

# Commonwealth of Massachusetts

**COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FISCAL YEAR ENDED JUNE 30, 2017**



**THOMAS G. SHACK III, ESQ.  
COMPTROLLER**

Minuteman Monument - Lexington - Middlesex County

# Commonwealth of Massachusetts



## Comprehensive Annual Financial Report

*For the Fiscal Year Ended June 30, 2017*

Thomas G. Shack III, Esq.  
*Comptroller of the Commonwealth*

Prepared by  
*Financial Reporting and Analysis Team*  
*Office of the Comptroller*

This document is available at the Comptroller's website: [www.macomptroller.org](http://www.macomptroller.org)

### Minuteman Statue - Lexington - Middlesex County

The Lexington Minuteman is a life-size bronze figure of a colonial farmer with musket by Boston sculptor Henry H. Kitson. It stands at the southeast corner of the Lexington Battle Green, facing the route of the British advance. The statue was unveiled on April 19, 1900, the 125th anniversary of the battle.

Photo courtesy of Massachusetts Office of Travel and Tourism

# Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2017

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# *Introductory Section*

*(Unaudited)*

*Letter of Transmittal*  
*Constitutional Officers*  
*Commonwealth Organizational Structure*  
*Advisory Board to the Comptroller*  
*Acknowledgements*  
*Certificate of Achievement*





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*Thomas G. Shack III, Comptroller  
One Ashburton Place  
Boston, MA 02108*

***January 10, 2018***

***To the Citizens of the Commonwealth of Massachusetts,  
Governor Charles D. Baker and Honorable Members of the General Court***

I am pleased to provide this Letter of Transmittal for the Commonwealth's fiscal year 2017 (FY17) Comprehensive Annual Financial Report (CAFR) prepared in accordance with Generally Accepted Accounting Principles (GAAP) in the United States of America. The objective of this report is to provide a clear financial picture of our government as a single, unified entity.

This document presents the Commonwealth's financial information on three bases of accounting, each serving a different purpose. The end portion of the report includes "required supplementary information" in the form of budgetary basis statements, which are prepared in accordance with the Commonwealth's budgetary or statutory basis of accounting and summarized by Commonwealth cabinet. This information is aggregated from FY17 line item appropriations, the legal level of budgetary control -- i.e., the level at which state departments cannot overspend their budgets without the approval of additional appropriations by the Massachusetts Legislature. More detailed information on the statutory basis of accounting and the results of operating on that basis from FY17 are found in the Statutory Basis Financial Report (SBFR) issued separately this past November. The SBFR documents compliance with the legislatively adopted budget at a fund level. Further documentation is found within the Commonwealth's accounting system, the Massachusetts Management Accounting and Reporting System (MMARS). Each state maintains different rules for budgetary reporting and therefore the SBFR should not be used for comparisons across states.

The CAFR's "fund perspective" statements present the governmental operations on a modified accrual basis of accounting. The fund perspective is designed to measure inter-period equity, the extent to which current resources (available within one year) fully fund all current services provided by the government. Long-term liabilities are excluded with the implicit assumption that future tax revenues will fund these liabilities as they come due. This fund perspective provides results similar to the SBFR.

In addition to the fund perspective, this CAFR presents a "government-wide" perspective. This perspective combines all governmental and business-type activities in a statement of net position and a statement of activities, presenting all functions on a full accrual basis of accounting. All capital assets are added to the government-wide statements, as are most long-term liabilities. Funds that are shown as fiduciary under the fund perspective are not portrayed in the government-wide statements, as the assets do not belong to the Commonwealth.

In the government-wide statements, the balance sheet has been organized into a "net position format." This format classifies all assets and liabilities as short and long-term and then subtracts liabilities from assets to arrive at net position.

The Commonwealth's government-wide revenues, expenses and activities are included in the statement of activities. The expenses of the Commonwealth, organized by function, are netted against fees, fines, grant revenues, and assessments generated to fund each function in an attempt to derive the net cost to the taxpayer of each function. This format allows the reader of the financial statements to discern the net cost of a particular function of government funded by taxation and other general revenues.

This CAFR is presented in three sections: **Introductory**, **Financial**, and **Statistical**. The **Introductory Section** contains an overview of current initiatives and summary financial data. The **Financial Section** contains the Management's

Discussion and Analysis (MD&A) and the Commonwealth's Basic Financial Statements. GAAP requires that management provide a narrative overview and analysis in the form of an MD&A to accompany the basic financial statements.

This letter of transmittal is designed to complement the MD&A, where the financial analysis is presented. The Commonwealth's MD&A can be found immediately following the independent auditors' report. The **Statistical Section** contains selected financial and demographic information; it also contains background information on the Commonwealth.

## **PROFILE OF THE COMMONWEALTH**

The Commonwealth of Massachusetts was the sixth of the original 13 colonies to ratify the United States Constitution, joining the United States on February 6, 1788. Boston, the capital of the Commonwealth since its founding, dates from 1630. The Commonwealth has an area of 8,257 square miles. Geographically, the Commonwealth includes 351 cities and towns. The largest city is the capital, Boston. Employment is largely in the education, health services, wholesale and retail trade, financial, and public sectors. Due to the Commonwealth's high levels of basic and advanced education and the presence of world-class educational institutions, the Commonwealth's economy is driven in large part by innovation in high technology, life sciences, health care, and business services.

The Massachusetts Constitution was ratified in 1780 while the Revolutionary War was still in progress, nine years before the United States Constitution was adopted, and is the oldest written Constitution now in use. It specified three branches of Government: Legislative, Executive, and Judicial. "The Great and General Court," elected every two years, is made up of a Senate of 40 members and a House of Representatives of 160 members. It is the second oldest democratic deliberative body in the world.

The table on page 3 reconciles the fund balances on three bases of accounting: the statutory basis presented in separately issued financial statements this past November; the fund basis; and the entity-wide basis statements, the latter two of which are included in this report.

**Governmental Funds - Statutory to GAAP - Fund Perspective and to Governmental Net Position**  
**(Amounts in millions)**

**Governmental Funds - Statutory Basis, June 30, 2017**

Budgeted fund balance .....	\$ 1,447.7
Non-budgeted special revenue fund balance .....	1,891.3
Capital projects fund balance .....	<u>150.6</u>
<b>Governmental Fund Balance - Statutory Basis, June 30, 2017 .....</b>	<b>\$ 3,489.6</b>
Plus: Expendable Trust and Similar Fund Statutory balances that are considered Governmental Funds for GAAP reporting purposes .....	640.6
Less: Massachusetts Department of Transportation Funds .....	<u>(1,191.4)</u>
<b>Adjusted Statutory Governmental fund balance .....</b>	<b>2,938.8</b>
Short term accruals, net of allowances and deferrals for increases /(decreases):	
Taxes, net of refunds and abatements .....	1,697.3
Tobacco Settlement Agreement receivable .....	125.6
Medicaid .....	(559.5)
Other short term accruals:	
Assessments and other receivables .....	213.1
Amounts due to authorities and municipalities, net .....	(606.8)
Claims, judgments and other risks .....	(12.5)
Amounts due to health care providers and insurers .....	(43.7)
Workers' compensation and group insurance .....	(154.2)
Compensated absences .....	(11.1)
Other accruals, net .....	<u>297.3</u>
<b>Net increase to governmental fund balances .....</b>	<b>945.5</b>
<b>Massachusetts School Building Authority fund balance .....</b>	<b><u>1,712.6</u></b>
<b>Total changes to governmental funds .....</b>	<b><u>2,658.1</u></b>
<b>Governmental fund balance (fund perspective) .....</b>	<b>5,596.9</b>
Plus: Capital assets including infrastructure, net of accumulated depreciation .....	4,793.1
Deferred revenue, net of other eliminations .....	655.1
Long term accruals:	
Net pension liability .....	(36,941.9)
Net deferred (inflows) / outflows of resources related to pension .....	8,002.2
Post employment benefits other than pensions cumulative over / (under) funding .....	(7,581.0)
Environmental remediation liability .....	(533.1)
Massachusetts School Building Authority debt and school construction payables .....	(7,540.9)
Long term debt, unamortized premiums and net deferrals on debt refundings .....	(28,438.2)
Compensated absences .....	(593.2)
Capital leases .....	(30.9)
Accrued interest on bonds .....	(388.8)
Other long term liabilities .....	<u>(386.3)</u>
<b>Total governmental net position (entity wide perspective) .....</b>	<b><u>\$ (63,387.0)</u></b>

The deficit of \$63.387 billion in governmental activities net position is largely attributable to two factors: first, the Commonwealth's policy decision to finance the construction of assets owned by other government entities, particularly Commonwealth roads and bridges, which as a result of transportation reform completed during FY10 shifted these assets from the books of the Commonwealth to the Massachusetts Department of Transportation (MassDOT), a component unit of the Commonwealth; and second, the Commonwealth's net (or unfunded) pension liability, that

starting in FY15 has been placed on the Commonwealth's books in accordance with [GASB Statement No. 68, Accounting and Financial Reporting for Pensions](#). At the end of FY17, MassDOT held \$34.944 billion in road, bridge, and other transportation-related assets (excluding assets of the Massachusetts Bay Transportation Authority) net of related depreciation, the vast majority of which were formerly held by the Commonwealth. The Commonwealth also has financed significant transportation and non-transportation assets currently held by Massachusetts Institutions of Higher Education, Massachusetts cities and towns, and quasi-public authorities. While the exact amount of Commonwealth-funded assets held by these entities is difficult to determine, between FY05 and FY17 the Commonwealth's capital spending on Higher Education capital projects totaled approximately \$1.8 billion, capital spending for transportation-related financial assistance to local governments totaled approximately \$3.0 billion, and other grants and financial assistance for non-Commonwealth entities such as cities and towns and quasi-public authorities funded through the Commonwealth's capital budget totaled \$4.7 billion, including \$1.0 billion to fund the Massachusetts School Building Authority (MSBA) in FY05 and FY06. In addition, the Commonwealth has a net liability of \$5.743 billion for debt and grant obligations for the School Building Assistance Program that finances construction of schools for the Commonwealth's cities and towns. As almost all of this capital spending was financed by Commonwealth debt, the liabilities are retained by the Commonwealth while the assets are held by the Institutions of Higher Education, Massachusetts cities and towns, and entities such as local housing and other quasi-governmental authorities.

Since MassDOT ended FY17 with a positive net position of \$26.488 billion, it is more informative to view the Commonwealth's financial statements in combination with MassDOT than to analyze the two separately, while also keeping in mind that significant assets owned by the Institutions of Higher Education and local governments and authorities were financed by liabilities still on the Commonwealth's books.

As mentioned above, GASB 68 required that the Commonwealth's net pension liability, or NPL, be recorded on the Commonwealth's books for the first time in FY15. The FY17 NPL for the Commonwealth totaled \$37.680 billion, offset by GASB 68 related adjustments (in the form of deferred inflows and outflows) of \$8.200 billion; resulting in a reduction of net position of \$29.480 billion.

The net deficit in governmental activities (which excludes "business-type activities" of Unemployment Insurance and Higher Education) increased by \$4.747 billion between June 30, 2016 and June 30, 2017. Virtually all growth in the net deficit was due to the following three factors:

- The Commonwealth's net pension liability, after taking into account deferrals of FY17 investment gains and other adjustments that will be recognized over the next several years, grew by \$2.109 billion, primarily due to a reduction, from 7.75%, to 7.50%, in the rate used to discount liabilities, and incorporation of the assumption that retirees are living longer.
- Until FY08, the Commonwealth had funded its retiree health insurance benefits (Other Post-Employment Benefits, or OPEB) entirely on a pay-as-you-go basis, and since then has only partially met the annual required contribution (ARC) for those benefits, including in FY17. As a result, the change in the accrual was \$1.115 billion in FY17, reducing net position; cumulative OPEB underfunding is \$7.581 billion. However, the Commonwealth has dedicated payments from the Master Settlement Agreement with tobacco companies to fund its OPEB liability. These payments are being phased in over ten years, until per statute they should reach approximately \$250 million annually by FY23, although the statutorily-required payments were frozen at approximately \$25 million in FY17 and FY18.

Beginning with the FY18 CAFR, GASB requirements (under Statement No. 75) mandate that the full amount of the net (or unfunded) OPEB liability be recorded in the Commonwealth's Statement of Net Position. As a result of this change, the primary government's net OPEB liability will increase from the FY17 amount of \$7.581 billion to \$19.775 billion, as shown in [Note 10](#) of this report.

- As explained on page 3, the Commonwealth continues to fund, through its own debt, transportation-related assets owned by the Massachusetts Department of Transportation (MassDOT), Institutions of Higher Education, cities and towns and quasi-public authorities. In FY17, approximately \$2.029 billion of the more than \$2.652 billion in state-funded capital spending generated assets not owned by the Commonwealth, including \$1.291 billion in transportation spending (more than \$336 million of which were grants and other financial assistance to cities and towns), \$189 million for Institutions of Higher Education (which are attributed to the Commonwealth's business-type activities), and approximately \$327 million in other capital grants and financial assistance to local governments and quasi-public entities. As a result of this capital spending on assets

owned by entities other than the Commonwealth, the amount of amount of debt outstanding increased by \$1.992 billion but Commonwealth fixed assets net of depreciation grew by only \$49 million.

The net deficit in government-wide activities, which includes the Commonwealth's business-type as well as governmental activities, increased by \$4.401 billion from FY16, with the deficit in governmental activities partially offset by surpluses in Higher Education.

The Commonwealth engages in multi-year financial planning in several areas, including the adoption of a statutorily required triennial pension funding schedule (which is funded prior to the adoption of each year's annual budget), a five year capital spending plan, and a multi-year debt issuance planning process via a Debt Affordability Committee established in statute, comprised of Massachusetts government and non-government financial experts. The Commonwealth's short and long-term goal is to achieve annual statutory structural budget balance, i.e., where annual revenues equal or exceed annual expenditures, thus minimizing the use of one-time resources. A related goal is to limit the growth in state expenditures to increases in budgeted revenues. The current Administration has also committed to a policy of annual increases in unrestricted aid to cities and towns equal to the growth in projected budgetary fund tax revenues.

## **REPORTING ENTITY**

The financial statements incorporate activity from over 150 departments. These departments include the various agencies, boards, and commissions, the 25 Institutions of Higher Education, the judicial and legislative branches of government, and constitutional offices. The departments record their daily financial operations in the state accounting system, MMARS, operated by the Office of the Comptroller.

In addition, the financial statements include 40 independent public authorities. These entities are defined as component units and meet the criteria for inclusion in the Commonwealth's reporting entity in accordance with GAAP. They are further described in [Note 14](#) to the basic financial statements. The Massachusetts School Building Authority (MSBA) is blended into the Commonwealth's operations.

## **INDEPENDENT AUDIT**

The Commonwealth's independent auditors, KPMG LLP, have performed an independent audit of the Commonwealth for the fiscal year ended June 30, 2017. The [independent auditors' report](#) is presented in the Financial Section.

The Office of the Comptroller prepares these financial statements and is responsible for the completeness and reliability of the information presented in this report. To provide a reasonable basis for making these representations, the Office of the Comptroller, working in conjunction with the State Auditor, has established a comprehensive internal control framework that is designed to protect the Commonwealth's assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of the Commonwealth's financial statements in conformity with GAAP. Because of the cost, internal controls should not outweigh their benefits. The Commonwealth's comprehensive framework of internal controls has been designed to provide reasonable, rather than absolute assurance that the financial statements will be free from material misstatement.

I would like to express my sincere thanks to the dedicated employees of the Office of the Comptroller, and in particular Deputy Comptrollers Chris Guido, Jenny Hedderman, Howard Merkwowitz, Jeff Shapiro, and Kathy Sheppard, whose tireless efforts serve the people of the Commonwealth well on a daily basis. I am proud to have them all on my team as we embark on another year of innovation within the Comptroller's Office and establish a model for good governance nationwide.

Respectfully submitted,

Thomas G. Shack III  
Comptroller of the Commonwealth

## **CONSTITUTIONAL OFFICERS**

Charles D. Baker  
*Governor*

Karyn E. Polito  
*Lieutenant Governor*

William F. Galvin  
*Secretary of State*

Maura Healey  
*Attorney General*

Deborah B. Goldberg  
*Treasurer and Receiver-General*

Suzanne Bump  
*Auditor*

## **LEGISLATIVE OFFICERS**

Harriette L. Chandler  
*Acting Senate President*

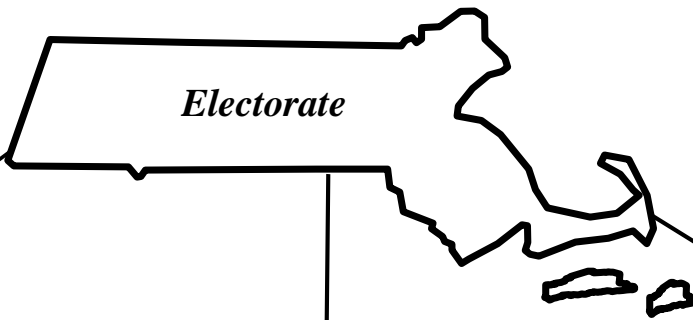
Robert A. DeLeo  
*Speaker of the House*

## **JUDICIAL OFFICERS**

Ralph D. Gants  
*Chief Justice, Supreme Judicial Court*

Mark Green  
*Chief Justice, Appeals Court*

Jonathan Williams  
*Court Administrator, Trial Court*



<i>Legislative Branch</i>	<i>Executive Branch</i>	<i>Judicial Branch</i>
House of Representatives Senate	Governor and Lieutenant Governor <sup>#</sup> Governor's Council Attorney General Sheriffs State Auditor Secretary of the Commonwealth Treasurer and Receiver-General District Attorneys Independent Offices and Commissions*	Supreme Judicial Court Appeals Court Trial Court Committee for Public Counsel Board of Bar Examiners Commission on Judicial Conduct Mental Health Legal Advisors

<i>Executive Branch Independent Offices and Commissions*</i>		
Board of Library Commissioners Campaign and Political Finance Center for Health Information & Analysis Commission Against Discrimination University of Massachusetts System	Commission on the Status of Women Disabled Persons Protection Commission Massachusetts Gaming Commission Office of the Child Advocate	Office of the Comptroller Office of the Inspector General State Ethics Commission State Retiree Benefits Trust Fund Board

<i>Executive Departments Under Gubernatorial Authority<sup>#</sup></i>		
<p><b><u>Administration and Finance</u></b>            Executive Office for Administration and Finance            Appellate Tax Board            Bureau of the State House            Civil Service Commission            Department of Revenue            Developmental Disabilities Council            Division of Administrative Law Appeals            Division of Capital Asset Management and Maintenance            George Fingold Library            Group Insurance Commission            Health Policy Commission            Human Resource Division            Massachusetts Office on Disability            Massachusetts Office of Information Technology            Massachusetts Teachers' Retirement System            Operational Services Division            Public Employee Retirement Administration Commission</p> <p><b><u>Education</u></b>            Executive Office of Education            Department of Early Education and Care            Department of Elementary and Secondary Education            Department of Higher Education            Community Colleges            State Universities</p>	<p><b><u>Housing and Economic Development</u></b>            Executive Office of Housing and Economic Development            Department of Business Development            Office of Consumer Affairs &amp; Business Regulations            Massachusetts Marketing Partnership            Department of Housing &amp; Community Development            Department of Telecommunications and Cable            Division of Banks            Division of Insurance            Division of Professional Licensure            Division of Standards</p> <p><b><u>Energy and Environmental Affairs</u></b>            Executive Office of Energy and Environmental Affairs            Department of Agricultural Resources            Department of Conservation and Recreation            Department of Energy Resources            Department of Environmental Protection            Department of Fish and Game            Department of Public Utilities            State Reclamation Board</p> <p><b><u>Transportation and Public Works</u></b>            Executive Office of Transportation and Public Works</p>	<p><b><u>Executive Office of Labor and Workforce Development</u></b></p> <p><b><u>Health and Human Services</u></b>            Executive Office of Health and Human Services            Executive Office of Elder Affairs            Department of Children and Families            Department of Developmental Services            Department of Mental Health            Department of Public Health            Department of Transitional Assistance            Department of Veterans' Services            Department of Youth Services            Massachusetts Commission for the Blind            Massachusetts Commission for the Deaf and Hard of Hearing            Massachusetts Rehabilitation Commission            Office for Refugees and Immigrants            Soldiers' Home, Holyoke            Soldiers' Home, Massachusetts</p> <p><b><u>Public Safety</u></b>            Executive Office of Public Safety and Security            Chief Medical Examiner            Department of Criminal Justice Information Services            Department of Correction            Department of Fire Services            Department of State Police            Massachusetts Emergency Management Agency            Military Division/ Massachusetts National Guard            Municipal Police Training Committee            Parole Board            Sex Offender Registry</p>



**ADVISORY BOARD TO THE COMPTROLLER**

Michael J Heffernan (Chair)  
*Secretary of Administration and Finance*

Suzanne Bump  
*Auditor*

Deborah B. Goldberg  
*Treasurer and Receiver-General*

Jonathan Williams  
*Chief Administrator, Trial Court*

Maura Healey  
*Attorney General*

Michael Esmond  
*Gubernatorial Appointee*

**REPORT PREPARED BY:**

Howard Merkowitz  
*Deputy Comptroller*

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*Director*

Pauline Lieu, CPA, CFE, CGFM  
*Deputy Director*

Mayowa Taiwo, CPA  
*Accountant*

Christine Bender  
*Accountant*

Paul O'Leary  
*Accountant*

Craig Delmonte  
*Accountant*

Wagdy Rizk  
*Accountant*

Steve Kiander, CPA  
*Accountant*

Cathy Hunter  
*Program Coordinator*

**Statewide General Accounting**

Tim O'Neill  
*Acting Director, General Accounting*

**Statewide Department Assistance**

Scott Olsen  
*Director, Department Assistance*



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Government Finance Officers Association

**Certificate of  
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**Commonwealth of Massachusetts**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2016**

Executive Director/CEO



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# *Financial Section*

*Independent Auditors' Report*

*Management's Discussion and Analysis*

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*Notes to the Basic Financial Statements*

*Required Supplementary Information Other Than Management's Discussion and Analysis*

*Other Supplementary Information*



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KPMG LLP  
Two Financial Center  
60 South Street  
Boston, MA 02111

## Independent Auditors' Report

Mr. Thomas G. Shack III, Comptroller  
The Commonwealth of Massachusetts  
Boston, Massachusetts

### Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Massachusetts (the Commonwealth), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Commonwealth's basic financial statements as listed in the accompanying 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 opinions on these financial statements based on our audit. We did not audit the financial statements of the Massachusetts School Building Authority which is a major governmental fund and represents 7.3% of the total assets and deferred outflows of the governmental activities. Additionally, we did not audit the financial statements of the University of Massachusetts, the State Universities and the Community Colleges all of which are major enterprise funds and represent 87.6% of the total assets and deferred outflows of the business-type activities. Further, we did not audit the financial statements of the nonmajor component units, which represent 7.6% of the total assets and deferred outflows of the aggregate discretely presented component units. Those financial statements were audited by other auditors, whose reports thereon have been furnished to us, and our opinions, insofar as they relate to the amounts included for those entities, is based solely on the reports of the other auditors. 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. The financial statements of certain entities identified in Note 14 of the basic financial statements were not audited in accordance with *Government Auditing Standards*.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' 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 entity'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 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 financial statements.





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, based on our audit and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Massachusetts as of June 30, 2017, and the respective changes in financial position, and where applicable, cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

### **Emphasis of Matters**

As discussed in Note 1 to the basic financial statements, in fiscal year 2017, the Commonwealth adopted the provisions of Governmental Accounting Standard Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* and GASB Statement No. 77, *Tax Abatement Disclosures*. Our opinions are not modified with respect to these matters.

### **Other Matters**

#### *Required Supplementary Information*

U.S. generally accepted accounting principles require that the management's discussion and analysis and required supplementary information, as listed in the accompanying table of contents (collectively referred to as RSI) 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 who 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 RSI 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.

#### *Supplementary and Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Commonwealth's basic financial statements. The introductory section, other supplementary information and statistical section as listed in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.



### **Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated January 10, 2018 on our consideration of the Commonwealth's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely 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 effectiveness of the Commonwealth's 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 Commonwealth's internal control over financial reporting and compliance.

KPMG LLP

January 10, 2018



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# Management's Discussion and Analysis (Unaudited)

## Financial Highlights – Primary Commonwealth Government

### *Government–Wide Highlights*

This analysis, prepared by the Office of the Comptroller, offers readers of the Commonwealth's financial statements a narrative overview of the activities of the Commonwealth for the fiscal year ended June 30, 2017 (FY17). We encourage readers to consider this information in conjunction with the additional information that is furnished in the letter of transmittal and with the Commonwealth's financial statements, which follow. This analysis is required by the Governmental Accounting Standards Board (GASB), which provides preparers with guidelines on what must be included in and excluded from this analysis.

**Net Position** – The liabilities and deferred inflows of resources of the primary government exceeded its assets and deferred outflows of resources at the end of FY17 by almost \$57.305 billion, an increase in the net deficit of \$4.401 billion from FY16.

Of the \$57.305 billion deficit, “unrestricted net position” has a deficit of \$63.270 billion and there is a \$2.303 billion positive balance attributable to net investment in capital assets. There are five primary reasons for the negative unrestricted net position:

1. With the implementation of Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*, which was effective starting in FY15, the Commonwealth was required to place on its books the full amount of its unfunded pension liability (known as the “net pension liability”), which totaled \$37.680 billion as of June 30, 2017.
2. The Commonwealth has a net liability of \$5.743 billion for its share of the construction costs of schools owned and operated by municipalities through the Massachusetts School Building Authority (MSBA);
3. In FY10, the Commonwealth implemented transportation reform, which created the Massachusetts Department of Transportation (MassDOT) and transferred to that entity virtually all highway and bridge assets of the Commonwealth totaling approximately \$15.521 billion, as of the date of the transfer, net of depreciation. These and subsequently constructed road and bridge assets were valued at \$34.944 billion as of June 30, 2017. However, the Commonwealth originally paid and continues to pay for the construction of these assets and retains approximately \$12.466 billion in transportation-related debt, which is now unrelated to any capital asset owned by the Commonwealth.
4. The Commonwealth, through debt issuances, also pays for non-transportation capital assets held by quasi-public entities and local governments and housing authorities.
5. Until FY08, the Commonwealth had funded its retiree health insurance benefits (Other Post-Employment Benefits, or OPEB) entirely on a pay-as-you-go basis, and since then has only partially met the annual required contribution (ARC) for those benefits. As a result, as of June 30, 2017, it had accumulated a \$7.581 billion liability for OPEB.

At the end of FY17, the Commonwealth also held \$3.662 billion in “restricted net position”, which are assets restricted primarily for payment of debt service, unemployment insurance benefits, and the Institutions of Higher Education. Approximately \$1.473 billion in restricted net position balances were set aside for unemployment benefits, an additional \$1.021 billion was restricted for debt retirement (of which \$913 million was restricted for MSBA debt retirement), \$262 million was restricted for Higher Education, and \$905 million was restricted for other governmental purposes.

The Commonwealth's governmental activity (which excludes the “business-type activities” of the Institutions of Higher Education and Unemployment Insurance) net deficit increased by \$4.747 billion, to \$63.387 billion, and its governmental activities unrestricted net deficit increased by approximately \$4.881 billion, to \$63.993 billion in as of June 30, 2017.

Total revenues of the primary government increased by \$468 million, or 0.8% in FY17, to \$58.637 billion. Total expenses of the primary government increased by \$1.526 billion, or approximately 2.5%, to \$63.038 billion. Detail on revenue and expenses can be found on pages 24–28.

The net position of business-type activities increased by \$346 million, due to a surplus of approximately \$351 million in Higher Education activity and a deficit of \$5 million in the Unemployment Insurance program.

On a "funds perspective" basis, at June 30, 2017, the Commonwealth's governmental funds reported a combined ending fund balance of \$5.597 billion, an increase of \$324 million from June 30, 2016. Of the ending balances:

- There are no nonspendable balances, \$1.927 billion is restricted, \$2.351 billion is committed, \$685 million is assigned and \$634 million is unassigned fund balance (a full discussion of these classifications is included in [Note 1](#) to the basic financial statements, on pages 69–71).
- The MSBA's fund balance of \$1.713 billion is blended with the Commonwealth. Within this fund balance is \$1.216 billion in cash and restricted investments, which resulted primarily from the issuance of debt in FY17 and previous fiscal years, less approximately \$45 million in liabilities. In FY17, \$818 million was dedicated to the MSBA from Commonwealth sales taxes, and the MSBA issued \$594 million in long-term dedicated sales tax bonds, of which \$189 million refunded already outstanding debt and \$405 million was new money bonds.

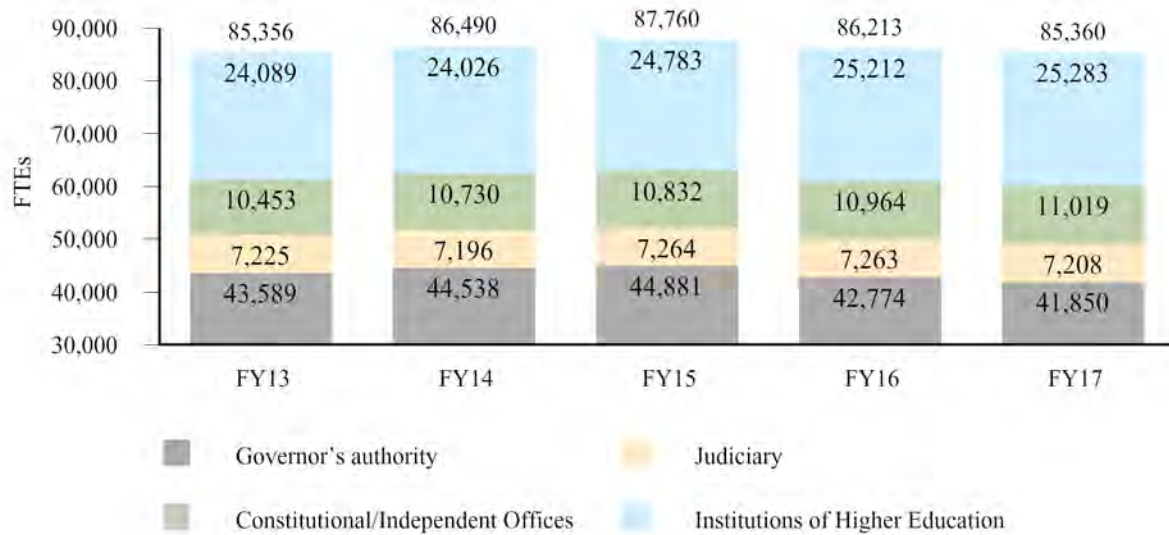
Other highlights of FY17 financial operations include:

- Tobacco settlement proceeds for the year were approximately \$254 million on a GAAP basis, a decrease of approximately \$8 million from FY16. Approximately \$126 million has been reported as a receivable in the governmental funds, equal to half of the anticipated tobacco settlement proceeds to be received in FY18. In FY17 approximately \$25 million, or the equivalent of 10% of tobacco settlement proceeds, was transferred to the State Retiree Benefits Trust Fund (SRBTF) to fund the Commonwealth's liability for retiree health care. Per statute, the proportion of tobacco settlement revenues transferred to the SRBTF increases annually until an amount equal to 100% of the tobacco settlement proceeds is to be transferred to the SRBTF in FY23, although the requirement to transfer increasing percentages of tobacco settlement proceeds was suspended for FY17 and FY18 and the required percentage reduced to 10% for both years.
- During the fiscal year, the Commonwealth passed or agreed to terms of approximately \$1.893 billion in bond authorizations. There were no bond de-authorizations of previously approved capital appropriations during the fiscal year. The Commonwealth determines the timing and extent of capital spending and bonding as part of its five-year capital plan.
- Lottery revenues for FY17 were \$5.259 billion, a decrease of approximately \$148 million, or 2.7%, from FY16. Prizes were approximately \$4.123 billion. Lottery profits, after deducting administrative expenses and fringe benefit charges to reimburse the Commonwealth's General Fund for pension and employee health insurance benefits, but prior to distributions to reimburse the Massachusetts Cultural Council and compulsive gamblers appropriation as mandated in the FY17 budget, totaled \$1.041 billion an increase of \$53 million, or 5.3%, from FY16. Mandated transfers to the General Fund to reimburse it for administrative expense appropriations and other spending totaled \$1.137 billion.

### ***Full-Time Equivalent Employment***

The chart on the following page shows the Commonwealth's full-time equivalent employment, including the Massachusetts Department of Transportation (MassDOT) for all state funding sources (budgetary, non-budgetary, capital, federal, and trust) over the past five fiscal years. In FY17, the number of Commonwealth employees decreased by a net of approximately 853 full-time equivalent employees (FTEs), to a total of 85,360. The largest decreases were in MassDOT (approximately 522 FTEs) and the Department of Corrections (approximately 262 FTEs).

**Full Time Equivalent Workforce  
Including Higher Education  
June 2013 – June 2017**



**OVERVIEW OF THE FINANCIAL STATEMENTS**

This MD&A is intended to serve as an introduction to the Commonwealth’s basic financial statements. The Commonwealth’s basic financial statements comprise the following: 1) government-wide financial statements; 2) fund financial statements; and 3) notes to the financial statements. This report also contains additional required supplementary information in the form of budgetary schedules, which are prepared on the statutory basis of accounting, as well as pension and other post-employment benefits (OPEB) funding schedules. Other supplementary information is also provided to furnish additional detail to support the basic financial statements.

**Government–Wide Financial Statements**

The government-wide financial statements present the reader with a broad overview of the Commonwealth’s finances in a manner similar to a private sector business. The statements include the [Statement of Net Position](#), which presents the assets and deferred outflows of resources, liabilities and deferred inflows of resources and net position for the government as a whole. Also presented is the [Statement of Activities](#), which presents the functional expenses, offsetting revenues and changes in net position of the Commonwealth. The statements report the Commonwealth’s net position and changes in net position. An increase or decrease in the Commonwealth’s net position is one way to measure financial health as well as the trend of increases or decreases over time. Non-financial measures such as the types of capital investments, changes in taxation, population, employment and economic conditions are also indicators of the overall health of any government.

