**BRISTOL COUNTY RETIREMENT SYSTEM** FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION FOR THE YEAR ENDED DECEMBER 31, 2016 WITH INDEPENDENT AUDITOR'S REPORT

## **BRISTOL COUNTY RETIREMENT SYSTEM** INDEX TO FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION FOR THE YEAR ENDED DECEMBER 31, 2016

## INDEX

Independent Auditor's Report on Financial Statements	1
Management's Discussion and Analysis	3
Basic Financial Statements	7
Statement of Fiduciary Net Position	7
Statement of Changes in Fiduciary Net Position	8
Notes to the Financial Statements	9
Required Supplementary Information	22
Schedule of Changes in the Net Pension Liability	22
Schedule of Contributions	23
Schedule of Investment Return	24
Notes to the Required Supplementary Information	25
Independent Auditor's Report on Audit of Specific Elements, Accounts, and Items of Financial Statements	26
Pension Plan Schedules	28
Schedule of Employer Allocations	28
Schedule of Pension Amounts by Employer	29
Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer	33

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## **INDEPENDENT AUDITOR'S REPORT**

To the Honorable Bristol County Retirement Board Bristol County Retirement System Taunton, Massachusetts

## **Report on the Financial Statements**

We have audited the accompanying financial statements of the Bristol County Retirement System (the System), as of and for the year ended December 31, 2016 and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of December 31, 2016, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

1

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#### **Other Matters**

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, on pages 3 through 6, the Schedule of Changes in the Net Pension Liability and Related Ratios on page 22, Schedule of Contributions on page 23, and the Schedule of Investment Returns on page 24 and Notes to Required Supplementary Information on Page 25, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated July 26, 2017 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Lynch Mally Marin LLD

Norwell, Massachusetts July 26, 2017



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# MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Bristol County Retirement System (the System) we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2016.

#### FINANCIAL HIGHLIGHTS

The fiduciary net position held in trust for pension benefits totaled approximately \$598 million at December 31, 2016, and \$572 million at December 31, 2015. The net position is available for payment of monthly retirement benefits and other distributions to the System's participants.

The total number of participants in the System as of the last actuarial valuation date, or January 1, 2016, was 6,258 active and retired.

The funded ratio of the System was 64.2% as of December 31, 2016.

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

The System is a multiple-employer cost sharing public employee retirement plan, which is a defined benefit plan. The System covers substantially all non-teaching employees in the County, 14 municipalities and 22 special districts. Pursuant to Massachusetts General Law (MGL) the System provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For employees hired after April 1, 2012, retirement allowances are calculated on the basis of the last five years or any five consecutive years, whichever is greater in terms of compensation. Benefit payments are based upon a member's age, length of creditable service, level of compensation and group classification.

Contribution rates for active members are set at 5%, 7%, 8% or 9% of gross regular compensation, as defined; depending on the date membership began. Certain employees contribute an additional 2% on compensation over \$30,000 per annum.

The System's financial statements are comprised of a Statement of Fiduciary Net Position, a Statement of Changes in Fiduciary Net Position, and Notes to the Financial Statements. Also included is certain required supplementary information, and Audits of Specific Elements, Accounts, and Items of Financial Statement Schedules.

The System is administered by the Bristol County Retirement Board and is governed by Chapter 32 of the Massachusetts General Laws.

The Statement of Fiduciary Net Position presents the information on the System's assets and liabilities and the resulting net position restricted for pension benefits. This statement reflects the System's investments at fair market value, along with cash and short-term investments, receivables, and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pension benefits changed during the year ended December 31, 2016. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds and withdrawals, and administrative expenses. Investment income during the period is also presented showing income from investing and securities lending activities.

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

#### **OVERVIEW OF THE FINANCIAL STATEMENTS (continued)**

The System is on a funding schedule to be 100% funded by the year 2028. The participating governmental entities contribute to this schedule annually based on the status of the biennial actuarial evaluation.

The Required Supplementary Information also includes the Schedule of Changes in the Net Pension Liability and Related ratios, Schedule of Contributions, Schedule of Investment Return and Notes to Required Supplementary Information.

The Audits of Specific Elements, Accounts and Items of Financial Statements include the following pension schedules of Employer Allocations, Pension Amounts by Employer and Notes to the Related Schedules.

## FINANCIAL ANALYSIS

#### ASSET COMPARISON-2016 compared to 2015

Certain amounts have been reclassified to conform to current year presentation. 2015 amounts presented below have not been reclassified.

	Dece	millions) ember 31, 2016	Dece	-
Domestic Equities and Funds	\$	168.0	\$	218.2
Real Estate Funds		49.1		17.5
Venture Capital Funds		27.4		25.7
Hedge Funds		31.1		35.7
International Equities and Funds		147.6		137.0
Fixed Income:				
Corporate Bond Funds		86.9		94.1
U.S. Government Securities		24.1		10.9
International Bonds		42.4		19.1
Total Managed Investments		576.6		558.2
Receivables		3.7		3.7
Cash and Other Assets		21.3		12.8
Total Assets	\$	601.6	\$	574.7

The increase in the System's cash is attributable to the System liquidating some investments in domestic equities and funds and holding cash for 2017 investments in Intercontinental and Aberdeen funds. Additionally, the decrease in domestic equity funds, and increase in real estate funds, was due to a reclassification of real estate investment trusts (REITs) from domestic equities to real estate funds, which were previously reported as equities. The System's overall returns as published in Public Employee Retirement Administration Commission's (PERAC) annual report for the past three years were 7.01% in 2016, 0.40% in 2015, and 5.50% in 2014. As published in PERAC's annual report, during the period from 1985 to 2016 the System has achieved a return of 8.77% in annual performance. There was no published annual report from PERAC for 2016 available as of the date of this report.

#### **CONTRIBUTIONS AND DEDUCTIONS**

Contributions to the System by members and employees for the years ended December 31, 2016 and 2015 are summarized below:

	Dece	millions) mber 31, 2016	(\$ in millions) December 31, 2015		
Member Contributions	\$	16.8	\$	15.1	
Employer and Other Contributions		38.2		37.7	
Total	\$	55.0	\$	52.8	

The member contributions increased 11% year to year, while employer contributions increased by 1.3%. The increase in member contributions is due the change in timing of payroll processing and remittances to the System from members along with retroactive payments for member units settling union contracts.

Deductions from System assets for the year ended December 31, 2016 and 2015 are summarized below:

	Dece	millions) mber 31, 016	(\$ in millions) December 31, 2015		
Member Benefits	\$	56.1	\$	53.0	
Refunds and Transfers		5.3		6.7	
Administration		1.1		1.0	
Total	\$	62.5	\$	60.7	

The change in member benefits is attributable to increases in monthly benefits and newer retirees. The change in refunds and transfers is attributable to payments to other retirement systems.

## **ECONOMIC FACTORS**

## Funding

A pension fund is well funded when it has enough money in reserve to meet all expected future obligations to participants. The funded ratios of the System at December 31, 2016 (the measurement date), determined by an actuarial valuation dated January 1, 2016 is as follows:

<u>2016</u>	<u>2015</u>
64.17%	62.95%

#### PLAN AMENDMENTS

Any changes in benefits or other matters related to the System require an action by the State Legislature. Many also require local acceptance by the governing body of the member units.

## OTHER

Other than changes in the fair value of the System's assets due to volatility in the capital markets, no other matters are known by management to have a significant impact on the operations or financial position of the System.

#### **REQUESTS FOR INFORMATION**

This financial report is designed to provide a general overview of the System's finances for all those with an interest. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Bristol County Retirement System, 645 County Street, County Crossing, Taunton, MA 02780.

