FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION FOR THE YEAR ENDED DECEMBER 31, 2015 WITH INDEPENDENT AUDITORS' REPORT

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#### **INDEPENDENT AUDITORS' REPORT**

To the Honorable Retirement Board Plymouth County Retirement Association Plymouth, Massachusetts

#### Report on the Financial Statements

We have audited the accompanying financial statements of the Plymouth County Retirement Association (the "Association"), as of and for the year ended December 31, 2015, and the related notes to the financial statements, which collectively comprise the Association'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 contained 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 Association'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 Association's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Plymouth County Retirement Association as of December 31, 2015 and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### Other Matters

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis (pages 3 – 5) and Schedule of Changes in the Net Pension Liability and Related Ratios (page 16), the Schedule of Contributions (page 17) the Schedule of Investment Return (page 18) and related Notes to Required Supplementary Information (page 19) 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 November 29, 2016, on our consideration of the Plymouth County Retirement Association'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 Association's internal control over financial reporting and compliance.

#### Restrictions on Use

This report is intended solely for the information and use of the Plymouth Country Retirement Association, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Tynd, Mally Marin, LV Norwell, Massachusetts November 29, 2016



MANAGEMENT'S DISCUSSION AND ANALYSIS DECEMBER 31, 2015

As management of the Plymouth County Retirement Association (the "Association") we offer readers of the Association's financial statements this narrative overview and analysis of the financial activities of the Association for the year ended December 31, 2015.

#### FINANCIAL HIGHLIGHTS

The fiduciary net position restricted of pensions was approximately \$832.6 million at December 31, 2015, compared to \$834.6 million the year earlier. The fiduciary net position is available for payment of monthly retirement benefits and other distributions to the Association's participants. The decrease of approximately \$2.0 million (0.2%) resulted primarily from net investment losses.

There are 12,253 participants in the Association as of December 31, 2015. The total consists of 5,790 active, 2,613 inactive and 3,850 retired, beneficiary and survivor. The increase from 12,036 participants at December 31, 2014 to 12,353 participants at December 31, 2015 was a result of new retirements and new hires by member units.

The funded ratio of the Association was 58.3% at January 1, 2015, the date of the latest actuarial valuation.

#### OVERVIEW OF THE FINANCIAL STATEMENTS

The Association is a multiple-employer cost sharing public employee retirement plan, which is a defined benefit plan. The Association covers substantially all non-teaching employees in the County, 23 municipalities and 31 special districts. Benefits are determined in accordance with a statutory formula set forth in M.G.L. Chapter 32. The maximum benefit is 80% of the high three consecutive year's average salary. 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 Association'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 are certain Required Supplementary Information and Audit of Specific Elements, Accounts and Items of Financial Statement Schedules.

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

The Statement of Fiduciary Net Position presents fairly the information on the Association's assets and liabilities and the resulting net position restricted for pensions. This statement reflects the Association'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 Association's net position restricted for pensions changed during the year ended December 31, 2015. 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.

MANAGEMENT'S DISCUSSION AND ANALYSIS DECEMBER 31, 2015

The Association is on a funding schedule to be 100% funded by the year 2032. The participating governmental entities contribute to this schedule annually based on the status of the bi-annual actuarial evaluation.

The Required Supplementary Information also includes the Schedule of Changes in 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 – 2015 compared to 2014

	(\$ in millions) December 31,		
	<u>2015</u>		<u>2014</u>
Domestic Equity and Funds	\$ 297.8	\$	296.1
Real Estate Funds	113.4		118.5
Venture Capital Funds	30.8		36.4
Hedge Funds	26.6		26.1
International Equity Funds	149.9		156.0
Fixed Income			
Corporate Bond Funds	61.0		63.2
U.S. Government Securities	32.1		37.5
International Bonds	 53.8		46.3
Total Managed Investments	765.4		780.1
Cash and Other Assets	 70.5		59.7
<b>Total Assets</b>	\$ 835.9	\$	839.8

The increase in the Association's cash is attributable to the investment allocation and the investment accounts decreased due to investment allocations and moderate performance in the U.S. and non-U.S. equity markets. The Association's overall returns as published in the Public Employment Retirement Administration Commission's ("PERAC") annual report for the past three years were 0.54% in 2015, 5.00% in 2014, and 17.47% in 2013. As published in PERAC's annual report, during the period from 1985 to 2015 the Association has achieved a return of 9.05% in annual performance.

#### CONTRIBUTIONS AND DEDUCTIONS

Contributions to the Association by members and employees for the years ended December 31, 2015 and 2014 are summarized below:

	(\$ in millions)			
	December 31,			
	2	<u> 2015</u>	2	2014
Member Contributions	\$	26.3	\$	24.9
Employer and Other Contributions		69.9		59.2
Total	\$	96.2	\$	84.1

MANAGEMENT'S DISCUSSION AND ANALYSIS DECEMBER 31, 2015

The member contributions increased 6% from the prior year. This is attributable to increased hiring and pay increases across many member units. The employer contributions increased 18% based on actuarial calculations and from settlement payments received in 2015 relating to retired employees from the Sheriff's office prior to transfer of the control of House of Correction from the County of Plymouth to the Commonwealth of Massachusetts.

Deductions from Association assets for the year ended December 31, 2015 and 2014 are summarized below:

	(\$ in millions)			s)
	December 31,			1,
		<u>2015</u>		<u> 2014</u>
Member Benefits	\$	88.0	\$	83.5
Refunds and Transfers		6.9		8.5
Administration		1.6		1.5
Total	<u>\$</u>	96.5	\$	93.5

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 Association at January 1, 2015 and January 1, 2013 (latest actuarial valuation completed was as of January 1, 2015), determined by an actuarial valuation as follows:

<u>2015</u>	<u>2013</u>
<u>58.3%</u>	<u>50.5%</u>

#### PLAN AMENDMENTS

Any changes in benefits or other matters related to the Association 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 Association assets as may be impacted by the stock and bond markets, no other matters are known by management to have a significant impact on the operations or financial position of the Association.

#### **Requests for Information**

This financial report is designed to provide a general overview of the Association'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 Plymouth County Retirement Association, 10 Cordage Park Circle, Suite 234, Plymouth, MA 02360.

