2012)	96,655,852	31,379,842	14,189,531	14,738	0	304,611,457	446,851,420
Receipts	10,068,537	961,793	12,762,532	15	2,653,856	63,797,588	90,244,321
Interfund Transfers	(4,265,685)	4,414,509	50,000,000	0	0	(50,148,825)	0
Disbursements	(1,056,229)	(4,205,868)	(19,185,649)	0	(2,653,856)	0	(27,101,602)
Ending Balance (2013)	101,402,476	32,550,276	57,766,414	14,753	0	318,260,220	509,994,139
Receipts	10,228,167	1,001,017	12,117,974	15	3,292,662	29,520,095	56,159,929
Interfund Transfers	(4,376,184)	5,646,425	0	0	0	(1,270,241)	0
Disbursements	(960,987)	(4,570,737)	(20,261,369)	0	(3,292,662)	0	(29,085,754)
Ending Balance (2014)	106,293,472	34,626,981	49,623,019	14,768	0	346,510,073	537,068,314
Receipts	10,957,331	1,064,612	11,782,210	15	3,224,379	(6,963,791)	20,064,757
Interfund Transfers	(5,355,430)	5,869,634	(8,600)	(474)	0	(505,130)	0
Disbursements	(1,122,622)	(5,083,336)	(21,779,305)	0	(3,224,379)	0	(31,209,642)
Ending Balance (2015)	<u>\$110,772,752</u>	<u>\$36,477,892</u>	<u>\$39,617,325</u>	<u>\$14,308</u>	<u>\$0</u>	<u>\$339,041,152</u>	<u>\$525,923,429</u>

STATEMENT OF RECEIPTS

	FOR THE PERIOD ENDING DECEMBER 31,			
	2015	2014	2013	2012
Annuity Savings Fund:				
Members Deductions	\$9,839,177	\$9,289,573	\$8,679,617	\$8,337,280
Transfers from Other Systems	871,095	476,951	853,920	643,628
Member Make Up Payments and Re-deposits	0	0	163,272	56,988
Member Payments from Rollovers	108,421	338,306	269,302	285,942
Investment Income Credited to Member Accounts	<u>138,638</u>	<u>123,337</u>	<u>102,427</u>	<u>128,468</u>
Sub Total	<u>10,957,331</u>	<u>10,228,167</u>	<u>10,068,537</u>	<u>9,452,307</u>
Annuity Reserve Fund:				
Investment Income Credited to the Annuity Reserve Fund	<u>1,064,612</u>	<u>1,001,017</u>	<u>961,793</u>	<u>919,354</u>
Pension Fund:				
3 (B) (c) Reimbursements from Other Systems	878,814	878,555	784,146	676,967
Pension Fund Appropriation	10,845,396	11,146,319	11,960,386	9,594,044
Settlement of Workers' Compensation Claims	58,000	93,100	18,000	0
Recovery of 91A Overearnings	<u>0</u>	<u>0</u>	<u>0</u>	<u>11,506</u>
Sub Total	<u>11,782,210</u>	<u>12,117,974</u>	<u>12,762,532</u>	<u>10,282,518</u>
Military Service Fund:				
Contribution Received from Authority on Account of Military Service	0	0	0	473
Investment Income Credited to the Military Service Fund	<u>15</u>	<u>15</u>	<u>15</u>	<u>14</u>
Sub Total	<u>15</u>	<u>15</u>	<u>15</u>	<u>487</u>
Expense Fund:				
Investment Income Credited to the Expense Fund	<u>3,224,379</u>	<u>3,292,662</u>	<u>2,653,856</u>	<u>2,301,032</u>
Pension Reserve Fund:				
Interest Not Refunded	8,125	19,334	5,364	15,128
Excess Investment Income	<u>(6,971,916)</u>	<u>29,500,760</u>	<u>63,792,224</u>	<u>50,224,533</u>
Sub Total	<u>(6,963,791)</u>	<u>29,520,095</u>	<u>63,797,588</u>	<u>50,239,660</u>
Total Receipts, Net	<u>\$20,064,757</u>	<u>\$56,159,929</u>	<u>\$90,244,321</u>	<u>\$73,195,359</u>