# BASIC FINANCIAL STATMENTS

## **BRISTOL COUNTY RETIREMENT SYSTEM** STATEMENT OF FIDUCIARY NET POSITION DECEMBER 31, 2016

ASSETS	
Cash and short-term investments	\$ 21,161,709
Dessivelles	
Receivables	1 0 49 622
Employee	1,048,632
Employer Securities sold	46,886
Interest and dividends	699,215 402,242
	403,242
Other systems	 1,500,951
Total receivables	3,698,926
Investments, at fair value	
Domestic equities and funds	168,041,697
Real estate funds	49,146,641
Venture capital funds	27,391,172
Hedge funds	31,100,310
International equities and funds	147,552,878
Fixed income	
Domestic bonds and funds	86,941,585
U.S. government security	24,108,973
International bonds and funds	 42,375,697
Total investments	576,658,953
Other asset	 126,935
Total assets	601,646,523
LIABILITIES	
Due to brokers and investment managers	956,967
Due to other systems	2,777,990
Accounts payable	 127,201
Total liabilities	 3,862,158
NET POSITION RESTRICTED FOR PENSIONS	\$ 597,784,365

The accompanying notes are an integral part to these financial statements.  $$7\!$ 

## **BRISTOL COUNTY RETIREMENT SYSTEM** STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED DECEMBER 31, 2016

## ADDITIONS

Contributions	
Employer	\$ 36,312,416
Plan Members	16,776,313
Other systems and state	1,874,250
Miscellaneous	66,217
Total contributions	 55,029,196
Investment Income	
Net increase (decrease) in fair value of investments	
Domestic equities and funds	11,530,755
Real estate funds	425,618
Venture capital funds	694,939
Hedge funds	1,389,796
International equities and funds	9,133,295
Domestic bonds and funds	5,487,992
U.S. government security	(110,757)
International bonds and funds	(296,814)
Interest and dividends	 10,786,200
	39,041,024
Less investment expense	(5,351,394)
Net investment income	 33,689,630
Total additions	 88,718,826
DEDUCTIONS	
Benefits	56,087,290
Refunds and transfers of contributions	5,295,452
Administrative and other expenses	1,149,837
Total deductions	 62,532,579
NET CHANGE IN FIDUCIARY NET POSITION	26,186,247
Fiduciary Net Position, Beginning of Year	 571,598,118
Fiduciary Net Position, End of Year	\$ 597,784,365

The accompanying notes are an integral part to these financial statements.

# **NOTES TO THE FINANCIAL STATEMENTS**

#### 1. PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

The following brief description of the System is provided for general information purposes only. Participants should refer to Chapter 32 of the Massachusetts General Laws, the System's Retirement Guide, and other applicable statements, for more complete information.

#### General

The System is a multiple-employer cost sharing public employee retirement plan, which is a defined benefit pension plan covering eligible County and local municipal employees, except teachers and other employees covered by the Commonwealth of Massachusetts Teachers' Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent, fulltime employees. The supervisory authority for the management and operation of the System is the Board, which acts as a fiduciary for investment of the funds and the application of System interpretations.

As of January 1, 2016 the date of the latest updated valuation, the System's membership consisted of:

Retirees and beneficiaries currently receiving benefits	2,119
Inactive participants	672
Disabled participants	274
Active participants	3,193
	6,258

#### **Benefits**

Members become vested after 10 years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with ten years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with ten years of service if in group 1, 55 years of age with ten years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

#### Contributions

The contributions rates for active members are pursuant to statute. Active members contribute 5, 7, 8, or 9% of their gross regular compensation depending on the date upon which their membership began and certain employees contribute an additional 2% over \$30,000 of annual compensation. Deductions are deposited in the annuity savings fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission (PERAC) actuary. When a member's retirement becomes effective their deduction and related interest are transferred to the annuity reserve fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are the responsibility of the Commonwealth and deposited into the pension fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are the responsibility of the System.

Employer contributions are based on an actuarial calculation. The System and its members determine and pay pension costs on an accrual basis. Employer contributions are due semiannually on a fiscal year basis in July and January; however, in 2016, the System authorized an actuarially determined discount of approximately 2% on contributions paid in advance of July 1<sup>st</sup>. The Commonwealth of Massachusetts currently reimburses the System on a semi-annual basis for increases granted to retirement members between 1982 and 1997.

#### Participating Employers

As of December 31, 2016, there were 37 participating employers consisting of:

Towns	14
County	1
Special Districts	22
Total	_37

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

The Chairman of the System's Board of Directors also serves as Treasurer for Bristol County, which is a member of the System.

#### Tax Status

The System is a qualified plan under the Internal Revenue Code of 1986, as amended and, therefore, is exempt from federal income taxes. The plan administrator believes that the System is designed and is currently being operated in substantial compliance with the applicable requirements of the Internal Revenue Code and will retain its status as a qualified plan.

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following are the significant accounting policies followed by the Bristol County Retirement System (System) also referred to as the (Plan).

#### **Basis of Accounting**

The accompanying financial statements of the Bristol County Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

Bristol County Retirement System is a special-purpose government engaged only in fiduciary activities. The financial statements are prepared using the accrual basis of accounting under which deductions/expenses are recorded when the liability is incurred, additions are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of trade dates. Member and employer contributions are established by statute. Member contributions are a percentage of salaries and are recognized in the period in which employees' salaries are earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

The System is administered by the Bristol County Retirement Board (Board) and is governed by Chapter 32 of the Massachusetts General Laws and other applicable statutes. Administrative expenses are paid with funds provided by operations of the plan.

#### Fair Value Measurement

The System measures assets and liabilities at fair value according to the hierarchy established by generally accepted accounting principles. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The hierarchy is based upon valuation inputs, which are assumptions that market participants would use when pricing an asset or a liability, including assumptions about risk. The following levels are considered:

- <u>Level 1</u> inputs are quoted prices in active markets for identical assets or liabilities at the measurement date.
- <u>Level 2</u> inputs are directly observable for an asset or a liability (including quoted prices for similar assets or liabilities), as well as inputs that are indirectly observable for the asset or liability.
- <u>Level 3</u> inputs are unobservable for an asset or liability.

#### Cash and Short-term Investments

Cash and cash equivalents are considered to be cash on hand and demand deposits with an original maturity date of three months or less. Short term investments are marketable securities, stated at fair value, that are expected to be sold or converted to cash within three to twelve months from December 31, 2016.

#### Accounts Receivable

Accounts receivable consist of employee deductions, securities sold, amounts due from other systems and interest and dividends receivable. These receivables are considered to be 100% collectible and there is no allowance for uncollectible accounts.

#### Investments, at Fair Value

Investments are reported at fair value. Short-term investments include bills and notes and commercial paper, valued at fair value. Debt and equity securities are reported at fair value, as determined by the System's custodial agent, using pricing services or prices quoted by independent brokers based on the latest reported sales prices at current exchange rates for securities traded on national or international exchanges. The fair value of the pro rata share of units owned by the System in equity index and commingled trust funds and mutual funds, is determined by the respective fund trustee based on quoted sales prices of the underlying securities. The fair value of real estate funds is provided by the fund's manager based on the value of the underlying real estate properties as determined from independent appraisals. Securities for which such valuations are unavailable are reported at their fair value as estimated in good faith by the Board based on the information provided by the investment managers responsible for such investments. Fair values for investments in pooled investment vehicles (non-exchange traded commingled funds) are based on the commingled fund's published net asset value (NAV) which are valued based on the underlying marketable securities or in the absences of readily ascertainable market values, the price of identical or similar securities.

Net investment income includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income, and investment income from real estate and investment expenses, which includes investment management and custodial fees and all other significant investment related costs. Foreign currency translation gains and losses are reflected in the net appreciation (depreciation) in the fair value of investments. Investment income from real estate includes the System's pro rata share of income from operations, net appreciation (depreciation) in the fair value of the underlying real estate properties and the System's real estate investment management fees.

The System may invest in various traditional financial instruments that fall under the broad definition of derivatives, which may include U.S. Treasury Strips, collateralized mortgage obligations, convertible stocks and bonds, and variable rate instruments. These investments do not increase investment risk beyond allowable limits specified in the System's investment policy.

Investment securities and investment securities underlying commingled or mutual fund investments are exposed to various risks, such as interest rate, market and credit risks. Due to the risks associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities may occur in the near term and that such change could materially affect the amounts reported in the statement of System's net position.

For more information regarding the fair values of investments, see Note 3.

#### Other Assets

Other assets consist of two condominiums which are owned by a Trust, whose beneficiaries are the System members. The System's administrative offices are located in the condominiums, which were purchased via funding by the member units and general funds. Carrying amount approximates cost, net of accumulated depreciation.