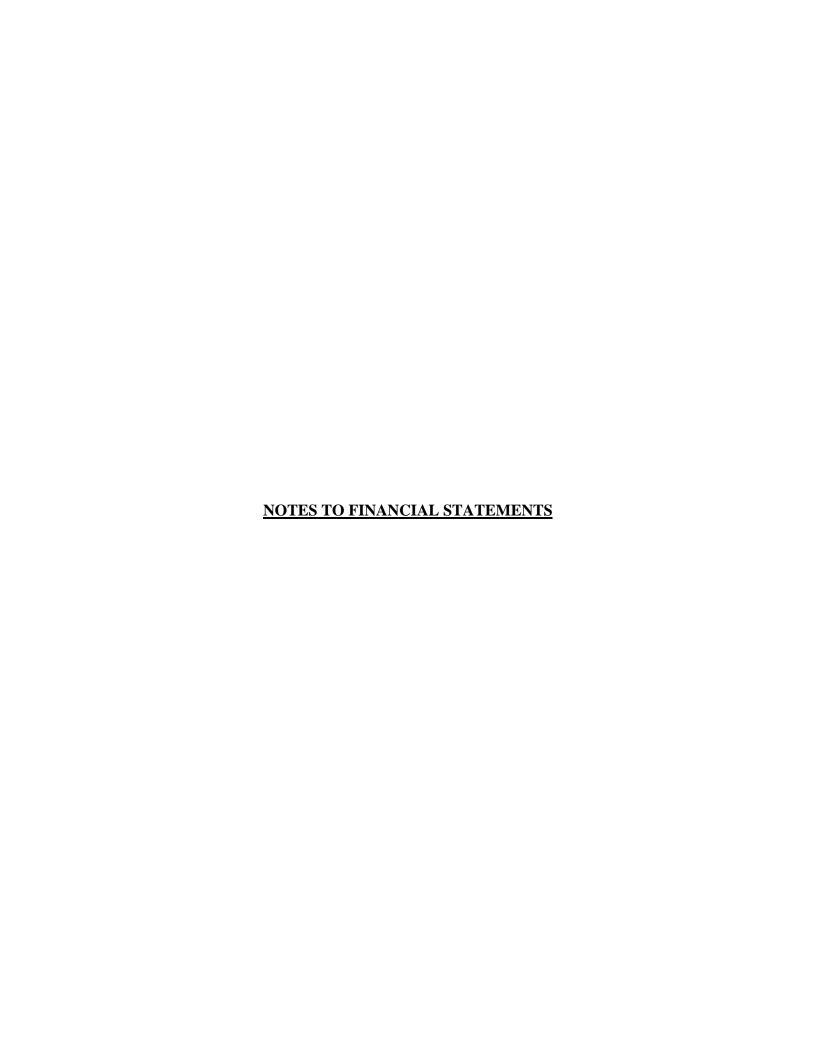


### STATEMENT OF FIDUCIARY NET POSITION DECEMBER 31, 2015

ASSETS	<u>2015</u>
Cash and short-term investments	\$ 64,564,800
Receivables	
Employee	1,650,848
Securities sold	809,314
Interest and dividends	1,204,693
Other systems	2,272,589
Total receivables	5,937,444
Investments, at fair value	
Domestic equities and funds	297,801,623
Real estate funds	113,371,956
Venture capital funds	30,798,741
Hedge funds	26,610,869
International equity funds	149,851,408
Fixed income	
Corporate bond funds	60,967,934
U.S. government security	32,069,020
International bonds and funds	53,882,620
Total investments	765,354,171
Other assets	
Security deposits	31,675
Total assets	\$ 835,888,090
LIABILITIES	
Due to brokers and investment managers	\$ 1,967,315
Due to other systems	1,176,892
Accounts payable	106,391
Total liabilities	3,250,598
NET POSITION RESTRICTED FOR PENSIONS	\$ 832,637,492

## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED DECEMBER 31, 2015

		<u>2015</u>
ADDITIONS		
Contributions		
Employer	\$	67,162,327
Plan Members		26,259,167
Other systems and state		2,578,236
Miscellaneous		223,638
Total contributions		96,223,368
Investment Income (loss)		
Net increase (decrease) in fair value of investments		
Domestic equities and funds		(885,398)
Real estate funds		6,477,022
Venture capital funds		401,239
International equity funds		(9,180,637)
Corporate bond funds and U.S. government securities		(6,446,838)
Hedge funds		795,724
International bonds		252,878
Interest and dividends		13,068,151
		4,482,141
Less investment expense		(6,192,560)
Net investment (loss) income		(1,710,419)
Total additions		94,512,949
DEDUCTIONS		
Benefits		88,043,313
Refunds and transfers of contributions		6,860,242
Administrative and other expenses		1,553,871
Total deductions		96,457,426
NET CHANGE IN FIDUCIARY NET POSITION		(1,944,477)
Fiduciary Net Position, Beginning of Year		834,581,969
Fiduciary Net Position, End of Year	<u>\$</u>	832,637,492



NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

#### 1. PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

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

#### General

The Association 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 Association is mandatory immediately upon the commencement of employment for all permanent, full-time employees. The supervisory authority for the management and operation of the Association is the Plymouth County Retirement Board ("Board"), which acts as a fiduciary for investment of the funds and the application of Association interpretations.

At January 1, 2015, the date of the latest updated valuation, the Association's membership consisted of:

Retirees and beneficiaries currently receiving benefits	3,430
Inactive participants	2,314
Active participants	5,871
Disabled participants	359
• •	11,974

#### Benefits

Pursuant to Massachusetts General Law ("MGL") the Association 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.

Members become vested after 10 years of creditable service. A retirement allowance may be received upon reaching 20 years of service or upon reaching the age of 65. Normal retirement for most employees occurs at age 65. The Association also provides death and disability benefits.

The Association also provides early retirement at age 55 if the participant (1) has a record of 10 years of creditable service (2) was on the Association payroll on January 1, 1978, (3) voluntarily left Association employment on or after that date, and (4) left accumulated annuity deductions in the fund.

#### 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.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

Employer contributions are based on an actuarial calculation. The Association 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 2015, the Association authorized an actuarially determined discount of approximately 2% on contributions paid in advance of July 1<sup>st</sup>.

#### **Participating Employers**

As of December 31, 2015, there were 55 participating employers consisting of:

Towns	23
County	1
Special Districts	<u>31</u>
	<u>55</u>

The accounting records of the Association 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 Commonwealth of Massachusetts' agency responsibility for the oversight of public retirement systems.

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

#### Tax Status

The Association is qualified under the Internal Revenue code of 1986, as amended and, therefore, is exempt from federal income taxes. The plan administrator believes that the Association 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 Plymouth County Retirement Association ("Association"), also referred to as the ("Plan").

#### **Basis of Accounting**

The financial statements 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.

The Association is a special purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues 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.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

The Association is administered by the Plymouth 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.

#### Cash and short-term investments

Cash and short-term investments are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition.

#### Receivables

Accounts receivable consist of employee deductions, securities sold, amounts due from other retirement 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

The Association is authorized to invest in eligible investments as approved by the board as set forth in its investment policy.