STATEMENT OF DISBURSEMENTS

FOR THE PERIOD ENDING DECEMBER 31,				
	2015	2014	2013	2012
Annuity Savings Fund:				
Refunds to Members	\$673,560	\$655,654	\$482,147	\$612,197
Transfers to Other Systems	<u>449,062</u>	<u>305,333</u>	<u>574,082</u>	<u>173,028</u>
Sub Total	<u>1,122,622</u>	<u>960,987</u>	<u>1,056,229</u>	<u>785,225</u>
Annuity Reserve Fund:				
Annuities Paid	5,045,835	4,570,737	4,205,868	3,834,006
Option B Refunds	<u>37,501</u>	<u>0</u>	<u>0</u>	<u>0</u>
Sub Total	<u>5,083,336</u>	<u>4,570,737</u>	<u>4,205,868</u>	<u>3,834,006</u>
Pension Fund:				
Pensions Paid:				
Regular Pension Payments	17,084,550	15,881,245	14,938,845	14,048,139
Survivorship Payments	2,164,704	2,006,878	1,916,187	1,770,145
Ordinary Disability Payments	143,933	141,323	138,631	139,922
Accidental Disability Payments	1,972,501	1,885,632	1,863,612	1,677,194
Accidental Death Payments	54,743	54,353	53,963	31,291
Section 101 Benefits	49,327	51,710	48,348	37,347
3 (8) (c) Reimbursements to Other Systems	<u>309,547</u>	<u>240,228</u>	<u>226,064</u>	<u>227,435</u>
Sub Total	<u>21,779,305</u>	<u>20,261,369</u>	<u>19,185,649</u>	<u>17,931,473</u>
Expense Fund:				
Board Member Stipend	15,161	15,000	15,000	14,250
Salaries	501,123	456,178	421,745	363,251
Legal Expenses	201,785	330,430	197,707	141,170
Medical Expenses	956	515	639	601
Travel Expenses	21,254	13,054	14,683	14,306
Administrative Expenses	62,842	51,881	66,842	43,891
Professional Services *	5,219	137,317	16,265	17,797
Actuarial Services	37,748	30,500	30,400	30,700
Accounting Services	52,750	46,000	44,500	43,000
Education and Training	8,305	5,190	4,269	4,885
Management Fees	1,840,135	1,808,899	1,630,432	1,425,954
Custodial Fees	63,554	66,477	66,889	64,966
Consultant Fees	132,500	129,500	127,600	125,400
Rent Expenses	250,452	163,418	0	0
Service Contracts	30,094	37,803	16,885	10,861
Fiduciary Insurance	<u>500</u>	<u>500</u>	<u>0</u>	<u>0</u>
Sub Total	<u>3,224,379</u>	<u>3,292,662</u>	<u>2,653,856</u>	<u>2,301,032</u>
Total Disbursements	<u>\$31,209,642</u>	<u>\$29,085,754</u>	<u>\$27,101,602</u>	<u>\$24,851,736</u>

*Professional Services in 2014 includes software data conversion costs.

INVESTMENT INCOME

	FOR THE PERIOD ENDING DECEMBER 31,			
	2015	2014	2013	2012
Investment Income Received From:				
Cash	\$1,090	\$295	\$646	\$1,660
Equities	241,177	210,877	206,094	287,293
Pooled or Mutual Funds	8,609,004	7,854,241	6,792,614	4,945,732
Commission Recapture	<u>11,575</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Investment Income	<u>8,862,846</u>	<u>8,065,412</u>	<u>6,999,354</u>	<u>5,234,685</u>
Plus:				
Realized Gains	8,697,213	15,214,626	6,748,816	4,395,494
Unrealized Gains	60,014,962	62,069,337	85,491,994	74,329,847
Interest Due and Accrued - Current Year	<u>14,893</u>	<u>18,288</u>	<u>27,185</u>	<u>15,876</u>
Sub Total	<u>68,727,068</u>	<u>77,302,250</u>	<u>92,267,996</u>	<u>78,741,217</u>
Less:				
Realized Loss	(2,021,629)	(1,028,338)	(680,364)	(31,203)
Unrealized Loss	(78,094,269)	(50,394,350)	(31,060,796)	(30,359,835)
Interest Due and Accrued - Prior Year	<u>(18,288)</u>	<u>(27,185)</u>	<u>(15,876)</u>	<u>(11,462)</u>
Sub Total	<u>(80,134,186)</u>	<u>(51,449,873)</u>	<u>(31,757,036)</u>	<u>(30,402,500)</u>
Net Investment Income	<u>(2,544,271)</u>	<u>33,917,790</u>	<u>67,510,314</u>	<u>53,573,402</u>
Income Required:				
Annuity Savings Fund	138,638	123,337	102,427	128,468
Annuity Reserve Fund	1,064,612	1,001,017	961,793	919,354
Military Service Fund	15	15	15	14
Expense Fund	<u>3,224,379</u>	<u>3,292,662</u>	<u>2,653,856</u>	<u>2,301,032</u>
Total Income Required	<u>4,427,645</u>	<u>4,417,030</u>	<u>3,718,090</u>	<u>3,348,869</u>
Net Investment Income	(2,544,271)	33,917,790	67,510,314	53,573,402
Less: Total Income Required	<u>4,427,645</u>	<u>4,417,030</u>	<u>3,718,090</u>	<u>3,348,869</u>
Excess Income (Loss) To The Pension Reserve Fund	<u>(\$6,971,916)</u>	<u>\$29,500,760</u>	<u>\$63,792,224</u>	<u>\$50,224,533</u>