Both the statement of net position and the statement of activities have separate sections for three different categories of the Commonwealth’s operations. These activities are Governmental Activities, Business-type Activities, and Discretely Presented Component Units. Governmental activities are where the Commonwealth’s basic services are reported. Business-type activities are those for which fees are charged for particular services. For the Commonwealth, business-type activities comprise the unemployment insurance compensation system and the Institutions of Higher Education. The component units are separate legal entities that are included in this report due to the nature of their governance and financial relationship with the Commonwealth.

The government–wide financial statements can be found on [pages 38–41](#) of this report.

## **Fund Financial Statements and Component Unit Financial Statements**

*Funds* are groups of related accounts that are used to maintain control over resources that have been segregated for specific activities or objectives. The Commonwealth, like other governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. Within the funds, budgetary compliance is demonstrated at the appropriation level for budgeted expenditures.

Only the major funds are shown separately in the fund financial statements, with the remaining funds aggregated and reported as nonmajor funds.

Fund financial statements focus on individual parts of the Commonwealth, reporting its operations in more detail than the government-wide statements. The Commonwealth's funds can be divided into three categories: [\*Governmental Funds\*](#), [\*Proprietary Funds\*](#), and [\*Fiduciary Funds\*](#). It is important to realize that these fund categories use different bases of accounting and should be interpreted differently. Further discussion of the funds can be found in the section "Financial Analysis of the Commonwealth's Funds" and in [Note 1](#) to the basic financial statements.

Component unit financial statements are presented for entities where the Commonwealth has financial accountability, but the entities are independent of the core Commonwealth operations. Most component units operate similar to private-sector businesses.

Although the Massachusetts School Building Authority (MSBA) is a component unit, the MSBA's operations have been determined by management to operate in a similar fashion to a Commonwealth department due to the MSBA's service to the Commonwealth and because it relies on a pledged portion of the Commonwealth's sales tax revenue to fund its debt service. In FY05, legislation changed the funding of school construction from a direct appropriation of the Commonwealth to a dedicated portion of the sales tax allocated to the MSBA. Because of the nature of transactions between the Commonwealth and this authority, per GASB [Statement No. 39, \*Determining Whether Certain Organizations Are Component Units\*](#) as amended by [GASB Statement No. 61, \*The Financial Reporting Entity: Omnibus\*](#), the authority's operations are reported within a governmental fund as a "blended component unit" and on the government-wide financial statements.

## **Notes to the Financial Statements, Required Supplementary Information and Other Supplementary Information**

The notes to the financial statements provide additional information that is essential to a full understanding of the financial statements as of the date provided in the government-wide and the fund financial statements. The notes to the financial statements can be found on [pages 63–136](#).

The required supplementary information section includes a budgetary comparison schedule for the General Fund, along with a reconciliation comparing the original General Appropriation Act and supplemental appropriations to actual budgetary spending. A variance column is also provided. A further reconciliation schedule of the budgeted revenues and expenses to governmental fund perspective revenues and expenditures for the General Fund is also provided. Required pension and OPEB schedules are also presented in this section.

Other supplementary information is not required, but is included to present combining schedules of various nonmajor funds and component units.

## **GOVERNMENT-WIDE ANALYSIS**

The primary government's combined net position (governmental and business-type activities) showed a net deficit of \$57.305 billion at the end of FY17, an increase in the net deficit of \$4.401 billion from the end of FY16. Governmental activities unrestricted net position is negative by \$63.993 billion. As explained previously, in addition to the \$37.680 billion government-wide net pension liability recorded on the Commonwealth's books, a substantial portion of this deficit is a result of programs where the Commonwealth has funded assets owned by political subdivisions of the Commonwealth (in particular the result of the transfer of assets to MassDOT during FY10), as well as continued borrowing by the Commonwealth that funds, through its capital budget and debt issuance, construction of new assets owned by MassDOT, local governments, and local authorities. MassDOT reports its capital assets on its financial statements, which are incorporated into the Commonwealth's financial statements similarly to other component units.

***Major Long – Term Obligations for  
Assets of Political Subdivisions  
(amounts in thousands)***

Massachusetts School Building Authority net deficit.....	\$ 5,742,709
Outstanding bonds issued to fund the MBTA.....	207
Debt related to MassDOT assets.....	12,466,359
Effect on unrestricted net position of item unique to the Commonwealth .....	\$ 18,209,275

Of the Commonwealth’s approximately \$2.652 billion in FY17 state funded capital spending, about \$2.029 billion did not result in capital assets attributed to governmental activities of the Commonwealth, including approximately \$1.291 billion in transportation spending (with \$336 million in grants and other financial assistance to cities and towns), \$189 million for Institutions of Higher Education (which are included in the Commonwealth’s business-type activities) and approximately \$327 million in other capital grants and financial assistance to local governments and quasi-public entities. Between FY05 and FY17 the Commonwealth’s capital spending on projects owned by non-Commonwealth entities or by the Institutions of Higher Education totaled \$21.120 billion. These include Higher Education capital projects totaling approximately \$1.813 billion, capital spending for transportation projects now owned by the Massachusetts Department of Transportation totaling approximately \$10.792 billion, transportation-related financial assistance to local governments totaling more than \$3.045 billion and other grants and financial assistance for non-Commonwealth entities such as cities and towns and quasi-public authorities funded through the Commonwealth’s capital budget of almost \$4.667 billion, including \$1 billion in FY05 and FY06 to capitalize the Massachusetts School Building Authority.

The Commonwealth also funds school construction through debt issued by the MSBA (beyond its initial \$1 billion capitalization), and includes the MSBA’s debt on its statement of net position, but the assets paid for with that debt are owned by Massachusetts cities, towns, and school districts.

Current assets and liabilities are amounts that are available in the current period and obligations that will be paid within one year of the financial statement date, respectively. As of June 30, 2017, the Commonwealth’s government-wide current cash and cash equivalents totaled \$4.322 billion, an increase of \$170 million from June 30, 2016. Total current assets were \$11.980 billion, an increase of \$657 million from June 30, 2016. As of June 30, 2017, the Commonwealth’s current liabilities were \$9.966 billion, an increase of \$187 million from June 30, 2016.

As of June 30, 2017, the primary government’s non-current assets totaled \$17.850 billion, an increase of \$596 million from June 30, 2016. This increase was due mainly to a \$472 million increase in capital assets, the majority of which occurred in business-type of activities, as the result of increases in assets recorded by the Institutions of Higher Education.

The Commonwealth holds \$12.404 billion in traditional capital assets such as land, construction in process, buildings, infrastructure, and equipment, net of accumulated depreciation. GASB requires the reporting of the value of investments in the Commonwealth’s infrastructure, including roads, bridges, beaches, dams and other immovable assets on the face of the Commonwealth’s financial statements. As these assets provide services to citizens, they are not available to finance future spending unless they are sold. Although the Commonwealth’s investment in its capital assets is also reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

The table on page 24 shows the Commonwealth’s net position. Restricted net position represents resources that are subject to external constraints.



**Net Position as of June 30, 2017 and 2016**  
(in thousands of dollars)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016
Current assets.....	\$ 10,199,139	\$ 9,554,420	\$ 1,780,484	\$ 1,768,448	\$ 11,979,623	\$ 11,322,868
Non-capital non-current assets .....	2,823,600	2,724,615	2,621,920	2,597,073	5,445,520	5,321,688
Capital assets .....	4,793,086	4,743,718	7,610,936	7,188,135	12,404,022	11,931,853
<b>Total assets</b> .....	<b>17,815,825</b>	<b>17,022,753</b>	<b>12,013,340</b>	<b>11,553,656</b>	<b>29,829,165</b>	<b>28,576,409</b>
Deferred outflows of resources.....	8,646,181	7,257,284	437,529	458,721	9,083,710	7,716,005
<b>Total assets and deferred outflows</b> .....	<b>26,462,006</b>	<b>24,280,037</b>	<b>12,450,869</b>	<b>12,012,377</b>	<b>38,912,875</b>	<b>36,292,414</b>
Current liabilities .....	8,971,117	8,625,845	994,622	1,153,151	9,965,739	9,778,996
Long term liabilities.....	80,227,342	73,380,320	5,276,554	5,074,453	85,503,896	78,454,773
<b>Total liabilities</b> .....	<b>89,198,459</b>	<b>82,006,165</b>	<b>6,271,176</b>	<b>6,227,604</b>	<b>95,469,635</b>	<b>88,233,769</b>
Deferred inflows of resources.....	650,580	913,817	97,229	48,608	747,809	962,425
<b>Total liabilities and deferred inflows</b> .....	<b>89,849,039</b>	<b>82,919,982</b>	<b>6,368,405</b>	<b>6,276,212</b>	<b>96,217,444</b>	<b>89,196,194</b>
Net Position:						
Net investment in capital assets.....	(1,320,834)	(1,067,098)	3,623,966	3,311,658	2,303,132	2,244,560
Restricted .....	1,926,716	1,538,662	1,735,575	1,745,840	3,662,291	3,284,502
Unrestricted.....	(63,992,915)	(59,111,509)	722,923	678,667	(63,269,992)	(58,432,842)
<b>Total Net Position</b> .....	<b>\$ (63,387,033)</b>	<b>\$ (58,639,945)</b>	<b>\$ 6,082,464</b>	<b>\$ 5,736,165</b>	<b>\$ (57,304,569)</b>	<b>\$ (52,903,780)</b>

**Changes in Net Position**

As noted earlier, the Commonwealth's total primary government net deficit increased by approximately \$4.401 billion between FY16 and FY17, to \$57.305 billion. The primary reasons for the \$4.401 billion growth in the net deficit were the increase in the Commonwealth's pension liability, which, net of deferrals, increased by \$2.169 billion, a \$2.088 billion increase in the Commonwealth's net outstanding debt, and a \$1.115 billion increase in the Commonwealth's OPEB liability due to FY17 OPEB contributions that were the below the actuarially required contribution for the fiscal year.

The table on page 25 shows the major categories of government-wide revenues and expenses for FY16 and FY17, as well as net position for the two fiscal years. In FY17, approximately 44% of the primary government's total revenue came from taxes, while the remainder resulted from programmatic revenues, including charges for services and grants and contributions, the bulk of which was federal aid. FY17 revenues totaled \$58.637 billion, an increase of \$468 million, or 0.80% from FY16, with tax revenue totaling \$25.950 billion, an increase of \$273 million, or 1.1%, from FY16. The increase in tax revenue was attributable primarily to income tax revenue, which increased by \$530 million, or 3.8%, as growth in withholding on wages more than made up for a decline in capital gains tax revenues. Sales tax revenue grew by \$174 million, or 2.9%, but corporate excise tax decreased by \$323 million, or 13.3%, explaining the relatively slow growth in total tax revenue.

**Revenue from Taxation  
FY07-FY17**



**Changes in Net Position during the Fiscal Years Ended June 30, 2017 and 2016  
(in thousands of dollars except percentages)**

	Governmental Activities		Business - Type Activities		Total Primary Government		Total Primary Government		
	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016	June 30, 2017 Distribution	June 30, 2016 Distribution	'16 to '17 % Change
<b>Revenues</b>									
Program Revenues:									
Charges for services .....	\$ 10,373,902	\$ 10,308,129	\$ 4,280,429	\$ 4,376,517	\$ 14,654,331	\$ 14,684,646	25.0%	25.2%	(0.8)%
Operating grants and contributions .....	15,519,380	15,158,087	909,228	891,823	16,428,608	16,049,910	28.0%	27.6%	1.4 %
Capital grants and contributions .....	58,354	85,759	238,621	265,714	296,975	351,473	0.5%	0.6%	(16.7)%
General Revenues:									
Taxes .....	25,949,577	25,676,303	—	—	25,949,577	25,676,303	44.3%	44.2%	0.2 %
Other .....	994,982	1,160,994	312,347	245,441	1,307,329	1,406,435	2.2%	2.4%	(8.3)%
<b>Total Revenues</b> .....	<b>52,896,195</b>	<b>52,389,272</b>	<b>5,740,625</b>	<b>5,779,495</b>	<b>58,636,820</b>	<b>58,168,767</b>	<b>100.0%</b>	<b>100.0%</b>	<b>(24.2)%</b>
<b>Expenses</b>									
Medicaid .....	17,182,691	16,825,110	—	—	17,182,691	16,825,110	27.3%	27.3%	— %
Direct local aid .....	5,734,682	5,598,687	—	—	5,734,682	5,598,687	9.1%	9.1%	— %
Health and human services ..	8,131,843	7,912,817	—	—	8,131,843	7,912,817	12.9%	12.9%	— %
Lottery .....	4,128,209	4,299,592	—	—	4,128,209	4,299,592	6.5%	7.0%	(7.1)%
Higher education .....	—	—	5,167,033	5,081,859	5,167,033	5,081,859	8.2%	8.3%	(1.2)%
Early elementary and secondary education .....	6,243,115	5,420,052	—	—	6,243,115	5,420,052	9.9%	8.8%	12.5 %
Unemployment compensation .....	—	—	1,514,002	1,499,811	1,514,002	1,499,811	2.4%	2.4%	— %
Other .....	14,936,034	14,873,463	—	—	14,936,034	14,873,463	23.7%	24.2%	(2.1)%
<b>Total Expenses</b> .....	<b>56,356,574</b>	<b>54,929,721</b>	<b>6,681,035</b>	<b>6,581,670</b>	<b>63,037,609</b>	<b>61,511,391</b>	<b>100.0%</b>	<b>100.0%</b>	<b>2.1 %</b>
<b>Excess/(Deficiency)</b>									
<b>before transfers</b> .....	<b>(3,460,379)</b>	<b>(2,540,449)</b>	<b>(940,410)</b>	<b>(802,175)</b>	<b>(4,400,789)</b>	<b>(3,342,624)</b>			
Transfers .....	(1,286,709)	(1,246,055)	1,286,709	1,246,055	—	—			
Change in net position (deficits) .....	(4,747,088)	(3,786,504)	346,299	443,880	(4,400,789)	(3,342,624)			
Net position/(deficit) - beginning .....	(58,639,945)	(54,853,441)	5,736,165	5,292,285	(52,903,780)	(49,561,156)			
Net position/(deficit) - ending .....	<b>(\$63,387,033)</b>	<b>(\$58,639,945)</b>	<b>\$ 6,082,464</b>	<b>\$ 5,736,165</b>	<b>(\$57,304,569)</b>	<b>(\$52,903,780)</b>			

Operating grants and contributions (including federal revenue for Medicaid and Unemployment Insurance) totaled \$16.429 billion, an increase of \$379 million, or 2.4%, in FY17, with Medicaid reimbursements increasing by \$364 million, or 3.7%, as enrollment in the program expanded and some reimbursement rates increased due to implementation of the federal Affordable Care Act.

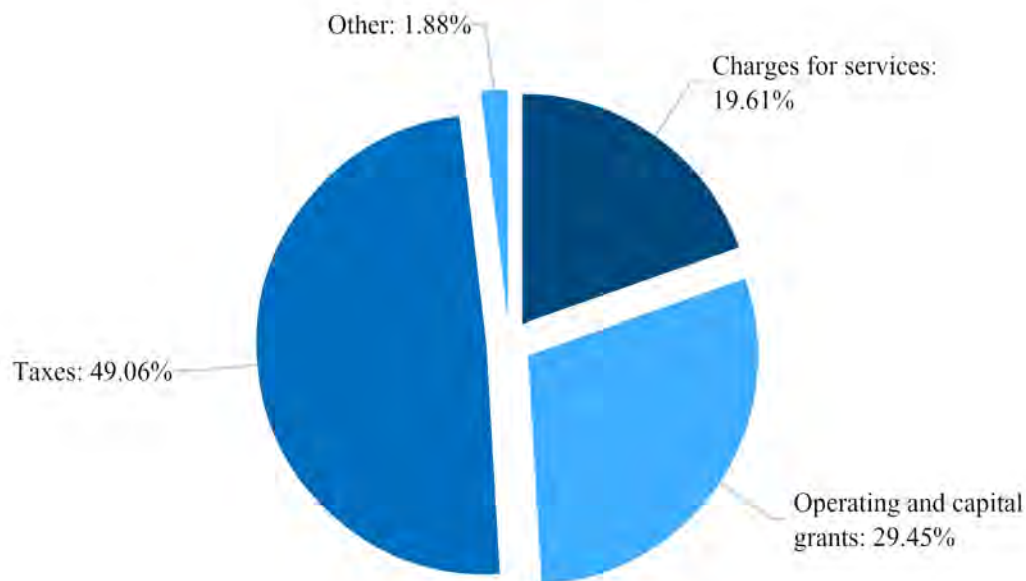
Charges for services totaled \$14.654 billion a decline of \$30 million, or 0.2% from FY16, with increases in charges in Health and Human Services Medicaid and general government, almost fully offset by declines in Lottery ticket purchases and a decrease in Energy and Environmental Affairs charges.

As of June 30, 2017, government-wide restricted net position totaled \$3.662 billion, an increase of \$378 million, with a decline in assets restricted for indebtedness mostly offset by an increase in assets restricted for other purposes.

Primary government spending totaled \$63.038 billion, an increase of \$1.526 billion, or 2.5%, from FY16, with governmental activities spending (i.e., excluding business-type activities such as Higher Education and the Unemployment Insurance program) totaling \$56.357 billion, an increase of \$1.427 billion, or 2.6%, and business-type activities spending totaling \$6.681 billion, an increase of \$99 million, or 1.5%. Medicaid expenses totaled \$17.183 billion, an increase of \$358 million, or 2.1%, from FY16, as cost saving measures offset increased enrollment growth and higher medical costs. Unemployment insurance compensation expenditures totaled \$1.514 billion, an increase of \$14 million, or 0.9%. Other significant spending changes occurred in Health and Human services, where spending totaled \$8.132 billion, an increase of \$219 million or 2.8%, in transportation and public works, where spending totaled \$2.535 billion, a decrease of \$177 million, or 6.5%, in direct local aid, where spending totaled \$5.735 billion, an increase of \$136 million, or 2.4%, and in general government expenses, where spending totaled \$2.765 billion, an increase of \$149 million, or 5.7%.

Income taxes comprise the bulk of tax revenue. Of the \$25.950 billion in FY17, tax revenue within governmental activities, \$14.655 billion, or approximately 56.5%, of total taxes, was from income taxes, \$6.282 billion, or 24.2%, was from sales taxes, \$2.116 billion, or 8.2%, was from corporate taxes, \$771 million, or 3.0%, was from motor fuels taxes and \$2.126 billion, or 8.1%, was from other forms of taxation. Lottery revenues of \$5.254 billion made up 51% of the Commonwealth's governmental charges for services. The largest operating grants were federal Medicaid subsidies, which totaled \$10.146 billion, or approximately 65%, of all grants, other health and human services grants of \$2.569 billion, or 17% of all grants, and education grants of \$1.278 billion, or 8% of grants. Most of the state's capital grants are for highway construction, and those federal grants are recorded not in the Commonwealth's financial statements but in the financial statements of the Massachusetts Department of Transportation.

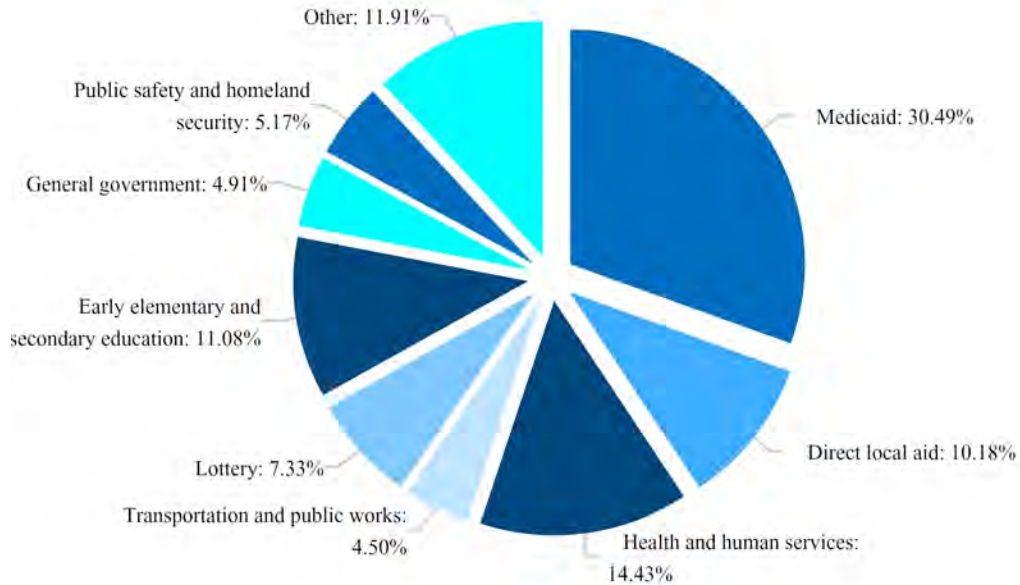
*Revenue—Governmental Activities  
Fiscal Year Ending June 30, 2017*



Medicaid expenses of \$17.183 billion accounted for 30.5% of the Commonwealth’s governmental activities expenses. Historically, approximately half of Medicaid expenses have been reimbursed by the federal government, although under the Affordable Care Act some Medicaid expenditures are reimbursed at higher rates. The largest expense that is not subsidized by program revenues is direct local aid to the municipalities of the Commonwealth of approximately \$5.735 billion.

Other large expenditures for governmental activities included non-Medicaid health and human services costs of approximately \$8.132 billion, accounting for 14.4% of governmental expenses, pre-kindergarten through secondary education costs of approximately \$6.243 billion, accounting for 11.1% of governmental expenses and public safety and homeland security costs of approximately \$2.914 billion, accounting for 5.2% of governmental expenses. State employees’ pensions and other post-employment benefits, which are included in the department spending amounts above, were \$3.197 billion.

**Major Expenses—Governmental Activities  
Fiscal Year Ending June 30, 2017**

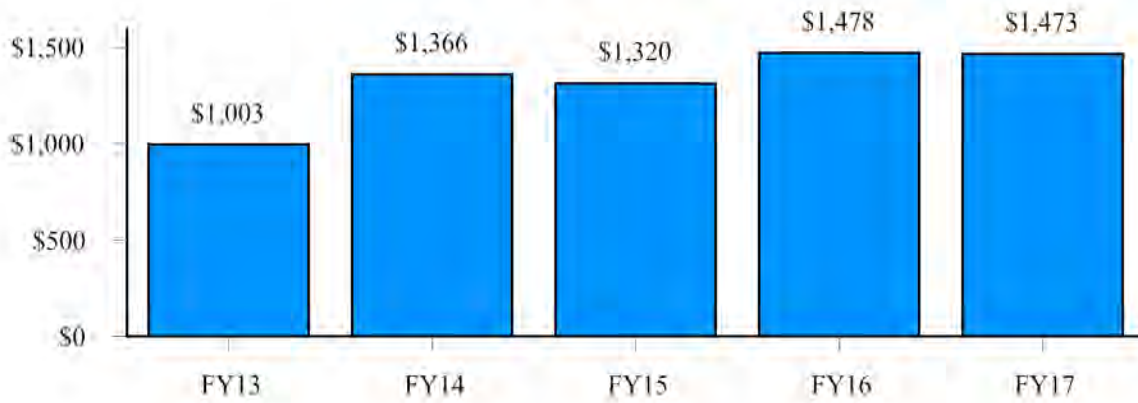


**Business-Type Activities**

Business-type activities are functions that equate to activities of a private enterprise. In the Commonwealth, the Institutions of Higher Education are deemed to be business-type activities because of their lack of separate taxation. Also, Unemployment Compensation is considered to be a business-type activity.

As of June 30, 2017, business-type activities' net position totaled \$6.082 billion, an increase of \$346 million, or 6.0%, from FY16, with the net position of the Institutions of Higher Education increasing by \$351 million to \$4.609 billion, and the net position of the Unemployment Insurance program decreasing by \$5 million, to \$1.473 billion. Program revenues of business-type activities totaled \$5.428 billion a decrease of \$106 million, or 1.9%, charges for services totaled \$4.280 billion, a decrease of \$96 million, or 2.2%, with Unemployment Insurance charges decreasing by \$143 million, or 8.9%, and Higher Education charges increasing by \$47 million, 1.7%. Operating grants and contributions totaled \$909 million, an increase of \$17 million, or 2.0%, and Capital Grants and Contributions totaled \$239 million, a decrease of \$27 million, or 10.2%.

**Unemployment Compensation Fund  
Net Position  
Fiscal Years 2013 - 2017  
(amounts in millions)**



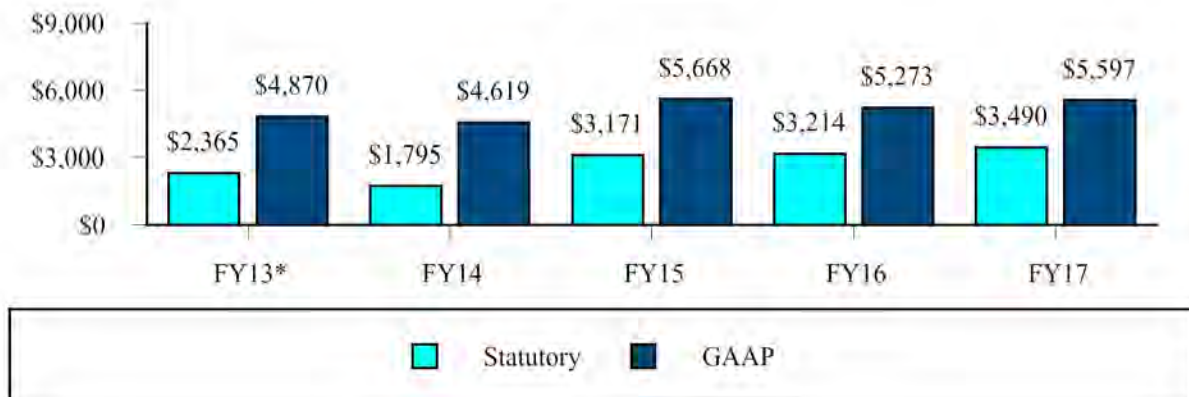
**FINANCIAL ANALYSIS OF THE COMMONWEALTH'S FUNDS**

The Commonwealth uses fund accounting to demonstrate inter-period equity and the extent to which current resources are financing the full cost of services that citizens are receiving. The basic governmental funds financial statements can be found immediately following the government-wide financial statements.

**Governmental Funds**

Governmental funds account for the near term inflows, outflows, and balances of expendable resources of the Commonwealth's core functions and services. Each major fund is presented in a separate column in the governmental fund balance sheet and in the governmental fund statement of revenues, expenditures, and changes in fund balances. The General Fund is the primary operating fund of the Commonwealth. At the end of FY17, the fund balance of the General Fund was \$2.338 billion. Of this amount, \$1.301 billion represents the balance in the Commonwealth's Stabilization Fund. \$98 million was classified as assigned for continuing appropriations from FY17 into FY18 and \$939 million was unassigned.

**Governmental Fund Balance  
Statutory\* vs. GAAP  
(amounts in millions)**



\*Statutory basis includes the Massachusetts Department of Transportation (MassDOT) and excludes expendable trust funds

**Governmental Fund Operations - GAAP Basis - Fund Perspective**  
(amounts in thousands)

	FY17	FY16	FY15	FY14	FY13
Beginning fund balances.....	\$ 5,273,305	\$ 5,305,219	\$ 4,619,434	\$ 4,869,951	\$ 6,318,958
Revenues and other financing sources.....	68,437,099	67,749,586	60,658,637	57,209,970	55,289,871
Expenditures and other financing uses .....	68,113,534	67,781,500	59,972,852	57,460,487	56,738,878
Excess/(deficiency).....	323,565	(31,914)	685,785	(250,517)	(1,449,007)
Ending fund balances.....	<u>\$ 5,596,870</u>	<u>\$ 5,273,305</u>	<u>\$ 5,305,219</u>	<u>\$ 4,619,434</u>	<u>\$ 4,869,951</u>

FY17 governmental fund revenues and other financing sources totaled \$68.437 billion, an increase of \$688 million, or 1.0%, from FY16. Tax revenues totaled \$25.828 billion, an increase of \$82 million, or 0.3%, primarily due to growth in income, sales and corporate taxes as the Massachusetts economy continued to recover from recession. Federal grants and reimbursements totaled \$15.567 billion, an increase of \$334 million, or 2.2%, due primarily to growth in reimbursable Medicaid spending. Assessments, fees, and investment earnings totaled \$11.996 billion, a decrease of \$17 million, or 0.1%. Revenues from other financing sources totaled \$15.046 billion, an increase of \$288 million, or 2.0%.

FY17 governmental fund expenditures and other financing uses totaled \$68.114 billion, an increase of \$332 million, or 0.5% from FY16. Medicaid expenditures totaled \$17.183 billion, an increase of \$358 million or 2.1%, with the increase due primarily to enrollment growth and higher medical costs. Debt service expenditures totaled \$5.938 billion, an increase of \$204 million, or 3.5%, though more than half the increase was the result of a one-time debt service savings of \$113 million in FY16 that was not repeated in FY17. Post-employment benefits totaled \$1.127 billion, an increase of \$24 million, or 2.2%, with growth due mainly to increased pension contributions, and direct local aid totaled \$5.735 billion, an increase of \$136 million, or 2.4%. Other financing uses totaled \$9.520 billion, a decrease of \$187 million, or 1.9%, with the decrease due primarily to less refunding of debt compared to FY16.

As of June 30, 2017 the Commonwealth's governmental funds reported combined ending fund balance of \$5.597 billion, an increase of \$324 million, or 6.1%, from the previous year.

**Governmental Funds - Fund Balance Classification**  
(amounts in thousands)

	2017	2016*	Change	% Change
Restricted .....	\$ 1,926,716	\$ 1,377,671	\$ 549,045	39.9%
<b>Unrestricted:</b>				
Committed.....	2,351,175	2,421,647	(70,472)	(2.9)%
Assigned.....	684,655	845,567	(160,912)	(19.0)%
Unassigned.....	634,324	628,420	5,904	0.9%
<b>Total Unrestricted .....</b>	<b>3,670,154</b>	<b>3,895,634</b>	<b>(225,480)</b>	<b>(5.8)%</b>
<b>Total fund balances .....</b>	<b><u>\$ 5,596,870</u></b>	<b><u>\$ 5,273,305</u></b>	<b><u>\$ 323,565</u></b>	<b>6.1%</b>

\* - Restated

GAAP requires that fund balances be classified by the degree of restriction placed upon their use by constitutional, statutory, or contractual requirements, and these classifications are shown in the table on the previous page. Restricted fund balances represent amounts restricted for Commonwealth and MSBA debt service or restricted by bond covenants, funds that are restricted in capital projects and special revenue funds, balances in the federal grants funds, and some balances held in expendable trusts. Unrestricted amounts include fund balances classified as committed, including those generated by revenue sources directed to specific purposes but with a lower level of constraint on their use than restricted balances, as well the fund balance of the Stabilization Fund. Unrestricted amounts also included prior appropriations continued, which are classified as assigned, and residual balances in the General Fund, which are classified as unassigned. A full discussion of the Commonwealth's fund balance classification policy under GASB 54 can be found in [Note 1](#) to the basic financial statements, on pages [69–71](#).

### **Proprietary Funds**

Proprietary Funds report activities of the Commonwealth that are structured similar to for-profit businesses. Proprietary fund financial statements provide the same type of information as the government-wide financial statements, only in greater detail.

As discussed above, the business-type activities increased the Commonwealth's net position by approximately \$346 million.

### **BUDGETARY HIGHLIGHTS**

The FY17 legally enacted budget (the General Appropriation Act) included an FY17 tax revenue estimate of \$26.110 billion (a reduction from the FY17 consensus estimate of \$26.860 billion, which had been adjusted downward by \$750 million after tax revenue was below forecast at the end of FY17), further adjusted upward by \$174 million to \$26.284 billion as a result of \$49 million in tax law changes and \$125 million in tax settlements included in the budget. \$24.428 billion of that revenue was to be deposited in the budgeted funds and \$1.856 billion was to be deposited directly into non-budgeted funds for transfers of sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$998 million) and the Massachusetts School Building Authority (\$835 million), and revenue deposited in the non-budgeted Workforce Training Fund (\$23 million). The FY17 budget appropriations also reflected the assumption that a reduction in the personal income tax rate would not be triggered during FY17 (as had been previously projected in the FY17 consensus tax revenue estimate and as reflected in the \$26.110 billion legally adopted tax estimate) as well as other technical adjustments, resulting in a further increase of \$72 million in available tax revenues, though that assumption was not reflected in the section of the budget that specified the tax revenue estimate.

As a result of below-forecast revenue performance over the first three months of FY17, in October 2016 the Secretary of Administration and Finance adjusted the FY17 tax revenue estimate downward to \$26.181 billion, (including \$125 million in settlements exceeding \$10 million each, virtually all of which were projected be tax-related, and the previously mentioned increase of \$72 million due to the income tax rate reduction not being triggered, as well as other technical adjustments), of which \$24.353 billion was to be deposited in the budgeted funds.

FY17 tax revenues upon which the FY17 General Appropriation Act was based ended the year at \$25.662 billion (including \$58 million in tax settlements exceeding \$10 million each -- the Commonwealth also received \$54 million in non-tax settlements), of which \$23.828 billion was deposited in the budgeted funds. Tax revenue deposited in the budgeted funds grew by \$211 million, or 0.9% from FY16, and was \$524 million below the final FY17 tax estimate.

The FY17 General Appropriation Act (GAA) authorized approximately \$39.917 billion in spending, exclusive of approximately \$2.198 billion in required pension contributions and \$109 million in FY16 spending authorized to be continued into FY17 as part of FY16 end-of-year supplemental budgets.

Approximately \$571 million in supplemental appropriations were authorized during FY17, \$486 million of which were enacted prior to June 30, 2017. Subsequent to year end, a supplemental budget was enacted totaling approximately \$86 million in new appropriations, \$50 million of which was for snow and ice removal costs, \$20 million of which was to fund county Sheriffs' payroll expenses in FY17, with virtually all of the remainder continued to FY18 and reappropriated. The year's significant supplemental appropriation activity included:

- \$274 million for transfers to the Medical Assistance Trust Fund;



- \$64 million for snow and ice removal expenses incurred by the Massachusetts Department of Transportation;
- \$52 million for compensation of private counsel representing indigent defendants;
- \$48 million to fund county Sheriffs' payroll expenses
- \$29 million to fund administration and operations of the Department of Corrections;
- \$21 million for family shelter services.