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 Association'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 Association 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. Other investments that do not have an established market are reported at estimated fair value.

Net investment income includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income, 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 Association's pro rata share of income from operations, net appreciation (depreciation) in the fair value of the underlying real estate properties and the Association's real estate investment management fees.

The Association 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 Association's investment policy. The Association's investment policy provides for investments in any combinations of stocks, bonds, fixed income and securities and other investment securities along with investments in commingled, mutual and index funds. 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 Association's fiduciary net position.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

#### Deferred Outflows/ 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 were no deferred outflows for the period end December 31, 2015.

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 were no deferred inflows for the period end December 31, 2015.

#### Use of Estimates

The preparation of the Association's financial statements in conformity with accounting principles generally accepted in the United States of America requires the Board 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 required supplementary information and the actuarial information in the audits of specific elements, accounts and items of financial statements as of the benefit information date, the changes in Plan 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 Association and the actuarial information 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 Association 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 Association's deposits may not be returned. The Association does not have a formal deposit policy for custodial credit risk. At December 31, 2015, cash and short-term investment deposits totaled \$66,198,753 and had a carrying amount of \$64,564,800. Of the deposit amounts, \$65,698,753 was exposed to custodial credit risk at December 31, 2015, because it was uninsured and uncollateralized. The difference between deposit amounts and carrying amounts generally represents outstanding checks and deposits in transit.

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, not required to be disclosed. The investment policy of the Association does not formally address credit risk; however, the Board provides guidelines with each investment manager, as applicable. At December 31, 2015, the Association had \$93,036,954 of the corporate fixed income bonds and U.S. government security fixed income bonds. Eaton Vance managed \$28,777,107 and Income Research and Management managed \$64,259,847 (inclusive of the U.S. Government Obligations). The average rating for the Eaton Vance was B1 in 2015, Income Research and Management managed investments is Aa3 in 2015.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

At December 31, 2015, \$23,776,318 of the international fixed income bonds were managed by McDonnell Investments. The average rating for the McDonnell managed investments was Aa in 2015.

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 Association 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, 2015 of corporate fixed income bonds managed by Eaton Vance is 5.92. The Income Research and Management investment portfolio average maturity for government fixed income and corporate bonds as of December 31, 2015, is 5.44 years and 5.53 years, respectively. The average maturity of the international fixed income securities managed by McDonnell was 9.21 years for 2015.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair market value of an investment. The investment policy of the Association does not formally address foreign currency risk; however, the Board provides guidelines with each investment manager, as applicable. The following table represents the Association's foreign currency exposure for international bonds at December 31, 2015; the information for international equity funds was not available:

Country	2015 Total
Australia	\$ 1,240,554
Canada	1,733,142
Cayman Islands	481,700
Denmark	641,775
France	2,384,925
Finland	779,999
Germany	6,982,342
Japan	4,911,310
Luxembourg	993,508
Netherlands	301,063
Singapore	1,149,149
Sweden	658,522
United Kingdom	5,221,404
United States	 26,403,227
Total	\$ 53,882,620

Concentration of credit risk is assumed to arise when the amount of investments that the Association has with anyone issuer exceeds 5 percent or more of the total value of the Association's investments. The Association 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, 2015 was 0.25%, which has been calculated in accordance with the provision of GASB #67 *Financial Reporting for Pension Plans*.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

#### 4. ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2015:

Total pension liability \$1,466,863,880
The pension plan's fiduciary net position \$832,637,492
The net pension liability \$634,226,388

The pension plan's fiduciary net position

as a percentage of the total pension liability 56.8%

#### Additional information as of the latest actuarial valuation follows:

Valuation date January 1, 2015

Actuarial cost method Entry age normal actuarial cost method

Amortization method Level percent, open group

Remaining amortization period 17 years

Asset valuation method Actuarially valued using a five-year smoothing

method of gains and losses

Actuarial assumptions:

Investment rate of return 8.00% Projected salary increases 3.75%

Cost-of-living adjustments 3.00% of the less of the pension amount and \$13,000 per

ear

Rates of retirement Varies based upon age for general employees, police,

and fire employees

Rates of disability General employees – 45% ordinary (55% service connected)

Police & Fire – 10% ordinary (90% service connected)

Mortality rates Pre-Retirement and Post-Retirement- RP-2000 Mortality

Table, adjusted to 2015 with Scale AA

Disabled Retiree - RP-2000 Mortality Tables, set forward

two years

Family Composition Assumption that 80% of members will be survived by a

spouse, females are three years younger than males and

males are three years older than females

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

#### **Investment policy**

The Plan's investment policy in regard to the allocation of invested assets is established by the Board and pursuant to Massachusetts General Laws and Public Employee Retirement Administration guidelines. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The investment objective is to fully fund the Plan by generating sufficient long-term inflation adjusted capital appreciation while providing sufficient liquidity to meet short-term withdrawal requirements. The Board desires to balance the goal of higher long-term returns with the goal of minimizing contribution volatility, recognizing these are often competing goals. This requires taking both assets and liabilities into account when setting investment strategy.

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

The Plan's portfolio target weights at the board asset class level as follows:

	Portfolio Target	<b>Long term Expected</b>
Asset Class	<b>Weight</b>	Rate of Return
Domestic equity	33.0%	10.2%
Foreign equity	16.0%	11.0%
Total fixed income	25.5%	7.9%
Real estate/real assets	13.0%	9.3%
Private equity	7.5%	14.6%
Hedge funds of funds	4.0%	8.7%
Cash	1.0%	4.0%

#### Discount Rate

The discount rate used to measure the total pension liability was 8.00%. 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 8.00%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage point lower (7.00%) or 1-percentage point higher (9.00%)

		<b>Current</b>	
	1% decrease	<b>Discount Rate</b>	1% increase
Plymouth County Retirement Association's net pension liability as of:	(7.00%)	(8.00%)	(9.00%)
December 31, 2015	\$786,872,564	\$634,226,389	\$503,321,962

The Plan Fiduciary Net Position as a percentage of the Total Pension liability is 56.8%

#### 5. LEGALLY REQUIRED RESERVE ACCOUNTS

The balances in the Plan's legally required reserves at December 31, 2015 were as follows:

	<u>2015</u>	<u>Purpose</u>
Annuity Savings Fund	\$ 247,920,437	Active members' contribution balance
Annuity Reserve Fund	85,563,525	Retired members' contribution account
Pension Reserve Fund	499,140,012	Amounts appropriated to fund future
		retirement benefits
Military Credit	13,518	Members' contribution while on military leave
•	\$832,637,492	•

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

NOTES TO FINANCIAL STATEMENTS YEAR ENDED DECEMBER 31, 2015

#### 6. COMMITMENTS AND CONTINGENCIES

The Plan is involved in certain lawsuits at December 31, 2015. In the opinion of Plan management, the ultimate resolution of these legal actions will not result is a material loss to the Plan.