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

AS OF DECEMBER 31, 2015		
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	\$998,540	0.2%
Equities	17,080,593	3.2%
Pooled Domestic Equity Funds	133,515,933	25.4%
Pooled International Equity Funds	130,305,111	24.8%
Pooled Domestic Fixed Income Funds	164,285,646	31.3%
Pooled Alternative Investment Funds	30,105,984	5.7%
Pooled Real Estate Funds	<u>49,322,099</u>	<u>9.4%</u>
Grand Total	<u>\$525,613,907</u>	<u>100.0%</u>

For the year ending December 31, 2015, the rate of return for the investments of the Massachusetts Port Authority Employees' Retirement System was -0.42%. For the five-year period ending December 31, 2015, the rate of return for the investments of the Massachusetts Port Authority Employees' Retirement System averaged 7.00%. For the 31-year period ending December 31, 2015, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Massachusetts Port Authority Employees' Retirement System was 8.93%.

The composite rate of return for all retirement systems for the year ending December 31, 2015 was 0.91%. For the five-year period ending December 31, 2015, the composite rate of return for the investments of all retirement systems averaged 7.49%. For the 31-year period ending December 31, 2015, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.14%.

SUPPLEMENTARY INVESTMENT REGULATIONS

The Massachusetts Port Authority Employees' Retirement System submitted the following supplementary investment regulations, which were approved by the Public Employee Retirement Administration Commission on:

PERAC Approval Date: 5/7/09

Regulation Number 16.08: In accordance with Investment Guideline 99-2, the Massachusetts Port Authority Employees' Retirement System is authorized to make a modest modification to its large cap equity index mandate with State Street Global Advisors. In order to achieve broader exposure within the asset class, the System is transferring from SSGA's S&P 500 Flagship Fund to its Russell 1000 Securities Lending Fund.

PERAC Approval Date: 11/1/06

Regulation Number 16.08: In accordance with Investment Guideline 99-2, the Massachusetts Port Authority Employees' Retirement System is authorized to make a modest modification to its core plus fixed income mandate with Wellington Trust Company. The overall strategy and benchmark are remaining the same, but the system is transferring its assets from an existing separate account to a commingled fund. The Core Bond Plus (Monthly Series) allows use of certain derivative instruments for risk management and other purposes consistent with the investment objective as well as greater flexibility in the use of below investment grade securities, currency exposure, and emerging market debt

PERAC Approval Date: 03/25/2004

Regulation Number 16.08: In accordance with PERAC Investment Guideline 99-2, MPAERS is authorized to transfer its international equity mandate with Baring Asset Management from the Standard Active/Passive Non-Lending Fund B to the Full Active/Passive Equity (Lending) Fund G. The funds have the same portfolio management team and both are managed to the MSCI-EAFE benchmark. The difference is that the current fund achieves its objective by investing in country-specific index funds while the new fund will also invest in sector-specific index funds. MPAERS has had a satisfactory relationship with Baring for over four years.

PERAC Approval Date: 09/20/2000

Regulation Number 16.08: The MPAERS may modify its fixed income investment mandate with Wellington Management Company from Core to Core Plus. The system has had a satisfactory existing relationship with Wellington. The Board believes that the greater flexibility and diversification achieved by allowing opportunistic limited investments in high yield and international fixed income securities will offer long-term benefits in portfolio returns. The portfolio manager, as well as the portfolio benchmark, will not change.

NOTES TO FINANCIAL STATEMENTS

NOTE I – SUMMARY OF PLAN PROVISIONS

The plan is a contributory defined benefit plan covering all Massachusetts Port Authority Employees' Retirement System member unit employees deemed eligible by the retirement board.

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.

NOTES TO FINANCIAL STATEMENTS (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.

NOTES TO FINANCIAL STATEMENTS (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 70½.

NOTES TO FINANCIAL STATEMENTS (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.

NOTES TO FINANCIAL STATEMENTS (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 \$846.12 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 \$846.12 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 \$150,000.00 from the State Retirement Board. This lump sum payment is also available to the family of a public prosecutor in certain, limited circumstances.

NOTES TO FINANCIAL STATEMENTS (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

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.

NOTES TO FINANCIAL STATEMENTS (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 is 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-rata may not be undertaken. This is because such a person may receive a separate retirement allowance from each system.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 2 - 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 retains an investment consultant to closely monitor the implementation and performance of their investment strategy and advise them of the 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.

NOTES TO FINANCIAL STATEMENTS (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.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS

The Massachusetts Port Authority Employees' Retirement System submitted the following supplementary membership regulations, which were approved by the Public Employee Retirement Administration Commission:

Membership:

March 11, 2013:

Subject: Membership: Employees of any member unit of the Massachusetts Port Authority Employees' Retirement System (MPAERS) who are regularly employed a minimum of 21 hours per week and earn a minimum of \$5,000 per year must become members of the MPAERS.