In order to maintain a balanced budget in the face of lower than projected FY17 tax revenue collections, the Governor reduced spending authorizations, or allotments, using his authority under Section 9C of Chapter 29. Those allotment reductions totaled approximately \$116 million. The Executive Office for Administration and Finance in conjunction with state departments also took action in the fourth quarter of FY17 to minimize discretionary spending to maintain a balanced budget. Finally, the following specific actions were taken in FY17 to the maximize the General Fund's balance and thus maintain a statutory balanced budget:

- \$167 million in revenues was transferred to the General Fund from non-budgeted funds;
- \$102 million was retained in the General Fund by reducing the statutorily required tobacco settlement transfer to the State Retiree Benefits Trust Fund;
- \$62 million in capital gains tax revenue that under statute was required to be deposited in the Stabilization Fund (\$56 million), the State Pension Fund (\$3 million), and the State Retiree Benefits Trust Fund (\$3 million) was retained in the General Fund, per a provision in the FY17 General Appropriation Act that increased the threshold set in statute;
- \$13 million in Sheriffs' General Fund payroll expenses was shifted from FY17 to FY18.

FY17 budgeted revenues and other financing sources (before transfers between the budgeted funds, which are included in both spending and revenue and thus have no effect on fund balances) totaled \$41.167 billion, an increase of \$802 million, or 2.0%, from FY16. Tax revenue grew by \$211 million, or 0.9%; while the economy continued to expand modestly, growth in withholding and sales tax revenue was offset by a decline in corporate tax revenue and capital gains tax revenue the latter which, according to a preliminary Department of Revenue estimate, dropped by \$180 million, or 13.1%, from \$1.370 billion in FY16 to \$1.190 billion in FY17. (There were also declines in other non-withholding, or non-wage, income taxes, though details on these will not be available until 2016 income tax returns filed on extension are analyzed.) Federal reimbursements totaled \$10.858 billion, an increase of \$215 million, or 2.0%, primarily due to growth in reimbursements for increased Medicaid program spending. Departmental revenue, which consists primarily of assessments and fees for state licenses and state services, totaled \$4.382 billion, an increase of \$125 million, or 2.9%, from FY16, driven largely by an increase of \$169 million in pharmacy rebates paid to the state employee health insurance program. Interfund transfers from non-budgeted funds totaled \$2.099 billion, an increase of \$250 million, or 13.5%, from FY16, due primarily to growth in Lottery revenues and fringe benefit recoveries from capital, federal grants, and non-budgeted funds.

FY17 budgeted expenditures and other financing uses, including transfers to non-budgeted funds (but before transfers between the budgeted funds) totaled \$41.202 billion, an increase of \$747 million, or 1.8%, from FY16, with the increase primarily attributable to higher spending on Medicaid and other health care spending, pension contributions, and Local Aid.

Spending on programs and services totaled \$34.967 billion, an increase of \$676 million, or 2.0%, from FY16. Medicaid expenditures totaled \$15.252 billion, an increase of \$401 million, or 2.7%, from FY16, primarily due to growth in enrollment, Medicare premium increases, increased health services utilization, and health care cost growth, especially pharmacy costs for emerging drugs.

Spending on state employee health benefits paid through the Group Insurance Commission (excluding benefits paid to retirees) increased by \$33 million, or 2.0%, from \$1.630 billion to \$1.663 billion. Budgeted debt service totaled \$2.285 billion, up \$110 million, or 5.1%, from FY16.

Interfund transfers to non-budgeted funds (primarily the Universal Health Care funds) totaled \$1.290 billion, a decrease of \$196 million or 13.2%, primarily due to a decline in transfers to the Medical Assistance Trust Fund. Post-employment benefits (for pension contributions and retiree health insurance) totaled \$2.660 billion, an increase of \$156 million, or 6.2%, as the Commonwealth increased its pension contribution by 10%, or \$179 million, over FY16. Spending for direct local aid (both education aid and unrestricted aid), at \$5.703 billion, was up \$135 million, or 2.4%, from FY16.

## CAPITAL ASSETS

Capital assets of the Commonwealth include land, buildings, improvements, equipment, vehicles and infrastructure. The Commonwealth's investment in capital assets for its governmental and business-type activities as of June 30, 2017 amounts to approximately \$21.734 billion, with accumulated depreciation of approximately \$9.330 billion, leaving a net book value of \$12.404 billion. Infrastructure includes assets that are normally immovable and of value only to the Commonwealth, such as roads, bridges, piers and dams. (The investments in capital assets noted above do not include capital assets owned by MassDOT.) The total increase in the Commonwealth's investment in capital assets from 2016 to 2017 was approximately \$472 million, with \$49 million in governmental activities and \$423 million in business-type activities. The major increases in the net value of capital assets was in construction in process for governmental activities and construction in process, buildings and machinery and equipment for the business-type activities.

The table below details the capital assets for the Commonwealth.

<b>Capital Assets at Year - End</b>						
(net of depreciation)						
(amounts in thousands)						
	Governmental		Business - Type		Total	
	Activities		Activities			
	2017	2016	2017	2016	2017	2016
Land.....	\$ 894,529	\$ 877,493	\$ 158,275	\$ 137,937	\$ 1,052,804	\$ 1,015,430
Historical treasures.....	—	—	1,365	1,760	1,365	1,760
Construction in process.....	866,377	819,321	979,065	1,048,579	1,845,442	1,867,900
Buildings.....	2,593,744	2,605,085	5,588,573	5,152,943	8,182,317	7,758,028
Machinery and equipment.....	288,416	282,812	820,537	777,807	1,108,953	1,060,619
Infrastructure, excluding central artery.....	150,020	159,007	—	—	150,020	159,007
Library collections.....	—	—	63,121	69,109	63,121	69,109
<b>Total.....</b>	<b>\$ 4,793,086</b>	<b>\$ 4,743,718</b>	<b>\$ 7,610,936</b>	<b>\$ 7,188,135</b>	<b>\$ 12,404,022</b>	<b>\$ 11,931,853</b>

Additional detail on the Commonwealth's FY17 capital asset activity can be found in [Note 5](#) to the basic financial statements ("Capital Assets") on pages 92–93.

## DEBT ADMINISTRATION

The Commonwealth issues short-term and long-term debt. Debt that is general obligation in nature is backed by the full faith and credit of the Commonwealth and paid from governmental funds. Additionally, short-term notes are issued and redeemed annually.

To fund the FY17 capital budget, the Commonwealth borrowed by issuing \$2.871 billion in long-term bonds, \$2.409 billion of which was general obligation debt and \$462 million of which was special obligation debt secured by motor fuels taxes, motor vehicle license and registration fees, and future federal reimbursements for transportation spending. All new bond sales were either for general government purposes, for road and bridge repair, or unallocated as of year-end and assumed to be for general purposes, including for construction and equipment purchases. In addition, the Commonwealth issued \$1.853 billion in debt to refund already existing debt, taking advantage of continued low interest

rates in FY17. During the year, the Commonwealth also issued \$1.5 billion in Revenue Anticipation Notes (RANs) in three separate \$500 million series which were retired in April, May and June 2017.

Approximately 15.4% percent of the Commonwealth’s \$22.717 billion in general obligation debt outstanding as of June 30, 2017 was issued as variable rate bonds. Included in this variable rate debt was approximately \$402 million in auction rate securities (about 1.8% of all general obligation debt). During fiscal 2017 there were no changes to credit ratings on any of the Commonwealth’s outstanding debt.

The following table details the Commonwealth’s debt by type for the fiscal year compared to the prior fiscal year, excluding premiums and discounts.

Additional detail on the Commonwealth’s short-term debt can be found in [Note 6](#) (“Short-Term Financing and Credit Arrangements”) on pages 93–94 and [Note 7](#) (“Long-Term Obligations”) on pages 94–110.

**Outstanding Long - Term Debt Obligations**  
(amounts in thousands)

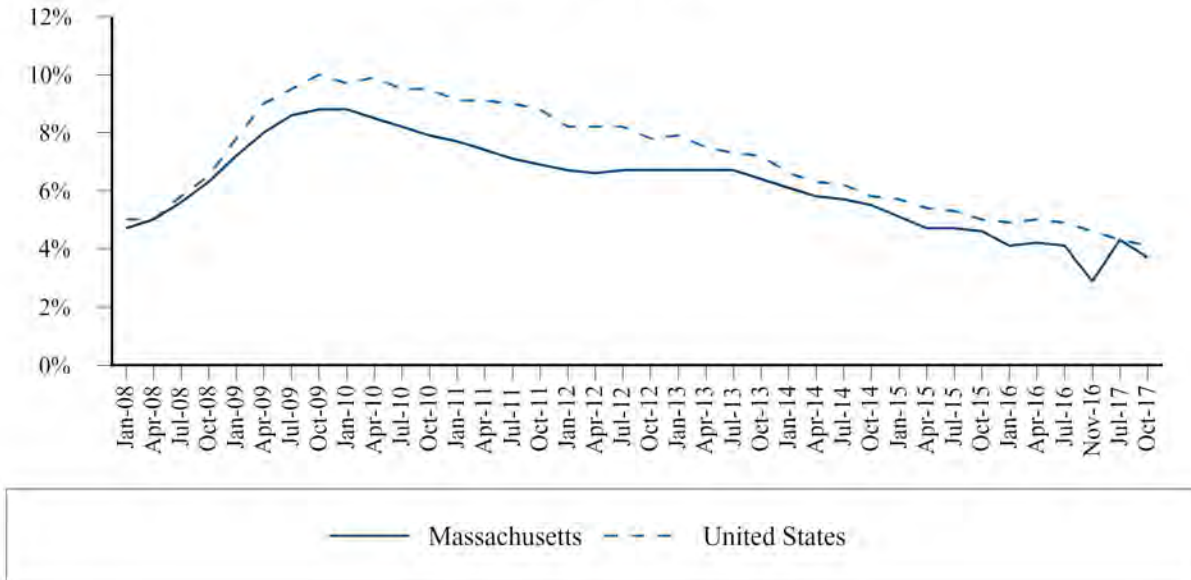
	Governmental Activities		Business - Type Activities		Total	
	2017	2016	2017	2016	2017	2016
General obligation bonds .....	\$ 22,716,695	\$ 21,668,296	\$ —	\$ —	\$ 22,716,695	\$ 21,668,296
Special obligation bonds (excluding GANs) ...	2,990,960	2,754,255	—	—	2,990,960	2,754,255
Revenue obligation bonds .....	—	—	4,529,353	4,438,282	4,529,353	4,438,282
Grant anticipation notes .....	738,010	657,040	—	—	738,010	657,040
<b>Subtotal</b> .....	<b>26,445,665</b>	<b>25,079,591</b>	<b>4,529,353</b>	<b>4,438,282</b>	<b>30,975,018</b>	<b>29,517,873</b>
Massachusetts School Building Authority .....	5,828,790	5,624,275	—	—	5,828,790	5,624,275
<b>Total</b> .....	<b>\$ 32,274,455</b>	<b>\$ 30,703,866</b>	<b>\$ 4,529,353</b>	<b>\$ 4,438,282</b>	<b>\$ 36,803,808</b>	<b>\$ 35,142,148</b>

**ECONOMIC FACTORS AFFECTING NEXT YEAR’S BUDGET**

The Commonwealth, with an international reputation for medical, cultural, historical and educational institutions remains the economic and educational hub of New England. The Commonwealth’s economy remains diversified, but its strongest component is its knowledge-based technology and service industries and consequently the state relies heavily on a highly educated workforce. The Commonwealth is home to sixteen S&P 500 companies, among them thirteen Fortune 500 headquarters.

The Massachusetts economy, with its concentration of higher education institutions, life sciences and medical industries and high technology companies has outperformed the nation’s economy as a whole during and immediately following the most recent recession. In June 2017 the Massachusetts unemployment rate was 4.3%, identical to the national rate, but by October 2017 had fallen to 3.7%, compared to the national rate of 4.1%.

**Unemployment Rate  
July 2008 – October 2017**



The General Appropriation Act for FY18 is based on an FY18 tax revenue estimate of approximately \$26.7431 billion, (adjusted downward by approximately \$649.9 million from the consensus tax estimate due to below-forecast tax collections at the end of FY17), an increase of \$1.081 billion, or 4.2%, from FY17 actual tax collections. Of that amount, \$22.470 billion represents taxes available for budget after adjusting for \$4.273 billion in tax revenue that is allocated to state pension contributions (\$2.395 billion), sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$1.007 billion) and the Massachusetts School Building Authority (\$847 million), and revenue allocated to the non-budgetary Workforce Training Fund (\$24.5 million).

Through November 30, 2017, FY18 year-to-date tax collections totaled \$9.921 billion, up \$452 million, or 4.8%, from the same period in FY17, \$204 million above the year-to-date benchmark based on the \$26.743 billion FY18 tax revenue estimate. In October 2017 the Secretary of Administration and Finance re-affirmed the FY18 tax revenue estimate of \$26.743 billion and tax revenues available for budget.

**REQUESTS FOR INFORMATION**

This financial report is designed to provide a general overview of the Commonwealth’s finances and accountability for all of the Commonwealth’s citizens, taxpayers, customers, investors and creditors. Questions concerning any of the information provided in this report or requests for additional information should be addressed via email to [comptroller.info@state.ma.us](mailto:comptroller.info@state.ma.us) or mail to: Commonwealth of Massachusetts, Office of the State Comptroller, 1 Ashburton Place, 9<sup>th</sup> Floor, Boston, Massachusetts, 02108. You may also download this report at: <https://www.macomptroller.org/cafr>.



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# *Basic Financial Statements*

*Government-wide Financial Statements*  
*Statement of Net Position*  
*Statement of Activities*

## Statement of Net Position

June 30, 2017

(Amounts in thousands)

	Primary Government			Component Units
	Governmental Activities	Business-Type Activities	Government Wide Total	
<b>ASSETS AND DEFERRED OUTFLOWS</b>				
Current assets:				
Cash and cash equivalents.....	\$ 3,752,502	\$ 569,978	\$ 4,322,480	\$ 3,258,433
Restricted cash with fiscal agent.....	574,959	—	574,959	—
Short-term investments.....	272,224	372,196	644,420	—
Assets held in trust.....	—	—	—	68,149
Receivables, net of allowance for uncollectibles:				
Taxes.....	3,007,944	—	3,007,944	—
Federal grants and reimbursements receivable.....	2,302,979	101,400	2,404,379	88,853
Loans.....	7,094	60,311	67,405	451,685
Other receivables.....	265,878	628,536	894,414	434,735
Due from cities and towns.....	15,033	—	15,033	—
Due from component units.....	526	1,524	2,050	—
Due from primary government.....	—	—	—	647,417
Other current assets.....	—	46,539	46,539	54,799
<b>Total current assets.....</b>	<b>10,199,139</b>	<b>1,780,484</b>	<b>11,979,623</b>	<b>5,004,071</b>
Noncurrent assets:				
Cash and cash equivalents - restricted.....	—	484,659	484,659	840,240
Long-term investments.....	—	947,289	947,289	1,458,734
Investments, restricted investments and annuity contracts.....	2,059,541	790	2,060,331	47,695
Receivables, net of allowance for uncollectibles:				
Taxes.....	514,933	—	514,933	—
Federal grants and reimbursements receivable.....	70,580	—	70,580	—
Loans.....	100,339	8,022	108,361	4,401,512
Other receivables.....	69,627	62,232	131,859	36,123
Due from component units.....	8,477	—	8,477	—
Due from primary government.....	—	—	—	5,452
Non-depreciable capital assets.....	1,760,906	1,138,705	2,899,611	11,636,623
Depreciable capital assets, net.....	3,032,180	6,472,231	9,504,411	24,469,223
Other noncurrent assets.....	103	22,032	22,135	46,532
Other noncurrent assets - restricted.....	—	1,096,896	1,096,896	—
<b>Total noncurrent assets.....</b>	<b>7,616,686</b>	<b>10,232,856</b>	<b>17,849,542</b>	<b>42,942,134</b>
<b>Total assets.....</b>	<b>17,815,825</b>	<b>12,013,340</b>	<b>29,829,165</b>	<b>47,946,205</b>
<b>Deferred outflows of resources:</b>				
Deferred change in fair value of interest rate swaps.....	214,971	39,072	254,043	112,014
Deferred loss on refunding.....	168,237	120,680	288,917	337,628
Deferred outflows related to pension.....	8,262,973	277,777	8,540,750	486,720
<b>Total deferred outflows of resources.....</b>	<b>8,646,181</b>	<b>437,529</b>	<b>9,083,710</b>	<b>936,362</b>
<b>Total assets and deferred outflows.....</b>	<b>26,462,006</b>	<b>12,450,869</b>	<b>38,912,875</b>	<b>48,882,567</b>
<b>LIABILITIES AND DEFERRED INFLOWS</b>				
Current liabilities:				
Accounts payable and other liabilities.....	3,699,160	267,149	3,966,309	1,269,330
Accrued payroll.....	84,193	149,351	233,544	1,568
Compensated absences.....	418,932	151,145	570,077	26,593
Accrued interest payable.....	388,794	22,938	411,732	207,459
Tax refunds and abatements payable.....	1,245,351	49,515	1,294,866	—
Due to component units.....	583,261	123	583,384	—
Due to primary government.....	—	—	—	17,050
Due to federal government.....	20,874	—	20,874	—
Claims and judgments.....	12,518	—	12,518	—
Unearned revenue.....	—	20,149	20,149	194,550

## Statement of Net Position

June 30, 2017

(Amounts in thousands)

	Primary Government			Component Units
	Governmental Activities	Business-Type Activities	Government Wide Total	
Deposits and unearned revenue.....	—	71,711	71,711	—
School construction grants payable.....	309,194	—	309,194	—
Capital leases.....	7,889	2,062	9,951	3,458
Massachusetts School Building Authority notes payable.....	450,000	—	450,000	—
Massachusetts School Building Authority bonds and unamortized premiums....	171,107	—	171,107	—
Bonds payable and unamortized premiums.....	1,574,618	260,479	1,835,097	839,298
Environmental remediation liability.....	5,226	—	5,226	—
<b>Total current liabilities.....</b>	<b>8,971,117</b>	<b>994,622</b>	<b>9,965,739</b>	<b>2,559,306</b>
<b>Noncurrent liabilities:</b>				
Compensated absences.....	185,380	65,655	251,035	14,926
Accrued interest payable.....	—	—	—	206,187
Due to component units.....	5,452	—	5,452	—
Due to primary government.....	—	—	—	8,477
Due to federal government - grants.....	—	4,524	4,524	—
Unearned revenue.....	—	—	—	69,411
Prizes payable.....	1,062,350	—	1,062,350	—
Capital leases.....	22,967	6,917	29,884	59,640
Bonds payable and unamortized premiums.....	26,642,032	4,268,874	30,910,906	10,742,511
Massachusetts School Building Authority bonds and unamortized premiums....	6,280,175	—	6,280,175	—
School construction grants payable.....	370,296	—	370,296	—
Environmental remediation liability.....	527,834	—	527,834	—
Liability for derivative instruments.....	214,971	63,143	278,114	344,320
Net pension liability.....	36,941,865	738,167	37,680,032	2,001,910
Post-employment benefits obligations (other than pensions).....	7,581,000	—	7,581,000	1,134,934
Other noncurrent liabilities.....	393,020	129,274	522,294	143,452
<b>Total noncurrent liabilities.....</b>	<b>80,227,342</b>	<b>5,276,554</b>	<b>85,503,896</b>	<b>14,725,768</b>
<b>Total liabilities.....</b>	<b>89,198,459</b>	<b>6,271,176</b>	<b>95,469,635</b>	<b>17,285,074</b>
<b>Deferred inflows of resources:</b>				
Deferred service concession arrangements.....	—	13,294	13,294	190
Deferred inflows related to pension.....	260,767	80,422	341,189	44,495
Deferred gain on refunding.....	389,813	—	389,813	193
Other.....	—	3,513	3,513	—
<b>Total deferred inflows of resources.....</b>	<b>650,580</b>	<b>97,229</b>	<b>747,809</b>	<b>44,878</b>
<b>Total liabilities and deferred inflows.....</b>	<b>89,849,039</b>	<b>6,368,405</b>	<b>96,217,444</b>	<b>17,329,952</b>
<b>NET POSITION</b>				
Net investment in capital assets.....	(1,320,834)	3,623,966	2,303,132	29,354,162
Restricted for:				
Unemployment benefits.....	—	1,473,220	1,473,220	—
Retirement of indebtedness.....	1,021,280	—	1,021,280	—
Higher education endowment funds.....	—	27,916	27,916	—
Higher education academic support and programs.....	—	1,900	1,900	—
Higher education scholarships and fellowships:				
Nonexpendable.....	—	3,486	3,486	—
Expendable.....	—	7,321	7,321	—
Other nonexpendable purposes.....	—	2,984	2,984	—
Capital projects - expendable purposes.....	—	2,350	2,350	—
Other purposes.....	905,436	216,398	1,121,834	3,657,358
Unrestricted (deficits).....	(63,992,915)	722,923	(63,269,992)	(1,458,905)
<b>Total net position.....</b>	<b>\$ (63,387,033)</b>	<b>\$ 6,082,464</b>	<b>\$ (57,304,569)</b>	<b>\$ 31,552,615</b>

The notes to the financial statements are an integral part of this statement.

(concluded)



**Statement of Activities**

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

Functions/Programs	Expenses	Program Revenues			Net (Expenses) Revenues and Changes in Net Assets			Component Units
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Primary Government			
					Governmental Activities	Business- Type Activities	Total	
<b>Primary government:</b>								
Governmental Activities:								
General government .....	\$ 2,764,614	\$ 594,132	\$ 656,302	\$ 38,998	\$ (1,475,182)	\$ —	\$ (1,475,182)	\$ —
Judiciary .....	1,226,221	95,937	2,022	—	(1,128,262)	—	(1,128,262)	—
Direct local aid .....	5,734,682	—	—	—	(5,734,682)	—	(5,734,682)	—
Medicaid .....	17,182,691	897,542	10,146,459	—	(6,138,690)	—	(6,138,690)	—
Group health insurance .....	1,668,100	802,628	—	—	(865,472)	—	(865,472)	—
Energy and environmental affairs .....	720,182	249,565	64,011	—	(406,606)	—	(406,606)	—
Housing and economic development .....	1,411,189	194,940	450,851	—	(765,398)	—	(765,398)	—
Health and human services .....	8,131,843	1,359,519	2,569,105	14,310	(4,188,909)	—	(4,188,909)	—
Transportation and public works .....	2,535,121	596,200	86	5,046	(1,933,789)	—	(1,933,789)	—
Early elementary and secondary education .....	6,243,115	7,919	1,278,249	—	(4,956,947)	—	(4,956,947)	—
Public safety and homeland security .....	2,913,849	280,400	219,926	—	(2,413,523)	—	(2,413,523)	—
Labor and workforce development .....	312,510	40,652	132,369	—	(139,489)	—	(139,489)	—
Lottery .....	4,128,209	5,254,468	—	—	1,126,259	—	1,126,259	—
Interest (unallocated) .....	1,384,248	—	—	—	(1,384,248)	—	(1,384,248)	—
<b>Total governmental activities .....</b>	<b>56,356,574</b>	<b>10,373,902</b>	<b>15,519,380</b>	<b>58,354</b>	<b>(30,404,938)</b>	<b>—</b>	<b>(30,404,938)</b>	<b>—</b>
Business-Type Activities:								
Unemployment Compensation .....	1,514,002	1,468,492	40,677	—	—	(4,833)	(4,833)	—
Higher Education:								
University of Massachusetts .....	3,167,596	1,882,899	566,683	121,380	—	(596,634)	(596,634)	—
State Universities .....	1,063,196	654,170	74,512	16,176	—	(318,338)	(318,338)	—
Community Colleges .....	936,241	274,868	227,356	101,065	—	(332,952)	(332,952)	—
<b>Total business-type activities .....</b>	<b>6,681,035</b>	<b>4,280,429</b>	<b>909,228</b>	<b>238,621</b>	<b>—</b>	<b>(1,252,757)</b>	<b>(1,252,757)</b>	<b>—</b>
<b>Total primary government .....</b>	<b>\$ 63,037,609</b>	<b>\$ 14,654,331</b>	<b>\$ 16,428,608</b>	<b>\$ 296,975</b>	<b>(30,404,938)</b>	<b>(1,252,757)</b>	<b>(31,657,695)</b>	<b>—</b>
Component Units:								
Massachusetts Department of Transportation .....	\$ 5,276,774	\$ 1,560,336	\$ 2,198,401	\$ 2,364,127	—	—	—	\$ 846,090
Commonwealth Health Insurance Connector .....	678,330	626,004	47,887	—	—	—	—	(4,439)
Massachusetts Clean Water Trust .....	158,306	98,002	26,572	73,697	—	—	—	39,965
Other nonmajor component units .....	507,110	358,827	45,029	41,843	—	—	—	(61,411)
<b>Total component units .....</b>	<b>\$ 6,620,520</b>	<b>\$ 2,643,169</b>	<b>\$ 2,317,889</b>	<b>\$ 2,479,667</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>820,205</b>

(continued)

	<b>Primary Government</b>			Component Units
	Governmental Activities	Business- Type Activities	Total	
General revenues:				
Taxes:				
Income .....	14,655,104	—	14,655,104	—
Sales taxes .....	6,281,579	—	6,281,579	—
Corporate taxes .....	2,115,863	—	2,115,863	—
Motor and special fuel taxes .....	770,984	—	770,984	—
Other taxes .....	2,126,047	—	2,126,047	—
Miscellaneous:				
Investment earnings/(loss) .....	60,846	(55,444)	5,402	78,817
Tobacco settlement .....	254,090	—	254,090	—
Contribution from municipalities .....	69,455	—	69,455	—
Other revenue .....	610,591	367,791	978,382	81,893
Transfers .....	(1,286,709)	1,286,709	—	—
<b>Total general revenues and transfers .....</b>	<b>25,657,850</b>	<b>1,599,056</b>	<b>27,256,906</b>	<b>160,710</b>
<b>Change in net position .....</b>	<b>(4,747,088)</b>	<b>346,299</b>	<b>(4,400,789)</b>	<b>980,915</b>
Net position (deficits) - beginning, as restated .....	(58,639,945)	5,736,165	(52,903,780)	30,571,700
<b>Net position (deficits) - ending .....</b>	<b>\$ (63,387,033)</b>	<b>\$ 6,082,464</b>	<b>\$ (57,304,569)</b>	<b>\$ 31,552,615</b>

The notes to the financial statements are an integral part of this statement.

(concluded)



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# *Governmental Fund Financial Statements*

**Balance Sheet**  
**Governmental Funds**  
**June 30, 2017**  
**(Amounts in thousands)**

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
<b>ASSETS</b>					
Cash and cash equivalents .....	\$ 1,258,083	\$ 43,910	\$ 218,590	\$ 2,231,919	\$ 3,752,502
Restricted cash with fiscal agent.....	—	—	374,199	200,760	574,959
Investments and restricted investments .....	272,224	—	997,191	—	1,269,415
Receivables, net of allowance for uncollectibles:					
Taxes .....	3,282,105	—	65,528	175,244	3,522,877
Due from federal government.....	1,983,857	—	—	389,702	2,373,559
Loan receivable.....	—	—	92,841	14,592	107,433
Other receivables .....	255,840	4,075	9,013	63,113	332,041
Due from cities and towns .....	15,033	—	—	—	15,033
Due from other funds .....	78,140	—	—	78,617	156,757
Due from component units.....	526	—	—	—	526
Total assets .....	<b>\$ 7,145,808</b>	<b>\$ 47,985</b>	<b>\$ 1,757,362</b>	<b>\$ 3,153,947</b>	<b>\$ 12,105,102</b>
<b>LIABILITIES AND FUND BALANCES</b>					
Liabilities:					
Accounts payable .....	\$ 2,754,702	\$ 41,926	4,673	\$ 854,208	\$ 3,655,509
Accrued payroll.....	77,885	—	—	6,308	84,193
Compensated absences.....	11,107	—	—	9	11,116
Tax refunds and abatements payable .....	1,244,553	—	243	555	1,245,351
Due to other funds.....	—	—	—	156,757	156,757
Due to component units .....	85,476	—	—	497,785	583,261
Due to federal government.....	20,874	—	—	—	20,874
Claims and judgments.....	12,518	—	—	—	12,518
School construction grants payable .....	—	—	39,862	—	39,862
Other accrued liabilities .....	—	—	—	43,651	43,651
<b>Total liabilities</b> .....	<b>4,207,115</b>	<b>41,926</b>	<b>44,778</b>	<b>1,559,273</b>	<b>5,853,092</b>
Deferred inflows of resources .....	600,681	5,146	—	49,313	655,140
<b>Total liabilities and deferred inflows of resources</b> .....	<b>4,807,796</b>	<b>47,072</b>	<b>44,778</b>	<b>1,608,586</b>	<b>6,508,232</b>
Fund balances:					
Restricted .....	—	—	1,277,537	649,179	1,926,716
Committed.....	1,300,678	913	—	1,049,584	2,351,175
Assigned.....	98,316	—	435,047	151,292	684,655
Unassigned (deficits) .....	939,018	—	—	(304,694)	634,324
<b>Fund balances</b> .....	<b>2,338,012</b>	<b>913</b>	<b>1,712,584</b>	<b>1,545,361</b>	<b>5,596,870</b>
<b>Total liabilities and fund balances</b> .....	<b>\$ 7,145,808</b>	<b>\$ 47,985</b>	<b>\$ 1,757,362</b>	<b>\$ 3,153,947</b>	<b>\$ 12,105,102</b>

The notes to the financial statements are an integral part of this statement.

# Reconciliation of Governmental Fund Balances to the Statement of Net Position

June 30, 2017

(Amounts in thousands)

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**Total fund balances - governmental funds** ..... \$ **5,596,870**

Amounts reported for governmental activities in the statement of net position are different because:

Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds. Those assets consist of:

Capital assets not being depreciated.....	1,760,906	
Capital assets being depreciated, net.....	3,032,180	
Capital assets, net of accumulated depreciation.....		4,793,086

Revenues are not available soon enough after year end to pay for the current period's expenditures and therefore are unavailable deferred inflows of resources in the governmental funds.....		655,140
---	--	---------

Deferred inflows of resources are not reported in the governmental funds:

Gain on refunding.....	(389,813)	
Pension related.....	(260,767)	
Total deferred inflow of resources.....		(650,580)

Deferred outflows of resources are not reported in the governmental funds:

Loss on refunding.....	168,237	
Pension related.....	8,262,973	
Total deferred outflow of resources.....		8,431,210

Massachusetts School Building Authority assets and deferred outflows.....		3,567
---	--	-------

Lottery annuity contracts.....		1,062,350
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Due from component units.....		8,477
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Certain liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported in the funds. These liabilities include:

Retirement systems' net pension liability.....	(36,941,865)	
Net post-employment benefits obligations.....	(7,581,000)	
Commonwealth bonded debt.....	(26,445,665)	
Unamortized bond premiums.....	(1,770,985)	
Accrued interest on bonds.....	(388,794)	
Massachusetts School Building Authority notes payable.....	(450,000)	
Massachusetts School Building Authority bonded debt.....	(6,451,282)	
Massachusetts School Building Authority grants to municipalities.....	(639,628)	
Prizes payable.....	(1,062,350)	
Capital leases.....	(30,856)	
Environmental remediation liability.....	(533,060)	
Employee benefits, including compensated absences, health insurance benefits and other compensation claims.....	(991,668)	
Long-term liabilities (including current portions).....		(83,287,153)

**Total net (deficit) - governmental activities**..... **\$ (63,387,033)**

The notes to the financial statements are an integral part of this statement.