The Plan may also invest in certain investments with incentives fees based on benchmark returns. Although the amount of liability, if any, cannot be ascertained. Management does not believe the liability at December 31, 2015 will not materially affect financial position.

#### 7. RECENT ACCOUNTING PRONOUNCEMENTS

The following are pronouncements issued by the Governmental Accounting Standards Board ("GASB"), which are applicable to the Association's financial statements.

#### **Future Pronouncements**

The GASB issued <u>Statement #72</u>, *Fair Value Measurement and Application*, which is required to be implemented in fiscal year 2016. The pronouncement addresses accounting and financial reporting issues related to fair value measurements. The Association 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 Association 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 Association 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 Association expects to implement the pronouncement as applicable.

The GASB issued <u>Statement #79</u>, Certain External Investment Pools and Pool Participants, which is required to be implemented in 2016. The pronouncement addresses accounting and financial reporting for certain external investment pools and pool participants. The Association expects to implement the pronouncement as applicable.

The GASB issued <u>Statement #82</u>, <u>Pension Issues- an amendment of statements #67</u>, #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 Association expects to implement the pronouncement as applicable.



REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 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 years the information is available.

		2015		2014
Total pension liability: Service cost Interest Benefit payments, including refunds of employee contributions Interest on benefit payments	\$	32,038,175 115,962,263 (94,903,555) (3,723,114)	\$	30,880,169 111,727,069 (87,396,704) (3,428,615)
Net change in total pension liability		49,373,769		51,781,919
Total pension liability, beginning		1,417,490,111		1,365,708,192
Total pension liability, ending (a)	\$	1,466,863,880	\$	1,417,490,111
Plan fiduciary net position: increase (decrease)  Employer contributions  Member contributions Other payments Net investment income (loss) Retirement benefits and refunds Administrative expenses  Net (decrease) increase in fiduciary net position  Fiduciary net position at beginning of year	\$	67,162,327 26,259,524 2,741,059 (1,298,678) (94,903,555) (1,905,154) (1,944,477) 834,581,969	\$	56,266,944 23,326,441 3,870,671 33,802,846 (91,939,450) (1,759,330) 23,568,122 811,013,847
	ф.		ф.	
Fiduciary net position at end of year (b)	\$	832,637,492	<u> </u>	834,581,969
Net pension liability - ending (a) - (b)	\$	634,226,388	\$	582,908,142
Plan fiduciary net position as a percentage of the total pension liability		56.8%		58.9%
Covered-employee payroll	\$	255,955,074	\$	246,703,686
Net pension liability as a percentage of covered-employee payroll		247.8%		236.3%

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CONTRIBUTIONS INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 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.

Actuarially determined contribution		2015	2014		
Actuarially determined contribution	\$	64,112,548	\$	59,363,471	
Contributions in relation to the actuarially determined contribution		67,162,327		56,266,944	
option and other payments and adjustments	tions from early payment yments and adjustments  1,302,672		1,173,940		
Contribution deficiency (excess)	\$	(4,352,451)	\$	1,922,587	
Covered-employee payroll	\$	255,955,074	\$	246,703,686	
Contributions as a percentage of covered- employee payroll		25.05%		24.06%	

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT RETURN INFORMATION PRESENTED FOR THE YEARS ENDED DECEMBER 31, 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 the years information is available.

	2015	2014
Annual money-weighted rate of return, net of investment expense, in accordance with GASB #67 <i>Financial</i>		
Reporting for Pension Plans	0.25%	4.70%

NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION DECEMBER 31, 2015

#### NOTE 1 – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

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

Since the Association performs an actuarial valuation bi-annually, there are no reported amounts for the changes in benefit terms, differences between expected and actual experience and changes in assumptions as of December 31, 2015.

#### **NOTE 2 – CONTRIBUTIONS**

Governmental employers are required to pay an annual appropriation as established by Public Employee Retirement Administration Commission ("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.

## AUDIT OF SPECIFIC ELEMENTS, ACCOUNTS AND ITEMS OF FINANCIAL STATEMENTS



#### **INDEPENDENT AUDITORS' REPORT**

To the Honorable Retirement Board of The Plymouth County Retirement Association Plymouth, Massachusetts

#### Report on the Financial Statements

We have audited the accompanying schedule of employer allocations of the Plymouth County Retirement Association (the "Association") as of and for the year ended December 31, 2015, 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, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the Association Pension Plan as of and for the year ended December 31, 2015, and the related notes.

#### Management's Responsibility for the Schedules

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 the 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 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 employer allocations and the specified column totals included in 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 opinions.

#### **Opinions**

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, total contributions and total pension expense for the total of all participating entities for the Plymouth County Retirement Association as of and for the year ended December 31, 2015, in accordance with accounting principles generally accepted in the United States of America.

#### Other Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Plymouth County Retirement Association as of and for the year ended December 31, 2015, and our report thereon, dated November 29, 2016, expressed an unmodified opinion on those financial statements.