#### Deferred Outflows of Resources and Deferred Inflows of Resources

In addition to assets, the statement of fiduciary net position will report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of fiduciary net position that applies to a future period and so will not be recognized as an outflow of resources (deduction). There are no deferred outflows of resources as of December 31, 2016.

In addition to liabilities, the statement of fiduciary net position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (addition). There are no deferred inflows of resources as of December 31, 2016.

#### Use of Estimates

The preparation of the System's financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make significant estimates and assumptions that affect the reported amounts of net position held in trust for pension benefits at the date of the financial statements and the actuarial information included in the required supplementary information as of the benefit information date, the changes in System's net position during the reporting period and, when applicable, disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

#### **Risks and Uncertainties**

Contributions to the System and the actuarial information included in the Required Supplementary Information Schedule of Changes in the Net Pension Liabilities are reported based on certain assumptions pertaining to interest rates, inflation rates and employee compensation and demographics. Due to the changing nature of these assumptions, it is at least reasonably possible that changes in these assumptions may occur in the near term and, due to the uncertainties inherent in setting assumptions, that the effect of such changes could be material to the financial statements.

## 3. CASH, SHORT TERM INVESTMENTS, AND INVESTMENTS

The System maintains deposits in authorized financial institutions. In the case of deposits, custodial credit risk is the risk that, in the event of a bank failure, the System's deposits may not be returned. The System does not have a formal deposit policy for custodial credit risk. At December 31, 2016, cash and short-term investment deposits totaled \$21,951,104 and had a carrying amount of \$21,161,709. Of the deposit amounts, \$19,337,376 was exposed to custodial credit risk at December 31, 2016, because it was uninsured and uncollateralized. The difference between deposit amounts and carrying amounts generally represents outstanding checks and deposits in transit.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Quoted prices for identical investments in active markets;
- Level 2: Observable inputs other than quoted market prices, and;
- Level 3: Unobservable inputs.

The System has the following recurring fair value measurements as of December 31, 2016:

		Fair Value Measurements Using					
	12/31/2016		Level 1		Level 2	-	Level 3
Investments by fair value level:							
Debt securities							
U.S. Treasury securities	\$ 24,108,973	\$	24,108,973	\$	-	\$	-
Auto loans receivable	849,657		-		849,657		-
СМО	4,389,221		-		4,389,221		-
Corporate bonds	19,673,201		19,673,201		-		-
Credit card receivable	728,699		-		728,699		-
FNMA	262,362		-		262,362		-
Municipal bonds	1,148,014		-		1,148,014		-
Other asset backed	5,012,610		-		5,012,610		-
Total debt securities	 56,172,737		43,782,174		12,390,563		-
Equity securities							
Financial services industry	21,149,997		21,149,997		-		-
Energy industry	9,454,006		9,454,006		-		-
Technology industry	8,876,515		8,876,515		-		-
International	39,320,689		39,320,689		-		-
Other	69,663,900		69,663,900		-		-
Total equity securities	 148,465,107		148,465,107		-		-
Pooled investments							
Equity mutual funds - international	58,799,494		58,799,494		-		-
Fixed income mutual funds - domestic	54,877,821		54,877,821		-		-
Fixed income mutual funds - international	10,095,848		10,095,848		-		-
Real estate investment trusts	20,905,412		20,905,412		-		-
Total pooled investments	 144,678,575		144,678,575		-		-
Total investments by fair value level	 349,316,419	\$	336,925,856	\$	12,390,563	\$	-

#### Investments measured at net asset value (NAV):

Pooled domestic equities	\$ 58,897,279
Pooled international equities	49,432,695
Pooled international fixed income	32,279,849
Private equity funds	23,522,693
Hedge funds	31,100,310
Timberland funds	3,868,479
Real estate	28,241,229
Total investments measured at NAV	 227,342,534
Total investments measured at fair value	\$ 576,658,953

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using the following approaches:

- Municipal Bonds: quoted prices for similar securities in active markets;
- Collateralized Mortgage Obligations (CMO), Auto Loans, Credit Card Receivable, Federal National Mortgage Association (FNMA), and Other Asset Backed Securities: matrix pricing based on the securities' relationship to benchmark quoted prices.

Investments valued using the net asset value (NAV) per share (or its equivalent) are considered select "pooled investments" and, unlike more traditional investments, generally do not have readily obtainable market values and take the form of limited partnerships and private investment trusts. If December 31 statements are available, these values are used preferentially. However, some partnerships/trusts are unable to provide statements as of December 31, 2016. If December 31 valuations are not available, the value is progressed from the most recently available valuation, taking into account subsequent calls and distributions. The following table presents the unfunded commitments, redemption terms and fair value of the pooled investments measured at NAV:

	Fair Value		Unfunde d Commitments		Redemption Frequency (if currently eligible)	Redemption Notice Period
Pooled domestic equities (1)	\$	58,897,279	\$	-	Daily	1 - 10 days
Pooled international equities (2)		49,432,695		-	Daily	5 days
Pooled international fixed income (3)		32,279,849		-	Daily	1 - 10 days
Private equity funds (4)		23,522,693		39,219,647	Ineligible	N/A
Hedge funds (5)		31,100,310		-	Quarterly	45 - 90 days
Timberland funds (6)		3,868,479		4,242,986	Ineligible	N/A
Real estate (7)		28,241,229		5,577,296	Daily/ Ineligble	1 day / N/A
Total investments measured at NAV	\$	227,342,534				

- 1. *Pooled domestic equities.* This type includes investments in 2 private investment trusts that invest primarily in certain common stocks of companies or American Depository Receipts traded on major U.S. stock exchanges. The fair values of the investments in this type have been determined using the NAV per share of the investments. The underlying assets are valued using the market approach for quotations that are readily available; for investments whose quotations are not readily available, the trustee determines the fair value in good faith using applicable valuation inputs.
- 2. *Pooled international equities.* This type includes 1 private investment trust that invests primarily in equity securities outside of North America. The trust provides exposure to economies that offer different business cycles and growth opportunities than North American markets. The fair values of the investment in this type has been determined using the NAV per share of the investment. The underlying assets are valued using the market approach, or if information is not available, then valuation procedures are performed in good faith by the investment manager.
- 3. *Pooled international fixed income*. This type includes 2 private investment trusts that invest primarily in international fixed income securities issued by foreign governments, their agencies, corporations and local/quasi-governmental entities. The investments also include exposure to derivative instruments created to hedge or gain exposure to emerging market fixed income securities. The fair values of the investments in this type are determined using the NAV per share. The market approach is used to value the underlying investments within each fund.

- 4. *Private equity funds.* This type includes investments in 11 private equity funds that invest in limited partnerships and limited liability companies in the form of investee funds (primary and secondary) and direct investments in partnership units and common stock. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital of the investments. These investments can never be redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 15 years.
- 5. *Hedge funds.* This type includes investments in 1 hedge fund which is invested on behalf of the System by the Pension Reserves Investment Trust (PRIT) Fund. The hedge fund invests in event-driven strategies such as credit-event, equity-event, multi-event driven, and stressed/distressed credit positions. The fair values of the investment in this type have been determined using the NAV per share. Redemption frequency for this investment is quarterly with 45 90 days' notice.
- 6. *Timberland funds*. This type includes investments in 2 funds that acquire, hold, lease, mortgage, sell, exchange, dispose and otherwise exercise control over timberland property. Properties are primarily located in the U.S., Brazil and Austria. The fair values of the funds have been determined using the NAV per share. The investments can never be redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 8 years.
- 7. *Real Estate.* This type includes 4 privately held real estate investment trusts that focus on acquiring, holding and disposing of residential and commercial real estate. Other strategies include capitalizing on the current dislocation in the residential and commercial mortgage loan and structured securities markets. 2 of the 4 investments can never be redeemed. Distributions from the non-redeemable funds will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 2 to 5 years.