**Statement of Revenues, Expenditures and Changes in Fund Balances**  
 Governmental Funds  
 Fiscal Year Ended June 30, 2017  
 (Amounts in thousands)

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
<b>REVENUES</b>					
Taxes .....	\$ 22,287,281	\$ 525	\$ 817,856	\$ 2,722,585	\$ 25,828,247
Assessments .....	429,428	—	—	790,011	1,219,439
Federal grants and reimbursements .....	11,005,864	—	—	4,561,223	15,567,087
Departmental .....	3,086,857	5,255,458	—	1,329,143	9,671,458
Miscellaneous .....	586,744	2,926	11,336	504,049	1,105,055
<b>Total revenues .....</b>	<b>37,396,174</b>	<b>5,258,909</b>	<b>829,192</b>	<b>9,907,011</b>	<b>53,391,286</b>
<b>EXPENDITURES</b>					
Current:					
Legislature .....	66,754	—	—	—	66,754
Judiciary .....	906,051	—	—	2,123	908,174
Inspector General .....	4,207	—	—	218	4,425
Governor and Lieutenant Governor .....	6,567	—	—	33	6,600
Secretary of the Commonwealth .....	45,850	—	—	4,865	50,715
Treasurer and Receiver-General .....	224,930	4,122,738	13,797	1,295,081	5,656,546
Auditor of the Commonwealth .....	18,227	—	—	104	18,331
Attorney General .....	47,389	—	—	29,001	76,390
Ethics Commission .....	1,883	—	—	—	1,883
District Attorney .....	119,793	—	—	10,177	129,970
Office of Campaign and Political Finance .....	1,521	—	—	—	1,521
Sheriff's Departments .....	610,063	—	—	13,452	623,515
Disabled Persons Protection Commission .....	3,043	—	—	159	3,202
Board of Library Commissioners .....	25,157	—	—	2,854	28,011
Massachusetts Gaming Commission .....	—	—	—	36,749	36,749
Comptroller .....	14,064	—	—	2,507	16,571
Administration and Finance .....	2,122,808	—	—	321,429	2,444,237
Energy and Environmental Affairs .....	207,785	—	—	196,992	404,777
Health and Human Services .....	5,570,245	—	—	1,892,795	7,463,040
Massachusetts Department of Transportation .....	—	—	—	2,390,620	2,390,620
Office of the Child Advocate .....	633	—	—	—	633
Executive Office of Education .....	2,561,293	—	—	1,027,852	3,589,145
Center for Health and Information Analysis .....	23,031	—	—	285	23,316
Massachusetts School Building Assistance .....	—	—	621,466	—	621,466
Public Safety and Homeland Security .....	1,119,982	—	—	254,190	1,374,172
Housing and Economic Development .....	495,596	—	—	525,080	1,020,676
Labor and Workforce development .....	43,796	—	—	215,156	258,952
Medicaid .....	15,486,332	—	—	1,696,359	17,182,691
Post employment benefits .....	1,109,393	—	1,643	15,948	1,126,984
Direct local aid .....	5,670,712	—	—	63,970	5,734,682
Capital outlay:					
Capital acquisition and construction .....	—	—	—	1,201,681	1,201,681
Debt service/commercial paper repayments .....	—	—	3,459,759	2,478,553	5,938,312
Principal on current refundings .....	—	—	—	188,490	188,490
<b>Total expenditures .....</b>	<b>36,507,105</b>	<b>4,122,738</b>	<b>4,096,665</b>	<b>13,866,723</b>	<b>58,593,231</b>
<b>Excess (deficiency) of revenues over (under) expenditures .....</b>	<b>889,069</b>	<b>1,136,171</b>	<b>(3,267,473)</b>	<b>(3,959,712)</b>	<b>(5,201,945)</b>
<b>OTHER FINANCING SOURCES</b>					
Bonds premium .....	—	—	110,559	701,495	812,054
Issuance of general and special obligation bonds .....	—	—	593,625	2,870,650	3,464,275
Issuance of current refunding bonds .....	—	—	—	188,490	188,490
Issuance of advance refunding bonds .....	—	—	—	1,664,790	1,664,790
Commercial paper proceeds .....	—	—	2,986,165	—	2,986,165
Proceeds of capital leases .....	804	—	—	—	804
Transfers in for debt service .....	—	—	—	2,431,826	2,431,826
Transfers in .....	2,082,249	—	—	1,415,160	3,497,409
<b>Total other financing sources .....</b>	<b>2,083,053</b>	<b>—</b>	<b>3,690,349</b>	<b>9,272,411</b>	<b>15,045,813</b>
<b>OTHER FINANCING USES</b>					
Payments to refunding bond escrow agent .....	—	—	224,591	2,079,768	2,304,359
Transfers out .....	685,928	1,137,459	—	1,432,834	3,256,221
Transfers of appropriations .....	1,333,004	—	—	1,261	1,334,265
Transfers of bond proceeds .....	—	—	—	193,632	193,632
Transfers out for debt service .....	1,189,569	—	—	1,242,257	2,431,826
<b>Total other financing uses .....</b>	<b>3,208,501</b>	<b>1,137,459</b>	<b>224,591</b>	<b>4,949,752</b>	<b>9,520,303</b>
<b>Total other financing sources and uses .....</b>	<b>(1,125,448)</b>	<b>(1,137,459)</b>	<b>3,465,758</b>	<b>4,322,659</b>	<b>5,525,510</b>
<b>Net change in fund balances (deficits) .....</b>	<b>(236,379)</b>	<b>(1,288)</b>	<b>198,285</b>	<b>362,947</b>	<b>323,565</b>
Fund balances at beginning of year .....	2,574,391	2,201	1,514,299	1,182,414	5,273,305
<b>Fund balances at end of year .....</b>	<b>\$ 2,338,012</b>	<b>\$ 913</b>	<b>\$ 1,712,584</b>	<b>\$ 1,545,361</b>	<b>\$ 5,596,870</b>

The notes to the financial statements are an integral part of this statement.

# Reconciliation of Statement of Revenues, Expenditures and Changes in Fund Balances of Governmental Funds to the Statement of Activities

For the fiscal year ended June 30, 2017

(Amounts in thousands)

<b>Net change in fund balances - total governmental funds</b>	<b>\$ 323,565</b>
Amounts reported for governmental activities in the statement of activities are different because:	
Governmental funds report capital outlays as expenditures. However, in the statement of activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This amount represents capital outlays including increases to construction in process, but excluding reductions and dispositions .....	256,647
Current year depreciation expense .....	(207,279)
Amounts presented in the statement of activities, but not in the change in fund balances due to difference in revenue and expense recognition under different bases of accounting.....	151,760
The issuance of long - term debt provides current financial resources to governmental funds, while the repayment of principal of long - term debt consumes the current financial resources of governmental funds. Neither transaction has any effect on net assets. Also, governmental funds report the effect of premiums, discounts, and similar items when debt is first issued, whereas these amounts are deferred and amortized as part of the statement of activities. This amount is the net effect of these differences in the treatment of long-term debt and related items .....	(1,981,974)
Decrease in capital leases.....	10,446
Massachusetts School Building Authority .....	(50,109)
Net pension costs .....	(2,109,334)
Net underfunding of post employment benefit obligations .....	(1,115,000)
Some expenses reported in the statement of activities do not require the use of current financial resources and therefore, are not reported as expenditures in governmental funds. These expenses include accrued interest, lottery prizes, claims and benefits that are reported in the statement of activities, but not in funds .....	(25,810)
<b>Change in net position of governmental activities .....</b>	<b><u>\$ (4,747,088)</u></b>

The notes to the financial statements are an integral part of this statement





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# *Proprietary Fund Financial Statements*

## Statement of Net Position

### Proprietary Funds

June 30, 2017

(Amounts in thousands)

		Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
<b>ASSETS AND DEFERRED OUTFLOWS:</b>						
Current assets:						
Cash and cash equivalents.....	\$	33,652	\$ 107,458	\$ 296,328	\$ 132,540	\$ 569,978
Short-term investments .....		—	286,171	28,029	57,996	372,196
Receivables, net of allowance for uncollectibles:						
Federal grants and reimbursements receivable.....		—	93,394	1,132	6,874	101,400
Loans .....		—	59,161	1,150	—	60,311
Other receivables .....		413,676	122,611	22,582	35,849	594,718
Due from affiliates .....		—	33,818	—	—	33,818
Due from foundation .....		—	21	347	1,156	1,524
Other current assets .....		—	37,213	4,574	4,752	46,539
<b>Total current assets .....</b>		<b>447,328</b>	<b>739,847</b>	<b>354,142</b>	<b>239,167</b>	<b>1,780,484</b>
Noncurrent assets:						
Cash and cash equivalents - restricted.....		—	446,184	38,430	45	484,659
Long-term investments .....		—	766,392	143,028	37,869	947,289
Investments and restricted investments .....		—	—	790	—	790
Other receivables, net .....		—	62,121	86	25	62,232
Loans receivable, net .....		—	—	7,707	315	8,022
Non-depreciable capital assets.....		—	797,869	131,111	209,725	1,138,705
Depreciable capital assets, net.....		—	4,133,043	1,885,047	454,141	6,472,231
Other noncurrent assets .....		—	8,849	13,173	10	22,032
Other noncurrent assets - restricted .....		1,096,896	—	—	—	1,096,896
<b>Total noncurrent assets.....</b>		<b>1,096,896</b>	<b>6,214,458</b>	<b>2,219,372</b>	<b>702,130</b>	<b>10,232,856</b>
<b>Total assets .....</b>		<b>1,544,224</b>	<b>6,954,305</b>	<b>2,573,514</b>	<b>941,297</b>	<b>12,013,340</b>
Deferred outflows of resources:						
Deferred change in fair value of interest rate swaps .....		—	37,768	—	1,304	39,072
Deferred outflows related to pensions .....		—	158,185	77,803	41,789	277,777
Loss on debt refunding .....		—	79,772	40,908	—	120,680
<b>Total deferred outflows of resources .....</b>		<b>—</b>	<b>275,725</b>	<b>118,711</b>	<b>43,093</b>	<b>437,529</b>
<b>Total assets and deferred outflows .....</b>		<b>1,544,224</b>	<b>7,230,030</b>	<b>2,692,225</b>	<b>984,390</b>	<b>12,450,869</b>
<b>LIABILITIES AND DEFERRED INFLOWS:</b>						
Current liabilities:						
Accounts payable and other liabilities.....		21,489	180,506	34,312	30,842	267,149
Accrued payroll .....		—	83,543	39,301	26,507	149,351
Compensated absences .....		—	81,357	35,384	34,404	151,145
Accrued interest payable .....		—	22,694	122	122	22,938
Tax refunds and abatements payable .....		49,515	—	—	—	49,515
Unearned revenue .....		—	—	15,647	4,502	20,149
Student deposits and unearned revenues .....		—	44,128	6,447	21,136	71,711
Due to foundation .....		—	123	—	—	123
Capital leases .....		—	203	1,353	506	2,062
Bonds, notes payable and other obligations .....		—	206,696	49,363	4,420	260,479
<b>Total current liabilities .....</b>		<b>71,004</b>	<b>619,250</b>	<b>181,929</b>	<b>122,439</b>	<b>994,622</b>
Noncurrent liabilities:						
Compensated absences .....		—	30,395	18,910	16,350	65,655
Due to federal government - grants .....		—	—	4,524	—	4,524
Capital leases .....		—	389	5,673	855	6,917
Bonds, notes payable and other obligations .....		—	2,885,146	1,324,390	59,338	4,268,874
Liability for derivative instruments .....		—	61,839	—	1,304	63,143
Net pension liability.....		—	429,871	189,596	118,700	738,167
Other noncurrent liabilities.....		—	115,116	9,351	4,807	129,274
<b>Total noncurrent liabilities.....</b>		<b>—</b>	<b>3,522,756</b>	<b>1,552,444</b>	<b>201,354</b>	<b>5,276,554</b>
<b>Total liabilities .....</b>		<b>71,004</b>	<b>4,142,006</b>	<b>1,734,373</b>	<b>323,793</b>	<b>6,271,176</b>

## Statement of Net Position

### Proprietary Funds

June 30, 2017

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
Deferred inflows of resources:					
Deferred service concession arrangements.....	—	—	12,810	484	13,294
Deferred inflows related to pensions .....	—	37,671	16,977	25,774	80,422
Other .....	—	—	—	3,513	3,513
<b>Total deferred inflows of resources.....</b>	<b>—</b>	<b>37,671</b>	<b>29,787</b>	<b>29,771</b>	<b>97,229</b>
<b>Total liabilities and deferred inflows.....</b>	<b>71,004</b>	<b>4,179,677</b>	<b>1,764,160</b>	<b>353,564</b>	<b>6,368,405</b>
<b>NET POSITION:</b>					
Net investment in capital assets.....	—	2,204,001	816,420	603,545	3,623,966
Restricted for:					
Unemployment benefits .....	1,473,220	—	—	—	1,473,220
Higher education endowment funds.....	—	27,443	54	419	27,916
Higher education academic support and programs .....	—	—	899	1,001	1,900
Higher education scholarships and fellowships:					
Nonexpendable .....	—	—	3,486	—	3,486
Expendable .....	—	—	5,602	1,719	7,321
Other nonexpendable purposes .....	—	—	2,984	—	2,984
Capital projects - expendable purposes.....	—	—	2,350	—	2,350
Other purposes.....	—	201,710	13,367	1,321	216,398
Unrestricted .....	—	617,199	82,903	22,821	722,923
<b>Total net position.....</b>	<b>\$ 1,473,220</b>	<b>\$ 3,050,353</b>	<b>\$ 928,065</b>	<b>\$ 630,826</b>	<b>\$ 6,082,464</b>

The notes to the financial statements are an integral part of this statement.

(concluded)

# Statement of Revenues, Expenses and Changes in Net Position

## Proprietary Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
<b>Operating revenues:</b>					
Unemployment compensation contribution .....	\$ 1,422,969	\$ —	\$ —	\$ —	\$ 1,422,969
Net tuition and fees.....	—	847,832	404,196	219,914	1,471,942
Grants and reimbursements .....	—	560,081	74,512	227,356	861,949
Auxiliary enterprises .....	—	400,822	123,902	15,320	540,044
Sales & services.....	—	526,897	111,020	23,434	661,351
Miscellaneous .....	45,523	107,348	15,052	16,200	184,123
<b>Total operating revenues.....</b>	<b>1,468,492</b>	<b>2,442,980</b>	<b>728,682</b>	<b>502,224</b>	<b>5,142,378</b>
<b>Operating expenses:</b>					
Unemployment compensation.....	1,514,002	—	—	—	1,514,002
Instruction.....	—	824,042	336,944	320,811	1,481,797
Research .....	—	447,370	1,735	14	449,119
Academic support.....	—	177,173	96,236	109,487	382,896
Student services.....	—	151,033	106,822	131,239	389,094
Scholarships and fellowships .....	—	47,710	31,488	54,021	133,219
Public service .....	—	68,083	7,658	10,595	86,336
Operation and maintenance of plant.....	—	240,501	96,860	81,007	418,368
Institutional support.....	—	247,740	120,290	124,989	493,019
Other operating expenses .....	—	403,151	3,394	—	406,545
Depreciation .....	—	249,669	99,652	34,924	384,245
Auxiliary operations .....	—	306,850	148,954	14,427	470,231
<b>Total operating expenses.....</b>	<b>1,514,002</b>	<b>3,163,322</b>	<b>1,050,033</b>	<b>881,514</b>	<b>6,608,871</b>
<b>Operating income/(loss) .....</b>	<b>(45,510)</b>	<b>(720,342)</b>	<b>(321,351)</b>	<b>(379,290)</b>	<b>(1,466,493)</b>
<b>Nonoperating revenues/(expenses):</b>					
Other federal revenues.....	18,604	6,602	—	—	25,206
Other revenues.....	—	300,656	67,135	—	367,791
Other expenses .....	—	(4,274)	(13,163)	(54,727)	(72,164)
Investment income/(loss) .....	22,073	(17,692)	(44,160)	6,408	(33,371)
<b>Total nonoperating revenues/(expenses).....</b>	<b>40,677</b>	<b>285,292</b>	<b>9,812</b>	<b>(48,319)</b>	<b>287,462</b>
<b>Income/(loss) before capital grants and contributions and transfers.....</b>	<b>(4,833)</b>	<b>(435,050)</b>	<b>(311,539)</b>	<b>(427,609)</b>	<b>(1,179,031)</b>
Capital grants and contributions.....	—	121,380	16,176	101,065	238,621
Transfers, net .....	—	563,930	298,584	424,195	1,286,709
<b>Total capital grants and contributions and transfers.....</b>	<b>—</b>	<b>685,310</b>	<b>314,760</b>	<b>525,260</b>	<b>1,525,330</b>
<b>Change in net position.....</b>	<b>(4,833)</b>	<b>250,260</b>	<b>3,221</b>	<b>97,651</b>	<b>346,299</b>
Total net position - beginning.....	1,478,053	2,800,093	924,844	533,175	5,736,165
<b>Total net position - ending .....</b>	<b>\$ 1,473,220</b>	<b>\$ 3,050,353</b>	<b>\$ 928,065</b>	<b>\$ 630,826</b>	<b>\$ 6,082,464</b>

The notes to the financial statements are an integral part of this statement.

# Statement of Cash Flows

## Proprietary Funds

June 30, 2017

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>					
Collection of unemployment contributions .....	\$ 1,439,685	\$ —	\$ —	\$ —	\$ 1,439,685
Tuition, residence, dining and other student fees .....	—	852,889	412,493	220,074	1,485,456
Research grants and contracts .....	—	814,018	179,809	253,102	1,246,929
Payments to suppliers .....	—	(1,131,219)	(257,424)	(197,297)	(1,585,940)
Payments to employees .....	—	(1,862,243)	(526,294)	(493,717)	(2,882,254)
Payments to students .....	—	(47,675)	(21,915)	(59,153)	(128,743)
Payments for unemployment benefits .....	(1,517,767)	—	—	—	(1,517,767)
Collection of loans to students and employees .....	—	(1,116)	1,331	16	231
Income from contract services .....	—	—	4,382	2,460	6,842
Maintenance costs .....	—	—	(243)	—	(243)
Auxiliary enterprise charges .....	—	357,968	71,581	(566)	428,983
Other receipts .....	45,523	529,351	14,075	28,683	617,632
<b>Net cash (used in) operating activities .....</b>	<b>(32,559)</b>	<b>(488,027)</b>	<b>(122,205)</b>	<b>(246,398)</b>	<b>(889,189)</b>
<b>CASH FLOW FROM NON-CAPITAL FINANCING ACTIVITIES</b>					
State appropriations .....	—	720,819	254,399	276,219	1,251,437
Grants and contracts .....	18,604	113,506	2,033	2,016	136,159
Student organizations agency transactions .....	—	155	—	203	358
Principal on notes payable .....	—	—	—	(272)	(272)
<b>Net cash provided by non-capital financing activities .....</b>	<b>18,604</b>	<b>834,480</b>	<b>256,432</b>	<b>278,166</b>	<b>1,387,682</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>					
Capital appropriations .....	—	121,333	5,435	15,700	142,468
Purchases of capital assets .....	—	(105,493)	(85,551)	(40,823)	(231,867)
Proceeds from sales of capital assets .....	—	—	29,094	(143)	28,951
Proceeds from debt issuance .....	—	236,666	97	2,878	239,641
Other capital asset activity .....	—	9,332	20,213	—	29,545
Advance payment related to service concession arrangement .....	—	—	—	(829)	(829)
Investments held by bond trustee, net .....	—	(369,995)	—	(13)	(370,008)
Principal paid on capital debt and leases .....	—	(120,353)	(47,910)	(4,514)	(172,777)
Interest paid on capital debt and leases .....	—	(115,821)	(70,170)	(2,430)	(188,421)
<b>Net cash (used in) capital financing activities .....</b>	<b>—</b>	<b>(344,331)</b>	<b>(148,792)</b>	<b>(30,174)</b>	<b>(523,297)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>					
Proceeds from sales and maturities of investments .....	—	1,124,176	91,228	95,987	1,311,391
Purchases of investments .....	—	(1,187,713)	(94,037)	(80,685)	(1,362,435)
Investment earnings .....	22,073	10,605	8,241	716	41,635
<b>Net cash provided by/(used in) investing activities .....</b>	<b>22,073</b>	<b>(52,932)</b>	<b>5,432</b>	<b>16,018</b>	<b>(9,409)</b>
<b>Net increase (decrease) in cash and cash equivalents .....</b>	<b>8,118</b>	<b>(50,810)</b>	<b>(9,133)</b>	<b>17,612</b>	<b>(34,213)</b>
Cash and cash equivalents, restricted cash and cash equivalents at the beginning of the fiscal year .....	25,534	604,452	343,891	114,973	1,088,850
<b>Cash and cash equivalents, restricted cash and cash equivalents at the end of the fiscal year .....</b>	<b>\$ 33,652</b>	<b>\$ 553,642</b>	<b>\$ 334,758</b>	<b>\$ 132,585</b>	<b>\$ 1,054,637</b>
<b>Reconciliation of net operating revenues and expenses to cash used by operating activities:</b>					
<b>Operating income/(loss) .....</b>	<b>\$ (45,510)</b>	<b>\$ (720,342)</b>	<b>\$ (321,351)</b>	<b>\$ (379,290)</b>	<b>\$ (1,466,493)</b>
<b>Adjustments to reconcile operating income/(loss) to net cash (used in) operating activities:</b>					
Depreciation expense .....	—	249,669	99,652	34,924	384,245
Fringe benefits paid by the Commonwealth .....	—	—	79,468	92,277	171,745
<b>Changes in assets and liabilities:</b>					
Accounts receivable, prepaids and other assets .....	52,968	10,696	7,530	2,367	73,561
Accounts payable, accrued liabilities and benefits .....	(3,765)	(26,041)	1,192	295	(28,319)
Student deposits and other unearned and deferred revenues .....	—	11,846	(1,717)	(421)	9,708
Other noncurrent assets - restricted and liabilities .....	(36,252)	(13,855)	13,021	3,450	(33,636)
<b>Net cash (used in) by operating activities .....</b>	<b>\$ (32,559)</b>	<b>\$ (488,027)</b>	<b>\$ (122,205)</b>	<b>\$ (246,398)</b>	<b>\$ (889,189)</b>

**Non-cash investing, capital and financing activities:**

The University System had approximately \$191 million of non-cash activities, and the State Universities and Community Colleges had approximately \$163 million and \$196 million, respectively, of non-cash activities, including new capital leases.

The notes to the financial statements are an integral part of this statement.



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# *Fiduciary Fund*

## *Financial Statements*



## Statement of Net Position

Fiduciary Funds

June 30, 2017

(Amounts in thousands)

	Post-Employment Benefits and OPEB Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds	Agency Funds
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 236,193	\$ 3,790,390	\$ 666	\$ 630,781
Short-term investments .....	—	39,052	—	—
Net investment in PRIT at fair value .....	53,955,626	12,894,815	—	—
Investments, restricted investments and annuity contracts .....	—	—	—	1,615,327
Receivables, net of allowance for uncollectibles:				
Taxes .....	—	—	—	37,578
Other receivables .....	118,289	4,025	—	130,917
Other assets .....	131,827	—	—	—
<b>Total assets</b> .....	<b>54,441,935</b>	<b>16,728,282</b>	<b>666</b>	<b>\$ 2,414,603</b>
<b>LIABILITIES</b>				
Accounts payable and other accrued liabilities .....	24,687	27,506	—	\$ 115,226
Due to cities and towns .....	—	—	—	47,536
Due to federal government .....	—	—	—	1
Lottery prizes payable .....	—	—	—	1,062,350
Agency liabilities .....	—	—	—	1,189,490
<b>Total liabilities</b> .....	<b>24,687</b>	<b>27,506</b>	<b>—</b>	<b>\$ 2,414,603</b>
<b>NET POSITION</b>				
Restricted for employees' post-employment benefits .....	54,417,248	—	—	
Restricted for external investment trust fund participants .....	—	16,700,776	—	
Restricted for private purposes .....	—	—	666	
<b>Total net position</b> .....	<b>\$ 54,417,248</b>	<b>\$ 16,700,776</b>	<b>\$ 666</b>	

The notes to the financial statements are an integral part of this statement.

## Statement of Changes in Net Position

### Fiduciary Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Post-Employment Benefits and OPEB Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds
<b>ADDITIONS</b>			
Contribution:			
Employer contributions - Commonwealth.....	\$ 1,181,715	\$ —	\$ —
Non-employer contributions - Commonwealth.....	1,263,970	—	—
Employer contributions - other employers.....	7,999	—	—
Employee contributions.....	1,334,984	—	—
ERIP funding contribution - Commonwealth.....	29,093	—	—
Boston teachers' contribution from Commonwealth.....	132,477	—	—
Other additions.....	324,601	994,315	—
Proceeds from sale of units.....	—	26,870,148	—
<b>Total contributions.....</b>	<b>4,274,839</b>	<b>27,864,463</b>	<b>—</b>
Net investment gain/(loss):			
Investment gain/(loss).....	6,473,170	1,809,921	—
Less: investment expense.....	(279,364)	(299,336)	—
<b>Net investment gain/(loss).....</b>	<b>6,193,806</b>	<b>1,510,585</b>	<b>—</b>
<b>Total additions.....</b>	<b>10,468,645</b>	<b>29,375,048</b>	<b>—</b>
<b>DEDUCTIONS</b>			
Administration.....	54,210	—	—
Retirement benefits and refunds.....	5,545,213	1,054,703	—
Payments to State Boston Retirement System.....	132,477	—	—
Other deductions.....	98,768	—	—
Cost of units redeemed.....	—	26,255,251	—
Distribution to unit holders.....	—	32,235	—
<b>Total deductions.....</b>	<b>5,830,668</b>	<b>27,342,189</b>	<b>—</b>
<b>Change in net position.....</b>	<b>4,637,977</b>	<b>2,032,859</b>	<b>—</b>
Net position - beginning.....	49,779,271	14,667,917	666
<b>Net position - ending.....</b>	<b>\$ 54,417,248</b>	<b>\$ 16,700,776</b>	<b>\$ 666</b>

The notes to the financial statements are an integral part of this statement.



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*Discretely Presented  
Component Unit  
Financial Statements*

## Statement of Net Position

Component Units

June 30, 2017

(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
<b>ASSETS AND DEFERRED OUTFLOWS</b>					
Current assets:					
Cash and cash equivalents.....	\$ 366,590	\$ 50,961	\$ 586,633	\$ 206,930	\$ 1,211,114
Short-term investments.....	—	—	221,170	278,727	499,897
Restricted cash and investments.....	1,244,406	—	—	303,016	1,547,422
Assets held in trust.....	—	—	66,573	1,576	68,149
Receivables, net of allowance for uncollectibles:					
Federal grants and reimbursement receivable.....	57,645	2,394	28,814	—	88,853
Loans.....	—	—	389,912	61,773	451,685
Other receivables.....	200,170	145,578	54,312	34,675	434,735
Due from primary government.....	541,008	20,810	—	85,599	647,417
Inventory.....	—	—	—	53	53
Other current assets.....	49,176	1,207	—	4,363	54,746
<b>Total current assets.....</b>	<b>2,458,995</b>	<b>220,950</b>	<b>1,347,414</b>	<b>976,712</b>	<b>5,004,071</b>
Noncurrent assets:					
Cash and cash equivalents - restricted.....	818,677	—	—	21,563	840,240
Long-term investments.....	—	—	695,527	763,207	1,458,734
Restricted investments and annuity contracts.....	—	—	—	47,695	47,695
Other receivables, net.....	20,434	—	—	15,689	36,123
Loans receivables, net.....	—	—	3,715,507	686,005	4,401,512
Due from primary government.....	5,452	—	—	—	5,452
Non-depreciable capital assets.....	11,421,178	—	—	215,445	11,636,623
Depreciable capital assets, net.....	23,522,568	356	—	946,299	24,469,223
Other noncurrent assets.....	26,671	—	1,823	18,038	46,532
<b>Total noncurrent assets.....</b>	<b>35,814,980</b>	<b>356</b>	<b>4,412,857</b>	<b>2,713,941</b>	<b>42,942,134</b>
<b>Total assets.....</b>	<b>38,273,975</b>	<b>221,306</b>	<b>5,760,271</b>	<b>3,690,653</b>	<b>47,946,205</b>
Deferred outflows of resources:					
Deferred change in fair value of interest rate swaps.....	108,395	—	3,604	15	112,014
Deferred loss on refunding.....	252,578	—	85,050	—	337,628
Deferred outflows related to pension.....	475,052	—	—	11,668	486,720
<b>Total deferred outflows of resources.....</b>	<b>836,025</b>	<b>—</b>	<b>88,654</b>	<b>11,683</b>	<b>936,362</b>
<b>Total assets and deferred outflows.....</b>	<b>39,110,000</b>	<b>221,306</b>	<b>5,848,925</b>	<b>3,702,336</b>	<b>48,882,567</b>
<b>LIABILITIES AND DEFERRED INFLOWS</b>					
Current liabilities:					
Accounts payable and other liabilities.....	903,039	161,112	67,256	137,923	1,269,330
Accrued payroll.....	—	138	—	1,430	1,568
Compensated absences.....	23,484	505	—	2,604	26,593
Accrued interest payable.....	147,478	—	58,035	1,946	207,459
Due to primary government.....	15,000	—	—	2,050	17,050
Unearned revenue.....	80,157	36,740	27,270	50,383	194,550
Capital leases.....	3,458	—	—	—	3,458
Bonds, notes payable and other obligations.....	569,602	—	231,485	38,211	839,298
<b>Total current liabilities.....</b>	<b>1,742,218</b>	<b>198,495</b>	<b>384,046</b>	<b>234,547</b>	<b>2,559,306</b>
Noncurrent liabilities:					
Compensated absences.....	13,427	—	—	1,499	14,926
Accrued interest payable.....	206,187	—	—	—	206,187
Due to primary government.....	—	—	—	8,477	8,477
Unearned revenue.....	33,040	—	—	36,371	69,411
Capital leases.....	59,640	—	—	—	59,640
Bonds, notes payable and other obligations.....	6,988,596	—	3,084,724	669,191	10,742,511
Net pension liability.....	1,956,803	—	—	45,107	2,001,910
Post-employment benefits obligations.....	1,118,374	5,224	—	11,336	1,134,934
Liability for derivative instruments.....	340,701	—	3,604	15	344,320
Other noncurrent liabilities.....	118,679	—	—	24,773	143,452
<b>Total noncurrent liabilities.....</b>	<b>10,835,447</b>	<b>5,224</b>	<b>3,088,328</b>	<b>796,769</b>	<b>14,725,768</b>
<b>Total liabilities.....</b>	<b>12,577,665</b>	<b>203,719</b>	<b>3,472,374</b>	<b>1,031,316</b>	<b>17,285,074</b>
Deferred inflows of resources:					
Deferred gain on refundings.....	193	—	—	—	193
Deferred service concession arrangements.....	—	—	—	190	190
Deferred inflows related to pension.....	44,018	—	—	477	44,495
<b>Total deferred inflows of resources.....</b>	<b>44,211</b>	<b>—</b>	<b>—</b>	<b>667</b>	<b>44,878</b>
<b>Total liabilities and deferred inflows.....</b>	<b>12,621,876</b>	<b>203,719</b>	<b>3,472,374</b>	<b>1,031,983</b>	<b>17,329,952</b>
<b>NET POSITION</b>					
Net investment in capital assets.....	28,248,327	356	—	1,105,479	29,354,162
Restricted for:					
Economic development financing.....	—	—	—	195,285	195,285
Other purposes.....	706,765	—	1,899,565	855,743	3,462,073
Unrestricted.....	(2,466,968)	17,231	476,986	513,846	(1,458,905)
<b>Total net position.....</b>	<b>\$ 26,488,124</b>	<b>\$ 17,587</b>	<b>\$ 2,376,551</b>	<b>\$ 2,670,353</b>	<b>\$ 31,552,615</b>

The notes to the financial statements are an integral part of this statement.

## Statement of Revenues, Expenses and Changes in Net Position

Component Units

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
<b>Operating revenues:</b>					
Charges for services .....	\$ 1,560,336	\$ 625,321	\$ 7,429	\$ 288,532	\$ 2,481,618
Other .....	—	683	90,573	70,295	161,551
<b>Total operating revenues .....</b>	<b>1,560,336</b>	<b>626,004</b>	<b>98,002</b>	<b>358,827</b>	<b>2,643,169</b>
<b>Operating expenses:</b>					
Cost of services .....	3,214,361	597,625	153,096	293,209	4,258,291
Administration costs .....	997,163	80,581	5,210	137,864	1,220,818
Depreciation .....	1,065,250	124	—	76,037	1,141,411
<b>Total operating expenses .....</b>	<b>5,276,774</b>	<b>678,330</b>	<b>158,306</b>	<b>507,110</b>	<b>6,620,520</b>
<b>Operating loss .....</b>	<b>(3,716,438)</b>	<b>(52,326)</b>	<b>(60,304)</b>	<b>(148,283)</b>	<b>(3,977,351)</b>
<b>Nonoperating revenues/(expenses):</b>					
Operating grants .....	2,198,401	47,887	26,572	45,029	2,317,889
Interest income/(loss) .....	15,514	208	—	63,095	78,817
Other nonoperating revenue/(expense) .....	9,093	2,191	—	70,609	81,893
<b>Nonoperating revenues/(expenses), net .....</b>	<b>2,223,008</b>	<b>50,286</b>	<b>26,572</b>	<b>178,733</b>	<b>2,478,599</b>
<b>Income/(loss) before contributions .....</b>	<b>(1,493,430)</b>	<b>(2,040)</b>	<b>(33,732)</b>	<b>30,450</b>	<b>(1,498,752)</b>
Capital contributions .....	2,364,127	—	73,697	41,843	2,479,667
<b>Change in net position .....</b>	<b>870,697</b>	<b>(2,040)</b>	<b>39,965</b>	<b>72,293</b>	<b>980,915</b>
Net position - beginning, as restated .....	25,617,427	19,627	2,336,586	2,598,060	30,571,700
<b>Net position - ending .....</b>	<b>\$ 26,488,124</b>	<b>\$ 17,587</b>	<b>\$ 2,376,551</b>	<b>\$ 2,670,353</b>	<b>\$ 31,552,615</b>

The notes to the financial statements are an integral part of this statement.



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## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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### A. FINANCIAL REPORTING ENTITY – BASIS OF PRESENTATION

The accompanying financial statements of the Commonwealth of Massachusetts (Commonwealth) 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 significant Commonwealth accounting policies are described below.

The Commonwealth is comprised of three branches: the Executive Branch, with the Governor as the chief executive officer; the Legislative Branch, consisting of a Senate of 40 members and a House of Representatives of 160 members; and the Judicial Branch, made up of the Supreme Judicial Court, the Appeals Court, and the Trial Court. In addition, the Legislature has established 57 independent authorities and agencies. Below the level of state government are 351 cities and towns exercising the functions of local governments. The cities and towns of the Commonwealth are also organized into 14 counties.

For financial reporting purposes, the Commonwealth has included all funds, organizations, agencies, boards, commissions, and institutions. The Commonwealth has also considered all potential component units for which it is financially accountable, as well as other organizations for which the nature and significance of their relationship with the Commonwealth is such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. As required by GAAP, these financial statements present the Commonwealth (the primary government) and its component units. The Commonwealth has included 40 entities as component units in the reporting entity because of the significance of their operational and/or financial relationships with the Commonwealth. Additional information related to the component units is found in [Note 14](#) to the basic financial statements.

*Blended Component Units* – Blended component units are entities that are legally separate from the Commonwealth but are so closely related to the Commonwealth, that they are, in substance, the same as the Commonwealth or entities providing services entirely or almost entirely to the Commonwealth. The net position and results of operations of the following legally separate entities are presented as part of the Commonwealth's operations:

**The Massachusetts School Building Authority (MSBA)** is charged with administering the Commonwealth's school construction and renovation program. The MSBA's revenues are derived almost entirely from dedicated sales taxes from the Commonwealth, that starting in FY11, increased to 1% of applicable sales in the Commonwealth. The MSBA's bonded debt is secured by these sales tax revenues. Expenditures by the MSBA are made on behalf of the Commonwealth as a successor to a long-standing Commonwealth program of school construction. The MSBA's operations and results thereon are blended with the Commonwealth and as such are reported as a major governmental fund.

**The Pension Reserves Investment Trust Fund (PRIT)** is the investment portfolio for the pension assets of the Commonwealth and as such, is presented as a blended component unit. PRIT is managed by the Pension Reserves Investment Management (PRIM) Board. Certain portions of PRIT's net position totaling approximately \$12.895 billion relate to holdings on behalf of cities and towns that participate in the Pool and are reported as an external investment trust within the fiduciary fund type.

**The Massachusetts Municipal Depository Trust (MMDT)** is an investment pool of the Commonwealth and its political subdivisions. The various local governments and other political subdivisions share of net position is approximately \$3.806 billion at June 30, 2017, and is reported as an external investment trust within the fiduciary fund type.