Subject: Membership: Student Employment: Members of the MPAERS shall receive no service credit and the MPAERS accepts no liability for student employment.

Subject: Membership: Service Purchases: New members or members who are reinstated or re-enter active service on or after April 2, 2013 who are eligible to purchase service under M.G.L. Chapter 32, Section 3 will have one year from their date of membership in which to either complete a service purchase or initiate a buyback through payroll deduction at the buyback interest rate (one half of the actuarial interest rate). Any such service purchase initiated after the date of the member's one year anniversary shall be calculated using an interest rate equivalent to the MPAERS' actuarial rate of return.

Creditable Service:

October 1, 2002

In the event that a member claims creditable service pursuant to § 4(2)(c) for temporary or part-time service prior to the time that the member became a member of the system, the member shall submit such documentation as she or he has to verify said service. Service shall be granted equal to the period of service multiplied by a fraction, no greater than 1, the numerator of which is the actual number of hours of service performed in each week divided by the number of hours in a normal work week for the member's position. In the event that the member and/or the board are able to document the fact of such service and the status (full- or part-time) under which the member was employed but there are no records of the member's actual service performed, creditable service shall be given according to the member's status of record unless there is competent evidence that establishes that the actual service was different. For members first employed by the Authority after May 1, 1999, no such creditable service shall be allowed, unless within one year after becoming a member, the member has, pursuant to subsection 4(2)(a) of Chapter 32, filed a detailed statement of the service which he or she is claiming credit.

Veterans' Service Buy-back Regulations

April 18, 1997:

Approval of regulations to implement purchases of veterans' service pursuant to chapter 71 of the acts of 1996.

ERI regulations

May 29, 1996

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

Approval of regulations to implement an Early Retirement Incentive program pursuant to section 49 of chapter 133 of the acts of 1992 as amended by chapter 5 of the acts of 1996.

Creditable Service During Periods of Leave of Absence

March 27, 1996

The Massachusetts Port Authority Employees' Retirement Board will grant creditable service to members of the Retirement System as follows:

The Board shall grant up to one month of creditable service for any authorized leave of absence or medically related leave, planned or not, including maternity leaves, for which the member received no compensation.

Each separate period of continuous absence is subject to the full one-month limit.

The Board shall maintain discretion to limit the above stated rule in situations where the consecutive periods of absence without pay are related to the same cause and are separated by relatively short periods of employment.

All determinations of creditable service shall be subject to review by the Retirement Board at the time of retirement.

April 26, 1993: Regularly employed employees with periods of full time and less than full time employment, shall be granted one full year of creditable service for each year of full time employment and a prorated amount of creditable service for the periods of less than full time employment determined in the same manner as for transferred service referred to above. The prorated service shall be based on the actual hours worked as it relates to the full time hours of the position.

Regularly employed employees who work less than full time throughout their entire employment with Massport, do not have prior full time creditable service with another c. 32 retirement system, and retire from Massport, shall receive one year of creditable service for each year of such part time service. If any such employee should transfer to another retirement system, governed by c. 32 pursuant to which service with Massport would be considered creditable service, the amount of creditable service to which the employee shall be entitled should be that part of a year determined by multiplying one year by a fraction in which the numerator is the total hours worked and the denominator is the total of the full time hours of the position.

Regularly employed full time employees shall receive one year of creditable service for each year of full time employment as defined for the position.

Regular Compensation:

October 11, 2001: Buyback of Vacation as Regular Compensation and Election of Board Members

1. Payments received by a member pursuant to the Authority's vacation policy buyback provisions shall be considered regular compensation for purposes of G.L. c. 32, § 1.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

2.The Secretary-Treasurer of the Authority shall cause the annuity savings deductions provided for in G.L. c. 32, § 22(1)(b) to be made from all payments made to members pursuant to said vacation buyback policy.

Miscellaneous:

June 27, 2013

By-Laws

The Massachusetts Port Authority Employees' Retirement System Board (the "Board"), acting pursuant to the powers granted it under the provisions of Chapter 32 of the General Laws as amended by Chapter 487 of the Acts of 1978, hereby establishes By-Laws for use by the Board.

Section 1 Powers and Duties of the Board:

The Massachusetts Port Authority Employees' Retirement System ("MPAERS" or the "Retirement System") shall be managed by a retirement board consisting of five members as provided in subsection 4 7/8 (b) of Section 20 of Chapter 32 of the General Laws. The retirement board shall have the general powers and duties set forth in subdivision 5 of Section 20 as well as the duties set forth in 840 CMR 1.01.