*Credit risk* is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Credit risk is measured by the assignment of a rating by a nationally recognized statistical rating organization. Equity securities, money market funds, repurchase agreements, international equity funds and equity mutual funds are not rated as to credit risk. Obligations of the U.S. Government and certain of its agencies are not considered to have credit risk and therefore no rating is disclosed. The investment policy of the System does not formally address credit risk; however, the Board provides guidelines with each investment manager, as applicable. At December 31, 2016, the System had \$56,172,737 of individual debt securities. In addition, the System held \$54,877,821 of domestic fixed income mutual funds and \$42,375,697 of international fixed income funds. The average rating for domestic fixed income mutual funds was Baa (all managed by PIMCO and are based on Moody's ratings) and the average rating of international fixed income funds was AA, BBB and BB (for funds managed by Colchester Global, Stone Harbor and Ashmore, respectively, and are based on S&P ratings).

At December 31, 2016, the System's individual debt securities had the following ratings:

#### Ratings by S&P:

		S&P Rating									
Investment Type	 Fair Value	AAA			AA		Α		BBB		Not Rated
Auto Loans Receivable	\$ 849,657	\$	849,657	\$	-	\$	-	\$	-	\$	-
СМО	4,389,221		1,333,948		180,025		342,305		-		2,532,943
Corporate Bonds	19,673,201		384,065		507,841		6,745,124		11,725,248		310,923
Credit Card Receivable	728,699		728,699		-		-		-		-
FNMA	262,362		-		-		-		-		262,362
Government Issues	24,108,973		23,918,572		-		190,401		-		-
Municipals	1,148,014		-		1,027,257		120,757		-		-
Other Asset Backed	 5,012,610		1,084,825		-		602,931		-		3,324,854
Total Debt Securities	\$ 56,172,737	\$	28,299,766	\$	1,715,123	\$	8,001,518	\$	11,725,248	\$	6,431,082

#### Ratings by Moody's:

		Moody's Rating						
Investment Type	Fair Value	Aaa	Aa	Α	Baa	Ba	Not Rated	
Auto Loans Receivable	\$ 849,657	\$ -	\$ -	\$ -	\$-	\$-	\$ 849,657	
СМО	4,389,221	2,499,044	342,073	342,305	337,430	-	868,369	
Corporate Bonds	19,673,201	384,065	433,826	4,822,188	11,395,659	1,004,665	1,632,798	
Credit Card Receivable	728,699	416,182	-	-	-	-	312,517	
FNMA	262,362	-	-	-	-	-	262,362	
Government Issues	24,108,973	23,918,572	-	-	-	-	190,401	
Municipals	1,148,014	429,638	-	718,376	-	-	-	
Other Asset Backed	5,012,610	1,615,382	-	427,730	-	-	2,969,498	
Total Debt Securities	\$ 56,172,737	\$ 29,262,883	\$ 775,899	\$ 6,310,599	\$ 11,733,089	\$ 1,004,665	\$ 7,085,602	

*Interest rate risk* is the risk that changes in market interest rates that will adversely affect the fair market value of an investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair market value to changes in market interest rates. The investment policy of the System does not formally address interest rate risk; however, the Board provides guidelines with each investment manager, as applicable. The average maturity as of December 31, 2016 for the domestic fixed income mutual funds is 9.06 years and the average maturity for the international fixed income funds is 7.54, 8.37 and 7.94 years (for Colchester Global, Stone Harbor EMD and Ashmore EM Fixed Income, respectively).

The following represents the System's individual debt securities' maturities as of December 31, 2016:

	Investment Maturities (in Years)									
Investment Type	Fair Value		Less than 1		1-5		6-10		More than 10	
Auto Loans Receivable	\$	849,657	\$	-	\$	849,657	\$	-	\$	-
СМО		4,389,221		-		-		-		4,389,221
Corporate Bonds		19,673,201		212,672		6,835,812		7,365,468		5,259,249
Credit Card Receivable		728,699		-		728,699		-		-
FNMA		262,362		-		262,362		-		-
Government Issues		24,108,973		125,038		11,015,797		7,724,307		5,243,831
Municipals		1,148,014		-		663,074				484,940
Other Asset Backed		5,012,610		-		1,645,423		427,730		2,939,457
Total Debt Securities	\$	56,172,737	\$	337,710	\$	22,000,824	\$	15,517,505	\$	18,316,698

*Foreign currency risk* is the risk that changes in exchange rates will adversely affect the fair market value of an investment. The System's investment policy does not formally address foreign currency risk. The following table represents the System's foreign currency exposure by investment type at December 31, 2016:

Currency	Cash	 Equity		eal Estate	 Total
Australian Dollar	\$ 3,264	\$ 1,333,650	\$	1,854,763	\$ 3,191,678
Brazillian Real	551	979,897		-	980,448
Swiss Fanc	2,547	2,696,936		-	2,699,483
Czech Korona	1,575	-		-	1,575
Danish Krone	-	290,287		-	290,287
Euro	9,558	9,982,572		1,750,533	11,742,662
British Pound	1	3,235,033		1,046,264	4,281,298
Hong Kong Dollar	4,998	3,088,658		300,977	3,394,633
Hongarian Forint	3,397	108,000		-	111,398
Japanese Yen	47,324	9,099,907		1,373,732	10,520,963
South Korean Won	2,218	1,094,192		-	1,096,410
Mexican Peso	-	178,924		-	178,924
Malaysian Ringgit	2,352	-		-	2,352
New Zealand Dollar	-	296,818		-	296,818
Swedish Krona	4,032	1,387,496		-	1,391,528
Singapore Dollar	-	-		126,998	126,998
Thai Baht	-	292,267		-	292,267
Turkish Lira	-	126,384		-	126,384
South African Rand		 166,734		-	 166,734
Total	\$ 81,818	\$ 34,357,753	\$	6,453,267	\$ 40,892,838

*Concentration of credit risk* is assumed to arise when the amount of investments that the System has with any one issuer exceeds 5% or more of the total value of the System's investments. The System does not have more than 5% of its investments in any one issuer, except for certain pooled funds.

#### Schedule of investment returns

The annual money-weighted rate of return, net of investment expense for the year ended December 31, 2016 was 2.94%, which has been calculated in accordance with the Provisions of GASB #67, *Financial Reporting for Pension Plans*.

## **4. ACTUARIAL VALUATION**

Components of the net pension liability as of December 31, 2016

Total Pension Liability	\$931,628,589
The Pension Plan's Fiduciary Net Position	\$597,784,365
Net Pension Liability	\$333,844,224
The Pension Plan's Fiduciary Net Position as a percentage of Total Pension Liability	64.17%

Additional information as of the latest actuarial valuation follows:

Valuation date	January 1, 2016
Actuarial cost method	Entry age
Amortization method	Level percent, open group
Remaining amortization period	12 years
Asset valuation method	Actuarially valued using a five-year smoothing of asset returns greater than or less than the assumed rate of return

## Actuarial assumptions:

Investment rate of return	7.75%					
Projected salary increases	Service	Rate				
	0-1 2 3-4 5-7 8+	5.50% 4.00% 3.50% 3.00% 2.75%				
Cost-of-living adjustments	3.00% of \$	18,000/year				
Discount rate	7.75%					
Inflation	4.00%					
Rates of retirement	Varies based upon age for general employees, police, and fire employees					
Rates of disability	General employees –35% ordinary, 65% service connected Police & Fire – 5% ordinary, 95% service connected					
Mortality rates	Table with S Healthy Retire represented I forward five females, full represented I forward thre females, full Disabled Retire represented I forward six represented I forward six	<ul> <li>RP-2014 Blue Collar Mortality cale MP-2014, fully generational.</li> <li>e – Group 1 &amp; 2 retirees are by the RP-2000 Mortality Table set e years for males and 3 years for y generational. Group 4 retirees are by the RP-2000 Mortality Table set e years for males and six years for y generational.</li> <li>e – Group 1 &amp; 2 disabled retirees are by the RP-2000 Mortality Table set years. Group 4 disabled retirees are by the RP-2000 Mortality Table set years. Generational adjusting is ile MP-2014.</li> </ul>				

Family Composition	Assumption that 80% of members will be survived by a spouse, and that females are three years younger than males, males are three years older than females
Survivor Benefits	Occupational Death – Survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participants annual salary
	Non-Occupational Death – Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 each additional child.
	Refund of contributions – Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.
Cost-of-Living Adjustments	In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment (COLA) will be determined by a an annual vote of the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$12,000. All COLA's granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and not the liability of the Retirement System. The Bristol County Retirement System has adopted a COLA base of \$17,000 for Fiscal Year 2015 and \$18,000 for Fiscal Year 2016.