*Departments Audited Separately from the Commonwealth but not legally separate from the Commonwealth* - the following entities are audited separately from the Commonwealth but are not legally separate from the Commonwealth:

**The Massachusetts State Lottery Commission**, a division of the Office of the State Treasurer and Receiver-General, operates the Commonwealth's lottery. The net position of the Commission and results thereon are presented as a major

governmental fund.

The Institutions of Higher Education of the Commonwealth are also not legally separate from the Commonwealth and have operations and net position that are presented as part of the Commonwealth's business-type activities. These systems include:

**The University of Massachusetts System** including the University of Massachusetts Building Authority, and the Worcester City Campus Corporation. The Worcester City Campus Corporation includes a not-for-profit subsidiary, the Worcester Foundation for Biomedical Research, Inc.

**The State University and Community College Systems** including the 9 state universities and 15 community colleges located throughout the Commonwealth and the Massachusetts State College Building Authority.

*Other Discretely Presented Component Units that are Separately Audited* – Discrete component units are entities that are legally separate (often called Authorities) but financially accountable to the Commonwealth, or whose relationships with the Commonwealth are such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. The component units column of the basic financial statements includes the financial data of the following entities:

*Major component units:*

**The Massachusetts Department of Transportation (MassDOT)** incorporates the former Massachusetts Turnpike Authority and has jurisdiction over the Massachusetts Bay Transportation Authority (MBTA) and the Regional Transit Authorities. MassDOT has attributes of a state department as well as an authority. It operates like a state department for purposes of state finance laws and is reported as part of the Commonwealth for compliance with federal and state tax law. In this unique relationship all road and bridge assets of the Commonwealth (including the former Turnpike Authority (MTA)) have been transferred to MassDOT, while the Commonwealth will continue to hold current and future debt for the construction repair, improvement, and replacement of these assets.

**The Massachusetts Clean Water Trust** provides a combination of federal and Commonwealth funds for water and sewer projects around the Commonwealth as operator of the Commonwealth's State Revolving Fund.

**Commonwealth Insurance Connector Authority** administers the Commonwealth health insurance programs to facilitate subsidized health insurance for individuals without access to employer-sponsored health insurance as well as offer an affordable commercial health insurance product named Commonwealth Care for small businesses that are eligible for the program.

#### *Related Organizations*

The following are "related organizations" under GASB Statement No. 14, *The Financial Reporting Entity*, as amended by Statement No. 39, *Determining Whether Certain Organizations are Component Units – an Amendment of GASB Statement No. 14* and Statement No. 61, *The Financial Reporting Entity: Omnibus, an amendment of GASB Statements No. 14 and No. 34*: Massachusetts Port Authority, Massachusetts Housing Finance Agency, MassVentures, and Massachusetts Educational Finance Authority. The Commonwealth is responsible for appointing a voting majority of the members of each entity's board, but the Commonwealth's authority does not extend beyond the appointments. These entities do not meet the criteria for inclusion as component units of the Commonwealth and therefore are not part of these financial statements.

#### *Availability of Financial Statements*

The separately audited financial statements of the Commonwealth's component units and funds may be obtained from the various entities, or by contacting Financial Reporting in the Office of the Comptroller at (617) 973-2660 for component unit contact information.

**B. GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS**

The Statement of Net Position and the Statement of Activities report information on all non-fiduciary activities of the primary government and its component units. Primary government activities are defined as either governmental or business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues, and other non-exchange revenues. Business-type activities are financed in whole or in part by fees charged to external parties for goods and services.

**C. MEASUREMENT FOCUS AND BASIS OF ACCOUNTING***Government-Wide Financial Statements*

The **Statement of Net Position** presents all of the reporting entity's non-fiduciary assets and liabilities, with the difference reported as net position. Net position is reported in three categories:

- **Net investment in capital assets** consists of capital assets, net of accumulated depreciation and reduced by outstanding balances for bonds, notes and other debt that are attributed to the acquisition, construction or improvement of those assets.
- **Restricted net position** results when constraints placed on net position use are either externally imposed by creditors, grantors, contributors, and the like, or imposed by law through enabling legislation.
- **Unrestricted net position** consists of net position which does not meet the definition of the two preceding categories.

Resources from restricted net position are used prior to those from unrestricted net position.

The **Statement of Activities** demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable within a specific function. Program revenues include charges to customers or applicants who purchase, use or directly benefit from goods, services, or privileges that are restricted to meeting the operational or capital requirements of a particular function. Taxes and other items not meeting the definition of program revenues are instead reported as general revenue and offset or supplant the net operating deficit or surplus from governmental or business-type operations.

*Fund Financial Statements*

The fund financial statements present a balance sheet and a statement of revenues, expenditures, and changes in fund balances for its major and aggregated non-major funds.

Separate financial statements are provided for governmental funds, proprietary funds, and fiduciary funds. Major individual governmental funds and major individual proprietary funds are reported as separate columns in the fund financial statements pursuant to GASB reporting standards, with non-major funds being combined into a single column. The Commonwealth reports its financial position and results of operations in funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures/expenses. Transactions between funds within a fund type, if any, have not been eliminated.

**Governmental Activities – Government-wide financial statements** are reported using the economic resources management focus and the full accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements have been met.

**Governmental Funds – Fund financial statements** account for the general governmental activities of the Commonwealth. Governmental fund statements are reported using the current financial resources measurement focus

and the modified accrual basis of accounting. Revenues are recognized as they become susceptible to accrual and are both measurable and available. Revenues are considered to be available when they are collected within the current period or soon enough thereafter to pay liabilities of the current period. Significant revenues susceptible to accrual include income, sales and use, corporation, and other taxes, federal grants, federal reimbursements and other reimbursements for use of materials and services which are recognized in the year the materials are received, the grants are expended, or services are provided. The measurement period for accrual for taxes earned is generally one year for income, corporate and other taxes and within thirty days for sales and use taxes. For federal and other reimbursements, the measurement period for accrual is generally sixty days if the related expenditures being reimbursed occurred prior to year-end. Expenditures are recorded in the period in which the related fund liability is incurred. Principal and interest on general long-term obligations are recorded as fund liabilities when due. Compensated absences, claims and judgments, termination benefits and similar activities are recognized to the extent that they are normally expected to be liquidated with expendable available financial resources. Amounts incurred but not reported for Medicaid are reported to the extent that services are rendered before June 30th.

**Business-Type Activities – Government-wide financial statements** account for activities for which a fee is charged to external users for goods or services. In these services, debt may be issued backed solely by these fees and charges.

There may be also a legal requirement or a policy decision to recover costs. As such, these funds account for operations similarly to a for-profit business. The Commonwealth's Institutions of Higher Education's operations are reported as systems within the proprietary funds. Proprietary fund types are described in more detail below.

**Proprietary and Fiduciary Funds – Fund financial statements** are presented on the same basis of accounting as the business-type activities in the government-wide financial statements. For fiduciary funds, post-employment benefits and refunds are recognized when due and payable.

The Commonwealth reports the following fund types:

#### **Governmental Fund Types:**

**General Fund**, a governmental fund, is the primary operating fund of the Commonwealth. It is used to account for all governmental transactions except those required to be accounted for in another fund.

**Special Revenue Funds** account for specific revenue sources that have been aggregated according to Commonwealth general laws to support specific governmental activities.

**Debt Service Fund** accounts for the accumulation of resources for and the payment of debt.

**Capital Projects Funds** account for the acquisition or construction of major Commonwealth capital facilities financed primarily from bonds and federal reimbursements.

Within the governmental fund types, the Commonwealth has established the following major funds, in addition to the General Fund:

**Lottery Funds** are governmental funds and account for the operations of the State and Arts Lotteries, which primarily reimburse the General Fund for local aid to cities and towns.

**The Massachusetts School Building Authority** is presented as a governmental fund, reflecting the activity of the blended component unit, the Massachusetts School Building Authority, accounting for grants to cities, towns and regional school districts for school construction and renovation projects.

#### **Proprietary Fund Types:**

**Business-Type Activities** account for programs financed in whole or in part by fees charged to external parties for goods and services.

The proprietary funds include the following:

**Unemployment Compensation Fund** reports the taxes collected from employers and held by the United States Treasury in the Federal Unemployment Trust Fund, from which funds are drawn for the payment of benefits to the unemployed.

**College and University Information**, is presented here, aggregated by the University's activity, the State Universities' activity and the Community Colleges' activity.

#### **Fiduciary Fund Types:**

**Post-Employment Benefit and OPEB Trust Funds** report resources that are required to be held in trust for the members and beneficiaries of the Commonwealth's post-employment and OPEB benefit plans. These funds recognize employer contributions when legally due and employee contributions in the period when due. Further information on the significant accounting policies for post-employment and OPEB benefit trust funds may be found in [Notes 9 and 10](#) to the basic financial statements on pages [110–126](#).

**External Investment Trust Funds** account for the portion of pooled cash and pension assets held under the custodianship of the Commonwealth for the benefit of cities, towns and other political subdivisions of the Commonwealth.

**Private Purpose Funds** account for various gifts and bequests held by the Commonwealth of which only the income is expendable for purposes specified by the donor. The majority of the individual accounts are for perpetual cemetery care endowments on behalf of deceased individuals.

**Agency Funds** account for assets the Commonwealth holds on behalf of others. Agency Funds are custodial in nature and do not involve measurement of operations.

#### **Fund Balances:**

Governmental fund balances are considered nonspendable, restricted, committed, assigned, and unassigned, based on the relative strength of spending constraints.

**Nonspendable** fund balances are those that cannot be spent because they are either: (a) not in spendable form; or (b) legally or contractually required to be maintained intact, such as balances in the form of inventories, permanent funds, and notes receivable. As of June 30, 2017, there were no nonspendable fund balances.

**Restricted** fund balances are those where constraints on their use are: a) externally imposed by creditors (such as through debt covenants), grantors, contributors or laws or regulations of other governments; or b) imposed by constitutional provisions or enabling legislation such that there is a legally enforceable requirement that those resources be used only for the specific purposes stipulated. Legal enforceability means that a government can be compelled by an external party—such as citizens, public interest groups, or the judiciary—to use resources created by enabling legislation only for the stipulated purposes.

**Committed** fund balances are those that can be used only for specific purposes pursuant to constraints imposed by formal action of the government's highest level of decision-making authority, which in the case of the Commonwealth is the Legislature and Governor. Committed amounts cannot be used for other than the specified purposes unless the Governor and Legislature remove or change the specified use through legislation. The authorization specifying the purposes for which amounts can be used must have the consent of both the legislative and executive branches of the government prior to the end of the reporting period.

**Assigned** fund balances are amounts that are constrained by the government's intent to be used for specific purposes, but are neither restricted nor committed. Intent should be expressed by: (a) the governing body itself; or (b) a body (a budget or finance committee, for example) or official to which the governing body has delegated the authority to assign amounts to be used for specific purposes. The Massachusetts Legislature has the authority to assign or modify previously assigned fund balance. In distinction to restricted and committed balances, the authority for making an assignment is not required to be the government's highest level of decision-making authority, i.e., the Legislature and Governor, and the action to assign fund balance can occur after the end of the year. Furthermore, the nature of the actions necessary

to remove or modify an assignment is not as prescriptive as it is with committed fund balances—constraints imposed on the use of assigned amounts are more easily removed or modified than those imposed on amounts that are classified as committed. Per GASB 54, assigned balances include those funds remaining at the end of the fiscal year that are reappropriated for the following fiscal year. Assigned balances also include administratively established accounts whose purpose is defined by Secretary of Administration and Finance and other cabinet secretaries.

**Unassigned** fund balance is the residual classification for the General Fund. This classification represents fund balance that has not been assigned to other funds and that has not been restricted, committed, or assigned to specific purposes in the General Fund. The General Fund is the only fund that reports a positive unassigned fund balance amount. In addition, in accordance with GASB No. 54, negative balances in other governmental funds are classified as unassigned.

While the Commonwealth has not announced a formal policy governing the priority of spending fund balances, in conformance with GASB 54 requirements, when an expenditure is incurred for purposes for which both restricted and unrestricted resources are available, restricted resources are spent first, followed by committed resources, assigned resources, and unassigned resources.

Detail of FY17 ending fund balances is shown below.

**Governmental Fund Balances at June 30, 2017**

(amounts in thousands)

	Restricted Purposes	Committed Purposes	Assigned Purposes	Unassigned Purposes	Totals
<b>General Fund</b>					
General Government.....	\$ —	\$ —	\$ —	\$ 939,018	\$ 939,018
Stabilization Fund.....	—	1,300,678	—	—	1,300,678
FY17 Appropriations Reappropriated in FY18 .....	—	—	98,316	—	98,316
<b>Subtotals, General Fund</b> .....	<b>—</b>	<b>1,300,678</b>	<b>98,316</b>	<b>939,018</b>	<b>2,338,012</b>
<b>Lottery Funds</b>					
Lottery Operations.....	—	913	—	—	913
<b>Subtotals, Lottery Funds</b> .....	<b>—</b>	<b>913</b>	<b>—</b>	<b>—</b>	<b>913</b>
<b>Massachusetts School Building Authority (MSBA)</b>					
Debt Service .....	912,814	—	—	—	912,814
Grants to Cities, Towns and Local School Districts .....	364,723	—	435,047	—	799,770
<b>Subtotals, MSB A</b> .....	<b>1,277,537</b>	<b>—</b>	<b>435,047</b>	<b>—</b>	<b>1,712,584</b>
<b>Other Governmental Funds</b>					
Restricted by Federal Grantors.....	2,082	—	—	—	2,082
Child Support -- Restricted by Federal Grantors.....	17,720	—	—	—	17,720
Environmental .....	—	16,150	1,000	—	17,150
Public Safety -- Enhanced 911 Services.....	—	122,671	—	—	122,671
Public Safety -- Other.....	—	3,214	—	—	3,214
Universal Health Care - Distressed Hospital Relief.....	—	33,537	—	—	33,537
Universal Health Care - Non-Institutional Long-Term Care.....	15,298	—	—	—	15,298
Universal Health Care - Other.....	—	34,602	—	—	34,602
Other Health Care.....	—	24,068	—	—	24,068
Workforce Training.....	—	42,352	—	—	42,352
Convention Centers .....	8,393	144,720	—	—	153,113
General Government Capital Projects Fund.....	244,782	—	—	—	244,782
Highway Capital Projects Fund.....	—	—	—	(211,762)	(211,762)
General Government Debt Service.....	534	—	—	—	534
Transportation (GANS*/Commonwealth Transportation Fund).....	107,932	55,276	—	—	163,208
Gaming .....	—	11,495	—	—	11,495
Expendable Trusts .....	238,750	264,012	150,292	—	653,054
Other .....	13,688	297,487	—	(92,932)	218,243
<b>Subtotals, Other Governmental Funds</b> .....	<b>649,179</b>	<b>1,049,584</b>	<b>151,292</b>	<b>(304,694)</b>	<b>1,545,361</b>
<b>Totals</b> .....	<b>\$ 1,926,716</b>	<b>\$ 2,351,175</b>	<b>\$ 684,655</b>	<b>\$ 634,324</b>	<b>\$ 5,596,870</b>

\*Federal Grant Anticipation Notes

The Commonwealth does not have a formally adopted minimum fund balance policy. However, most governmental funds cannot end a fiscal year in deficit. Those funds that are authorized to end a fiscal year in deficit are discussed in [Note 8](#) to the basic financial statements, “Individual Fund Deficits” on page [110](#).

**Stabilization Fund Arrangements:**

In accordance with Section 2H of Chapter 29 of the Massachusetts General Laws, the Commonwealth maintains a Stabilization (“Rainy Day”) Fund. Per Chapter 29, balances in the Stabilization Fund can be expended only when non-routine budget shortfalls occur and upon appropriation by the Legislature and approval by the Governor. Chapter 29 requires that after calculating the Commonwealth’s “consolidated net surplus” (the sum of the “undesignated” balances in certain specific state budgeted funds, equal to balances that are neither restricted nor reappropriated for the following fiscal year) any remaining surplus be transferred to the Stabilization Fund. In addition, withholding taxes on certain Lottery transfers are required to be transferred to the Stabilization Fund. Starting in FY10, statute requires the Comptroller, after certification by the Commissioner of Revenue, to transfer any capital gains tax revenues in excess of \$1 billion (adjusted annually for economic growth) during a fiscal year to the Stabilization Fund. Starting in FY12, statute requires the Comptroller, after certification by the Commissioner of Revenue and the Attorney General, to transfer to the Stabilization Fund all revenue from individual settlements and judgments greater than \$10 million each that exceeds the five year rolling annual average of such settlements and judgments. For FY17, the capital gains statute was suspended by budgetary legislation enacted during the fiscal year and because settlements and judgments revenue did not reach the five year average threshold, all such revenue was retained in the General Fund.

Historically, balances in the Stabilization Fund have been used almost exclusively during recessionary periods to offset budget shortfalls after other budgetary measures have been taken. Per Chapter 29, the Commonwealth is required to maintain a balanced budget, and if a revenue shortfall is projected, the Secretary of Administration and Finance is required to reduce state agencies’ spending authorizations in an amount equal to any projected shortfall.

The Stabilization Fund ended FY17 with a balance of \$1.301 billion. For the fiscal year ending June 30, 2017, the Stabilization Fund’s balance increased by \$9 million from investment income, and approximately \$377 thousand in statutorily mandated deposits of withholding taxes on certain Lottery proceeds. There were no withdrawals during the fiscal year. In accordance with GASB 54 requirements, balances in the Stabilization Fund are classified as committed.

*Fiscal Year-End*

All funds and component units are reported using fiscal years, which end on June 30.

*Program Revenue*

Program revenue is defined by the Commonwealth to be the revenue from fees and assessments collected by departments that are directly applicable to that department’s operations.

*Operating and non-operating revenues and expenses*

Revenues and expenses of business-type activities and proprietary funds are classified as operating or non-operating and are subclassified by object. Operating revenues and expenses generally result from providing services and producing and delivering goods. All other revenues and expenses are reported as non-operating.

**D. CASH, CASH EQUIVALENTS, SHORT-TERM INVESTMENTS AND INVESTMENTS**

The Commonwealth follows the practice of pooling cash and cash equivalents. Cash equivalents consist of short-term investments with an original maturity of three months or less and are stated at cost. Interest earned on pooled cash is allocated to the General Fund and, when so directed by law, to certain other Governmental Funds.

The Office of the Treasurer and Receiver-General (Treasury) manages the Commonwealth’s short-term external mixed investment pool, the Massachusetts Municipal Depository Trust (MMDT). MMDT is comprised of two portfolios: a Cash Portfolio and a Short Term Bond Portfolio. The Cash Portfolio is a money-market-like investment pool; its investments are carried at amortized cost. As of June 30, 2017, the MMDT's entire cash fund is included as cash equivalents in the accompanying financial statements. The Short Term Bond Portfolio investments are carried at fair value. As of June 30, 2017, the MMDT's entire bond fund is included as short-term investments in the accompanying financial statements.



Investors in MMDT are not allowed to overdraw their shares. For a complete copy of MMDT's separately issued financial statements, please contact the Office of the State Treasurer's Cash Management Department, at (617) 367-9333 or download the statements from the Cash Management section of the Office of the State Treasurer's website at [www.mass.gov/treasury](http://www.mass.gov/treasury). General Law Chapter 29, Section 38 enumerates the Commonwealth's investment policy for non-pension assets.

The post-employment and OPEB benefit trust funds invest in the Pension Reserves Investment Trust (PRIT) Fund, a diversified external investment pool managed by the Pension Reserves Investment Management (PRIM) Board and are reported at fair value in the accompanying financial statements. The State Employees', Teachers' Public Employee Retirement Systems (PERS) and the State Retirees' Benefit Trust (SRBT) are required to invest in the PRIT Fund and comprise approximately 38.9%, 40.3% and 1.5% respectively, of the net position of the PRIT Fund. For a complete copy of PRIT's separately issued financial statements, contact the PRIM Board at 84 State Street, Boston, MA 02109.

Other Commonwealth investments are comprised of equities (marketable securities) and fixed income securities, as well as interests in alternative investment funds such as private equity, debt and real estate. Marketable securities are reported at fair value based upon quoted market prices. Investments in fixed income securities, including U.S. government agency obligations, are reported at fair value using independent pricing services. In determining the price, the services may reflect such factors as market prices, yields, maturities, and ratings, supplemented by deal quotations. Alternative investments are generally reported at net asset values (NAV) reported by the investment manager for the respective securities, which are used as a practical expedient to estimate the fair value of the Commonwealth's interests therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of June 30, 2017, the Commonwealth had no plans or intentions to sell investments at amounts different from NAV.

Reported fair values for shares in registered mutual funds are based on share prices reported by the funds as of the last business day of the fiscal year.

Investments also include pooled investment funds with Commonfund which are valued at fair value based upon estimated net asset values provided by the management of Commonfund. These pooled investment funds are invested in marketable debt and equity securities.

Certificates of deposit and guaranteed investment/annuity contracts are carried at amortized cost.

### ***E. RECEIVABLES***

In general, tax revenue is recognized on the government-wide statements when assessed or levied and on the governmental financial statements to the extent that it is both measurable and available, based upon collection experience. If revenue is not received within the availability period, receivables are deferred. Receivables are stated net of estimated allowances for uncollectible accounts.

Reimbursements due to the Commonwealth for its expenditures on federally-funded-reimbursement and grant programs are reported as "Federal grants and reimbursements" or "Due from federal government" in the statement of net position.

"Other Receivables" represent amounts due to Commonwealth including Lottery revenues and Higher Education receivables from students, amounts due to the University of Massachusetts from related organizations and other items. Also included in other receivables for FY17 are amounts due to the Commonwealth under provisions of the Master Settlement Agreement among five tobacco companies and 46 states, including the Commonwealth. Pursuant to provisions of GASB Technical Bulletin No. 2004-1 "Tobacco Settlement Recognition and Financial Reporting Entity Issues", a receivable has been recorded in the general fund for approximately \$126 million, representing 50% of the amounts expected to be received during FY18.

"Loans Receivables" - The MSBA has entered into various loan agreements with municipalities at a 2.0% interest rate with principal to be paid in equal installments for varying terms. Currently, the longest repayment schedule has a final payment in FY43. This program is designed to assist school districts with unanticipated inflationary construction costs over the district's original amount budgeted for a project. The loans outstanding as of June 30, 2017 were \$92.8 million, of which \$6.4 million is due in FY18. During FY17, the MSBA collected \$6.4 million of scheduled principal payments.

**F. DUE FROM CITIES AND TOWNS**

“Due from Cities and Towns” represents reimbursements due to the Commonwealth for its expenditures on certain programs for the benefit of cities and towns.

**G. CAPITAL ASSETS**

Capital assets, which include property, plant, equipment and infrastructure (e.g. roads, bridges, ramps and other similar items), are reported in the applicable governmental or business-type activity columns of the government-wide financial statements.

*Methods used to value capital assets*

Capital assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of acquisition.

*Capitalization policies*

All land, non-depreciable land improvements and donated historical treasures or works of art are capitalized. Single pieces of equipment, vehicles, computer equipment and software that equal or exceed \$50,000 are capitalized. Buildings and infrastructure projects with a cost that equals or exceeds \$100,000 are capitalized. The costs of normal maintenance and repairs that do not add to the value of assets or materially extend asset lives are not capitalized.

Capital assets of the Component Units are capitalized upon purchase and depreciated on a straight-line basis over the estimated useful lives of the assets.

*Depreciation and useful lives*

Applicable capital assets are depreciated using the straight-line method. Unless unallocable, depreciation expense is charged to the function of the capital asset being depreciated. Estimated useful lives are as follows:

<i>Type of Asset</i>	<b>Estimated Useful Life (in years)</b>
Buildings .....	40
Infrastructure - roads, bridges and tunnels .....	40
Infrastructure - beaches, boardwalks, bike ways, etc .....	20
Infrastructure - dams, water and sewer systems.....	50
Furniture .....	10
Library collections that are not historical treasures .....	15
Equipment, office equipment and life safety equipment.....	10
Computer hardware and software .....	3 to 7
Vehicles .....	5

*Construction in process*

Construction in process includes all associated cumulative costs of a constructed capital asset. Construction in process is relieved at the point at which an asset is placed in service for its intended use.

## **H. INTERFUND / INTRAFUND TRANSACTIONS**

As a general rule, the effect of interfund activity has been eliminated in the government-wide statements. Exceptions to this rule are: 1) activities between funds reported as governmental activities and funds reported as business-type activities and 2) activities between funds that are reported in different functional categories in either the governmental or business-type activities column. Elimination of these activities would distort the direct costs and program revenues for the functions concerned. Interfund receivables and payables have been eliminated from the government-wide Statement of Net Position, except for the residual amounts due between governmental and business-type activities.

### **I. STATEWIDE COST ALLOCATION PLAN – FRINGE BENEFIT COST RECOVERY**

The Commonwealth has elected not to present its cost allocation and recovery separately on the Statement of Activities. Certain costs of nine “central service” agencies of the Commonwealth are recovered from the remaining agencies in a federally approved statewide cost allocation plan. These costs that are allocated are based upon benefits received by the user agency that benefit from these services. The Commonwealth also appropriates and pays the fringe benefit costs of its employees and retirees, as well as MassDOT employees and retirees, through the General Fund. These fringe benefits include the costs of employees’ group health insurance, pensions, unemployment compensation, and other costs necessary to support the workforce. As directed by Massachusetts General Laws, these costs are assessed to other funds based on payroll costs, net of credits for direct payments. Since fringe benefit costs are not separately appropriated or otherwise provided for in these funds, the required assessment creates an unfavorable budget variance in the budgeted funds. The employees’ group health insurance and workers’ compensation activity is accounted for in the governmental funds.

### **J. SCHOOL CONSTRUCTION GRANTS, CONTRACT ASSISTANCE AND OTHER PAYABLES**

Under the former school building assistance program (prior to the creation of the MSBA) the Commonwealth reimbursed 50% to 90% of approved eligible construction and borrowing costs for school construction and renovation to municipalities and regional school districts for 728 previously approved projects noted by MSBA as Prior Grant projects. The MSBA has assumed responsibility for these projects under its enabling statute.

The MSBA records a liability for its share of total eligible project costs differently depending on the type of project. However, for all projects, the MSBA recognizes a liability for its estimated share of total eligible project costs when the applicable eligibility requirements have been met.

**Prior Grants** - All of the 728 Prior Grant projects had been receiving an annual payment under the former program. The liability for these projects will be reduced over time through annual payments, and savings from debt refundings by the local communities in which the MSBA shares in the savings based on the reimbursement rate of the project. As of June 30, 2017, the liability for prior grant projects is approximately \$407.8 million.

**Waiting List** - The MSBA funds Waiting List projects using two different methods, lump sum and progress payments. Each funding method has different eligibility requirements.

Waiting List projects that are under the lump sum method were recognized as a liability once construction started. The liability for these projects will be reduced over time through annual payments and savings from debt refundings by the local communities in which the MSBA shares in the savings based on the reimbursement rate of the project. These projects operate similar to Prior Grant projects.

Under the progress payment method, the MSBA's shares of costs incurred are generally recognized as a liability once a grantee requests reimbursement from the MSBA. Of the \$91 million liability associated with Waiting List projects, the liability related to the progress payment method is approximately \$2 million.

Waiting List projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2017, the amount of commitments outstanding for the Waiting List project is \$2 million, and is anticipated to

be funded under the progress payment method.

**New Program** - The MSBA funds New Program projects on a progress payment basis. Under this process, communities may submit reimbursement requests no more frequently than once per month. Upon review, audit, and approval, the MSBA processes payment for its share of eligible costs incurred. The MSBA's share of costs incurred for New Program projects are recognized as a liability once a grantee's request for reimbursement is reviewed, audited, and approved by the MSBA. The MSBA has recorded a liability of \$39.9 million in the governmental funds for reimbursements received, reviewed, and approved for payment by June 30, 2017. Additionally, a liability of \$140.6 million was recorded for the reimbursements not reviewed or approved for payment prior to June 30, 2017, as well as final project hold back payments subject to final audit and Board approval after year end. The long-term portion of this liability is estimated at \$19 million. New Program projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2017, the amount of commitments outstanding for the New Program projects is \$949 million, and will be funded under the progress payment method.

For all projects, regardless of the funding mechanism, costs incurred by the grantees are subject to audit by the MSBA. Completion of these audits will allow the MSBA to determine the final approved cost of these projects, and the MSBA will adjust the payments it makes for these projects, as necessary, in accordance with the results of those audits.

As of June 30, 2017, MSBA had an outstanding liability of \$180.5 million, and \$949 million of commitments outstanding, for the New Program projects. The Commonwealth dedicates a 1% statewide sales tax (drawn from the existing statewide 6.25% sales tax), excluding sales tax revenues on meals and from certain additional statutorily exempted revenues from sales, to the School Modernization and Reconstruction Trust Fund (the "SMART Fund"), in support of these grant programs and for all other operations of the MSBA, including debt service.

The Commonwealth recognizes contract assistance on an annual basis due to the Massachusetts Clean Water Trust (the Trust). This assistance is applied as a subsidy to repayments from the Trust loan borrowers. The expectation is that the assistance will be available for the life of the Trust financing agreement. The assistance is drawn from the Commonwealth on a 20-year repayment stream, even if the loan is for a longer period. If there is a differential between the assistance received and the amounts needed for loan subsidies, that amount is invested by the Trust in an annuitized fashion to be used beyond year 20. If assistance is not provided by the Commonwealth, the Trust borrower is obligated for any shortfall.

Accounts payable includes amounts due to vendors of the Commonwealth for goods and services delivered before June 30<sup>th</sup> but paid for after year-end, the largest of which is Medicaid for \$1.789 billion.

#### ***K. COMPENSATED ABSENCES***

Compensated absences are recorded as a long-term liability in the Statement of Net Position. For the governmental fund statements, accumulated vacation and sick leave are reported as expenditures and fund liabilities when incurred upon retirement, termination or death. Sick and vacation payments to terminated employees as of June 30, 2017 but paid after the fiscal year ends are also reported in the funds.

Employees are granted vacation and sick leave in varying amounts based on collective bargaining agreements and state laws. Upon retirement, termination or death, certain employees are compensated for unused vacation and sick leave (subject to certain limitations) at their current rate of pay.

Compensated absences in the governmental funds are liquidated from the same sources that fund the personnel expenses of the employees who are compensated for unused vacation and sick leave pay. In most cases, this is the General Fund, but also includes non-General Fund sources to the extent that personnel expenses are charged to those funding sources. In the business-type activity and the discretely presented component units, employees' accumulated vacation and sick leave are recorded as an expense and liability as the benefits accrue.

### ***L. DEDICATED REVENUES AND PLEDGES***

The Commonwealth has a number of pledges of revenue streams for its own bonds and various other bond issues of other authorities. Commonwealth debt supported by dedicated revenue streams include special obligation bonds for road and bridge construction secured by motor fuels taxes and federal grant anticipation notes (GANS) secured by federal grants for highway construction. Detailed information on pledges for the Commonwealth's own debt is included in sections [B](#) and [C](#) of [Note 7](#), on pages 99–100.

The Commonwealth dedicates receipts from the sales tax (other than the tax on meals) to the Massachusetts Bay Transportation Authority (MBTA) and the Massachusetts School Building Authority (MSBA). Each entity receives 1.0% of the sales tax. The MBTA's portion is subject to an inflation-adjusted floor.

The amount dedicated to the MBTA is accounted for in a nonbudgeted special revenue fund and is subject to adjustment equal to the lesser of the annual increase in the Boston consumer price index or prior calendar year annual sales taxes, with a floor of 0.0% and a ceiling of 3.0%. Legislation approved by the Governor on October 31, 2014 increased the amount statutorily required to be credited to the MBTA by \$160 million annually, starting in fiscal 2015. The \$160 million increase in the dedicated sales tax revenue amount and the amount included in the inflation-adjusted floor was intended to replace the \$160 million annual state appropriation the MBTA received from fiscal 2010 through fiscal 2014.

In FY17, approximately \$997 million and \$818 million of the dedicated sales tax revenue stream was directed to the MBTA and the MSBA, respectively.

The Commonwealth has also pledged sales tax revenue and rooms tax surcharges from areas contiguous to convention centers and the Worcester DCU Arena and Convention Center to support such centers' operations. As of June 30, 2017, taxes within the Convention Center districts support approximately \$575 million of outstanding principal and approximately \$323 million of interest on debts related to these Convention Centers. Taxes collected in FY17 were approximately \$135 million, while debt service on the bonds was approximately \$55 million.

Under additional transportation finance reform effective July 1, 2013, motor vehicle sales tax collections were shifted from the General Fund to the Commonwealth Transportation Fund (CTF), while also eliminating a 0.385% pledge of regular and meals sales tax to the CTF. During FY17, approximately \$548 million in motor vehicle sales tax revenue was transferred to MassDOT. From the Commonwealth Transportation Fund, \$140 million was dedicated to funding the operations of the MBTA while an additional \$82 million was dedicated to funding the operations of the regional transit authorities. These amounts are transferred through the CTF.

### ***M. LOTTERY REVENUE AND PRIZES***

Ticket revenues and prizes awarded by the Massachusetts Lottery Commission are recognized as drawings are held. For certain prizes payable in installments, the Commonwealth purchases annuities and principal-only and interest-only treasury strips in the Commonwealth's name, which are recorded as annuity contracts and prizes payable in the agency fund and on the Statement of Net Position. Though the annuities are in the Commonwealth's name in the case of a default, they are solely for the benefit of the prizewinner. The Commonwealth retains the risk related to such annuities.

***N. RISK FINANCING***

The Commonwealth self-insures for employees' workers' compensation, casualty, theft, tort claims and other losses. Such losses, including estimates of amounts incurred but not reported, are included as accrued liabilities in the accompanying financial statements when the loss is incurred. For employees' workers' compensation, the Commonwealth assumes the full risk of claims filed under a program managed by the Human Resources Division. For personal injury or property damages, Massachusetts General Laws limit the risk assumed by the Commonwealth to \$100,000 per occurrence, in most circumstances. The Group Insurance Commission administers health care and other insurance for the Commonwealth's employees and retirees.