Section 2 Board Composition:

The membership of the Board shall consist of five members as follows: The Secretary-Treasurer of the Massachusetts Port Authority (the "Authority") who shall be a member ex officio, a second member appointed by the Authority, a third and fourth member who shall be elected by the members in or retired from service of this system from among their number for a term of three years, a fifth member who shall not be an employee, retiree or official of the government unit and who shall be appointed by the other four members for a term of three years. The terms of the third and fourth members shall be arranged so as not to expire in the same year as the term of the fifth member (M.G.L Chapter 32, Section 20 (4 7/8) (b)).

Section 3 Election or Appointment of Successors:

Each member of the retirement board shall continue to hold office until the expiration of his/her term and until qualification of his/her successor. Prior to the expiration of the term of office of the third and fourth members, successors shall be elected for a three- year term by the members in or retired from service of the system. The election shall be held within a period of ninety days prior to the expiration of the term of office of the incumbent third and fourth members. Elections shall be held in accordance with both the Standard Rules for Elections promulgated by the Public Employees Retirement Administration in (840 CMR 7 00 to 7 13) and the MPAERS Supplementary Election Regulations. In the case of a vacancy during the third or fourth members' three year term, a special election shall be held for the unexpired portion of the third or fourth members' term within a period of ninety days of a vacancy. No later than thirty days after the expiration of the term of office of the fifth member, the other four members, by a majority vote, shall appoint a successor for a three year term. If a fifth member is not appointed by the other four members within thirty days following the expiration of his or her term of office, the Members of the Authority shall appoint the fifth member. In the case of a vacancy during the fifth member's term, the other four members shall

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

appoint a successor within thirty days after a vacancy for the unexpired portion of the fifth member's term, and, if a fifth member is not appointed by the other four members within the specified thirty days, the Members of the Authority shall appoint a fifth member.

Section 4 Compensation of Board Members:

The elected and appointed members of the Board upon acceptance of Chapter 32 Section 20(6)(a) by the Authority's Board of Directors shall receive a stipend of three thousand dollars per annum, provided however, that said stipend shall be paid from such funds under the control of said Board as shall be determined by the Public Administration Retirement Administration Commission. Members may also be reimbursed from the expense fund of the system for any expense or loss of salary or wages which they may incur through service on the Board (M.G.L. Chapter 32, Section 20 (4 7/8)(c)).

Article II

Organization and Meetings

Section 1 Chairman:

The Board shall elect one of its members to serve as chairman for a term of three years or until the expiration of that member's term as a member of the Board. The Chair shall preside over all meetings of the Board.

Section 2 Vice Chairman:

The Board shall elect one of its members to serve as vice chairman for a term of three years or until the expiration of the member's term as a member of the Board. In the absence of the Chairman, the Vice Chairman shall preside at a meeting of the Board.

Section 3 Director of Retirement:

The Board shall appoint a Director of Retirement. The Director of Retirement shall serve as secretary or clerk of the Board. He/she shall keep a true and accurate record of the proceedings of the Board and shall be custodian of all books, documents and papers filed with the Board and of the minute book or journal of the Board. He/she shall have authority to cause copies to be made of all minutes and other records and documents of the Board and to certify to the effect that such copies are true copies, and all persons dealing with the Board may rely on such certifications. He/she shall cause notice to be given of all meetings of the Board as required by law or these By-laws.

Section 4 Other Employees:

The Board shall employ other staff as may be required to effectively and efficiently transact the business of the system.

Section 5 Meetings:

The Board meetings shall be held at the principal offices of the retirement system or at such other place as may from time to time be fixed by vote of the Board or as shall be specified in the notice of the meeting.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

A. Regular Meetings: A regular meeting of the Board shall be held each month generally on the last Wednesday of the month unless otherwise specified by the Board.

B. Notice: Written notice, specifying the date, place, and hour (but not necessarily the purpose) of the meeting, must be served on or sent or mailed to each member but not less than two days before the meeting unless notice is waived by the member. Such notice shall also be filed and posted as required under Section 11A 1/2 of Chapter 30A of the General Laws.

C. Special Meetings: Special meetings may be held at any time upon the call of the chairman or a majority of the other members.

D. Disability Hearings: If at all possible, disability hearings will be scheduled as Special Meetings and not part of a Regular Meeting agenda. Should board member schedules not permit this, disability hearings may be conducted during a Regular meeting.

1. Disability applicants will be given the choice of whether or not their hearing will be held in Executive Session.

2. A Summary of Application will be provided to the Board and applicant prior to the hearing.

3. The applicant will have the opportunity to review with the Board any evidence submitted as part of the disability application.

Section 6 Minutes:

The Board shall keep minutes for all meetings. The Director of Retirement shall be responsible for preparing the minutes.