For financial reporting purposes, the projection of benefits for the System does not explicitly incorporate the potential effects of the legal limit on employer contributions disclosed in Note 2.

#### Discount Rate

The discount rate used to measure the total pension liability was 7.75%. The discount rate was selected based on a projection of employer and employee contributions, benefit payments, expenses and the long term expected rate of return on trust assets. Under Chapter 32 of the Massachusetts General Law, employers are required to make the necessary contributions to the trust such that the Plan reaches a full funding status by 2040.

#### Sensitivity of the net position liability to changes in the discount rate

The following presents the net position liability calculated using the discount rate of 7.75%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.75%) or 1-percentage point higher (8.75%)

	1% Decrease         Curr           (6.75%)		Current Discount Rate			6 Increase
				(7.75%)		(8.75%)
Bristol County Retirement System's net pension liability as of December 31, 2016	\$	458,228,720	\$	333,844,224	\$	245,856,927

#### Investment policy

The Plan does not have a formal investment policy. The Board is in the process of formalizing an investment policy. The Board approved target weights and expected rates of return on November 4, 2014.

As of November 4, 2014, the Plan's portfolio target weights and assumed long-term rates of return at the asset class level are as follows:

		Long Term
	Portfolio Target	Expected Rate of
Asset Class	Weight	Return
Equity	46.5%	7.8%
Fixed income	24.5%	5.0%
Private equity	8.5%	11.3%
Real estate funds	7.5%	6.3%
Hedge funds	5.0%	7.1%
Infrastructure	5.0%	8.0%
Timber	3.0%	7.5%

## 5. LEGALLY REQUIRED RESERVE ACCOUNTS

The balances in the System's legally required reserves at December 31, 2016:

		<b>Purpose</b>
Annuity Savings Fund	\$ 152,178,900	Active members' contribution balance
Annuity Reserve Fund	49,286,177	Retired members' contribution account
Pension Reserve Fund	396,256,778	Amounts appropriated to fund future
		retirement benefits
Military Credit	62,510	Members' contribution while on military leave
	<u>\$597,784,365</u>	

All reserve accounts are funded at levels required by state statute.

#### 6. COMMITMENTS AND CONTINGENCIES

The System is involved in certain lawsuits at December 31, 2016. In the opinion of System management, the ultimate resolution of these legal actions will not result in a material loss to the System.

## 7. RECENT ACCOUNTING PRONOUNCEMENTS

#### **Pronouncements implemented in 2016:**

The GASB issued <u>Statement #72</u>, *Fair Value Measurement and Application*, which was required to be implemented in fiscal year 2016. The pronouncement addressed accounting and financial reporting issues related to fair value measurements. The System implemented this pronouncement during the 2016 reporting period.

The GASB issued <u>Statement #79</u>, *Certain External Investment Pools and Pool Participants*, which was required to be implemented in 2016. The pronouncement addressed accounting and financial reporting for certain external investment pools and pool participants. This pronouncement did not materially impact the basic financial statements.

#### **Future Pronouncements**

The GASB issued <u>Statement #73</u>, Accounting and Financial Reporting for Pensions and Related Assets That are Not Within the Scope of GASB Statement No. 68, and Amendments to Certain Provisions of GASB Statements No. 67 and 68, which is required to be implemented during fiscal year 2017. The system expects to implement the pronouncement as applicable

The GASB issued <u>Statement #74</u>, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans ("OPEB")*, which is required to be implemented in fiscal year 2018. The pronouncement addresses reporting by OPEB plans that administer benefits on behalf of governments. The System expects to implement the pronouncement as applicable.

The GASB issued <u>Statement #75</u>, *Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions*, which is required to be implemented in fiscal year 2018. The pronouncement replaces previously issued guidance and establishes new accounting and financial reporting requirements for governments whose employees are provided other post-employment benefits. The System expects to implement the pronouncement as applicable.

The GASB issued <u>Statement #76</u>, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*, which is required to be implemented in fiscal year 2017. The pronouncement replaces previously issued guidance and improves financial reporting by redefining the hierarchy of generally accepted accounting principles (GAAP). The System expects to implement the pronouncement as applicable.

The GASB issued <u>Statement #82</u>, *Pension Issues- an amendment of statements #67, #68, and #73)*, which is required to be implemented in 2017. The pronouncement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations for the guidance in an Actuarial Standard of Practice for financial reporting purposes and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The System expects to implement the pronouncement as applicable.

# **REQUIRED SUPPLEMENTARY INFORMATION**

## BRISTOL COUNTY RETIREMENT SYSTEM REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

# Note: This schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

	2016	2015	2014
Total pension liability:			
Service cost	\$ 15,729,470	\$ 15,124,490	\$ 16,427,712
Interest	69,256,778	68,495,323	68,538,354
Benefit payments, including refunds of employee contributions	 (61,382,742)	 (44,280,880)	 (56,581,624)
Net change in total pension liability	23,603,506	39,338,933	28,384,442
Total pension liability, beginning	 908,025,083	 868,686,150	 840,301,708
Total pension liability, ending (a)	\$ 931,628,589	\$ 908,025,083	\$ 868,686,150
Plan fiduciary net position increase (decrease):			
Member contributions	\$ 18,716,780	\$ 18,270,738	\$ 14,991,145
Employer contributions	36,312,416	34,411,381	32,216,280
Net investment income (loss)	33,689,630	(5,679,765)	27,547,920
Retirement benefits and refunds	(61,382,742)	(59,773,359)	(52,732,330)
Administrative expenses	 (1,149,837)	 1,405,035	 (1,507,773)
Net increase (decrease) in fiduciary net position	26,186,247	(11,365,970)	20,515,242
Fiduciary net position at beginning of year	 571,598,118	 582,964,088	 562,448,846
Fiduciary net position at end of year (b)	\$ 597,784,365	\$ 571,598,118	\$ 582,964,088
Net pension liability - ending (a) - (b)	\$ 333,844,224	\$ 336,426,965	\$ 285,722,062
Plan fiduciary net position as a percentage of total pension liability	64.17%	62.95%	67.11%
Covered-employee payroll	\$ 155,392,270	\$ 152,406,793	\$ 141,877,055
Net pension liability as a percentage of covered employee payroll	214.84%	220.74%	201.39%

See Independent Auditor's Report and notes to required supplementary information.

## BRISTOL COUNTY RETIREMENT SYSTEM REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CONTRIBUTIONS INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

## Note: This schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

	 2016	 2015	 2014
Actuarial determined contribution (a)	\$ 36,641,656	\$ 34,405,310	\$ 32,305,486
Discounts on contributions from early payments and adjustments for interest and other payments Contributions in relation to the actuarially	(689,802)	(643,501)	(89,206)
determined contributions	 36,312,416	 34,411,381	 32,216,280
Contribution deficiency (excess)	\$ (360,562)	\$ (649,572)	\$ -
Covered-employee payroll	\$ 155,392,270	\$ 152,406,793	\$ 141,877,055
Contributions as a percentage of covered- employee payroll	23.37%	22.58%	22.71%

(a) Based on the results of the January 1, 2016 actuarial valuation (including assumptions and methods) which determined budgeted appropriations for fiscal year 2016

See Independent Auditor's Report and notes to required supplementary information.

## BRISTOL COUNTY RETIREMENT SYSTEM REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT RETURN INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

Note: This schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

	2016	2015	2014
Annual money-weighted rate of return, net of			
investment expense calculated in accordance			
with the provisions of GASB #67, Financial			
Reporting for Pension Plans	2.94%	-0.55%	5.29%

See Independent Auditor's Report and notes to required supplementary information.

## BRISTOL COUNTY RETIREMENT SYSTEM NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION DECEMBER 31, 2016

#### NOTE 1 – CHANGES IN THE NET PENSION LIABILITY

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the System's total pension liability, changes in the systems net position, and the ending net pension liability. It also demonstrates the System's net position as a percentage of total pension liability and the net pension liability as a percentage of covered payroll.