***O. DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES***

Deferred outflows of resources are defined as a consumption of net assets by the government that is applicable to a future reporting period. Deferred inflows of resources are defined as an acquisition of net assets by the government that is applicable to a future reporting period. Deferred outflows of resources increase net position, similar to assets, and deferred inflows of resources decrease net position, similar to liabilities.

***P. NET POSITION***

The Commonwealth reports net position as restricted where legally segregated for a specific future use by enabling legislation. Otherwise, these balances are considered unrestricted.

Net position has been restricted as follows:

"Restricted for unemployment benefits" – identifies amounts solely for the payment of unemployment compensation under federal labor laws.

"Restricted for retirement of indebtedness" – identifies amounts held by fiscal agents to fund future debt service obligations pertaining to Special Obligation Revenue Bonds authorized under Section 20 of Chapter 29 of the Massachusetts General Laws and Chapter 33, Acts of 1991. It also includes amounts held for Grant Anticipation Notes authorized by Chapter 11 of the Acts of 1997 and Chapter 121 of the Acts of 1998.

"Restricted for other purposes" – identifies amounts held for various externally imposed restrictions either by creditors, grantors or laws and regulations of other governments.

As of June 30, 2017, the government-wide statement of net position reports the following as restricted net position (amounts in thousands):

	Governmental Activities	Business Type Activities	Government Wide Total
Restricted for:			
Unemployment benefits .....	\$ —	\$ 1,473,220	\$ 1,473,220
Retirement of indebtedness .....	1,021,280	—	1,021,280
Restricted for other purposes including:			
Higher education endowment funds .....	—	27,916	27,916
Higher education academic support and programs .....	—	1,900	1,900
Higher education scholarships and fellowships:			
Nonexpendable .....	—	3,486	3,486
Expendable .....	—	7,321	7,321
Other nonexpendable purposes .....	—	2,984	2,984
Capital projects - expendable trusts .....	—	2,350	2,350
Other purposes .....	905,436	216,398	1,121,834
Total restricted net position .....	<u>\$ 1,926,716</u>	<u>\$ 1,735,575</u>	<u>\$ 3,662,291</u>

The net position of the Post-Employment Benefit and OPEB Trust Funds and the Pension Reserves Investment Trust portion of the External Investment Trust Funds are restricted for post-employment benefits. These restrictions identify resources held in trust for the members and beneficiaries of the Commonwealth's post-employment benefit plans. The Pension Reserves Investment Trust portion of the External Investment Trust Funds also includes pooled cash and pension assets held under the custodianship of the Commonwealth for the benefits of cities, towns and other political subdivisions of the Commonwealth.

#### ***Q. SERVICE CONCESSION AGREEMENTS***

The higher education institutions of the Commonwealth (State Universities and Colleges) enter in to services concession agreements for campus dining facilities and bookstores. In exchange for these agreements the vendors provide contributions to the institutions to improve the facilities as well as revenue sharing arrangements. All improvements and equipment purchased with the payments remain the property of institutions. The contracts range from five to eighteen years in duration. These agreements generate deferred inflows of resources, and liability for the unamortized portion of assets transferred. Per terms of the agreements, either party can terminate the agreement at any time, without cause, by providing a written notice. In the event of termination, the unamortized portion is to be returned. Following is a summary of amounts of the arrangements as of June 30, 2017 (amounts in thousands):

State Universities .....	\$ 12,810
Community Colleges .....	484
Total .....	<u>\$ 13,294</u>

The amount of assets and liabilities associated with these service concession agreements are immaterial and are not disclosed in these footnotes.

#### ***R. RECLASSIFICATIONS / RESTATEMENTS***

Certain amounts in the separately issued component units' financial statements have been reclassified to conform to the accounting classifications used by the Commonwealth.

MassDOT, a discretely presented component unit, restated their beginning net position from \$25.615 billion, as previously reported, to \$25.617 billion due to a change in accounting principle by certain Regional Transit Authorities,

which are discretely presented component units of MassDOT.

#### **S. ESTIMATES**

The preparation of the Comprehensive Annual Financial Report requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures at the date of the financial report.

Estimates also affect the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

#### **T. PENSIONS**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the State Employees' Retirement System (SERS) and the Massachusetts Teachers' Retirement System (MTRS) and additions to/deductions from the SERS and the MTRS fiduciary net position have been determined on the same basis as they are reported by SERS and MTRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

For purposes of measuring the liability, deferred outflows of resources and deferred inflows of resources, and expense associated with the Commonwealth's requirement to contribute to the Boston Retirement System (BRS) for Boston teachers, information about BRS's fiduciary net position and additions to/deductions from BRS's fiduciary net position have been determined on the same basis as they are reported by BRS. For this purpose, benefit payments (including refunds of contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

#### **U. SIGNIFICANT NEW ACCOUNTING PRONOUNCEMENTS**

The Commonwealth has implemented the following significant new accounting pronouncements during FY17:

GASB Statement 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This Statement replaces GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and specifies the required approach to measuring the OPEB liability for plans administered through trusts or equivalent arrangements. This Statement requires the plan to calculate a net OPEB liability to be measured as the total OPEB liability less the amount of OPEB plan's fiduciary net position. See [Note 10](#) for further information.

GASB Statement 77, *Tax Abatement Disclosures*. This Statement addresses financial reporting standards for tax abatement agreements entered into by state and local governments. See [Note 3B](#) for further information on tax abatements.



## 2. DEPOSITS, SHORT-TERM INVESTMENTS AND INVESTMENTS

### Primary Government

The Commonwealth's cash and cash equivalents and restricted cash is comprised of the following (amounts in thousands):

	Governmental Activities	Business-Type Activities	Government Wide Total	Fiduciary Funds
Cash .....	\$ 26,506	\$ 514,870	\$ 541,376 <sup>(1)</sup>	\$ 517,257
MMDT - cash fund .....	3,725,996	539,767	4,265,763 <sup>(1)</sup>	4,140,773
Restricted cash with fiscal agent.....	574,959	—	574,959	—
Total .....	<u>\$ 4,327,461</u>	<u>\$ 1,054,637</u>	<u>\$ 5,382,098</u>	<u>\$ 4,658,030</u>

(1) of which \$484,659 is presented as restricted cash in the accompanying financial statements.

### Lottery Annuity Contracts and U.S. Treasury Strips

The Massachusetts State Lottery Commission, a division of the Office of the State Treasurer and Receiver-General, purchases annuity contracts from insurance companies and United States treasury strips to fund the Commonwealth's liability for future installment prize obligations. These annuities and treasury strips represent obligations of the insurance companies and the custodial banks, respectively, to provide a fixed series of payments over a specified period. Only the annuity investments are subject to credit risk. For the annuity contracts, risk is controlled by purchasing these investments only from insurance companies with the top two ratings issued by a national recognized ratings organization. However, due to the nature of these annuity contracts, the credit quality of the insurance company issuer is subject to change. As of June 30, 2017, the amortized cost of annuities was approximately \$103 million. At June 30, 2017, the U.S Treasury Strips have a fair value of approximately \$960 million. Approximately 90.3% of these amounts are held in United States Treasury strips at a custodial bank. No insurance company has an amount of annuities over 5.1% of the overall portfolio.

### MSBA Deposits and Investments

The MSBA is authorized to invest in obligations of the US Treasury, its agencies and instrumentalities, bonds or notes of public agencies or municipalities, bank time deposits, guaranteed investment contracts, money market accounts and repurchase agreements. These investments are recorded at fair value. The MSBA has an investment policy that establishes the minimum credit quality for certain instruments, outlines investment procedures and updates for periodic reporting. The MSBA investment policy does not specifically limit the amount the MSBA may invest in any one issuer.

As of June 30, 2017, the MSBA held the following deposits and investments which are a component of Governmental Activities above (amounts in thousands):

Cash and cash equivalents.....	\$ 218,590
Restricted cash with fiscal agent .....	374,199
Restricted investments .....	997,191
Total.....	<u>\$ 1,589,980</u>

### Custodial Credit Risk – Pooled Cash

Custodial credit risk is the risk that in the event of a bank failure, deposits and investments may not be returned to the Commonwealth. Cash balances represent amounts held in bank depository accounts that may be subject to custodial credit risk.

The Commonwealth requires all bank deposits in excess of insurance coverage by the Federal Deposit Insurance

Corporation (FDIC) to be collateralized with a perfected pledge of eligible collateral or a letter of credit. For programs created by the Treasury, such as the Small Business Banking Program, eligible collateral must be pledged in an amount equal to 102% of the amount of the deposits that exceed FDIC insurance. Sufficient collateral to cover total Commonwealth deposits in excess of the FDIC insured amount must be pledged and held in safekeeping by a custodian that is approved by and under the control of the Treasurer and Receiver General.

Membership by a financial institution in the Depositors Insurance Fund (DIF) or the Share Insurance Fund (SIF) will be accepted by the Treasurer and Receiver General's Office as alternative security, provided that the financial institution submits proof of membership in the DIF or the SIF. Membership in the DIF is limited to Massachusetts chartered savings banks while membership in the SIF is limited to Massachusetts cooperative banks.

#### *Custodial Credit Risk – Higher Education*

The Institutions of Higher Education have investment policies that may vary by institution for custodial credit risk. Each institution carries deposits that are fully insured by the FDIC, as well as uninsured deposits. As of June 30, 2017, the bank balances of uninsured deposits totaled approximately \$431 million.

#### *Custodial Credit Risk – MSBA*

The MSBA does not have a formal investment policy for custodial credit risk. The MSBA carries deposits that are fully insured by the Federal Deposit Insurance Corporation (FDIC) insurance, as well as deposits that are fully collateralized. As of June 30, 2017, all MSBA bank balances were fully protected against loss.

#### *Interest Rate Risk – MMDT*

Interest rate risk is the extent that changes in interest rates of debt investments will adversely affect the fair value of an investment. These investments include certain short-term cash equivalents, various long-term items and restricted assets by maturity in years. The Treasury cash portfolio minimizes the risk of the market value of securities falling due to changes in interest rates by maintaining a dollar-weighted average portfolio maturity of 60 days or less. The Treasury cash portfolio's assets are managed to maintain a dollar-weighted average life to maturity of 120 days or less.

The MMDT Cash Portfolio's dollar-weighted average maturity fluctuated from 51 days on July 1, 2016 to 43 days on June 30, 2017.

Investments in the MMDT Short Term Bond Portfolio are made in investment-grade securities as defined by national statistical rating agencies. The Commonwealth assesses risk for the Short Term Bond Portfolio by using duration. Duration is the weighted maturity of the security's cash flows, where the present values of the cash flows serve as weights.

For the MMDT Short Term Bond Portfolio, the duration fluctuated from 2.7 to 2.6 years. At June 30, 2017, investments in the MMDT Short Term Bond Portfolio had a total net position of \$769 million with investment maturities ranging from less than one year to more than ten years. At June 30, 2017, the Short Term Bond Portfolio's effective maturity schedule was as follows:

Securities with an Effective Maturity of	Percentage of Total Net Position
Less than one year.....	18.0%
One to five years.....	69.3%
Six to ten years.....	8.6%
Greater than ten years.....	0.0%
Total* .....	<u>95.9%</u>

\*The remaining 4.1% consists of cash equivalents and other assets.

*Interest Rate Risk – Higher Education*

As of June 30, 2017, the Institutions of Higher Education had debt investments stated at fair value of approximately \$300 million and had investment maturities ranging from less than one year to more than ten years, with approximately 32.1% of the investment's fair values maturing in less than 1 year, approximately 49.7% from one to five years, approximately 7.9% from six to ten years, and approximately 10.3% more than ten years.

*Interest Rate Risk - MSBA*

The MSBA's investment policy does not specifically limit investment maturities as a means of managing its exposure to fair value losses arising from interest rates. As of June 30, 2017, the MSBA had approximately \$200 million invested in a collateralized guaranteed investment contract and approximately \$500 million invested in U.S. Treasury Bonds and Municipal Bonds. These investments are included in restricted investments on the balance sheet. The guaranteed investment contract matures on August 15, 2030 while the U. S. Treasury Bonds and Municipal Bonds mature from 2019 to 2045. These investments represent approximately 50% of the MSBA's total investments in debt service funds and debt service reserve funds.

*Interest Rate Risk – Agency Funds*

The agency funds hold certain debt investments in trust as collateral for regulatory purposes. As of June 30, 2017, these investments had a fair value of approximately \$553 million, with investment maturities ranging from less than one year to more than ten years. Of the total fair value, approximately 23.6% has maturities of less than one year, 44.4% from one to five years, 18.8% from six to ten years and 13.2% greater than ten years.

*Credit Risk – MMDT*

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Commonwealth, exclusive of Pension Trust Funds, minimizes concentration of credit risk, the risk attributed to the magnitude of the investment in a single issuer. The Commonwealth's investment policy prohibits the Treasury from investing more than 5% of the total investment portfolio in any single financial institution or issuer, excluding various public entity securities and repurchase agreements. However, there are no restrictions on the amount that can be invested in public entity securities and the portfolio may be invested in U.S. Treasury and other Government Sponsored Enterprises (GSE's) obligations and repurchase agreements.

The Treasury cash portfolio is invested only in First Tier and Second Tier Securities as defined by the Securities and Exchange Commission's Rule 2A-7 of the [Investment Company Act of 1940](#). The Treasury does have additional policies regarding credit ratings of investments which can be found at <http://www.mymmdt.com/MMDT/daf/pdf/products/regulatory/G44885-27.pdf>. At June 30, 2017, the Cash Portfolio's securities were all rated as First Tier. At June 30, 2017, the Short Term Bond Portfolio's follows:

Portfolio Composition	Percentage of Total Net Position
AAA.....	62.7%
AA.....	2.9%
A.....	14.3%
BBB .....	16.0%
Total* .....	<u>95.9%</u>

\* The remaining 4.1% consists of cash equivalents and other assets.

*Credit Risk – Higher Education*

For the Institutions of Higher Education presented in the Business-Type Activities, fair values of debt investments were approximately \$75 million at AAA, approximately \$65 million from AA+ to A- and approximately \$160 million either unrated, BBB+ or less.

*Credit Risk – MSBA*

The MSBA's investment policy generally limits investments in fixed income products with institutions that have an investment grade rating as determined by one of the nationally recognized rating agencies. The MSBA's policy requires issuers of investment contracts to be rated AA or above by at least two of the nationally recognized rating agencies or A with pledged collateral equal to 102% of the principal balance. As of June 30, 2017, the guaranteed investment contracts were not rated; however, the issuer was rated AA by Standard & Poor's and A2 by Moody's and the guaranteed investment contracts were collateralized.

As of June 30, 2017, the MSBA's investments in municipal bonds were rated AA+ or above.

*Credit Risk – Agency Funds*

The agency funds debt investments with a fair value of \$553 million, of which approximately \$316 million were in U.S Government securities. Of the remaining \$237 million the majority were investment grade or above.

*Interest Rate Risk – PRIT Funds*

As pension and OPEB trust funds have a longer investment horizon than many of the Commonwealth's other investments, the PRIM Board manages PRIT's exposure to fair value loss arising from movements in interest rates by establishing duration guidelines with its fixed income investment managers. The guidelines with each individual manager require that the effective duration of the domestic fixed income investment portfolio be within a specified percentage or number of years of the effective duration band of the appropriate benchmark index. For emerging markets fixed income investments, the portfolio must have a duration with a band ranging from three to eight years.

Effective duration is a measure of a fixed income investment's exposure to fair value changes arising from changes in interest rates. Effective duration makes assumptions regarding the most likely timing and amounts of variable cash flows. These assumptions take into consideration factors indicative of investments highly sensitive to interest rate changes, including callable options, prepayments and other factors.

The PRIM Board compares the effective duration of a manager's portfolio to their relevant benchmark including Barclays Capital Aggregate index, US Treasury STRIPS 20+ Year index, Barclays Capital US TIPS index, Barclays Capital Inflation Linked Bonds index, S&P LSTA Leveraged Loan index, JP Morgan Global Emerging Markets Bond index, JP Morgan Global Diversified Emerging Markets Bond index, and the Merrill Lynch High Yield Master II index. The PRIT Fund had fixed income and short-term investments totaling approximately \$16.689 billion at fair value with an effective weighted average duration range from 0.15 to 16.31 years at June 30, 2017.

*Credit Risk – PRIT Funds*

The PRIM Board establishes credit investment guidelines with each of its fixed income securities investment managers in establishing a diversified portfolio. These guidelines vary depending on the manager's strategy and the role of its portfolio to the overall diversification of the PRIT fund. The guidelines for the PRIT Fund's core fixed income portfolio establish the minimum credit rating for any security in the portfolio and the overall weighted average credit rating of the portfolio. The guidelines for the PRIT Fund's high yield, fixed income portfolio establish a market value range of securities to be held with a specific minimum credit rating and the overall weighted average credit rating of the portfolio.

Credit risk for derivative instruments held by PRIT results from counterparty risk. PRIT is exposed to credit risk resulting from counterparties being unable to meet their obligations under the terms of the derivative agreements. The weighted average quality rating of the debt securities portfolio, excluding pooled investments, investments explicitly backed by the United States Government and other nonrated investments was BBB+ at June 30, 2017.

Credit ratings associated with the Commonwealth's investment in the PRIT Fund ranged from AAA to A- investments with a fair value of approximately \$2.277 billion, BBB+ to B- investments with a fair value of approximately \$2.356 billion, \$192 million rated CCC+ to D, \$6.810 billion are unrated, and the remaining \$5.361 billion are investments that are explicitly backed by the U. S. Government.

*Foreign Currency Risk – PRIT Funds*

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of investments. The Treasury does not have a policy regarding foreign currency risk for the Pension Trust. The PRIM Board manages PRIT's exposure to foreign currencies by hedging a percentage of PRIT's non-U.S. dollar denominated investments through forward foreign currency contracts. The PRIT Fund's investments in foreign currency denominated investments as of June 30, 2017 were approximately \$297 million in cash and investments, \$15.257 billion in equities, \$1.566 billion in fixed income investments, \$221 million in portfolio completion strategies, \$1.123 billion in private equity investments and \$223 million in timber investments. An additional \$3.170 billion is invested in international investments denominated in U. S. dollars.

*Concentration of Credit Risk – PRIT*

The PRIM Board manages PRIT's exposure to concentration of credit risk by establishing guidelines with each investment manager that limit the percent of investment in any single issue or issuer.

PRIT has no investments at fair value that exceed 5% of PRIT's net position held in trust for pool participants as of June 30, 2017.

**A. DERIVATIVE INSTRUMENTS**

PRIT may invest in derivative instruments. In accordance with GASB Statement No 53, *Accounting and Financial Reporting for Derivative Instruments*, PRIT's derivatives are accounted for as investment derivatives and are reported at fair value.

*Forward Currency Contracts*

PRIT enters into forward currency contracts to hedge the exposure to changes in foreign currency exchange rates on foreign portfolio holdings. The market value of the contracts will fluctuate with changes in currency exchange rates. Risks may arise from the potential inability of counterparties to meet the terms of their contracts and from unanticipated movements in the value of a foreign currency relative to the U.S. dollar.

The contracts are marked-to-market daily and the change in fair value is recorded as an unrealized gain or loss by PRIT.

When a contract is closed, PRIT records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed.

As of June 30, 2017, PRIT had open foreign exchange contracts with combined net unrealized loss of approximately \$5 million with various delivery dates.

Further information on derivative instruments can be found in the notes to PRIT's basic financial statements.

*Futures Contracts*

PRIT may purchase and sell financial futures contracts to hedge against changes in the values of securities the fund owns or expects to purchase.

Upon entering such contracts, they must pledge to the broker an amount of cash or securities equal to a percentage of the contract amount.

The potential risk is that the change in the value of futures contracts may not correspond to the change in the value of underlying instruments, which may not correspond to the change in value of the hedged instruments. In addition, there is a risk that PRIT may not be able to close out its future positions due to a non-liquid secondary market. Risks may also arise from the potential inability of a counterparty to meet the terms of a contract and from unanticipated movements in the value of a foreign currency relative to the U.S. dollar.

PRIT may also invest in financial futures contracts for non-hedging purposes.

PRIT held contracts outstanding at June 30, 2017 with various expirations from FY18 to FY20. These contracts are for cash and cash equivalents, fixed income, equities and commodities. A portion of the contracts were short contracts. The aggregated notional exposure amount as of June 30, 2017 was approximately \$480 million with a fair value of \$477 million, yielding an unrealized net loss of approximately \$3 million.

Payments are made or received by PRIT each day, depending on the daily fluctuations in the value of the underlying security and are recorded as unrealized gains or losses. When the contracts are closed, the PRIT Fund recognizes a realized gain or loss.

#### *Swaps – PRIT*

PRIT has entered into swap agreements to gain exposure to certain markets and actively hedge other exposures to market and credit risk. The swap contracts are reported at fair value, which represents their estimated liquidation values on costs. PRIT either receives cash from the swap counterparties or pays the swap counterparties monthly depending on whether the fixed-rate interest is lower or higher than the variable-rate interest. Changes in fair value are included as part of investment income.

As of June 30, 2017, PRIT had contracts in effect with an aggregated notional amount of approximately \$1.845 billion to various investment banks that had maturity dates from FY18 to FY63. The contracts have an aggregate fair value gain of approximately \$7 million. PRIT values these contracts using standard methods and techniques including the discounted cash flow analysis and option pricing models.

PRIT's counterparty exposure was with various major investment companies with ratings ranging from AA- to A- and various other banks with other ratings. Open swap contracts as of June 30, 2017 were as follows (amounts in thousands):

Counterparty	Credit Ratings	Interest Rate Swaps		Credit Default Swaps		Inflation Swaps	
		Gross Notional	Fair Value	Gross Notional	Fair Value	Gross Notional	Fair Value
Bank of America NA.....	A+	\$ —	\$ —	\$ 12,008	\$ (781)	\$ —	\$ —
Barclays Bank PLC.....	A-	—	—	6,568	(155)	89,635	(814)
CME Group Inc.....	AA-	512,799	5,396	—	—	—	—
Goldman Sachs .....	A+	—	—	20,800	(607)	10,529	(71)
Intercontinental Exchange Holdings Inc.....	A	—	—	50,123	1,303	—	—
LCH. Clearnet Ltd .....	A	258,148	3,489	—	—	71,252	(92)
SMBC Capital Markets Inc.....	A+	250,000	(2,443)	—	—	—	—
U.S. Bank National Association.....	A+	500,000	1,265	—	—	—	—
All others.....	Various	12,713	305	21,687	(165)	28,657	(61)
Totals.....		\$ 1,533,660	\$ 8,012	\$ 111,186	\$ (405)	\$ 200,073	\$ (1,038)

#### ***B. DISCRETELY PRESENTED COMPONENT UNIT INVESTMENTS***

Component units invest in derivative transactions. Detailed information on those transactions is found in the notes to the basic financial statements of those component units.

#### ***C. FAIR VALUE MEASUREMENTS OF INVESTMENTS***

In accordance with GASB 72, the Commonwealth categorizes the fair value measurements of its investments within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 - Inputs are quoted prices for identical investments in active markets.
- Level 2 - Observable inputs other than quoted market prices.
- Level 3 - Unobservable inputs.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. In certain instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy the level in the fair value hierarchy is based on the lowest level of input that is significant to the fair measurement.

The following tables present a summary of the fair value hierarchy of investments at June 30, 2017 (amounts in thousands):

<i>Primary government</i>	Total	Level		
		1	2	3
<b>Debt securities:</b>				
US Treasury and agency securities.....	\$ 527,318	\$ 525,568	\$ 1,750	\$ —
Municipal securities .....	110,194	15,845	94,349	—
Institutional money market funds.....	200,618	197,201	3,417	—
Corporate debt/bonds .....	78,958	5,350	73,371	237
Corporate stock.....	6,408	6,408	—	—
Asset backed securities.....	20,571	—	20,571	—
Registered investment companies .....	60,665	60,665	—	—
Mortgage backed securities .....	9,957	—	9,957	—
Other fixed income .....	161,353	147,948	13,405	—
Total debt securities.....	1,176,042	958,985	216,820	237
Equity securities .....	285,937	284,687	—	1,250
<b>Other investments:</b>				
Commodities .....	8,330	8,330	—	—
REITS.....	18,029	18,029	—	—
Total other investments.....	26,359	26,359	—	—
<b>Investments measured at the Net Asset Value (NAV):</b>				
Commonfund (pooled investment funds).....	203,918			
Private equity.....	3,402			
Private debt.....	19,221			
Private real estate.....	3,829			
Other.....	358			
Total investments measured at the NAV.....	230,728			
<b>Other investments at fair value:</b>				
MMDT - bond fund.....	372,634			
Subtotal investments at fair value .....	2,091,700	\$ 1,270,031	\$ 216,820	\$ 1,487
<b>Other investments:</b>				
Guaranteed investment contracts.....	200,099			
Certificates of deposit.....	17,445			
Other.....	298,122			
Total other investments.....	515,666			
Total investments - primary government.....	\$ 2,607,366			
<b>Investment derivative instruments:</b>				
Interest rate swaps (liabilities).....	\$ 278,114	\$ —	\$ 278,114	\$ —

Included in the preceding schedule is approximately \$18 million of various money mutual fund investments related to the business type activities which are classified as cash equivalents in the accompanying financial statements.

Lottery annuity contracts and U.S. Treasury Strips of approximately \$1.062 billion as of June 30, 2017 is presented in governmental activities on the Statement of Net Position and also in the fiduciary funds as further explained in the Reconciliation of Fund Balances to the Statement of Net Position. In these fair value tables, the Lottery annuity contracts and U.S. Treasury Strips are presented solely in the fiduciary funds below.

<i>Fiduciary funds:</i>	Total	Level		
		1	2	3
Debt securities:				
US Treasury securities.....	\$ 1,301,936	\$ 1,301,936	\$ —	\$ —
Bonds.....	96,142	—	96,142	—
Total debt securities.....	1,398,078	1,301,936	96,142	—
Equities:				
Domestic equities .....	57,558	57,558	—	—
Investments measured at the Net Asset Value (NAV):				
Mutual funds.....	57,146			
Other investments at fair value:				
MMDT - bond fund.....	39,052			
Net investment in PRIT.....	66,850,441			
Total other investments at fair value .....	66,889,493			
Subtotal investments at fair value .....	68,402,275	\$ 1,359,494	\$ 96,142	\$ —
Other investments:				
Annuity contacts.....	102,545			
Total investments - fiduciary funds .....	\$ 68,504,820			

### 3. RECEIVABLES AND TAX ABATEMENTS

#### A. RECEIVABLES

Taxes, federal reimbursements, loans and other receivables are presented in the statement of net position, exclusive of amounts due from cities and towns and component units as follows (amounts in thousands):

<i>Primary Government</i>	Taxes Receivable	Federal Grants and Reimbursements	Loans	Other Receivables	Total
<b>Governmental Activities:</b>					
Gross receivables.....	\$ 4,945,122	\$ 2,405,158	\$ 107,433	\$ 1,414,182	\$ 8,871,895
Less: allowance for uncollectibles .....	(1,422,245)	(31,599)	—	(1,078,677)	(2,532,521)
Receivables, net allowance for uncollectibles...	3,522,877	2,373,559	107,433	335,505	6,339,374
Less: current portion.....	(3,007,944)	(2,302,979)	(7,094)	(265,878)	(5,583,895)
Noncurrent receivables.....	\$ 514,933	\$ 70,580	\$ 100,339	\$ 69,627	\$ 755,479
<b>Business-Type activities:</b>					
Gross receivables.....	\$ —	\$ 102,783	\$ 73,615	\$ 1,016,672	\$ 1,193,070
Less: allowance for uncollectibles .....	—	(1,383)	(5,282)	(325,904)	(332,569)
Receivables, net allowance for uncollectibles...	—	101,400	68,333	690,768	860,501
Less: current portion.....	—	(101,400)	(60,311)	(628,536)	(790,247)
Noncurrent receivables.....	\$ —	\$ —	\$ 8,022	\$ 62,232	\$ 70,254



## ***B. TAX ABATEMENTS***

As of June 30, 2017, the Commonwealth provided tax abatements through the following three programs: The Massachusetts Economic Development Incentive Program Credit (EDIP), Life Sciences Tax Incentive Program and the Film Tax Credit.

### ***Economic Development Incentive Program***

Under the Economic Development Incentive Program (EDIP), companies receive state and local tax incentives in exchange for job creation, manufacturing job retention and private investment commitments. On or after January 1, 2010 and before January 1, 2017, the Economic Assistance Coordination Council (EACC) may award to taxpayers up to 40% of the cost of qualifying properties as credits to certain certified projects ("expansion project", "enhanced expansion project", or a "manufacturing retention project"). The EACC may also award EDIP credits of up to \$1,000 per job (\$5,000 per job in gateway municipalities) to certified job creation projects. The total award for a project may not exceed \$1 million. On or after January 1, 2017, the credit is instead determined by the EACC based on factors set out in M.G.L. c. 23A, § 3D.

The total dollar amount of the EDIP credit that may be used in a calendar year is \$30 million.

The taxes eligible for abatement using these credits include the corporate excise, financial institutions excise, insurance premiums excise and personal income tax, with tax payments reduced by applying the amount of the credits directly against the relevant calculation of tax liability as determined by the rules governing the particular tax to be abated.

For projects certified before January 1, 2017, if a project's certification is revoked, or if property upon which a certification is based is sold prior to the end of its useful life, the difference between the credit taken and the credit allowed for actual use must be added back as additional taxes due in the year of disposition, except if the property had been in qualified use for more than twelve consecutive years. For an expansion project where the actual number of permanent full-time employees employed by the controlling business at the project is less than 50% of the number of such permanent full-time employees projected in the project proposal, this shall be deemed a material variance for the purpose of a revocation determination. Upon such a revocation, all tax credits available to the controlling business as a result of project certification shall be revoked and forfeited for the year in which revocation occurred and all subsequent years, and the Commonwealth, in the case of a certified expansion project, shall recover the value of any tax credits received by the controlling business prior to or subsequent to such revocation.

For projects certified on or after January 1, 2017, recapture is required only if the EACC revokes certification. The amount of credit subject to recapture shall be proportionate to the corporation's job creation requirements applicable to the certified project. The corporation's proportion of compliance will be determined by the EACC as part of the revocation process and reported to DOR and the taxpayer at time of revocation.

### ***Life Sciences Tax Incentive Program***

The Massachusetts Life Sciences Center (MLSC) certifies and awards four types of tax abatements to life sciences companies, with the purpose of increasing Massachusetts' employment of companies in the life sciences sector of the economy. These abatements, which are 90%-refundable, together with other life sciences tax incentives, are subject to an aggregate \$25 million annual cap.

- The Life Sciences Investment Tax Credit is equal to 10% of the cost of qualifying property acquired, constructed, reconstructed or erected during the taxable year and used exclusively in Massachusetts.
- The Life Sciences User Fees Tax Credit is equal to 100% of the user fees paid to the U.S. Food and Drug Administration (U.S.F.D.A.) upon submission of an application to manufacture a human drug in Massachusetts, and may be claimed in the taxable year in which the application for licensure of an establishment to manufacture the drug is approved by the U.S.F.D.A. To be eligible for the credit, more than 50% of the research and development costs for the drug must have been incurred in Massachusetts.

- Taxpayers seeking to claim a Life Sciences Jobs Tax Credit must commit to the creation of a minimum of 50 net new permanent full-time positions in Massachusetts. The amount of the credit is determined by the Life Sciences Center.
- The Life Sciences Center may authorize a life sciences company to obtain refunds of existing Research Credits. Generally, the Research Credit for research expenses incurred in Massachusetts is based on a formula that measures taxpayers' year-to-year increases in Massachusetts research expenses. See the regulations and public written statements cited below for a more detailed description of the formula.

Under each of these tax abatements, grantees agree to increase or maintain its employee headcount in Massachusetts, compared to the company's "baseline" employee headcount at the time of the award and the company's projected net increase in headcount in the tax year following award. Baseline and projected headcounts are summed to create a "total projected headcount" metric that is used for MLSC agreement and compliance purposes.

A company that has received tax incentives from the MLSC and subsequently fails to achieve the minimum net new headcount thresholds as specified in the MLSC's Annual Tax report and Multiple Awards policy will have the award terminated and must return the amount of the tax abatement claimed to the Commonwealth, although the company may be given an additional year to achieve the employment goals if the MLSC determines that it has the potential to meet those goals. The MLSC is required by statute to de-certify any company that fails to achieve at least 70% of its job target for two consecutive years. The MLSC has decided through administrative action that any company failing to achieve at least 80% of its job target by the end of any extension period and, in the case of the Life Sciences Job Incentive Refundable Credit, failing to create at least 50 net new jobs, will be de-certified. More information on these job creation and clawback requirements is available on the MLSC's website, <http://www.masslifesciences.com/programs/tax/>.

The taxes eligible for abatement using these credits include the corporate excise, financial institutions excise, insurance premiums excise and personal income tax, with tax payments reduced by applying the amount of the credits directly against the relevant calculation of tax liability as determined by the rules governing the particular tax to be abated.

### ***Film Tax Incentive***

Under M.G.L. c. 62, § 6(1) and M.G.L. c. 63, § 38X, the Department of Revenue is authorized to grant tax abatements to encourage the production in Massachusetts of motion pictures, television shows, and commercials. Entities that fund such productions (known under the statute as "motion picture production companies") may claim (1) a credit equal to 25% of the total qualifying aggregate payroll for employing persons within the Commonwealth in connection with filming and production of a motion picture and (2) a credit equal to 25% of their Massachusetts production expenses. Each credit has its own qualification requirements and a taxpayer is allowed to qualify for and claim both credits. The production companies must incur a minimum of \$50,000 in qualified expenses during a consecutive twelve-month qualification period. The credits are either transferable or 90% refundable to the motion picture production companies to the extent that the credits exceed the companies' Massachusetts tax liability. Transferees do not qualify for the 90%-refundability option.

The taxes eligible for abatement using these credits include the corporate excise, financial institutions excise, insurance premiums excise and personal income tax, with tax payments reduced by applying the amount of the credits directly against the relevant calculation of tax liability as determined by the rules governing the particular tax to be abated. There is no cap on the amount of the credits.

There are no provisions in statute to recapture the film tax credits.