#### Restriction on Use

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

Morwell, Massachusetts
November 29, 2016

## PLYMOUTH COUNTY RETIREMENT ASSOCIATION SCHEDULE OF EMPLOYER ALLOCATIONS

#### FOR THE YEAR ENDED DECEMBER 31, 2015

		D'and		Employer				
	FY2016	Appropriation	Direct Appropriation					
	Pension	E.R.I.,	FY2016	Allocation Percent of				
	Fund	Sheriff and	Total	Total Net				
Employer	Appropriation	Hospital	Appropriation	Pension Liability				
County of Plymouth	\$ 3,276,888	\$ -	\$ 3,276,888	4.903%				
Hospital	-	-	-	0.622%				
Abington	2,361,376	25,300	2,386,676	3.664%				
Bridgewater	3,073,334	103,600	3,176,934	4.889%				
Bridgewater Housing	61,241	16,900	78,141	0.089%				
Bridgewater/Raynham Regional School	1,385,069	116,800	1,501,869	2.288%				
Carver	1,675,524	164,606	1,840,130	2.730%				
Carver/Marion/Wareham Regional Refuse	43,307	-	43,307	0.075%				
Duxbury	3,243,651	-	3,243,651	4.951%				
Duxbury Housing	25,015	-	25,015	0.036%				
East Bridgewater	2,220,461	6 200	2,220,461	3.486%				
East Bridgewater Housing Halifax	30,957	6,200	37,157	0.044% 1.633%				
Hanover	1,028,893 2,905,489	-	1,028,893 2,905,489	4.498%				
Hanson	1,287,561	-	1,287,561	2.147%				
Kingston	1,930,140	13,882	1,944,022	3.070%				
Kingston Housing	5,691	13,862	5,691	0.007%				
Lakeville	933,838	_	933,838	1.428%				
Marion	896,935	_	896,935	1.417%				
Marshfield	5,236,214	_	5,236,214	7.909%				
Marshfield Housing	34,630	-	34,630	0.048%				
Mattapoisett	1,002,244	=	1,002,244	1.649%				
Middleborough	5,755,057	17,900	5,772,957	9.132%				
Middleborough Housing	87,292	1,800	89,092	0.157%				
Norwell	2,201,362	-	2,201,362	3.439%				
Norwell Housing	25,433	-	25,433	0.040%				
Old Rochester Regional School	572,743	-	572,743	0.886%				
Onset Fire District	211,663	11,900	223,563	0.364%				
Pembroke	2,783,018	48,775	2,831,793	4.338%				
Plymouth County Mosquito Control	166,809	21,800	188,609	0.293%				
Plympton	402,759	17,200	419,959	0.574%				
Rochester	616,245	29,900	646,145	0.935%				
Rockland	3,394,380	82,200	3,476,580	5.545%				
Scituate Scituate Housing	4,223,839 96,575	18,000	4,223,839 114,575	6.490% 0.117%				
Scituate Housing Silver Lake Regional School	648,915	18,000	648,915	1.151%				
South Shore Mosquito Control	040,713	_	040,713	0.000%				
South Shore Regional School	323,670	_	323,670	0.495%				
Wareham	3,308,492	213,288	3,521,780	5.354%				
Wareham Fire District	590,031	15,900	605,931	0.973%				
Wareham Housing	17,556	-	17,556	0.038%				
West Bridgewater	1,704,733	-	1,704,733	2.736%				
Whitman	1,765,248	-	1,765,248	2.765%				
Whitman/Hanson Regional School	1,078,609	-	1,078,609	1.731%				
Whitman Housing	51,545	4,200	55,745	0.109%				
Abington Housing	27,564	5,000	32,564	0.052%				
Pembroke Housing	82,155	-	82,155	0.124%				
Hanson Housing	29,221	-	29,221	0.036%				
Rockland Housing	53,744	-	53,744	0.074%				
Halifax Housing	30,085	-	30,085	0.044%				
Mattapoisett Housing	16,481	-	16,481	0.029%				
Acushnet/Rochester/Marion Health District	11,013	-	11,013	0.024%				
West Bridgewater Housing	12,149	-	12,149	0.016%				
South Shore Tri Town Development Carver Housing	106,615	-	106,615	0.105%				
Other (Retirement Staff)	18,322 105,616	-	18,322 105,616	0.032% 0.219%				
Total	\$ 63,177,397	\$ 935,151	\$ 64,112,548	100.000%				
	Ψ 05,177,577	Ψ /55,151	y 31,112,370	100.000/0				

PLYMOUTH COUNTY RETIREMENT ASSOCIATION SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2015

		Deferred Outflows of Resources									
Employer	Net Pension Liability	Differences Between Expected and Actual Experience	Total Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Total Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources					
County of Plymouth	\$ 31,098,947	\$ -	\$ 3,662,309	\$ -	\$ 3,474,025	\$ 7,136,334					
Hospital	3,944,248	-	464,487	-	-	464,487					
Abington	23,236,595	-	2,736,411	-	-	2,736,411					
Bridgewater	31,006,920	-	3,651,469	-	-	3,651,469					
Bridgewater Housing	567,261	-	66,802	-	12,616	79,418					
Bridgewater/Raynham Regional School	14,513,718	-	1,709,180	-	-	1,709,180					
Carver	17,316,474	-	2,039,241	-	-	2,039,241					
Carver/Marion/Wareham Regional Refuse	476,337	-	56,095	-	-	56,095					
Duxbury	31,402,963	-	3,698,108	-	-	3,698,108					
Duxbury Housing East Bridgewater	230,868	-	27,188	-	-	27,188					
_	22,109,349 279,950	-	2,603,664 32,968	-	5,440	2,603,664 38,408					
East Bridgewater Housing Halifax	10,356,892	-	1,219,658	-	5,440	1,219,658					
Hanover	28,530,444	_	3,359,831	_	_	3,359,831					
Hanson	13,619,585	_	1,603,884	_	_	1,603,884					
Kingston	19,473,824	-	2,293,296	_	_	2,293,296					
Kingston Housing	41,247	-	4,858	-	_	4,858					
Lakeville	9,057,112	-	1,066,593	-	-	1,066,593					
Marion	8,987,700	-	1,058,419	-	-	1,058,419					
Marshfield	50,159,092	-	5,906,886	-	-	5,906,886					
Marshfield Housing	302,538	-	35,628	-	1,539	37,167					
Mattapoisett	10,456,469	-	1,231,385	-	-	1,231,385					
Middleborough	57,918,847	-	6,820,698	-	-	6,820,698					
Middleborough Housing	993,391	-	116,985	-	-	116,985					
Norwell	21,808,558	-	2,568,242	-	-	2,568,242					
Norwell Housing	253,949	-	29,906	-	-	29,906					
Old Rochester Regional School	5,619,732	-	661,797	-	-	661,797					
Onset Fire District	2,307,161	-	271,698	-	-	271,698					
Pembroke	27,512,206	-	3,239,920	-	-	3,239,920					
Plymouth County Mosquito Control	1,855,988	-	218,567	-	27.202	218,567					
Plympton Rochester	3,642,916	-	429,000 698,444	-	27,392 4,427	456,392 702,871					
Rockland	5,930,939 35,165,926	-	4,141,246	-	4,427	4,141,246					
Scituate	41,160,818	-	4,847,222	_		4,847,222					
Scituate Housing	743,061	_	87,506	_	26,060	113,566					
Silver Lake Regional School	7,296,788	-	859,292	_	-	859,292					
South Shore Regional School	3,140,324	-	369,815	-	_	369,815					
Wareham	33,957,508	-	3,998,938	-	-	3,998,938					
Wareham Fire District	6,167,869	-	726,346	-	-	726,346					
Wareham Housing	239,427	-	28,196	-	-	28,196					
West Bridgewater	17,354,422	-	2,043,709	-	-	2,043,709					
Whitman	17,539,078	-	2,065,455	-	-	2,065,455					
Whitman/Hanson Regional School	10,978,762	-	1,292,892	-		1,292,892					
Whitman Housing	690,308	-	81,293	-	5,685	86,978					
Abington Housing	327,404	-	38,556	-	-	38,556					
Pembroke Housing	783,742	-	92,297	-	2 612	92,297					
Hanson Housing	228,012 467,100	-	26,851 55,007	-	3,613	30,464 56,972					
Rockland Housing	467,100 279,296	-	55,007 32,890	-	1,965	56,972 32,890					
Halifax Housing Mattapoisett Housing	279,296 185,478	-	32,890 21,842	-	-	32,890 21,842					
Acushnet/Rochester/Marion Health District	150,407	-	17,712	-	-	17,712					
West Bridgewater Housing	103,011	_	12,131	-	994	13,125					
South Shore Tri Town Development	663,053	-	78,083	-	27,503	105,586					
Carver Housing	204,917	-	24,132	-	-	24,132					
Retirement Staff	1,387,458		163,388			163,388					
Total for All Entities	\$ 634,226,389	\$ -	\$ 74,688,416	\$ -	\$ 3,591,259	\$ 78,279,675					