The System performs an actuarial valuation biennially. The latest valuation date was January 1, 2016. Changes in benefit terms, differences between expected and actual experience and changes in assumptions have been included in these financial statements.

#### **NOTE 2 – CONTRIBUTIONS**

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the system's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

### NOTE 3 – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

# INDEPENDENT AUDITOR'S REPORT ON AUDITS OF SPECIFIC ELEMENTS, ACCOUNTS, AND ITEMS OF FINANCIAL STATEMENTS

Lynch, Malloy, Marini, LLP

Certified Public Accountants & Advisors

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LMM

## **INDEPENDENT AUDITOR'S REPORT**

To the Honorable Bristol County Retirement Board Bristol County Retirement System Taunton, Massachusetts

## **Report on the Financial Statements**

We have audited the accompanying schedule of employer allocations of the Bristol County Retirement System (the System), as of and for the year ended December 31, 2016 and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense included in the accompanying schedule of pension amounts by employer of the Bristol County Retirement System as of and for the year ended December 31, 2016, and the related notes.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of schedules that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of the employer allocations and the specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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## Opinion

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for the Bristol County Retirement System as of and for the year ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matter**

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Bristol County Retirement System as of and for the year ended December 31, 2016, and our report thereon dated July 26, 2017, expressed an unmodified opinion on those financial statements.

#### **Restriction on Use**

This report is intended solely for the information and the use of the Bristol County Retirement System management, the Bristol County Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

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Norwell, Massachusetts July 26, 2017



## **BRISTOL COUNTY RETIREMENT SYSTEM** SCHEDULE OF EMPLOYER ALLOCATIONS FOR THE YEAR ENDED DECEMBER 31, 2016

	FY2017	Appropriation	FY2017	FY18	Allocation Percent	
	Pension Fund	E.R.I, Sheriff &	Total	Total	of Total Net	
Employer	Appropriation	Interest	Appropriation	Appropriation	Pension Liability	
Bristol County	\$ 1,128,753	\$ 2,098,801	\$ 3,227,554	\$ 3,635,726	9.6566%	
Town of Acushnet	1,112,973	15,547	1,128,520	1,161,794	3.0858%	
Acushnet Hous. Auth.	14,206	-	14,206	23,061	0.0613%	
Town of Berkley	667,480	8,817	676,297	524,221	1.3924%	
Town of Dartmouth	4,362,950	208,590	4,571,540	4,644,743	12.3366%	
Dartmouth Hous. Auth.	70,316	-	70,316	63,391	0.1684%	
Dartmouth Fire Dis. #3	103,431	-	103,431	64,367	0.1710%	
Dartmouth Fire Dis. #2	27,731	-	27,731	10,919	0.0290%	
Dartmouth Fire Dis. #1	15,646	-	15,646	35,795	0.0951%	
Town of Dighton	680,041	45,003	725,044	664,690	1.7654%	
Dighton Hous. Auth.	17,928	-	17,928	5,377	0.0143%	
DightReh. Reg. School	862,863	-	862,863	796,839	2.1164%	
Dighton Water Dist.	141,676	-	141,676	81,759	0.2172%	
Town of Easton	3,824,084	-	3,824,084	4,054,011	10.7676%	
Easton Hous. Auth.	51,607	-	51,607	85,283	0.2265%	
Town of Freetown	737,668	-	737,668	963,251	2.5584%	
FreetLakev.Reg. Sch.	906,522	56,774	963,296	691,159	1.8357%	
Town of Mansfield	4,446,743	67,500	4,514,243	4,212,838	11.1895%	
Mansfield Housing	71,631	-	71,631	65,312	0.1735%	
Brist.Cnty. Mosquito Cont.	153,433	16,730	170,163	123,713	0.3286%	
Town of Norton	2,645,062	-	2,645,062	2,601,305	6.9092%	
Norton Housing Auth.	39,790	-	39,790	35,919	0.0954%	
Town of Raynham	1,698,639	83,763	1,782,402	1,899,112	5.0441%	
Raynham Hous. Auth.	43,586	-	43,586	54,480	0.1447%	
Raynham Water Dist.	127,398	-	127,398	83,657	0.2222%	
Town of Rehoboth	696,096	-	696,096	826,206	2.1944%	
Town of Seekonk	2,297,705	89,174	2,386,879	2,545,846	6.7619%	
Seekonk Housin. Auth.	12,717	6,028	18,745	25,831	0.0686%	
Seekonk Water District	125,229	-	125,229	78,590	0.2087%	
Town of Somerset	2,276,419	-	2,276,419	3,078,552	8.1768%	
Somerset Housing Auth.	41,552	-	41,552	60,071	0.1596%	
Town of Swansea	1,688,110	49,914	1,738,024	1,820,075	4.8342%	
Swansea Housing Auth.	16,766	6,400	23,166	22,358	0.0594%	
Swansea Water District	168,810	14,239	183,049	80,689	0.2143%	
Town of Westport	2,203,041	105,870	2,308,911	2,315,199	6.1493%	
Westport Housing Auth.	8,636	-	8,636	10,964	0.0291%	
Somerset Berkley Schools	281,268	-	281,268	202,938	0.5390%	
Sheriff's retirees	1,657,886	(1,657,886)				
Total	\$ 35,426,392	\$ 1,215,264	\$ 36,641,656	\$ 37,650,045	100.0000%	

		Deferred Outflows of Resources								
Employer	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows					
Bristol County	\$ 32,238,102	\$ 1,316,407	\$ 4,285,499	\$ 1,367,871	\$ 6,969,777					
Town of Acushnet	10,301,662	420,657	1,391,480	-	1,812,137					
Acushnet Hous, Auth	204,481	8,349	24,870	38,150	71,369					
Town of Berkley	4,648,286	189,808	684,692	124,756	999,256					
Town of Dartmouth	41,185,090	1,681,748	5,514,161	776,623	7,972,532					
Dartmouth Hous.Auth	562,093	22,952	77,902	6,201	107,055					
Dartmouth Fire Dis.#3	570,745	23,306	86,938	31,122	141,366					
Dartmouth Fire Dis.#2	96,822	3,953	15,469	13,173	32,595					
Dartmouth Fire Dis.#2	317,398	12,961	39,614	45,071	97,646					
Town of Dighton	5,893,833	240,669	806,314	55,519	1,102,502					
Dighton Hous. Auth.	47,682	1,946	11,000	9,798	22,744					
DightReh. Reg. School	7,065,601	288,516	981,758	61,651	1,331,925					
Dighton Water Dist.	724,962	29,604	114,344	47,511	1,551,925					
Town of Easton	35,947,051	1,467,859	4,846,010	58,931	6,372,800					
Easton Hous. Auth	756,204	30,879	4,840,010	160,185	281,680					
Town of Freetown	8,541,182	348,770	1,102,986	725,587	2,177,343					
FreetLakev.Reg. Sch			895,017	176,000						
Town of Mansfield	6,128,528 37 355 381	250,252 1,525,367	5,142,605	289,012	1,321,269					
Mansfield Housing	37,355,381	23,648	79,912	5,756	6,956,984					
•	579,127				109,316					
Brist.Cnty.Mosquito.Cont. Town of Norton	1,096,968	44,794	156,415	37,626	238,835					
Norton Housing Auth	23,065,864	941,869 13,005	3,096,534	287,908	4,326,311					
	318,493		43,249	3,472	59,726 2 175 088					
Town of Raynham Raynham Hous.Auth	16,839,494	687,623	2,259,065	228,400	3,175,088					
•	483,080	19,726	61,296	54,890 25.000	135,912					
Raynham Water Dist	741,794	30,291	106,900	35,000	172,191					
Town of Rehoboth	7,326,000	299,148	986,108	33,171	1,318,427					
Town of Seekonk	22,574,101 229,042	921,788	3,019,214	424,377	4,365,379					
Seekonk Housin. Auth.	,	9,353	28,667	34,873	72,893					
Seekonk Water District	696,859 27 207 622	28,456	109,685	37,179	175,320					
Town of Somerset	27,297,622	1,114,668	3,553,955	1,813,118	6,481,741					
Somerset Housing Auth.	532,654	21,751	67,894 2 206 502	56,217	145,862					
Town of Swansea	16,138,670	659,005	2,206,502	-	2,865,507					
Swansea Housing Auth.	198,248	8,095	25,599	20,522	54,216					
Swansea Water District	715,470	29,215	123,174	80,391 25.584	232,780					
Town of Westport	20,528,951	838,278	2,777,271	25,584	3,641,133					
Westport Housing Auth. Somerset Berkley Schools	97,220 1,799,464	3,969 73,479	12,811 285,807	4,288 63,375	21,068 422,661					
Total for All Entities	\$ 333,844,224	\$ 13,632,164	\$ 45,111,333	\$ 7,233,308	\$ 65,976,805					