Section 7 Quorum:

Three or more members present at any meeting shall constitute a quorum and the affirmative vote of a majority shall be necessary for any action taken by the Board. At any meeting at which a quorum is present, any action may be taken by the vote of the members present. If a quorum is not present at any meeting, the members present shall adjourn the meeting, without further notice, until a quorum has been obtained.

Section 8 Procedure:

A point of order as to procedure raised by any Member in the course of a regular or special meeting shall be resolved by a ruling of the Chair on the point of order. A member may appeal a ruling of the Chair to the Board. In the case of an appeal of a ruling of the Chair to the Board, Robert's Rules of Order Revised ("Roberts Rules") shall guide the Board in its deliberation in all cases in which Robert's Rules are applicable and in which they are not in conflict with these By-laws or the General Laws of the Commonwealth of Massachusetts. The affirmative vote of at least three Members shall be required to overrule the Chair.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

Section 9 Investment Committee:

The investment committee of the board shall consist of the ex-officio member, as he is the Treasurer-Custodian of the funds of the system, and the Director of Retirement. The Investment Committee shall be responsible for implementing the investment policy of the Board on a daily basis, for daily supervision of the Investment Advisor, Custodian, and Investment Managers, and for keeping the Board advised of all matters material to the Board's management of the MPAERS funds.

Section 10 Human Resource and Compensation Committee:

The Human Resources and Compensation Committee shall consist of not less than two Members of the Board, one whom shall serve as Committee Chair as appointed by resolution of the Members of the Board. In addition, the Director of Retirement shall serve as a member of the Committee. The Human Resource and Compensation Committee shall be responsible for the management, oversight and development of the MPAERS programs, policies and procedures relating to its employees. All meetings of the committee may be attended by any other member of the Board who may participate in discussions as a non-voting member. MPAERS staff shall be assigned by the Director of Retirement, as appropriate, to support the committee

Section 11 Ad-Hoc Committees:

The Chair may, in his or her sole discretion, establish an ad-hoc committee to consider a specific matter and report back to the Board. The Chair will appoint the Committee Chair, who must be a Board member, and the members of the Committee.

Article III

Maintenance and Inspection of Records

The Board shall maintain at its principal offices the original or attested copies of these By-laws, records of all Board member elections, records of all Board meetings and all records required to be maintained under the provisions of Chapter 32 or any other provision of the General Laws. Such copies and records as shall pertain to any member in service or member inactive shall be open at all reasonable times to the inspection of the member for a proper purpose, and in accordance with the Standard Rules for Disclosure of Information promulgated by the Public Employee Retirement Administration Commission (840 CMR 6 00 to 6 14).

Article IV

Management of Funds

Section 1 Checks, Notes, Drafts, and Other Instruments:

Checks, notes, drafts, and other instruments for the payment of money drawn or endorsed in the name of the Retirement System shall be signed by the Treasurer-Custodian of the Retirement System upon vouchers signed by both the Director of Retirement and the Treasurer-Custodian. In the Treasurer-Custodian's absence, checks, notes, drafts, and other instruments for payment of money drawn or endorsed in the name of the Retirement System shall be signed by the second member appointed by the Authority.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

Section 2 Investments:

The Board shall invest and reinvest the funds of the Retirement System, to the extent not required for current disbursements, as provided in Section 23 of Chapter 32 of the General Laws. The Board may, by vote, employ any qualified company, corporation, firm or person to advise it on the investment of the funds and may pay for such advice.

Section 3 Maintenance of Funds:

The board shall by vote designate one or more depository banks or trust companies, as provided in Section 23 of Chapter 32 of the General Laws, to maintain funds and securities of the Retirement System. The Board shall by resolution designate a custodian or custodians of the securities of the Retirement System in accordance with the provisions of said Section 23, and may, as permitted by that section, cause any stock, bond or other security or cash of the system to be registered and held, or deposited and held, in the name of one or more nominees appointed by the custodian for the purpose of facilitating security trading and/or money management.

Section 4 Annual Audits:

Promptly after the close of each fiscal year the Board shall cause an audit to be made of its books and accounts by an independent public accountant or firm of independent public accountants of recognized ability and standing nationwide. The report of this audit shall be open to the inspection of all members of the Retirement System, and their agents and representatives. This audit shall be in addition to that required by Section 21 of Chapter 32.

Article V

Actuarial Valuation

The board shall, at such intervals as it shall establish by vote, but at least every two years, cause an actuarial valuation to be performed with regard to the Retirement System assets and liabilities for purposes of determining funding requirements under Section 22 of Chapter 32 of the General Laws and under Section 20 of Chapter 487 of the Acts of 1978. In order to carry out these valuations, the Board shall employ as a pension consultant an independent actuarial consulting organization having a favorable repute for skill and experience in such work. In lieu of this requirement the Board shall rely upon a professional actuary's certification of its pension liabilities for any year in which such certification is provided for by the Authority. Certification of such valuations shall be provided to the Public Employee Retirement Administration Commission's actuary as part of the information required to be provided under Subsection (7)(h) of Section 22 of Chapter 32 of the General Laws.