(Continued)

PLYMOUTH COUNTY RETIREMENT ASSOCIATION SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED) FOR THE YEAR ENDED DECEMBER 31, 2015

		Deferred Inf	lows of Resources			Revenue		
	-	D CTCTTCU III	ions of Resources		-	110,0110		
			Total			Deferred Amounts		
			Changes in			from Changes in		
			Proportion			Proportion		
			and Differences			and Differences		
Differences			Between			Between		
			Employer	Total	Proportionate	Employer		
	Between		Contributions	Deferred	Share of	Contributions	Total	
	Expected		and Proportionate	Inflows	Plan	and Proportionate	Employer	
	and Actual	Changes of	Share of	of	Pension	Share of	Pension	
Employer	Experience	Assumptions	Contributions	Resources	Expense	Contributions	Expense	Revenue
County of Plymouth	\$ -	\$ -	\$ -	\$ -	\$ 3,603,476	\$ 862,041	\$ 4,465,517	\$ 134,426
Hospital	φ -	Ψ -	334,644	334,644	457,025	(83,038)	373,987	17,049
Abington			96,440	96,440	2,692,455	(23,931)	2,668,524	100,441
Bridgewater	_	_	134,856	134,856	3,592,812	(33,463)	3,559,349	134,029
Bridgewater Housing	_	_	134,630	134,030	65,729	3,130	68,859	2,452
Bridgewater/Raynham Regional School	_	_	51,488	51,488	1,681,723	(12,776)	1,668,947	62,736
Carver	-	-	23,538	23,538	2,006,482	(5,841)	2,000,641	74,851
Carver/Marion/Wareham Regional Refuse	-	-	6,991	6,991	55,194	(1,735)	53,459	2,059
	-	-						
Duxbury Housing	-	-	116,042 9,567	116,042 9,567	3,638,702 26,751	(28,795) (2,374)	3,609,907 24,377	135,741 998
Duxbury Housing East Bridgewater	-	-					24,377	998 95,569
· ·	-	-	211,504	211,504	2,561,839	(52,482)		
East Bridgewater Housing Halifax	-	-	70,390	70,390	32,438 1,200,067	1,350	33,788	1,210 44,768
Hanover	-	-	70,390 137,997	137,997	3,305,860	(17,467) (34,243)	1,182,600 3,271,617	123,324
Hanson	-	-	143,994	143,994				58,871
	-	-	124,955		1,578,119 2,256,457	(35,730)	1,542,389	
Kingston	-	-		124,955		(31,006)	2,225,451	84,176
Kingston Housing	-	-	1,221	1,221	4,779	(303)	4,476	178
Lakeville	-	-	34,790	34,790	1,049,459	(8,633)	1,040,826	39,150
Marion	-	-	57,893	57,893	1,041,417	(14,365)	1,027,052	38,850
Marshfield	-	-	141,971	141,971	5,811,999	(35,228)	5,776,771	216,815
Marshfield Housing	-	-	- 00.775	- 00.775	35,055	382	35,437	1,308
Mattapoisett	-	-	99,775	99,775	1,211,605	(24,758)	1,186,847	45,199
Middleborough	-	-	378,657	378,657	6,711,132	(93,959)	6,617,173	250,357
Middleborough Housing	-	-	15,728	15,728	115,105	(3,903)	111,202	4,294
Norwell	-	-	120,870	120,870	2,526,986	(29,992)	2,496,994	94,268
Norwell Housing	-	-	1,565	1,565	29,425	(388)	29,037	1,098
Old Rochester Regional School	-	-	26,837	26,837	651,166	(6,659)	644,507	24,292
Onset Fire District	-	-	20,111	20,111	267,334	(4,990)	262,344	9,973
Pembroke	-	-	109,503	109,503	3,187,875	(27,172)	3,160,703	118,923
Plymouth County Mosquito Control	-	-	9,293	9,293	215,056	(2,306)	212,750	8,023
Plympton	-	-	-	-	422,109	6,797	428,906	15,747
Rochester	-	-	-	-	687,226	1,098	688,324	25,637
Rockland	-	-	252,312	252,312	4,074,722	(62,609)	4,012,113	152,006
Scituate	-	-	173,873	173,873	4,769,358	(43,145)	4,726,213	177,919
Scituate Housing	-	-	-	-	86,099	6,467	92,566	3,212
Silver Lake Regional School	-	-	109,279	109,279	845,488	(27,117)	818,371	31,541
South Shore Regional School	-	-	12,152	12,152	363,873	(3,016)	360,857	13,574
Wareham	-	-	114,273	114,273	3,934,701	(28,355)	3,906,346	146,783
Wareham Fire District	-	-	47,268	47,268	714,679	(11,729)	702,950	26,661
Wareham Housing	-	-	6,818	6,818	27,743	(1,692)	26,051	1,035
West Bridgewater	-	-	133,129	133,129	2,010,880	(33,035)	1,977,845	75,015
Whitman	-	-	101,254	101,254	2,032,276	(25,125)	2,007,151	75,813
Whitman/Hanson Regional School	-	-	84,094	84,094	1,272,123	(20,867)	1,251,256	47,456
Whitman Housing	-	-	-	-	79,987	1,411	81,398	2,984
Abington Housing	-	-	2,196	2,196	37,937	(545)	37,392	1,415
Pembroke Housing	-	-	1,953	1,953	90,813	(484)	90,329	3,388
Hanson Housing	-	-	-	-	26,420	896	27,316	986
Rockland Housing	-	-	16.007	-	54,124	488	54,612	2,019
Halifax Housing	-	-	16,307	16,307	32,362	(4,046)	28,316	1,207
Mattapoisett Housing	-	-	9,134	9,134	21,492	(2,267)	19,225	802
Acushnet/Rochester/Marion Health District	-	-	8,350	8,350	17,428	(2,072)	15,356	650
West Bridgewater Housing	-	-	-	-	11,936	247	12,183	445
South Shore Tri Town Development	-	-	- 2.706	- 2706	76,829	6,825	83,654	2,866
Carver Housing	-	-	2,706	2,706	23,744	(672)	23,072	886
Retirement Staff		-	35,541	35,541	160,767	(8,819)	151,948	5,994
Total for All Entities	\$ -	\$ -	\$ 3,591,259	\$ 3,591,259	\$ 73,488,638	\$ -	\$ 73,488,638	\$ 2,741,469