In addition to the tax credit, sales of tangible personal property to a qualifying motion picture production company or to an accredited film school student for the production expenses related to a school film project are exempt from the sales tax. In order to qualify for the sales tax exemption, a motion picture production company must incur at least \$50,000 in total production costs in Massachusetts during a consecutive twelve-month period and must be conditionally pre-approved as a qualifying company by the Commissioner of Revenue. Any taxpayer that has been conditionally pre-approved for the sales tax exemption that then fails to expend the requisite \$50,000 within a consecutive twelve-

month period shall be liable for the sales taxes that would have been due had the conditional pre-approval not been granted.

The following is the total revenue estimated to be reduced under these programs for fiscal year 2017 (amounts in thousands):

Tax abatement program	Total estimated revenue reduced
Economic Development Incentive Program (EDIP).....	\$ 21,944 <sup>(1)</sup>
Life Sciences Tax Incentive Program.....	19,933 <sup>(2)</sup>
Film Tax Incentive Program.....	90,887 <sup>(3)</sup>
Total.....	<u>\$ 132,764</u>

Sources:

(1) Massachusetts Office of Business Development, credits approved in FY2017

(2) <http://www.masslifesciences.com/wp-content/uploads/Tax-Incentive-Awards-2017-Press-Release-final-41217.pdf>, incentives awarded in FY2017

(3) Comprised of \$90,562 million of Film Tax Credits (Source: Massachusetts Department of Revenue, film tax credits approved during FY2017) and \$325 thousand of sales tax exemptions (Source: Massachusetts Department of Revenue, FY2018 Tax Expenditure Budget, sales tax exemption approved to motion picture production companies or to accredited film school students during FY2017).

#### **4. INTERFUND RECEIVABLES, PAYABLES AND TRANSFERS BETWEEN FUNDS**

The purposes of interfund receivables, payables and transfers between funds vary by legislative authority. Transfers include the following: intergovernmental services, fringe benefit cost assessments, the year-end Stabilization Fund transfer, certain license fees collected by the Registry of Motor Vehicles that fund various highway project initiatives, fund closure transfers, and various other transfers for operations, largely for Institutions of Higher Education.

Activity between funds reflected as due to/from primary government in the various statements is summarized as follows (amounts in thousands):

	General	Lotteries	Other Governmental Funds	Total
<b>Governmental funds:</b>				
<u>Transfers in:</u>				
Debt service .....	\$ —	\$ —	\$ 2,431,826	\$ 2,431,826
Transfers in .....	2,082,249	—	1,415,160	3,497,409
Subtotal .....	2,082,249	—	3,846,986	5,929,235
<u>Transfers out:</u>				
Appropriations .....	(1,333,004)	—	(1,261)	(1,334,265)
Transfer of bond proceeds .....	—	—	(193,632)	(193,632)
Debt service .....	(1,189,569)	—	(1,242,257)	(2,431,826)
Transfers out .....	(685,928)	(1,137,459)	(1,432,834)	(3,256,221)
Subtotal .....	(3,208,501)	(1,137,459)	(2,869,984)	(7,215,944)
<b>Total governmental funds .....</b>	<b>(1,126,252)</b>	<b>(1,137,459)</b>	<b>977,002</b>	<b>(1,286,709)</b>
<b>Proprietary funds:</b>				
	University of Massachusetts	State Universities	Community Colleges	Total
<u>Transfers in:</u>				
Transfers in from the General Fund and other governmental funds .....	713,684	348,293	465,921	1,527,898
<u>Transfers out:</u>				
Transfers out to the General Fund .....	(149,754)	(49,709)	(41,726)	(241,189)
<b>Total proprietary funds .....</b>	<b>\$ 563,930</b>	<b>\$ 298,584</b>	<b>\$ 424,195</b>	<b>1,286,709</b>
<b>Net transfers in/(out) between funds .....</b>				<b>\$ —</b>

Due to/from component units on the Statement of Net Position reflects a timing difference for payments of approximately \$49 million at year end.

Remaining receivables and payables between funds as of June 30, 2017 largely occur due to the timing of accruals and the funding of escrows. The University of Massachusetts also reported unremitted benefits costs as of June 30, 2017. The amount due to the General Fund largely represents deficits funded by the General Fund. The following is a summary of receivables and payables between funds remaining as of June 30, 2017 (amounts in thousands):

Receivable Fund	Payable Fund	Amount
<b>Governmental Funds:</b>		
General	Nonmajor Governmental Funds .....	\$ 78,140
Non-major Governmental Funds	Nonmajor Governmental Funds .....	78,617
<b>Total Governmental Funds .....</b>		<b>\$ 156,757</b>

## 5. CAPITAL ASSETS

Capital asset activities for the fiscal year ended June 30, 2017 were as follows (amounts in thousands):

<i>Primary Government Governmental Activities</i>	July 1, 2016 Beginning Balance	Increases	Decreases and Reclassifications	June 30, 2017 Ending Balance
Capital assets not being depreciated:				
Land.....	\$ 877,493	\$ 17,623	\$ (587)	\$ 894,529
Construction in process .....	819,321	165,955	(118,899)	866,377
Total capital assets not being depreciated .....	1,696,814	183,578	(119,486)	1,760,906
Capital assets being depreciated:				
Buildings .....	5,755,593	99,774	(5,294)	5,850,073
Machinery and equipment .....	1,378,866	104,567	(22,617)	1,460,816
Infrastructure non - central artery/tunnel project .....	408,574	8	—	408,582
Total capital assets being depreciated.....	7,543,033	204,349	(27,911)	7,719,471
Less, accumulated depreciation:				
Buildings .....	(3,150,508)	(110,735)	4,914	(3,256,329)
Machinery and equipment .....	(1,096,054)	(87,549)	11,203	(1,172,400)
Infrastructure non - central artery/tunnel project .....	(249,567)	(8,995)	—	(258,562)
Total accumulated depreciation.....	(4,496,129)	(207,279)	16,117	(4,687,291)
Total capital assets being depreciated, net.....	3,046,904	(2,930)	(11,794)	3,032,180
Governmental activities capital assets, net.....	4,743,718	180,648	(131,280)	4,793,086
<i>Business - Type Activities</i>				
Capital assets not being depreciated:				
Land.....	137,937	22,062	(1,724)	158,275
Construction in process .....	1,048,579	661,260	(730,774)	979,065
Historical treasures .....	1,760	95	(490)	1,365
Total capital assets not being depreciated .....	1,188,276	683,417	(732,988)	1,138,705
Capital assets being depreciated:				
Buildings .....	9,162,184	761,506	(16,088)	9,907,602
Machinery and equipment .....	1,105,961	107,489	(84,662)	1,128,788
Library collections, not including historical treasures .....	84,381	649	(6,537)	78,493
Total capital assets being depreciated.....	10,352,526	869,644	(107,287)	11,114,883
Less, accumulated depreciation:				
Buildings .....	(4,009,241)	(322,044)	12,256	(4,319,029)
Machinery and equipment .....	(328,154)	(61,634)	81,537	(308,251)
Library collections, not including historical treasures .....	(15,272)	(567)	467	(15,372)
Total accumulated depreciation.....	(4,352,667)	(384,245)	94,260	(4,642,652)
Total capital assets being depreciated, net.....	5,999,859	485,399	(13,027)	6,472,231
Business - type activities capital assets, net .....	7,188,135	1,168,816	(746,015)	7,610,936
<b>Total Primary Government capital assets, net.....</b>	<b>\$ 11,931,853</b>	<b>\$ 1,349,464</b>	<b>\$ (877,295)</b>	<b>\$ 12,404,022</b>

Depreciation expense was charged to the various functions of governmental and business-type activities as follows (amounts in thousands):

<u>Function</u>	<u>Amount</u>
General government.....	\$ 72,926
Judiciary.....	32,872
Health and human services .....	23,753
Early elementary and secondary education .....	3,338
Public safety and homeland security .....	65,784
Housing and economic development.....	43
Labor and workforce development.....	8,563
	<hr/>
Total depreciation, governmental activities .....	\$ 207,279
	<hr/>
University of Massachusetts .....	\$ 249,669
State universities .....	99,652
Community colleges .....	34,924
	<hr/>
Total depreciation, business-type activities.....	\$ 384,245
	<hr/>

## **6. SHORT-TERM FINANCING AND CREDIT AGREEMENTS**

Massachusetts General Laws authorize the Treasurer to issue temporary notes in anticipation of revenue or bond financing. Short-term borrowing may be issued as fixed rate notes, floating rate notes or through a commercial paper program supported by bank liquidity facilities maintained by the Commonwealth. Per the State Constitution, revenue anticipation notes (RANs) issued for cash flow purposes are required to be paid within the same fiscal year. Temporary financings for capital needs, such as bond anticipation notes, may be outstanding for up to five years, per statute.

### **A. GENERAL FUND**

The balance of revenue anticipation notes (RANs) and commercial paper outstanding may fluctuate during a fiscal year, but all short-term borrowing for cash flow purposes must be reduced to zero by June 30. For short-term borrowing for cash flow purposes, the Commonwealth borrowed \$1.5 billion by selling RANs in August, 2016 in three \$500 million series which were retired in April, May and June 2017.

The following schedule details short-term financing for all funds for the fiscal year (amounts in thousands):

	Beginning Balance July 1, 2016	Issued/ Drawn	Redeemed/ Repaid	Ending Balance June 30, 2017
General Fund:				
Revenue anticipation notes.....	\$ —	\$ 1,500,000	\$ (1,500,000)	\$ —
	<hr/>	<hr/>	<hr/>	<hr/>

## **B. CREDIT FACILITIES**

During FY17, the Commonwealth maintained credit facilities to provide liquidity support for commercial paper notes totaling \$400 million. The Commonwealth started FY17 with two credit facilities to provide such liquidity support. One facility with TD Bank (\$200 million) will expire in FY18 while the other facility with State Street Bank (\$200 million) will expire in FY19. In addition to credit facilities for commercial paper, the Commonwealth maintained standby bond purchase agreements for outstanding Variable Rate Demand Bonds (VRDBs) sold from (FY01 through FY06). These VRDBs bonds require external liquidity support because bond-holders have the right to tender the bonds back to the Commonwealth at par at any time by an investor. As of June 30, 2017, these agreements totaled \$576 million.

### *MSBA*

During FY17, the MSBA maintained credit facilities to provide liquidity support for commercial paper notes totaling \$450 million. The \$150 million Commercial Paper Notes, Series 2015A, Series 2015B, and Series 2015C, are secured by irrevocable letters of credit provided by Bank of America, N.A., Citibank, N.A., and Barclays Bank PLC, respectively, which expire in March 2018. As of June 30, 2017, there were no draws against available balances on the three lines of credit.

## **7. LONG-TERM OBLIGATIONS**

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Section 1 of Article 62 of the Massachusetts Constitution empowers the State Legislature to borrow money on the credit of the Commonwealth for various public purposes. Under the state Constitution, the Commonwealth may pledge its credit to borrow money only by a vote of two-thirds of each house of the Legislature. Borrowed funds may be used for defense of the state or of the United States, and in anticipation of receipts from taxes or other sources, “any such loan to be paid out of the revenue of the year in which the loan is made.” The Legislature may not in any manner allow the Commonwealth’s credit to be given or loaned to or in aid of any individual, or of any private association, or of any corporation, which is privately owned or managed. The Constitution further provides that borrowed money shall not be expended for any other purpose than that for which it was borrowed or for the reduction or discharge of the principal of the loan.

Statutorily, the authority to borrow is delegated to the Massachusetts State Treasurer & Receiver General pursuant to Chapter 29 of the Massachusetts General Laws. Section 49 of Chapter 29 of the Massachusetts General Laws is the primary statute governing the issuance of Commonwealth debt and contains a number of provisions spelling out the process for the issuance of bonds.

The issuance of bonds to fund the Commonwealth’s capital needs must be authorized by the Legislature. Pursuant to legislative authorizations to borrow, the Governor determines the amount and timing of any authorized borrowing to fund capital investments. At the request of the Governor, the State Treasurer & Receiver General borrows by issuing bonds to the public. The Governor approves the use of the bond proceeds by agencies to pay for authorized and budgeted capital projects.

Massachusetts General Law provides for the allocation of bond proceeds to bond authorizations and capital spending in arrears (as needed), as expenditures are made, or at the time of issuance of the bonds. In general, bond proceeds are primarily allocated to capital spending that has already occurred. When allocating in arrears, the allocation of segregated bond proceeds is a reimbursement to the General Fund.

Bond proceeds that are awaiting allocation are typically invested by the State Treasurer in the Commonwealth’s primary investment vehicle, the Massachusetts Municipal Depository Trust (MMDT) (for more information please see the notes on the Commonwealth’s short-term investments). Bond proceeds are segregated from other funds until they are allocated to capital expenditures, a process that requires review by the Commonwealth’s bond counsel.

The Commonwealth has waived its sovereign immunity and consented to be sued on contractual obligations, including bonds and notes issued by it and all claims with respect hereto. However, the property of the Commonwealth is not

subject to attachment or levy to pay a judgment, and the satisfaction of any judgment generally requires legislative appropriation. Enforcement of a claim for the payment of principal or interest on bonds and notes of the Commonwealth may also be subject to the provisions of federal or Commonwealth statutes, if any, enacted to extend the time for payment or impose other constraints upon enforcement. The Commonwealth cannot file for bankruptcy under the United States Bankruptcy code.

As of June 30, 2017, the Commonwealth had issued two types of long-term debt obligations: general obligation bonds and special obligation bonds. General obligation bonds, which account for the large majority of outstanding Commonwealth bonds, are backed by the full faith and credit of the Commonwealth. Special obligation bonds, however, are bonds secured by all or a portion of a specific revenue source that are pledged to bondholders and are not general obligations of the Commonwealth. For these types of securities, bondholders rely on pledged revenue only for repayment of principal and interest.

The following is a summary of the Commonwealth's outstanding debt, exclusive of capital leases, (amounts in thousands):

<b>Type of Bond</b>	<b>Amount Outstanding</b>
General obligation bonds, net proceeds.....	\$ 24,176,615
Special obligation bonds (including GANs), net proceeds .....	4,040,035
Outstanding Commonwealth bonds, net proceeds .....	28,216,650
MSBA bonds, net proceeds .....	6,451,282
<b>Total governmental activities, net proceeds .....</b>	<b>34,667,932</b>
Less:	
Unamortized premiums on general obligation bonds .....	(1,459,920)
Unamortized premiums on special obligation bonds .....	(311,065)
Unamortized premiums on MSBA bonds .....	(622,492)
<b>Total governmental activities, principal .....</b>	<b>\$ 32,274,455</b>

The general obligation (GO) bonds listed in the table above include outstanding tax-exempt bonds, taxable bonds including Build America Bonds, College Opportunity Bonds, and debt assumed from former counties. The special obligation (SO) bonds listed above include outstanding tax-exempt and taxable bonds (including Build America Bonds and Recovery Zone Economic Development Bonds) secured by indentures that legally define the specific revenues pledged to bondholders, as defined in the trust agreement. This includes outstanding bonds or notes secured by Federal Highway funds to be received by the Commonwealth, certain portions of the Commonwealth's motor fuel excise taxes and Registry of Motor Vehicle fees and dedicated taxes and fees levied in certain geographic areas of the state to support the Commonwealth's convention center facilities. As of June 30, 2017, there were four different special obligation bond programs with bonds outstanding. It should be noted that one of the four bond programs has a closed lien, meaning that no additional new-money bonds will be issued under that specific special obligation bond indenture.

The following is a table of GO bonds principal outstanding as of June 30, 2017, (amounts in thousands):

<b>General Obligation Bonds</b>	<b>Principal Outstanding</b>	<b>Percent of Total GO</b>
Fixed rate bonds.....	\$ 19,210,645	84.6%
Variable rate bonds.....	3,506,050	15.4%
Total .....	<b>\$ 22,716,695</b>	<b>100.0%</b>



The following is a table of the different types of outstanding variable rate GO bonds, (amounts in thousands):

<b>Variable Rate GO Bonds</b>	<b>Principal Outstanding</b>	<b>Percent of Total GO</b>
Direct purchase bonds .....	\$ 896,540	3.9%
Variable rate demand bonds.....	576,405	2.5%
Auction rate securities .....	401,500	1.8%
CPI-index bonds .....	100,000	0.4%
LIBOR index bonds.....	843,115	3.7%
SIFMA index bonds.....	488,490	2.2%
Multi-Modal .....	200,000	0.9%
Total .....	<u>\$ 3,506,050</u>	<u>15.4%</u>

The following is a table of hedged and unhedged variable rate GO bonds, (amounts in thousands):

	<b>Principal Outstanding</b>	<b>Percent of Total GO</b>
Hedged variable rate GO bonds .....	\$ 1,640,140	7.2%
Unhedged variable rate GO bonds ..	1,865,910	8.2%
Total variable rate GO bonds.....	<u>\$ 3,506,050</u>	<u>15.4%</u>

The following is a table of SO bond principal, by rate structure, outstanding as of June 30, 2017, (amounts in thousands):

<b>Special Obligation Bonds</b>	<b>Principal Outstanding</b>	<b>Percent of Total SO</b>
Fixed rate bonds .....	\$ 3,651,635	97.9%
Variable rate bonds .....	77,335	2.1%
Total .....	<u>\$ 3,728,970</u>	<u>100.0%</u>

All of the variable rate special obligation bonds are hedged as of June 30, 2017.

The following is a table of the different types of outstanding Special Obligation bonds (amounts in thousands):

<b>Special Obligation Bonds</b>	<b>Amount Outstanding</b>
Special obligation dedicated tax revenue bonds, net proceeds:	
Fixed rate convention center bonds .....	\$ 552,875
CPI variable rate convention center bonds .....	23,310
Total convention center bonds, net proceeds.....	<u>576,185</u>
Special obligation revenue bonds, net proceeds:	
Fixed rate gas tax bonds.....	74,245
CPI variable rate gas tax bonds.....	54,025
Total gas tax bonds, net proceeds .....	<u>128,270</u>
Special obligation revenue bonds, net proceeds:	
Accelerated bridge program.....	<u>1,751,644</u>
Special obligation federal highway grant anticipation notes and accelerated bridge program.....	<u>868,621</u>
Special obligation revenue bonds, net proceeds:	
Rail enhancement program .....	714,321
Total special obligation bonds, net proceeds.....	<u>4,039,041</u>
Less: unamortized premiums .....	<u>(310,071)</u>
Outstanding special obligation principal.....	<u><u>\$ 3,728,970</u></u>

#### **A. GENERAL OBLIGATION BONDS**

General obligation bonds are authorized and issued primarily to provide funds for the Commonwealth's five-year capital improvement program (CIP), including capital infrastructure projects throughout the state as well as Commonwealth-supported local government capital improvements. The five-year plan is developed by the Executive Office for Administration and Finance (A&F) and updated annually. The CIP is primarily funded through the issuance of bonds that are sold by the State Treasurer and Receiver General. The Commonwealth borrows from the capital markets by selling GO bonds and notes pursuant to Chapter 29 of the Massachusetts General Laws. GO bonds are backed by the full faith and credit of the Commonwealth and are paid from the Governmental Funds, to which debt service principal and interest payments are appropriated in the state's operating budget.

In addition to GO bonds issued to fund the state's capital needs, certain bonds are approved by the Legislature to be issued for a specific program. These bonds, known as College Opportunity Bonds, are issued pursuant to statute directly to the Massachusetts Educational Financing Authority for its pre-paid tuition program called the "U.Plan". As of June 30, 2017, the Commonwealth had approximately \$145 million in "U. Plan" bonds (at accreted value) outstanding. Pursuant to statute, all of the outstanding bonds are variable rate bonds. Interest on the bonds is based on the percentage change in the consumer price index plus 2.0% together with current interest at the rate of 0.5%.

In terms of bond structure, the large majority of GO bonds have been sold as fixed rate obligations. As of June 30, 2017, approximately 84.6% of the Commonwealth's outstanding GO debt is in the form of fixed-rate bonds. The remaining 15.4% of outstanding GO debt is in the form of variable rate bonds – bonds whose rate of interest fluctuate based on market or market index changes. The outstanding GO variable rate debt consists of several different variable rate structures. These structures include floating rate notes in various interest rate modes, direct purchase agreements in various interest rated modes, multi-modal bonds currently in the Term Mode, and variable rate demand bonds. Variable rate demand bonds, or "VRDBs", are long-term bonds whose interest rates re-set daily or weekly through an active remarketing process. Because these bonds provide bondholders with a "put" or tender feature enabling the bonds

to be sold back to the Commonwealth at par at any time by an investor, they are supported by standby liquidity facilities provided by third-party commercial banks which require the applicable bank to purchase any bonds that are tendered by investors and not successfully remarketed. As of June 30, 2017, the Commonwealth had approximately \$576 million in outstanding VRDBs. This accounts for approximately 2.5% of total GO debt and approximately 16.4% of total GO variable-rate debt. All of these bonds are uninsured. As of June 30, 2017, none of the Commonwealth's outstanding VRDBs have been subject to failed remarketing and "put" back to the Commonwealth; consequently, there have not been any draws on any of the outstanding bank liquidity facilities.

The Commonwealth has also issued GO variable-rate debt in the form of auction-rate securities. Like VRDBs, these are long-term bonds whose interest rates are re-set at pre-determined, short-term intervals. Unlike VRDBs, these bonds do not provide bondholders with a "put" feature and therefore do not require a supporting credit facility from a commercial bank. The Commonwealth's outstanding auction-rate securities have long-term nominal maturities with interest rates that reset every seven days. A periodic "Dutch auction" process is designed to provide a mechanism of liquidity to bondholders, with bonds re-priced and traded in auctions managed by broker-dealers. Beginning in February 2008 and continuing through FY17, however, all of the Commonwealth's outstanding auction rate securities experienced auction failure on the days interest rates were to re-set, meaning there were insufficient bids from new investors to purchase the securities being offered for sale by existing bondholders. Upon auction failure, the interest rate paid to existing bondholders is the failure rate as specified in the bond documents. For the series of Commonwealth bonds whose auctions have experienced failures (approximately \$402 million in total outstanding debt obligations, including Commonwealth of Massachusetts GO Bonds, Series 2000D, 2000E, 2000F, and 2000G), the failure rate is based on a multiple of the 7-day non-financial commercial paper rate as published by the Federal Reserve, with a maximum failure rate of 12%. The failed auctions have resulted in actual interest costs to the Commonwealth that are consistently below budgeted debt service levels of 5%.

A portion of the Commonwealth's outstanding bonds have been directly purchased by banks (or "direct purchase bonds"). These variable rate, direct purchase bonds bear interest at an index rate and are payable on the first business day of each month until maturity. As of June 30, 2017, the Commonwealth had \$897 million direct purchase bonds outstanding.

The following table details the general obligation direct purchase bonds (amounts in thousands):

Series	Par Outstanding	Final Maturity	Reset Mode/ Payment Frequency	Direct Purchase Bank	Direct Purchase Agreement Date	Direct Purchase Expiration Date
2016 Series C .....	\$ 200,000	4/1/2046*	1 Month LIBOR/ Monthly Pay	State Street	5/12/2016	4/1/2021
2006 Series B, Subseries B-1 & B-2..	182,605	3/1/2026*	1 Month LIBOR/ Monthly Pay	Bank of America Merrill	5/5/2016	5/31/2019
2001 Series B Refunding Bonds .....	163,935	1/1/2021	1 Month LIBOR/ Monthly Pay	Bank of America Merrill	8/1/2014	8/1/2017**
2015 Series B Refunding Bonds .....	125,000	2/1/2018	1 Month SIFMA/ Monthly Pay	JP Morgan Chase Bank	12/23/2015	2/1/2018
2015 Series C Refunding Bonds .....	125,000	2/1/2019	1 Month SIFMA/ Monthly Pay	JP Morgan Chase Bank	12/23/2015	2/1/2019
2016 Series B .....	100,000	4/1/2036*	1 Month LIBOR/ Monthly Pay	TD Bank	5/10/2016	4/1/2021
Total .....	<u>\$ 896,540</u>					

\* - These issuances have a mandatory tender prior to their final maturity Put dates.

\*\* - On August 1, 2017, this direct purchase bond was remarketed and sold to TD Bank, with interest paid monthly based on the LIBOR, with an expiration date of January 1, 2021.

The remaining outstanding GO variable-rate debt pays interest to bondholders based on certain indices. For example, as of June 30, 2017, the Commonwealth had approximately \$100 million of bonds that pay interest based on the consumer price index (CPI); \$843 million of bonds that pay interest based on the three-month London Interbank Offered

Rate (LIBOR); \$488 million of bonds that pay interest based on the Securities Industry and Financial Markets Association (SIFMA) Index, and \$200 million in Multi-Modal bonds. These bonds make up approximately 0.4%, 3.7%, 2.2% and 0.9% of total outstanding general obligation indebtedness, respectively.

To fund the FY17 capital budget and prior capital spending, the Commonwealth borrowed by issuing \$2.871 billion in long-term bonds, \$2.409 billion of which was general obligation debt, and \$462 million of which was special obligation debt secured by federal highway reimbursements and/or motor fuels taxes and motor vehicle license and registration fees. In addition, \$1.853 billion in refunding bonds were issued in seven separate transactions. Two of these transactions were executed as current refundings a part of a stated plan of finance for the purpose of extending maturities to match that of certain existing hedges, while the remaining transactions were advance refundings executed for savings. The present value savings of the advance refunding transactions are immaterial to these financial statements.

#### *MSBA Debt*

As of June 30, 2017, the MSBA had outstanding approximately \$6.451 billion of Dedicated Sales Tax bonds, including approximately \$622 million of unamortized premiums for the purpose of funding school construction and renovation projects. Coupons on the bonds range from approximately 2.0% to 5.715% and each series is payable semiannually with the latest maturity occurring in FY47. A portion of the interest on the Dedicated Sales Tax Bonds is reimbursed by the federal government. Of the \$5.829 billion of debt outstanding as of June 30, 2017, \$450 million is taxable Build America Bonds for which the MSBA is eligible to receive a 35% interest subsidy directly from the United States Treasury. In addition, \$293 million of the Subordinated Dedicated Sales Tax Bonds was issued as “Qualified School Construction Bonds” for which the MSBA is eligible to receive a 100% interest subsidy payment directly from the United States Treasury. During FY17, the federal government continued automatic budget cuts imposed through sequestration required pursuant to the Budget Control Act of 2011. On September 30, 2013, the IRS published a notice indicating that subsidy payments processed on or after October 1, 2013 and on or before September 30, 2014 will be reduced by the FY14 sequestration rate of 7.2%. The notice was updated in September 2014 to announce that subsidy payments processed on or after October 1, 2014 and on or before September 30, 2015 will be reduced by the FY15 sequestration rate of 7.3%. The subsidy payments made between October 1, 2015 and September 30, 2016 were reduced by the FY16 sequestration rate of 6.8%. The subsidy payments made between October 1, 2016 and September 30, 2017 were reduced by the FY16 sequestration rate of 6.9%. The notice states that the sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise modifies the sequester. The reductions were approximately \$1.7 million on the 2009 Series B Bonds, 2010 Series A Bonds and 2011 Series A Bonds in FY 17. On August 2, 2017, the IRS announced that the sequestration rate for the federal fiscal year ending September, 2018 would be 6.6%.

## **B. SPECIAL OBLIGATION BONDS**

#### *Commonwealth Transportation Fund (CTF)*

The largest amount of special obligation bonds outstanding (by par) are bonds secured by certain revenues of the Commonwealth Transportation Fund. In FY17, the Commonwealth issued approximately \$126 million in special obligation bonds under the Accelerated Bridge Program (ABP), \$210 million under the Rail Enhancement Program (REP) and \$104 million in refunding bonds. These bonds mature from FY18 to FY46 and are secured by a senior lien on 17 cents of the total 24 cents per gallon gasoline tax, the full 24 cents per gallon of special fuels taxes (comprised primarily of taxes on diesel fuel), and the full 19.1% of the average price per gallon tax on liquefied natural gas and all Registry of Motor Vehicle fees deposited into the CTF. These bonds also have a subordinate lien on 6.86 cents of the 24 cent per gallon gasoline tax not included in the senior lien. As of June 30, 2017, approximately \$1.643 billion and \$645 million in principal was outstanding on the ABP and REP bonds, respectively, and approximately \$1.235 billion and \$536 million of interest (net of the federal subsidy) was expected to be paid through maturity related to the ABP and REP bonds, respectively.

#### *Motor Fuels Tax Bonds*

Other special obligation bonds for highway construction purposes are secured by a senior lien on 6.86 cents of the 24 cent per gallon gasoline tax. As of June 30, 2017 bonds secured by these pledged funds totaled approximately \$128

million of principal. These bonds mature from FY18 to FY22 and were issued in multiple series. Principal and interest paid during FY17 amounted to approximately \$42 million and \$9 million, respectively.

#### *Convention Center Fund*

Chapter 152 of the Acts of 1997, as amended, authorized \$694 million of special obligation bonds to be issued for the purpose of building a new convention center in Boston (\$609 million), the Springfield Civic Center (\$66 million) and the Worcester Convention Center (\$19 million). The bonds are payable from monies credited to the Convention Center Fund created by that legislation, which include certain hotel tax receipts from hotels in Boston, Cambridge, Springfield and Worcester, a surcharge on car rentals in Boston, a parking surcharge at all three facilities, a surcharge on sightseeing tours and cruises in Boston, and sales tax receipts from certain hotels and other retail establishments in Boston, Cambridge, and Springfield. The legislation requires a capital reserve fund to be maintained at a level equal to maximum annual debt service and provides that if the fund falls below its required balance, the 2.75% convention center financing fee in Boston is to be increased (though the overall hotel tax in Boston, including the fee, cannot exceed 14%). As of June 30, 2017, taxes within the Convention Center districts support approximately \$575 million of outstanding principal and approximately \$323 million of interest on debts related to these Convention Centers. Taxes collected in FY17 were approximately \$135 million, while debt service on the bonds was approximately \$55 million.

On July 29, 2014, the then Governor approved legislation authorizing the Commonwealth to issue an additional \$1.1 billion in special obligation bonds to finance an expansion of the convention center in Boston, to finance costs of issuance and fund a debt service reserve fund. Such bonds would be secured by and payable from the Convention Center Fund, with the State Treasurer and Secretary of Administration and Finance having the authority to pledge additional state hotel/motel room occupancy excises to the new bonds. The expansion project is currently on hold.

#### **C. FEDERAL GRANT ANTICIPATION NOTES**

All federal highway reimbursements are dedicated to funding the principal portion only of federal grant anticipation notes (GANs) issued in fiscal 2011, 2014, 2015 and 2017. During FY17, the Commonwealth issued approximately \$125 million in GANs for new money needs under the Commonwealth's Accelerated Bridge Program. As of June 30, 2017, total principal remaining to be paid is approximately \$738 million. Maturities are from FY18 through FY27. Debt service paid during FY17 was approximately \$79 million.

The legislation authorizing such notes contains a statutory covenant that as long as any such GANs remain outstanding, the Commonwealth will deposit all federal highway reimbursements into the Grant Anticipation Note Trust Fund, to be released to the Commonwealth once all the debt service and reserve funding obligations of the trust agreement securing the GANs have been met. Principal amortization of the notes will continue through FY27. Such notes and the interest thereon are secured solely by the pledge of federal highway construction reimbursement payments and by a contingent pledge of certain motor fuels excises. In practice, the interest on such notes has been paid from Commonwealth appropriations.

#### **D. THE BUILD AMERICA BOND PROGRAM**

As part of the federal America Recovery and Reinvestment Act (ARRA) in 2009, municipal issuers were authorized to issue taxable bonds to fund new capital expenditures and receive an interest rate subsidy from the U.S. Treasury. As part of the temporary Build America Bond (BABs) program issuers, including the Commonwealth, issued taxable bonds in calendar years 2009 and 2010 in return for a subsidy from the federal government equal to 35% to 45% of the interest costs on the bonds, depending on whether the proceeds were used for projects in economically distressed areas. Between the GO bond program and the special obligation bond programs, the Commonwealth issued a total of \$2.791 billion in Build America Bonds and Recovery Zone Economic Development Bonds in six separate financings over the two year period of the program. All of the bonds were issued as "direct pay to issuer", meaning that the interest rate subsidies would be paid to the Commonwealth from the U.S. Treasury and not pledged to bondholders. As of June 30, 2017, the expected interest rate subsidy to be received through final maturity of all of the bonds issued as part of this program totaled \$711 million. The Commonwealth's repayment obligation to bondholders is based on the gross interest rate. From a budgetary perspective, the bonds' debt service is budgeted at the net-of-interest-rate subsidy rate.

Given the interest rate subsidy from the U.S. Treasury and given market conditions at the time of the Commonwealth's BABs sales, this program resulted in borrowings whose net interest costs will be significantly lower than the interest on traditional tax-exempt bonds. The BABs program expired on December 31, 2010.

### ***E. INTEREST RATE SWAP AGREEMENTS – OBJECTIVES AND RISKS***

Over the last twenty years, the Commonwealth has periodically entered into interest rate swap agreements for the sole purpose of hedging changes in the interest rates on a portion of its outstanding variable rate bonds, taking advantage of the fact that these bonds, combined with interest rate swaps, generally result in lower interest costs than fixed-rate bonds. Of the Commonwealth's variable-rate debt (including special obligation bonds) outstanding of approximately \$3.583 billion, approximately \$1.717 billion was hedged via floating-to-fixed interest rate swap agreements. Of this amount, \$1.640 billion are for G.O. bonds and the remainder on outstanding special obligation bonds.

Under the terms of these floating-to-fixed rate hedge agreements, counterparties to the hedge agreements are obligated to pay the Commonwealth an amount equal to or approximately equal to the variable-rate interest payment to bondholders of the related bonds or an interest payment based on a market index. In return, the Commonwealth is obligated to pay counterparties a stipulated fixed rate. The floating rate payments received by the Commonwealth from its swap counterparties are used to offset the variable rate payments paid to bondholders. Only the net difference in interest payments is actually exchanged with the swap counterparty. The net payments made or received on these hedge agreements are reported as part of interest expense on the Commonwealth's basic financial statements. In all cases, the Commonwealth remains responsible for making interest payments to the variable rate bondholders.