Article VI

Fiscal Year

The Fiscal year of the retirement system shall be the year ending with the 31st day of December in each year.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

Article VII

Amendment

The By-laws may be amended or repealed and any new By-laws may be adopted at any regular special meeting of the Board; provided, however, that notice of a proposal to alter, amend, or repeal these By-laws shall be included in the anticipated topic listing for any meeting at which such alteration, amendment or repeal or adoption is considered, and provided, that in each case the affirmative vote of three Members of the Board is required, and such amendments or new By-laws are subject to approval of the Public Employee Retirement Administration Commission as provided under Subsection 4 of Section 21 of Chapter 32 of the General Laws.

Article VIII

Controlling Effect of Provision of Law

Each of the provisions of these By-laws shall be subject to and controlled by specific provisions of law, and particularly Chapter 32 of General Laws, which relate to their subject matter.

Article IX

Indemnification

Both the Board and Director of Retirement of the Retirement System are deemed "officers" of the Authority for purposes of indemnification as provided in Article VII of the Authority's By-laws.

October 11, 2001

Election of Board Members

7.07(3) ... No campaign paraphernalia or literature on behalf of any candidate will be delivered or distributed to voting members by the Retirement Board or its staff; provided, however that this shall not preclude the Board from utilizing its newsletter or other materials to publish information about the election and the candidates as it may determine to be in the best interest of the members and a fair election. ...

7.12 - The Massachusetts Port Authority Employees' Retirement System shall conduct a simultaneous election for the two elected members of the Board. Both terms of the elected members shall be for three years and expire on the same date. In conducting the election, the Board shall place all candidates who have been nominated in conformance with 840 CMR 7.04 on one ballot. All eligible candidates shall be listed on the ballot in an order determined by a random drawing of the names of the candidate. In the event that only two candidates have been nominated, the Board shall declare said candidates to be the elected members of the Board, no elections shall be held, and said candidates shall take office and serve in all respects as though he or she had been elected by election. If there are more than two candidates, an election shall be conducted and each member of or retired from the Massachusetts Port Authority Employees' Retirement System shall be allowed to vote for not more than two candidates. Upon tabulation of the ballots, the two candidates who receive the most votes shall be declared the elected members of the Board.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 3 - SUPPLEMENTARY MEMBERSHIP REGULATIONS (Continued)

November 12, 1992

Election Rules

Approval of revised supplementary rules for election of the second board member.

September 23, 1988

By-Laws of Board

Approval of by-laws pertaining to: powers and duties of the board; election or appointment of successors; compensation of board members; organization and meetings; maintenance and inspection of records; management of funds; actuarial valuation, etc.

Travel Regulations

The Massachusetts Port Authority Employees' Retirement System has adopted Travel Supplemental Regulations under the provisions of G.L. c. 7, § 50 and G.L. c. 32, § 21(4). Regulations available upon written request, and are also available on the PERAC website <http://www.mass.gov/perac/board-info/profiles/travel/massporttravelreg.html>

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 4 - ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of the Secretary/Treasurer of the Massachusetts Port Authority who shall be a member ex-officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the other four board members.

Ex-officio Member: John P. Prankevicius, CPA

Appointed Member: Michael A. Grieco Serves until a successor is appointed

Elected Member: Philip H. Mallett Term Expires: 1/10/2020

Elected Member: Elizabeth Taylor Term Expires: 1/10/2020

Appointed Member: James S. Hoyte, Chairperson Term Expires: 1/11/2021

The Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of \$3,000,000 with a \$100,000 deductible issued through Hartford Fire Insurance Company.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 5 - ACTUARIAL VALUATION AND ASSUMPTIONS

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

The total actuarial liability was *	\$596,057,447
System assets as of that date were (actuarial value)	<u>549,104,708</u>
The unfunded actuarial liability was *	<u>\$46,952,739</u>
The ratio of system's assets to total actuarial liability was	92.1%
As of that date the total covered employee payroll was	\$102,262,879

The normal cost for employees on that date was 9.3% of expected payroll
 The normal cost for the employer (including administrative expenses) was 8.5% of expected payroll