	Def	erred Inflows of Reso	urces				
Employer	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense	Revenue
	<b>(</b> )	<b>^</b>	<b>(</b>	<b>(101010</b>	<b>A</b>	<b>•</b> • • • • • • • • • • • • • • • • • •	¢ 105.00 c
Bristol County	\$ 773,139	\$- 23,296	\$ 773,139 270,252	\$ 4,191,212	\$ 494,034	\$ 4,685,246	\$ 185,826
Town of Acushnet	247,056		270,352	1,339,299	(7,428) 12,079	1,331,871	59,381
Acushnet Hous. Auth. Town of Berkley	4,904 111,476	6,559 802,218	11,463 913,694	26,585 604,315	(257,478)	38,664 346,837	1,179 26,794
Town of Dartmouth	987,707	802,218	913,094	5,354,392	280,964	5.635.356	237,399
Dartmouth Hous. Auth.	13,480	- 28,934	42,414	5,554,592 73,079	(8,835)	5,055,550 64,244	3,240
Dartmouth Fire Dis .#3	13,480	139,294	152,981	74,199	(42,191)	32,008	3,240
Dartmouth Fire Dis. #2	2,321	33,760	36,081	12,589	(42,1)1) (8,728)	3,861	558
Dartmouth Fire Dis. #2	7,612	15,144	22,756	41,264	12,302	53,566	1,830
Town of Dighton	141,348	129,860	271,208	766,247	(32,284)	733,963	33,973
Dighton Hous. Auth.	1,143	64,091	65,234	6,201	(20,615)	(14,414)	275
DightReh. Reg. School	169,448	398,784	568,232	918,585	(128,090)	790,495	40,727
Dighton Water Dist.	17,386	231,912	249,298	94,250	(71,390)	22,860	4,179
Town of Easton	862,089	124,863	986,952	4,673,410	(11,857)	4,661,553	207,206
Easton Hous, Auth.	18,136	24,977	43,113	98,313	51,395	149,708	4,359
Town of Freetown	204,836	118,156	322,992	1,110,421	231,468	1,341,889	49,233
FreetLakev.Reg. Sch.	146,975	955,756	1,102,731	796,758	(299,479)	497,279	35,326
Town of Mansfield	895,863	1,398,014	2,293,877	4,856,499	(429,662)	4,426,837	215,323
Mansfield Housing	13,888	24,875	38,763	75,290	(7,482)	67,808	3,338
Brist.Cnty.Mosquito.Cont.	26,308	108,803	135,111	142,615	(29,415)	113,200	6,323
Town of Norton	553,170	-	553,170	2,998,748	97,748	3,096,496	132,956
Norton Housing Auth.	7,637	3,882	11,519	41,405	(482)	40,923	1,836
Town of Raynham	403,848	65,468	469,316	2,189,272	65,341	2,254,613	97,066
Raynham Hous. Auth.	11,586	7,077	18,663	62,806	18,006	80,812	2,785
Raynham Water Dist	17,791	94,526	112,317	96,439	(24,940)	71,499	4,276
Town of Rehoboth	175,693	89,967	265,660	952,440	(11,909)	940,531	42,228
Town of Seekonk	541,376	89,709	631,085	2,934,818	129,901	3,064,719	130,121
Seekonk Housin. Auth.	5,493	5,152	10,645	29,778	11,265	41,043	1,320
Seekonk Water District	16,712	218,390	235,102	90,594	(69,239)	21,355	4,017
Town of Somerset	654,656	581,159	1,235,815	3,548,908	502,362	4,051,270	157,349
Somerset Housing Auth.	12,774	12,943	25,717	69,248	16,926	86,174	3,070
Town of Swansea	387,040	418,906	805,946	2,098,155	(147,957)	1,950,198	93,026
Swansea Housing Auth.	4,755	-	4,755	25,776	7,347	33,123	1,143
Swansea Water District	17,159	366,020	383,179	93,021	(111,235)	(18,214)	4,124
Town of Westport	492,329	45,763	538,092	2,668,927	(9,777)	2,659,150	118,333
Westport Housing Auth.	2,332	1,532	3,864	12,642	1,146	13,788	560
Somerset Berkley Schools	43,155	603,519	646,674	233,947	(201,811)	32,136	10,372
Total for All Entities	\$ 8,006,308	\$ 7,233,309	\$ 15,239,617	\$ 43,402,447	\$	\$ 43,402,447	\$ 1,924,341

Deferred Inflows/(Outflows) Recognized in Future Pension Expens								Expense		
Employer	June 30,         June 30,         June 30,           Employer         2018         2019         2020			June 30, 2021		Covered Employer Payroll				
Bristol County	\$	2,190,365	\$	2,190,365	\$	1,622,995	\$	192,913	\$	4,860,076
Town of Acushnet	Ψ	534,633	Ψ	534,633	Ψ	414,049	Ψ	58,471	Ψ	5,115,276
Acushnet Hous. Auth.		22,837		22,837		14,354		(121)		59,068
Town of Berkley		(12,891)		(12,891)		58,787		52,556		3,075,324
Town of Dartmouth		2,448,075		2,448,075		1,845,548		243,128		19,691,996
Dartmouth Hous. Auth.		20,742		20,742		18,597		4,560		291,607
Dartmouth Fire Dis. #3		(12,159)		(12,159)		3,055		9,648		506,204
Dartmouth Fire Dis. #2		(3,634)		(3,634)		550		3,230		131,813
Dartmouth Fire Dis. #1		29,003		29,003		18,077		(1,193)		91,084
Town of Dighton		277,843		277,843		229,721		45,888		3,203,947
Dighton Hous. Auth.		(18,107)		(18,107)		(8,538)		2,260		93,436
DightReh. Reg. School		243,694		243,694		222,287		54,019		3,938,086
Dighton Water Dist.		(33,243)		(33,243)		(5,220)		13,867		613,356
Town of Easton		1,879,634		1,879,634		1,440,383		186,196		16,972,812
Easton Hous. Auth.		91,186		91,186		56,795		(600)		315,490
Town of Freetown		680,895		680,895		466,205		26,357		3,381,731
FreetLakev. Reg. Sch.		22,997		22,997		100,924		71,620		4,598,887
Town of Mansfield		1,535,934		1,535,935		1,313,103		278,135		20,390,681
Mansfield Housing		22,991		22,991		20,001		4,569		302,536
Brist. Cnty. Mosquito Cont.		28,306		28,306		33,055		14,057		713,340
Town of Norton		1,311,446		1,311,446		1,000,805		149,443		12,083,846
Norton Housing Auth.		16,277		16,277		13,079		2,573		181,216
Town of Raynham		951,415		951,415		717,126		85,815		7,946,808
Raynham Hous. Auth.		43,424		43,424		28,989		1,410		192,803
Raynham Water Dist		14,092		14,092		20,254		11,436		603,085
Town of Rehoboth		373,576		373,576		280,708		24,907		3,090,344
Town of Seekonk		1,317,723		1,317,723		984,203		114,645		10,951,259
Seekonk Housin. Auth.		23,317		23,317		15,309		305		54,977
Seekonk Water District		(32,571)		(32,571)		(6,254)		11,614		554,880
Town of Somerset		1,938,731		1,938,731		1,325,371		43,093		11,172,360
Somerset Housing Auth.		44,954		44,954		29,721		516		195,771
Town of Swansea		701,241		701,241		570,169		86,910		7,458,414
Swansea Housing Auth.		17,778		17,778		12,554		1,351		74,923
Swansea Water District		(73,589)		(73,589)		(23,678)		20,456		731,058
Town of Westport		1,070,433		1,070,433		836,255		125,920		10,308,789
Westport Housing Auth.		6,261		6,261		4,421		261		36,157
Somerset Berkley Schools		(107,126)		(107,125)		(33,156)		23,394		1,408,830
Total for All Entities	\$	17,566,483	\$	17,566,485	\$	13,640,604	\$	1,963,609	\$	155,392,270