(Continued)

## PLYMOUTH COUNTY RETIREMENT ASSOCIATION SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED) FOR THE YEAR ENDED DECEMBER 31, 2015

#### Deferred Inflows/(Outflows) Recognized in Future Pension Expense

									Covered	
	June 30,			June 30,		June 30,		June 30,		Employer
		2017	2018		_	2019		2020-2021		Payroll
County of Plymouth	\$	1,860,225	\$	1,860,225	\$	1,860,225	\$	1,555,659	\$	3,872,528
Hospital		43,560		43,560		43,560		(837)		-
Abington		721,895		721,895		721,895		474,286		9,297,874
Bridgewater		961,767		961,767		961,767		631,312		10,271,685
Bridgewater Housing		21,337		21,337		21,337		15,407		223,993
Bridgewater/Raynham Regional School		453,071		453,071		453,071		298,479		6,409,816
Carver		549,966		549,966		549,966		365,805		6,889,118
Carver/Marion/Wareham Regional Refuse		13,554		13,554		13,554		8,442		166,580
Duxbury		979,147		979,147		979,147		644,625		15,940,054
Duxbury Housing		5,036		5,036		5,036		2,513		80,543
East Bridgewater		657,163		657,163		657,163		420,671		9,925,244
East Bridgewater Housing		10,336		10,336		10,336		7,400		192,537
Halifax		314,959		314,959		314,959		204,391		4,976,171
Hanover		881,500		881,500		881,500		577,334		12,975,337
Hanson		401,418		401,418		401,418		255,636		5,333,530
Kingston		594,046		594,046		594,046		386,203		9,172,923
Kingston Housing		1,021		1,021		1,021		574		35,674
Lakeville		282,073		282,073		282,073		185,584		3,721,465
Marion		274,114		274,114		274,114		178,184		4,394,315
Marshfield		1,574,730		1,574,730		1,574,730		1,040,725		21,623,658
Marshfield Housing		10,093		10,093		10,093		6,888		170,144
Mattapoisett		310,864		310,864		310,864		199,018		4,668,468
Middleborough		1,765,064		1,765,064		1,765,064		1,146,849		21,509,545
Middleborough Housing		27,982		27,982		27,982		17,311		372,198
Norwell		669,998		669,998		669,998		437,378		9,955,304
Norwell Housing		7,763		7,763		7,763		5,052		106,230
Old Rochester Regional School		173,717		173,717		173,717		113,809		2,728,904
Onset Fire District		69,063		69,063		69,063		44,398		849,405
Pembroke		855,888		855,888		855,888		562,753		12,126,020
Plymouth County Mosquito Control		57,266		57,266		57,266		37,476		772,850
Plympton		123,724		123,724		123,724		85,220		1,773,679
Rochester		191,463		191,463		191,463		128,482		3,259,840
Rockland		1,066,113		1,066,113		1,066,113		690,595		13,332,541
Scituate Variation		1,277,996		1,277,996		1,277,996		839,361		17,153,284
Scituate Housing		30,317		30,317		30,317		22,615		303,391
Silver Lake Regional School South Shore Regional School		207,088 97,779		207,088 97,779		207,088 97,779		128,749 64,326		3,640,931 1,623,967
Wareham		1,061,581		1,061,581		1,061,581		699,922		12,683,966
Wareham Fire District		186,242		186,242		186,242		120,352		2,631,984
Wareham Housing		5,993		5,993		5,993		3,399		57,097
West Bridgewater		523,990		523,990		523,990		338,610		7,478,837
Whitman		537,827		537,827		537,827		350,720		6,618,086
Whitman/Hanson Regional School		331,519		331,519		331,519		214,241		4,337,258
Whitman Housing		23,568		23,568		23,568		16,274		288,138
Abington Housing		9,964		9,964		9,964		6,468		140,306
Pembroke Housing		24,671		24,671		24,671		16,331		249,432
Hanson Housing		8,215		8,215		8,215		5,819		155,758
Rockland Housing		15,481		15,481		15,481		10,529		165,440
Halifax Housing		4,919		4,919		4,919		1,826		, -
Mattapoisett Housing		3,687		3,687		3,687		1,647		84,609
Acushnet/Rochester/Marion Health District		2,756		2,756		2,756		1,094		69,553
West Bridgewater Housing		3,554		3,554		3,554		2,463		50,964
South Shore Tri Town Development		28,107		28,107		28,107		21,265		377,512
Carver Housing		5,905		5,905		5,905		3,711		-
Retirement Staff		35,714		35,714	_	35,714	_	20,705	_	716,388
Total for All Entities	\$	20,356,789	\$	20,356,789	\$	20,356,789	\$	13,618,049	\$	255,955,074

(Continued)

PLYMOUTH COUNTY RETIREMENT ASSOCIATION SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED) FOR THE YEAR ENDED DECEMBER 31, 2015