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

Investment Return: 7.25% per annum
 Rate of Salary Increase: 4.50% per annum

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2016

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)
1/1/2016	\$549,104,708	\$596,057,447	\$46,952,739	92.1%	\$102,262,879	45.9%
1/1/2015	\$520,740,990	\$552,644,012	\$31,903,022	94.2%	\$95,475,718	33.4%
1/1/2014	\$479,181,222	\$503,474,105	\$24,292,883	95.2%	\$90,979,477	26.7%
1/1/2013	\$433,408,458	\$457,937,151	\$24,528,693	94.6%	\$86,729,766	28.3%
1/1/2012	\$422,998,843	\$436,468,016	\$13,469,173	96.9%	\$84,044,762	16.0%
1/1/2011	\$420,800,868	\$419,271,699	(\$1,529,169)	100.4%	\$82,540,581	-1.9%
1/1/2010	\$410,469,122	\$407,856,780	(\$2,612,342)	100.6%	\$86,438,149	-3.0%
1/1/2009	\$342,952,767	\$327,828,633	(\$15,124,134)	104.6%	\$85,943,871	-17.6%
1/1/2008	\$396,929,832	\$387,223,231	(\$9,706,601)	102.5%	\$81,119,712	-12.0%
1/1/2007	\$368,345,560	\$357,507,095	(\$10,838,465)	103.0%	\$76,834,550	-14.1%

* On a Frozen entry Age Cost method basis. The funding method does not explicitly calculate an actuarial accrued liability. The actuarial accrued liability is calculated as the sum of the frozen initial unfunded liability plus the actual value of assets.

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 6 - MEMBERSHIP EXHIBIT

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Retirement in Past Years										
Superannuation	24	19	29	39	49	51	31	34	39	40
Ordinary Disability	1	0	0	1	0	0	1	1	0	0
Accidental Disability	0	4	2	1	3	1	0	4	0	3
Total Retirements	25	23	31	41	52	52	32	39	39	43
 Total Retirees, Beneficiaries and Survivors	484	478	500	531	579	630	655	686	698	749
 Total Active Members	1,171	1,179	1,192	1,196	1,172	1,194	1,130	1,161	1,191	1,245
 Pension Payments										
Superannuation	\$7,872,178	\$8,368,034	\$8,973,213	\$9,709,299	\$11,033,319	\$12,875,081	\$14,048,139	\$14,938,845	\$15,881,245	\$17,084,550
Survivor/Beneficiary Payments	995,316	993,802	1,037,531	1,178,997	1,261,172	1,594,931	1,770,145	1,916,187	2,006,878	2,164,704
Ordinary Disability	147,440	210,118	144,842	139,394	141,850	144,152	139,922	138,631	141,323	143,933
Accidental Disability	1,306,892	1,453,997	1,467,008	1,544,161	1,559,285	1,609,131	1,677,194	1,863,612	1,885,632	1,972,501
Other	<u>247,619</u>	<u>230,656</u>	<u>185,884</u>	<u>250,841</u>	<u>252,068</u>	<u>259,714</u>	<u>296,073</u>	<u>328,375</u>	<u>346,291</u>	<u>413,617</u>
Total Payments for Year	<u>\$10,569,445</u>	<u>\$11,256,607</u>	<u>\$11,808,478</u>	<u>\$12,822,692</u>	<u>\$14,247,694</u>	<u>\$16,483,009</u>	<u>\$17,931,473</u>	<u>\$19,185,649</u>	<u>\$20,261,369</u>	<u>\$21,779,305</u>

NOTES TO FINANCIAL STATEMENTS (Continued)

NOTE 7 – LEASED PREMISES

The Massachusetts Port Authority Employees' Retirement Board leases approximately 2,832 square feet of space for its offices located at Suite 102S Logan Office Center, One Harborside Drive, East Boston, MA. They signed an initial 5-year lease term which commenced June 1, 2014 and will expire May 31, 2019. The landlord is the Massachusetts Port Authority.

Initially, the base rent was equal to \$32.61 per rental square foot of the area or \$7,695.96 per month, \$92,351.52 per year. This is subject to an annual escalation adjustment on October 1st in an amount equal to the greater of (i) 100% of the Consumer Price Index Adjustment and (ii) three percent (the Minimum Adjustment).

There is additional rent of (1) operating fees, (2) space fit-out reimbursement and (3) other amounts due. The Operating Fee includes support services such as catering, IT services, telephone, payroll, accounting, central services and Human Resources. Initially, this was \$5,851 per month, \$70,212 per year. This rate is adjusted 5% each October 1st. The Space Fit-Out Reimbursement is equal to \$6338.33 per month, \$76,060 per year. This represents the annualized level debt service of the tenant fit-out costs amortized over ten years with interest at 5.2%. The cost to fit-out the space is \$592,114.25, with interest it equals \$760,600.07. Other amounts due includes payment for spaces in the parking garage at \$280 per month, \$3,360 per year.

The Massachusetts Port Authority Employees' Contributory Retirement System paid \$250,452 and \$163,418 in Rent Expenses for 2015 and 2014, respectively.

The following schedule displays the minimum lease obligations on this operating lease as of December 31, 2015:

<u>For the year ending:</u>	<u>Annual Rent</u>
2016	\$257,074
2017	263,978
2018	271,167
2019	<u>92,030</u>
Total future minimum lease payments required	<u>\$884,249</u>

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