	D	viscount Rate Sensitiv	ity	Schedule of Contributions						
Employer	1% decrease (6.75%)	Current discount rate (7.75%)	1% increase (8.75%)	Statutory Required Contribution	Contribution in Relation to the Statutory Required Contribution	Contribution Deficiency/ (Excess)	Contributions as a Percentage of Covered Employee Payroll			
Bristol County	\$ 44,249,454	\$ 32,238,102	\$ 23,741,497	\$ 3,227,554	\$ 3,527,198	(360,562)	72.57%			
Town of Acushnet	14,139,874	10,301,662	7,586,570	1,128,520	1,107,220	-	21.65%			
Acushnet Hous. Auth.	280,661	204,481	150,582	14,206	13,938	-	23.60%			
Town of Berkley	6,380,151	4,648,286	3,423,188	676,297	663,533	-	21.58%			
Town of Dartmouth	56,529,926	41,185,090	30,330,427	4,571,540	4,485,257	-	22.78%			
Dartmouth Hous. Auth.	771,523	562,093	413,953	70,316	68,989	-	23.66%			
Dartmouth Fire Dis. #3	783,402	570,745	420,327	103,431	101,479	-	20.05%			
Dartmouth Fire Dis. #2	132,902	96,822	71,310	27,731	27,208	-	20.64%			
Dartmouth Fire Dis. #1	435,662	317,398	233,753	15,646	15,351	-	16.85%			
Town of Dighton	8,089,778	5,893,833	4,340,473	725,044	711,360	-	22.20%			
Dighton Hous. Auth.	65,454	47,682	35,121	17,928	17,590	-	18.83%			
DightReh. Reg. School	9,698,123	7,065,601	5,203,409	862,863	846,577	-	21.50%			
Dighton Water Dist.	995,064	724,962	533,886	141,676	139,002	-	22.66%			
Town of Easton	49,340,293	35,947,051	26,472,922	3,824,084	3,751,909	-	22.11%			
Easton Hous. Auth.	1,037,949	756,204	556,897	51,607	50,633	-	16.05%			
Town of Freetown	11,723,477	8,541,182	6,290,086	737,668	779,448	-	23.05%			
FreetLakev.Reg. Sch.	8,411,914	6,128,528	4,513,310	963,296	889,412	-	19.34%			
Town of Mansfield	51,273,339	37,355,381	27,510,073	4,514,243	4,429,042	-	21.72%			
Mansfield Housing	794,899	579,127	426,493	71,631	70,279	-	23.23%			
Brist. Cnty. Mosquito Cont.	1,505,674	1,096,968	807,849	170,163	166,951	-	23.40%			
Town of Norton	31,659,808	23,065,864	16,986,680	2,645,062	2,595,139	-	21.48%			
Norton Housing Auth.	437,153	318,493	234,547	39,790	39,039	-	21.54%			
Town of Raynham	23,113,592	16,839,494	12,401,310	1,782,402	1,748,761	_	22.01%			
Raynham Hous. Auth.	663,064	483,080	355,758	43,586	43,586	-	22.61%			
Raynham Water Dist.	1,018,181	741,794	546,295	127,398	124,994	_	20.73%			
Town of Rehoboth	10,055,539	7,326,000	5,395,175	696,096	682,958	_	22.10%			
Town of Seekonk	30,984,818	22,574,101	16,624,521	2,386,879	2,341,829	_	21.38%			
Seekonk Housin, Auth.	314,379	229.042	168,676	18,745	18,391	_	33.45%			
Seekonk Water District	956,493	696,859	513,193	125,229	122,865	_	22.14%			
Town of Somerset	37,468,238	27,297,622	20,103,118	2,276,419	2,233,454	_	19.99%			
Somerset Housing Auth.	731,112	532,654	392,269	41,552	41,552		21.22%			
Town of Swansea	22,151,652	16,138,670	11,885,192	1,738,024	1,705,221	-	22.86%			
Swansea Housing Auth.	272,105	198,248	145,991	23,166	22,729	-	30.34%			
U	<i>,</i>	,	,	,	,	-				
Swansea Water District	982,043	715,470	526,903	183,049	179,594	-	24.57%			
Town of Westport	28,177,680	20,528,951	15,118,385	2,308,911	2,265,333	-	21.97%			
Westport Housing Auth.	133,438	97,220	71,593	8,636	8,636	-	23.88%			
Somerset Berkley Schools	2,469,906	1,799,464	1,325,195	281,268	275,959		19.59%			
Total for All Entities	\$ 458,228,720	\$ 333,844,224	\$ 245,856,927	\$ 36,641,656	\$ 36,312,416	\$ (360,562)	23.37%			

## **BRISTOL COUNTY RETIREMENT SYSTEM** NOTES TO THE PENSION PLAN SCHEDULES FOR THE YEAR ENDED DECEMBER 31, 2016

#### **1. SCHEDULE OF EMPLOYER ALLOCATIONS**

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost- sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. To the extent that different contribution rates are assessed based on separate rates that constitute the collective pension liability, the determination of the employer's proportionate share of the collective net pension liability should be made in a manner that reflects those separate relationships. As permissible under GASB Statement #68, the fiscal year 2018 statutory contributions on the Schedule of Employer Allocations is used to demonstrate the allocation of Bristol County Retirement System's collective pension amounts. The fiscal year 2018 statutory contributions were based on the actuarial accrued liability and normal cost for each employer, versus the fiscal year 2017 statutory contributions which were based on employer payroll used during the January 1, 2014 valuation.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans shall, on or before October 15 of each year, furnish the actuary with such information as he may require to enable him to determine the amount to be paid for the pension fund thereof for the fiscal year commencing on the next following July 1. The actuary shall, on or before December 15, immediately preceding such fiscal year, determine such amount and specify in a written notice to said board the amount so required to be paid; however, that any community which has a valid and current actuarial report shall only appropriate the amount specified in their actuarial report and the actuary shall not require a larger amount to be appropriated. The System has a valid actuarial reported dated January 1, 2016 which was used as a basis for employer appropriations.

In 2010, the Bristol County Sheriffs functions were taken over by the Commonwealth of Massachusetts. Bristol County continues to pay for the retirement obligations related to previously retired Sheriff's employees. These liabilities are actuarially determined and are separately identified in the system's funding schedule.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC completes an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP.

The accrued liability for the members who accept the ERIP is separately identified in the System's funding schedule and is amortized using straight-line and increasing amortization, as follows:

- Level amortization of the 2010 Early Retirement Incentive by June 30, 2022; \$318,165 over 5 years
- Increasing amortization of the 2002 Early Retirement Incentive by June 30, 2023, \$4,856,804 over 6 years with 4.5% increasing payments
- Level amortization of the 2003 Early Retirement Incentive by June 30, 2022, \$1,934,755 over 5 years

## **BRISTOL COUNTY RETIREMENT SYSTEM** NOTES TO THE PENSION PLAN SCHEDULES FOR THE YEAR ENDED DECEMBER 31, 2016

## 2. SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions. In 2015, the System conducted an Experience Study as of December 31, 2014 which significantly changed the projected Net Pension Liability for each member unit of the System. The results and allocations of this Experience Study were allocated to the member units and will be amortized in accordance with GASB 67.

The County had an excess contribution of \$360,562 as it relates to the Sheriff's Department unfunded pension liability. The Retirement System, the Executive Office for Administration and Finance, the Public Employee Retirement Administration Commission ("PERAC") Actuary, the Bristol County Treasurer and Bristol County agreed to a payment schedule to satisfy all liabilities of the Commonwealth towards Bristol County Retirement Association and County of Bristol, Massachusetts for fiscal year 2017 and all past fiscal years. The excess is not separately identified in the actuarial valuation GASB 67 & 68 reports as of December 31, 2016.