	Discount Rate Sensitivity									Schedule of C			
	1	1% decrease (7.00%)				1% increase (9.00%)		Statutory Required Contribution		Contribution in Relation to the Statutory Required Contribution		Contribution Deficiency/ (Excess)	Contributions as a Percentage of Covered Employee Payroll
County of Plymouth	\$	38,583,869	\$	31,098,947	\$	24,680,119	\$	3,276,888	\$	(7,629,339)	\$	(4,352,451)	84.62%
Hospital		4,893,553		3,944,248		3,130,155		-		-		-	N/A
Abington		28,829,199		23,236,595		18,440,558		2,386,676		(2,340,302)		-	25.67%
Bridgewater		38,469,693		31,006,920		24,607,087		3,176,934		(3,115,204)		-	30.93%
Bridgewater Housing		703,790		567,261		450,178		78,141		(75,817)		-	34.89%
Bridgewater/Raynham Regional School		18,006,893		14,513,718		11,518,084		1,501,869		(1,472,687)		-	23.43%
Carver		21,484,218		17,316,474 476,337		13,742,351 378,021		1,840,130 43,307		(1,804,375)		-	26.71% 26.00%
Carver/Marion/Wareham Regional Refuse Duxbury		590,982 38,961,056		31,402,963		24,921,386		3,243,651		(41,717) (3,180,625)		-	20.35%
Duxbury Duxbury Housing		286,434		230,868		183,217		25,015		(12,508)			31.06%
East Bridgewater		27,430,647		22,109,349		17,545,976		2,220,461		(2,077,316)		_	22.37%
East Bridgewater East Bridgewater Housing		347,329		279,950		222,168		37,157		(36,435)		_	19.30%
Halifax		12,849,598		10,356,892		8,219,228		1,028,893		(1,008,901)		_	20.68%
Hanover		35,397,177		28,530,444		22,641,756		2,905,489		(2,849,033)		_	22.39%
Hanson		16,897,559		13,619,585		10,808,501		1,287,561		(1,262,542)		-	24.14%
Kingston		24,160,801		19,473,824		15,454,424		1,944,022		(1,906,248)		-	21.19%
Kingston Housing		51,174		41,247		32,734		5,691		(2,845)		-	15.95%
Lakeville		11,236,986		9,057,112		7,187,723		933,838		(915,693)		-	25.09%
Marion		11,150,868		8,987,700		7,132,637		896,935		(879,507)		-	20.41%
Marshfield		62,231,427		50,159,092		39,806,247		5,236,214		(5,134,471)		-	24.22%
Marshfield Housing		375,353		302,538		240,094		34,630		(33,957)		-	20.35%
Mattapoisett		12,973,141		10,456,469		8,298,252		1,002,244		(982,770)		-	21.47%
Middleborough		71,858,807		57,918,847		45,964,388		5,772,957		(5,660,784)		-	26.84%
Middleborough Housing		1,232,481		993,391		788,355		89,092		(85,565)		-	23.94%
Norwell		27,057,461		21,808,558		17,307,268		2,201,362		(2,158,588)		-	22.11%
Norwell Housing		315,070		253,949		201,534		25,433		(24,939)		-	23.94%
Old Rochester Regional School		6,972,294		5,619,732		4,459,818		572,743		(561,614)		-	20.99%
Onset Fire District		2,862,451		2,307,161		1,830,963		223,563		(219,219)		-	26.32%
Pembroke		34,133,868		27,512,206		21,833,682		2,831,793		(2,776,769)		-	23.35%
Plymouth County Mosquito Control		2,302,689		1,855,988		1,472,912		188,609		(184,944)		-	24.40%
Plympton		4,519,696		3,642,916		2,891,018		419,959		(419,959)		-	23.68%
Rochester		7,358,403		5,930,939		4,706,792		646,145		(633,590)		-	19.82%
Rockland		43,629,693		35,165,926		27,907,673		3,476,580		(3,409,028)		-	26.08%
Scituate		51,067,441		41,160,818		32,665,219		4,223,839		(4,141,767)		-	24.62%
Scituate Housing		921,902		743,061		589,693 5,790,730		114,575		(111,214)		-	37.76%
Silver Lake Regional School South Shore Regional School		9,052,985		7,296,788 3,140,324		2,492,161		648,915 323,670		(636,307) (317,381)		-	17.82% 19.93%
Wareham		3,896,140 42,130,431		33,957,508		26,948,673		3,521,780		(3,453,350)		-	27.77%
Wareham Fire District		7,652,357		6,167,869		4,894,820		605,931		(594,158)		_	23.02%
Wareham Housing		297,053		239,427		190,009		17,556		(16,846)		_	30.75%
West Bridgewater		21,531,300		17,354,422		13,772,467		1,704,733		(1,671,609)		_	22.79%
Whitman		21,760,399		17,539,078		13,919,010		1,765,248		(1,730,948)		_	26.67%
Whitman/Hanson Regional School		13,621,140		10,978,762		8,712,744		1,078,609		(1,057,651)		_	24.87%
Whitman Housing		856,452		690,308		547,828		55,745		(80,197)		-	19.35%
Abington Housing		406,204		327,404		259,828		32,564		(31,931)		-	23.21%
Pembroke Housing		972,374		783,742		621,978		82,155		(80,559)		-	32.94%
Hanson Housing		282,890		228,012		180,950		29,221		(28,653)		-	18.76%
Rockland Housing		579,522		467,100		370,690		53,744		(51,918)		-	32.49%
Halifax Housing		346,517	279,296			221,649		30,085		(9,224)		-	N/A
Mattapoisett Housing		230,119		185,478		147,195		16,481		(8,241)		-	19.48%
Acushnet/Rochester/Marion Health District		186,607		150,407		119,363		11,013		(5,507)		-	15.83%
West Bridgewater Housing		127,804		103,011		81,750		12,149		(12,149)		-	23.84%
South Shore Tri Town Development		822,637		663,053		526,199		106,615		(104,543)		-	28.24%
Carver Housing		254,237		204,917		162,622		18,322		(18,322)		-	N/A
Retirement Staff		1,721,394		1,387,458		1,101,083		105,616		(102,561)		-	14.74%
Total for All Entities	\$	786,872,564	\$	634,226,389	\$	503,321,962	\$	64,112,548	\$	(67,162,327)	\$	(4,352,451)	25.05%

(Concluded)

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2015

#### 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, contributions 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. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Plymouth County Retirement Association's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the system who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year.

The proportionate aggregate rates of regular compensation as of the close of business on December 31, 2014 were applied to allocate the Association's fiscal year 2016 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete 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 as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the system's funding schedule. The 2003 ERIP amortization is occurring over 25 years, increasing 4.5% per year. The 2010 ERIP amortization is occurring over a 10 year, straight-line basis.

The allocation percentage of the total net pension liability is a blended rate of the following three items. (1) The proportionate share of active employer's covered payroll is applied to the fiscal year 2016 pension fund appropriation calculated by the actuary. (2) ERI is a direct charge calculated by PERAC for only the employers that accepted the ERI. (3) The direct amortization of the actuarial determined net pension liability for Plymouth County Sheriff and Plymouth County Hospital since they no longer have active covered payroll.

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER FOR THE YEAR ENDED DECEMBER 31, 2015

#### 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, contributions 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. Since the Association performs an actuarial valuation bi-annually, there are not reported differences between expected and actual experience or a change of assumptions as of December 31, 2015.

The County of Plymouth had an excess contribution of \$4,352,451 for the year ended December 31, 2015. The Retirement Association, the Executive Office for Administration and Finance, the Public Employee Retirement Administration Commission ("PERAC") Actuary, the Plymouth County Treasurer and Plymouth County agreed to a payment schedule to satisfy all liabilities of the Commonwealth towards Plymouth County Retirement Association and County of Plymouth, Massachusetts for fiscal year 2015, fiscal year 2016 and all past fiscal years relating to retired employees from the Sheriff's office prior to transfer of the control of House of Correction from the County of Plymouth to the Commonwealth of Massachusetts.. The excess is not separately identified in the actuarial valuation GASB 67 & 68 reports as of December 31, 2015.