#### *Objective of the Interest Rate Swap Agreements*

In connection with the issuance of variable rate GO refunding bonds in 1998, 2001, 2003, 2005, 2006, and 2007, the Commonwealth entered into interest rate swap hedge agreements with certain counterparties to hedge against the volatility of the interest rates on certain bonds whose interest costs were floating and not fixed. Additional swap agreements were entered into to hedge this same volatility on certain special obligation bonds, including the Commonwealth's Series 2005 Special Obligation Tax Revenue (Gas Tax) Bonds and the Series 2004 Special Obligation Dedicated Tax Revenue (Convention Center) Bonds. In addition, a floating-to-fixed rate swap agreement was novated or transferred to the Commonwealth from the Route 3 North Transportation Improvements Association (secured by Commonwealth Contract Assistance) in November 2008 after the lease revenue bonds associated with that swap experienced remarketing failure. The swap was assigned to a portion of the Commonwealth's previously unhedged variable rate bonds that were outstanding.

The intended effect of these agreements is essentially to fix the Commonwealth's interest rate obligations with respect to its variable-rate bonds in order to hedge or mitigate the Commonwealth's exposure to changes in interest rates on these bonds. For example, during a period when interest rates rise, the Commonwealth would receive higher payments from swap counterparties that would be used to offset higher payments to bondholders of the outstanding variable rate bonds. During a period when interest rates decline, the reduction in interest payments to bondholders would offset the higher payments made to swap counterparties. But in both scenarios, the net obligation of the Commonwealth is essentially fixed through the life of the swap and bonds. This allows the Commonwealth to finance its capital budget using floating rate bonds, which, combined with interest rate hedges, are less costly than fixed-rate bonds while hedging the risk of rising interest rates on those bonds to provide long-term budgetary and cash flow certainty. As of June 30, 2017, all of the Commonwealth's interest rate swaps were floating-to-fixed rate agreements and were deemed effective hedges pursuant to GASB Statement No. 53.

#### *Terms of the Interest Rate Swap Agreements*

The variable rate bonds and their related swap agreements have final maturities ranging from 2018 to 2033. The swaps' total notional value of approximately \$1.717 billion effectively matches the par amount of the related variable-rate bonds.

Under the swap agreements, the Commonwealth pays the relevant counterparties fixed rates ranging from 3.724% to 5.059% and receives variable-rate payments equal to or approximately equal to the amount of variable rate payments

the Commonwealth pays on the related variable-rate refunding bonds or a payment based on a market index. In some of the outstanding swap agreements, the Commonwealth receives an interest rate based on changes to LIBOR, the SIFMA index, or the CPI index. In other agreements, the floating payment received by the Commonwealth is precisely equal to the variable rate payment paid to bondholders based on an active remarketing of those bonds.

#### *Credit Risk of the Interest Rate Swap Agreements*

As of June 30, 2017, the Commonwealth is not exposed to credit risk because the swaps had a negative fair value. Should interest rates change and the fair value of the swaps become positive, the Commonwealth would be exposed to credit risk in the amount of the swaps fair value. All of the Commonwealth's counterparties are required to post collateral in certain circumstances, including credit rating downgrades. The Commonwealth is not required to post collateral in any of its existing swap agreements.

The chart below details the Commonwealth's outstanding swaps and related bond issuances (amounts in thousands except for percentages).

Associated Bond Issue	Notional Amounts Outstanding	Effective Date	Replacement Agreement Effective Date	Terms		Fair value at June 30			Final Termination Date	Counterparty	Counterparty Credit Rating Moody's/S&P/Fitch
				Fixed Rate Paid (Range)	Variable Rate Received	2017	2016	Change in Fair Value			
<i>General Obligation Bonds:</i>											
Series 1998A (refund) Consolidated Loan of 2006, Series A Central Artery Loan of 2000, Series A Central Artery Loan of 2000, Series B	\$ —	11/17/2008	11/17/2008	4.174%	60% 1-Month LIBOR + 25 basis points	\$ —	\$ (219)	\$ 219	9/1/2016	Wells Fargo Bank	Aa2/AA-/AA
Series 1998A (refunding)	—	9/17/1998	9/1/2016	4.174%	Cost of Funds	—	(95)	95	9/1/2016	Wells Fargo Bank	Aa2/AA-/AA
Series 2000A	22,917	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	(529)	(1,866)	1,337	8/1/2018	Merrill Lynch Cap Svcs	NR/Baa1/A
Series 2000A	11,083	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	(257)	(920)	663	8/1/2018	JP Morgan formerly Bear Stearns	A+/Aa3/AA-
Series 2001B & C refunding	327,870	2/20/2001	2/20/2001	4.15%	Cost of Funds	(22,337)	(40,717)	18,380	1/1/2021	Morgan Stanley Capital Services	A+/A1/- -
Series 2006B, Series 2000D	293,985	4/2/2009	4/2/2009	4.515%	67% 3-Month LIBOR	(73,386)	(100,369)	26,983	6/15/2033	Barclays Bank PLC	A-/A1/A
Series 2006C (refunding)	100,000	1/1/2007	1/1/2007	3.73% - 3.85%	CPI-based formula	(2,820)	(4,939)	2,119	11/1/2020	Wells Fargo Bank	AA-/Aa2/AA
Series 2007A	—	10/8/2008	10/8/2008	4.42%	67% 3-Month LIBOR + 0.57%	—	(13,588)	13,588	5/1/2037	Barclays Bank PLC	A2/A-/A
Series 2007A (refunding)	31,665	10/8/2008	10/8/2008	3.936%	67% 3-Month LIBOR + 0.46%	(2,403)	(3,900)	1,497	11/1/2020	Wells Fargo Bank	AA-/Aa2/AA
Series 2007A (refunding)	414,130	10/8/2008	10/8/2008	3.936% - 4.083%	67% 3-Month LIBOR + (0.46-0.55%)	(50,010)	(75,327)	25,317	11/1/2025	Bank of NY Mellon	AA-/Aa2/AA
Series 2015B, 2015C, 2017A and 2017B refunding	438,490	3/15/2005	3/15/2005	3.724% - 4.004%	SIFMA	(59,902)	(93,099)	33,197	2/1/2028	Wells Fargo Bank	AA-/Aa2/AA
Subtotal	1,640,140					(211,644)	(335,039)	123,395			
<i>Special Obligation Dedicated Tax Revenue Bonds:</i>											
Series 2004 (Convention Ctr)	7,770	6/29/2004	6/29/2004	4.450%	CPI-based formula	(161)	(465)	304	1/1/2018	Goldman Sachs Capital Markets	(A+/A1/A+)
Series 2004 (Convention Ctr)	7,770	6/29/2004	6/29/2004	4.450%	CPI-based formula	(158)	(458)	300	1/1/2018	JP Morgan formerly Bear Stearns	(A+/Aa3/AA-)
Series 2004 (Convention Ctr)	7,770	6/29/2004	6/29/2004	4.450%	CPI-based formula	(158)	(457)	299	1/1/2018	JPMorgan Chase Bank	(A+/Aa3/AA-)
Series 2005A (Gas Tax)	54,025	1/12/2005	1/12/2005	4.771% - 5.059%	CPI-based formula	(2,850)	(4,511)	1,661	6/1/2022	Merrill Lynch Capital Services	(NR/Baa1/A)
Subtotal	77,335					(3,327)	(5,891)	2,564			
Total	\$ 1,717,475					\$ (214,971)	\$ (340,930)	\$ 125,959			

*Fair value of the Interest Rate Swap Agreements*

The aggregate fair value balance of interest rate swaps at June 30, 2017 was negative \$215 million and is reflected on the statement of net position as a liability for derivative instruments which is offset by deferred outflows from derivative instruments. The fair values of the interest rate swaps are estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps. Because all of the interest rate swaps were deemed effective hedges, changes in fair value of the interest rate swaps during the fiscal year ended June 30, 2017 were recognized as deferred outflows resulting in no impact on the Statement of Activities.

If all the Commonwealth's swap agreements had been terminated as of the end of FY17, the Commonwealth would have been required to make a payment of this magnitude. Although the Commonwealth has the option of terminating its swap agreements at any time (and either make or receive any termination payment due), the Commonwealth's counterparties do not have such an option. Therefore, the Commonwealth would only have to make a payment of the amount estimated above if certain termination events occurred, as described below. Based on the terms and provisions of the swap agreements and the Commonwealth's current bond ratings, an involuntary termination of the swap agreements due to an event of the Commonwealth is remote. In the case of a voluntary termination due to an event of a counterparty, the Commonwealth would likely seek to maintain the existing hedge by replacing that counterparty with another.

*Basis and Market-Access Risk of the Interest Rate Swap Agreements*

Because the terms on most of the interest rate swap hedge agreements require the Commonwealth's counterparties to make variable rate payments equal or approximately equal to those the Commonwealth makes on the related variable rate bonds, the Commonwealth is not subject to significant basis risk as a result of the terms of these agreements. Under certain circumstances, such as a downgrade of the credit rating of the bonds being hedged or the enactment of tax-related legislation which causes the related bonds to trade differently, certain of the swap agreements provide that the Commonwealth's counterparties, may, at their option, pay a variable rate that is based on one or more market indices such as LIBOR or the SIFMA swap index. Under these circumstances, the Commonwealth would be subject to basis risk if these indices varied from the basis for the variable rates that were paid to bondholders that were determined for the Commonwealth's variable-rate demand bonds through the associated remarketing process. For certain other interest rate swap agreements, the variable rate on the swap is based on a market index that differs from the variable rate on the hedged bonds, which is generally remarketed or auction rate. The Commonwealth is subject to basis risk on these agreements.

A majority of the swap contracts have the same maturity dates and amortizations as the related bonds. For one of the swap agreements, the underlying bonds have maturity dates that come due before the termination date of the associated swaps. This applies to the 2015B, 2015C, 2017A and 2017B refunding bonds being hedged by the \$438 million notional swap with Wells Fargo Bank. The Commonwealth's stated debt plan is to extend the underlying variable rate bonds to match the terms and amounts of the associated swaps. If the Commonwealth is unable to extend the underlying variable rate bonds or identify other variable rate bonds the swaps may hedge, the Commonwealth would be required to make net settlement payments on the swaps without the offsetting effects of changes in variable rate bond settlement payments.

*Termination Risk of the Interest Rate Swap Agreements*

The swap agreements are based on the International Swap Dealers Association (ISDA) Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. The swap agreements include termination events additional to those in the standard ISDA master agreement based on credit ratings. The swap agreements are not otherwise subject to termination except at the Commonwealth's option. The swap agreements require that the Commonwealth's counterparties maintain certain ratings levels. If they fail to maintain such ratings, the Commonwealth would have the option to terminate the related swap agreement and receive or pay a termination payment depending on the interest rates at the time. Similarly, the Commonwealth is required to maintain certain credit ratings under the agreements, generally 'BBB-' or above, well above the current credit rating of 'AA-' (based on long-term ratings



assigned by Standard & Poor's). If the Commonwealth's rating fell below the defined threshold levels, the Commonwealth's counterparties would have the option to terminate the related swap agreements or for certain agreements choose to make variable rate payments based on a market index (instead of the actual bond rate) which would subject the Commonwealth to basis risk, as previously described. If one or more of the swap agreements were terminated, then the related variable rate bonds would no longer be hedged and the Commonwealth would no longer be paying a synthetic fixed rate with respect to the bonds. In addition, if at the time of termination, the swap had a negative fair value, the Commonwealth would incur a loss and would be required to settle with the related counterparty or counterparties at the swaps' fair market values. However, to avoid a termination payment and to maintain the interest rate hedge, when the terminating event is an event of the counterparty, the Commonwealth would likely seek to replace counterparties to the swap agreement. Based on the terms and provisions of the swap agreements and the Commonwealth's current bond ratings, an involuntary termination of the swaps due to an event of the Commonwealth is remote.

## ***F. OUTSTANDING SWAPPED DEBT***

### *Security for Interest Rate Swap Agreements*

Under legislation approved by the then Governor on August 11, 2008, scheduled, periodic payments to be made by the Commonwealth pursuant to swap agreements in existence on August 1, 2008 or entered into after such date shall constitute general obligations of the Commonwealth for which its full faith and credit is pledged.

Future bond interest payments are calculated using rates applicable to the scheduled payment nearest to June 30, 2017 for variable rate bonds. The net swap payments are calculated by subtracting the projected future variable rate interest payment per the swap agreement from the projected future fixed rate payment per the swap agreement. Projected future variable rate payments on the swap agreements are based on variable rates applicable to the scheduled payment nearest to June 30, 2017. The actual amount of variable rate interest paid to bondholders and net swap payments made to counterparties are affected by changes in variable interest rates, changes in inflation (CPI), as well as changes in the London Interbank Offered Rate (LIBOR) and the Securities Industry and Financial Markets Association (SIFMA) floating rate indices. Changes in the amounts paid to bondholders versus amounts paid to counterparties are largely offsetting.

Debt service requirements to maturity for variable-rate bonds hedged by interest rate swap agreements and projected future net settlement payments on interest rate swap agreements at June 30, 2017 are provided below (amounts in thousands):

Fiscal Year Ending June 30	Variable-Rate Bonds		Interest Rate Swaps, Net	Total
	Principal	Interest		
2018.....	\$ 102,100	\$ 19,686	\$ 49,572	\$ 171,358
2019.....	191,985	18,321	45,433	255,739
2020.....	248,610	15,775	39,712	304,097
2021.....	224,780	11,745	33,169	269,694
2022.....	126,575	9,731	28,229	164,535
2023 - 2027.....	685,825	20,939	74,641	781,405
2028 - 2032.....	112,080	3,026	15,775	130,881
2033 - 2037.....	25,520	93	483	26,096
Total.....	<u>\$ 1,717,475</u>	<u>\$ 99,316</u>	<u>\$ 287,014</u>	<u>\$ 2,103,805</u>

### *Business - Type Activities – Swapped Debt*

The business-type activities have various swaps. At June 30, 2017, the fair value liability of the outstanding interest rate swaps was \$63 million.

For financial reporting purposes, long-term debt is carried at its face value. Unamortized discounts and premiums are

shown separately. For capital appreciation bonds, the outstanding amount represents total principal and accreted interest to be repaid.

*Component Unit – Swapped Debt*

At June 30, 2017, the majority of interest rate swaps outstanding are held by MassDOT, which in aggregate have a negative fair value of approximately \$341 million. For complete details, see separate MassDOT financial statements.

**G. OUTSTANDING LONG-TERM DEBT AND CHANGES IN LONG TERM DEBT**

The amount of long-term debt authorized but unissued is measured in accordance with the statutory basis of accounting. Long-term debt principal outstanding and debt authorized and unissued at June 30, 2017 is as follows (amounts in thousands):

Purpose	Principal Outstanding	Fiscal Year Maturities	Authorized and Unissued
GANs .....	\$ 738,010	2018 - 2027	\$ —
Capital projects:			
General .....	12,315,107	2018 - 2047	10,754,872
Highway .....	11,848,128	2018 - 2047	11,948,836
Local aid.....	969,000	2018 - 2039	12,594
Other.....	575,420	2018 - 2034	—
Subtotal .....	25,707,655		22,716,302
Subtotal - governmental activities debt (exclusive of MSBA) .....	26,445,665		\$ 22,716,302
MSBA debt.....	5,828,790		
Governmental activities debt .....	\$ 32,274,455		

Interest rates on the Commonwealth's outstanding debt at the end of FY17 ranged from 0.5% to 6.6%.

Changes in long-term debt outstanding (excluding discount and premium) and bonds authorized - unissued for the year ended June 30, 2017 are as follows (amounts in thousands):

	Governmental Funds (excluding MSBA)	MSBA	Total Governmental Funds Bonded Debt	Authorized and Unissued
Balance July 1, 2016 .....	\$ 25,079,591	\$ 5,624,275	\$ 30,703,866	\$ 26,145,997
Plus: Increases in bonds authorized.....	—	—	—	1,893,368
General and special obligation bonds:				
Proceeds, defined as principal, plus premium,				
less discount .....	5,432,040	704,184	6,136,224	(5,323,063)
Less: Net premium .....	(701,495)	(110,559)	(812,054)	—
Less: Principal on refunded bonds .....	(1,974,890)	(276,185)	(2,251,075)	—
Less: Bonds retired .....	(1,389,581)	(112,925)	(1,502,506)	—
Outstanding principal June 30, 2017.....	\$ 26,445,665	\$ 5,828,790	\$ 32,274,455	\$ 22,716,302

*Business - Type Activities – Colleges and University Debt*

Building authorities related to the University of Massachusetts and the state universities have issued bonds for construction of higher education facilities and equipment. Such bonds are guaranteed by the Commonwealth in an

aggregate amount not to exceed \$200 million. The bond agreements generally provide that revenues from student fees are pledged as collateral on the bonds and establish bond reserve funds, bond funds, and maintenance reserve funds. The University of Massachusetts and state universities have also entered into various loan agreements as participants in the MassDevelopment's ongoing capital asset program to finance construction projects and equipment.

At June 30, 2017, debt service requirements to maturity for principal and interest are as follows (amounts in thousands):

Fiscal Year Ended June 30	Governmental Activities					Business - Type Activities	
	Excluding MSBA Debt		MSBA Debt			Revenue Obligation	
	Principal	Interest	Principal	Interest	Interest subsidies (1)	Principal	Interest
2018.....	\$ 1,496,099	\$ 1,164,923	\$ 121,530	\$ 284,426	\$ (22,602)	\$ 260,479	\$ 189,685
2019.....	1,496,517	1,122,655	144,145	278,951	(24,213)	152,384	188,728
2020.....	1,410,509	1,059,537	134,440	271,912	(24,213)	158,359	183,143
2021.....	1,378,838	990,371	141,210	265,310	(24,213)	164,181	176,969
2022.....	1,328,392	927,452	147,305	258,228	(24,213)	158,457	170,661
2023 - 2027 .....	5,623,498	3,773,592	963,475	1,176,736	(121,066)	833,570	751,211
2028 - 2032 .....	4,461,252	2,586,404	1,365,880	872,971	(55,009)	828,330	546,486
2033 - 2037 .....	3,155,945	1,723,870	1,297,115	545,015	(29,065)	758,834	359,300
2038 - 2042 .....	3,293,095	987,541	1,174,950	214,624	(5,093)	763,263	174,190
2043 -2047 .....	2,801,520	266,548	338,740	28,402	—	368,282	39,021
2048 - 2052 .....	—	—	—	—	—	83,214	958
Total long - term debt...	26,445,665	14,602,893	5,828,790	4,196,575	(329,687)	4,529,353	2,780,352
Less: current portion ....	(1,496,099)	(1,164,923)	(121,530)	(284,426)	22,602	(260,479)	(189,685)
Long - term debt.....	<u>\$ 24,949,566</u>	<u>\$ 13,437,970</u>	<u>\$ 5,707,260</u>	<u>\$ 3,912,149</u>	<u>\$ (307,085)</u>	<u>\$ 4,268,874</u>	<u>\$ 2,590,667</u>

(1) FY18 interest subsidies reflect announced sequestration reductions. There may be sequestration reductions in future years as well.

In addition to the MSBA debt noted above, the MSBA also has \$450 million of commercial paper outstanding as of June 30, 2017 which provides funding of school construction and renovation projects. The commercial paper matures at various dates ranging from 33 to 94 days and interest is payable at maturity. The interest rate on this issuance of commercial paper ranges from 0.41% to 0.57%. The commercial paper that matured after June 30, 2017, a total of \$450 million, was rolled for maturities of 32 to 154 days at interest rates ranging from 0.77% to 0.96%.

#### **H. PRIOR DEFEASANCE**

The Commonwealth defeased certain general and special obligation bonds by purchasing securities from the proceeds of advance refunding bonds or from surplus operating funds and placing them in irrevocable trusts to provide for all future debt service payments on the defeased bonds. The trust account assets and the liabilities for the defeased bonds are not included in the financial statements. As of June 30, 2017, approximately \$3.417 billion of bonds outstanding from advance refunding activities is considered defeased.

#### **Business - Type Activities**

The University of Massachusetts (UMass) and the Massachusetts State College Building Authority (MSCBA) defeased various bonds by issuing refunding bonds and placing the proceeds in irrevocable trusts to provide for all future debt service payments on the defeased bonds. The trust assets and the liabilities of the defeased bonds are not included in the business type activity financial statements. As of June 30, 2017, approximately \$208 million and \$262 million of bonds outstanding from advanced refunding transactions are considered defeased for UMass and MSCBA, respectively.

**I. STATUTORY DEBT LIMIT**

The Massachusetts General Laws, as recently amended, establishes limits on the amount of direct debt outstanding. By statutorily limiting the Commonwealth's ability to issue direct debt, a control is established on annual capital spending. The direct debt limit for FY17 was approximately \$21.786 billion. Outstanding debt subject to the limit at June 30, 2017 was approximately \$20.974 billion.

For purposes of determining compliance with the limit, outstanding direct debt is defined by statute, as amended on June 10, 2013 (effective January 1, 2013), as principal outstanding. It excludes BANs and associated discount or premium, if any, special obligation bonds, GANs, refunded bonds, certain refunding bonds, debt issued by counties, debt issued in conjunction with the MBTA Forward Funding, certain Central Artery/Tunnel debt, debt issued for the SMART program and effective August 10, 2016 bonds issued under the Rail Enhancement Program. The amounts excluded from the debt limit are as follows (amounts in thousands):

	Principal Outstanding
Statutory debt June 30, 2017 .....	\$ 26,445,665
Less amounts excluded:	
Central artery project bonds .....	(1,110,195)
Accelerated bridge program .....	(2,380,740)
MBTA forward funding .....	(207)
SMART bonds .....	(632,348)
Convention center bonds .....	(575,420)
Special obligation gas tax bonds .....	(128,270)
Rail enhancement program bonds .....	(644,540)
Outstanding direct debt June 30, 2017 .....	<u>\$ 20,973,945</u>

**J. ADMINISTRATION DEBT LIMIT**

During FY09, the Administration announced a policy that sets the annual borrowing limit at a level designed to keep debt service at a maximum of 8% of budgeted revenues. For this purpose, debt service includes principal and interest payments on all general obligation debt, special obligation gas tax debt, interest on federal grant anticipation notes, general obligation contract assistance payment obligations, and budgetary contract assistance payment obligations on certain capital lease financings. Debt of the Massachusetts School Building Authority and of the Massachusetts Bay Transportation Authority that is supported by the portion of the sales tax legally dedicated to such entities is not included for purposes of this analysis, as the Commonwealth is not liable for such debt; similarly, the sales tax revenues legally dedicated to such entities are not included in the budgeted revenue projections.

In addition to keeping debt service at a maximum of 8% of budgeted revenues, the debt management policy limits future annual growth in the bond cap to not more than \$125 million through fiscal 2018. This additional constraint is designed to ensure that projected growth in the bond cap will be held to stable and sustainable levels.

The current Administration intends to treat all debt and debt-like obligations of the Commonwealth as subject to the bond cap for purposes of developing the annual capital budget, except in limited circumstances when there is a sound policy justification for not including a particular debt issue. Debt may be excluded from the bond cap, for example, where there is a new, dedicated source of project-related revenues supporting the payment of debt service on such debt. In such cases, the dedicated revenue would also be excluded from projected budgeted revenues for purposes of determining the bond cap as described above.

The following table shows the annual bond cap, the resulting total annual debt service payment obligations and debt service as a percentage of statutory basis budgeted revenues, (amounts in thousands):

	Fiscal 2017
Bond cap as approved by the Governor .....	\$ 2,190,000
Total annual debt service obligations.....	2,667,042
Statutory basis budgeted fund revenues.....	41,784,743
Debt service as % of budgeted revenues.....	6.4%

**K. CHANGES IN LONG-TERM LIABILITIES**

The following table summarizes changes in long-term liabilities for both governmental activities and business-type activities (amounts in thousands):

**Changes in Long Term Liabilities - Governmental Activities:**

Description	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Other long-term obligations:					
Compensated absences .....	\$ 603,490	\$ 604,312	\$ (603,490)	\$ 604,312	\$ 418,932
Claims and judgments .....	11,411	12,929	(11,822)	12,518	12,518
Prizes payable.....	1,194,945	27,592	(160,187)	1,062,350	—
School construction grants payable.....	880,537	424,399	(625,446)	679,490	309,194
Post employment benefit obligations .....	6,466,000	1,661,000	(546,000)	7,581,000	—
Environmental remediation liability.....	530,849	6,835	(4,624)	533,060	5,226
Lottery instant grand prizes .....	16,893	5,356	—	22,249	—
Workers' compensation.....	270,720	47,556	(58,096)	260,180	39,547
Arbitrage rebate - MSBA .....	2,187	757	(950)	1,994	—
Group insurance claims .....	110,925	1,667,920	(1,662,341)	116,504	114,660
Cost of living adjustment .....	161,265	—	(14,965)	146,300	—
Net pension liability .....	32,855,715	6,169,172	(2,083,022)	36,941,865	—
<b>Total other long-term obligations .....</b>	<b>43,104,937</b>	<b>10,627,828</b>	<b>(5,770,943)</b>	<b>47,961,822</b>	<b>900,077</b>
Liability for derivative instruments .....	340,930	214,971	(340,930)	214,971	—
Bonded Debt:					
Bonds and notes payable - non MSBA.....	25,079,591	4,730,545	(3,364,471)	26,445,665	1,496,099
Unamortized bond and note premiums - non MSBA.....	1,343,350	701,495	(273,860)	1,770,985	78,519
MSBA Bonds and notes payable excluding premium.....	5,624,275	593,625	(389,110)	5,828,790	121,530
Unamortized bond and note premiums - MSBA.....	574,256	110,559	(62,323)	622,492	49,577
MSBA other liabilities.....	450,000	2,986,165	(2,986,165)	450,000	450,000
Other financing arrangements:					
Capital leases.....	41,302	804	(11,250)	30,856	7,889
<b>Total bonded debt and other financing arrangements.....</b>	<b>33,112,774</b>	<b>9,123,193</b>	<b>(7,087,179)</b>	<b>35,148,788</b>	<b>2,203,614</b>
<b>Long-term liabilities, governmental activities .....</b>	<b>\$ 76,558,641</b>	<b>\$ 19,965,992</b>	<b>\$ (13,199,052)</b>	<b>\$ 83,325,581</b>	<b>\$ 3,103,691</b>

**Changes in Major Long Term Liabilities - Business-Type Activities:**

Description	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Other long-term obligations:					
Compensated absences .....	\$ 220,381	\$ 26,297	\$ (29,878)	\$ 216,800	\$ 151,145
Net pension liability .....	718,960	115,803	(96,596)	738,167	—
<b>Total other long-term obligations .....</b>	<b>939,341</b>	<b>142,100</b>	<b>(126,474)</b>	<b>954,967</b>	<b>151,145</b>
Liability for derivative instruments .....	92,391	—	(29,248)	63,143	—
Bonded Debt:					
Bonds and notes payable, including MSCBA .....	4,438,282	469,887	(378,816)	4,529,353	260,479
Other financing arrangements:					
Capital leases.....	9,887	2,024	(2,932)	8,979	2,062
<b>Total bonded debt and other financing arrangements.....</b>	<b>4,448,169</b>	<b>471,911</b>	<b>(381,748)</b>	<b>4,538,332</b>	<b>262,541</b>
<b>Long-term liabilities, business - type activities .....</b>	<b>\$ 5,479,901</b>	<b>\$ 614,011</b>	<b>\$ (537,470)</b>	<b>\$ 5,556,442</b>	<b>\$ 413,686</b>

Governmental long-term liabilities, other than debt, are typically liquidated by using General Fund resources.

**Discretely Presented Component Units** – The change in bonds and notes outstanding at June 30, 2017, net of unamortized discounts and premiums, compensated absences, net pension and net OPEB liability are as follows (amounts in thousands):

	Interest Rates	Maturities	July 1, 2016 Beginning Balance	Increases	Decreases	June 30, 2017 Ending Balance	Due Within One Year	Long Term
Major component units:								
MassDOT .....	0.00 - 7.000%	2018 - 2046	\$ 7,708,462	\$ 680,704	\$ (830,968)	\$ 7,558,198	\$ 569,602	\$ 6,988,596
MCWT .....	1.00 - 6.375%	2018 - 2043	3,328,202	354,577	(366,570)	3,316,209	231,485	3,084,724
Nonmajor component units ..	1.00 - 6.500%	2018 - 2038	628,251	157,565	(78,414)	707,402	38,211	669,191
Total bonds and notes payable .....			11,664,915	1,192,846	(1,275,952)	11,581,809	839,298	10,742,511
Compensated absences, net .....			48,700	428	(7,609)	41,519	26,593	14,926
Net pension liability .....			1,784,255	462,561	(244,906)	2,001,910	—	2,001,910
Net OPEB liability .....			990,382	205,255	(60,703)	1,134,934	—	1,134,934
Total long term liabilities .....			<u>\$ 14,488,252</u>	<u>\$ 1,861,090</u>	<u>\$ (1,589,170)</u>	<u>\$ 14,760,172</u>	<u>\$ 865,891</u>	<u>\$ 13,894,281</u>

The net pension liability of the discretely presented component units of \$2.002 billion includes \$1.312 billion related to the MBTA and RTAs and \$690 million related to entities that participate in SERS. See the MassDOT financial statements for further information regarding the MBTA and RTA pension plans and see pages [110-121](#) of this report for the SERS pension disclosures.

Further information on debt is found in the notes to the basic financial statements for the various component units.

## 8. INDIVIDUAL FUND DEFICITS

Certain funds within the Governmental Fund Type had fund deficits at June 30, 2017. None of these funds were in deficit due to finance-related contractual provisions and all were allowed to be in deficit by General Law. The amounts are as follows (amounts in thousands):

Other Governmental Funds	Amount
Other Special Revenue Funds:	
Health Information Technology Trust Fund .....	\$ (45,124)
Government Land Bank Fund .....	(35,033)
Community Preservation Trust Fund.....	(2,508)
Highway Capital Projects Fund .....	(211,762)
Other Capital Project Funds:	
Federal Highway Construction Program Capital Projects Fund ...	(9,767)
Government Land Bank Capital Projects Fund.....	(500)

## 9. PENSIONS

The Commonwealth is statutorily responsible for the pension benefits for Commonwealth employees (members of the State Employees' Retirement System) and for teachers of the cities, towns, regional school districts throughout the Commonwealth and Quincy College (members of the Teachers' Retirement System). The members of the retirement systems do not participate in the Social Security System.

## A. PLAN DESCRIPTIONS

### *Plan administration*

The Massachusetts *State Employees' Retirement System* (SERS) is a public employee retirement system (PERS), that administers a cost-sharing multiple employer defined benefit plan covering substantially all employees of the Commonwealth and certain employees of the independent authorities and agencies, including the state police officers at the Massachusetts Port Authority. The former Massachusetts Turnpike Authority (MTA) employees and retirees became members of SERS upon the creation of MassDOT. Other employees who transferred to MassDOT have been, and remain, members of SERS. The assets and liabilities of the former MTA have been transferred to SERS. SERS is administered by the Massachusetts State Retirement Board (the SRB) and is part of the reporting entity and does not issue a stand-alone audited financial report.

Management of the SERS is vested in the SRB, which consists of five members—two elected by current and active SERS members, one by the remaining members of the SRB, one who is appointed by the State Treasurer, and the State Treasurer, who serves as ex-officio and is the Chairman of the SRB.

The Massachusetts *Teachers' Retirement System* (MTRS) is a PERS that administers a cost-sharing multiple employer defined benefit plan managed by the Commonwealth on behalf of municipal teachers and municipal teacher retirees. The Commonwealth is a non-employer contributor and is responsible for all contributions and future benefit requirements of the MTRS. The MTRS covers certified teachers in cities (except Boston), towns, regional school districts and Quincy College. The MTRS is administered by the Massachusetts Teachers' Retirement Board (the MTRB) and is part of the reporting entity and does not issue a stand-alone audited financial report.

Management of the MTRS is vested in the MTRB, which consists of seven members—two elected by the MTRS members, one who is chosen by the six other MTRB members, the State Treasurer (or their designee), the State Auditor (or their designee), a member appointed by the Governor, and the Commissioner of Education (or their designee), who serves as ex-officio and is the Chairman of the MTRB.

The *Boston Retirement System* (BRS) is a PERS that administers a cost-sharing multiple employer defined benefit plan managed by the City of Boston Retirement Board covering all City of Boston departments and agencies as well as the School Department, the Boston Planning and Development Agency, the Boston Housing Authority, the Public Health Commission and the Boston Water and Sewer Commission. The BRS is not administered by the Commonwealth and is not part of the reporting entity of the Commonwealth.

Chapter 112 of the Acts of 2010, signed on May 22, 2010, changed the methodology for the Commonwealth funding of Boston teachers in the BRS (hereafter referred to as BRS-Teachers) and created a special funding situation for the Commonwealth. The cost of pension benefits of the other participants of the BRS is the responsibility of the City of Boston. Chapter 112 clarified that the Commonwealth is responsible for all contributions and future benefit requirements for BRS-Teachers. The net pension liability related to the BRS-Teachers is included in the Commonwealth's net pension liability in this report.

Management of the BRS is vested with in a Board of Trustees, which consists of five members—two elected by the active and retired members of the system, the City Auditor as ex-officio, one member appointed by the Mayor of Boston, and one member who is elected by the other four members. The BRS issues a stand-alone audited financial report. For a complete copy of BRS's separately issued financial statements, please contact the City of Boston Retirement Board at (617) 635-4305, or you may download this report at <http://www.cityofboston.gov/retirement/investment.asp>.



**Plan membership.** As of January 1, 2017, for SERS and MTRS, the dates of the most recent valuations, plan membership consisted of the following:

	SERS	MTRS
Retirees and beneficiaries currently receiving benefits .....	62,259	65,036
Terminated employees entitled to benefits but not yet receiving them.....	4,094	—
Subtotal .....	66,353	65,036
Current members.....	90,014	92,128
Total.....	<u>156,367</u>	<u>157,164</u>

**Benefits provided.** SERS, MTRS and BRS provide retirement, disability, survivor, and death benefits to members and their beneficiaries. Massachusetts General Laws (MGL) establishes uniform benefit and contribution requirements for all contributory PERS. These requirements provide for superannuation 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, and group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of twenty years of service or upon reaching the age of 55 with ten years of service. Normal retirement for most employees occurs at age 65; for certain hazardous duty and public safety positions, normal retirement is at age 55. Most employees who joined the system after April 1, 2012 cannot retire and receive benefits prior to age 60.

The policy for post-retirement benefit increases for all retirees of the SERS, MTRS and for those participants who serve in the City of Boston's School Department in a teaching capacity is subject to legislative approval.

**Contributions.** The retirement systems' funding policies have been established by Chapter 32 of the MGL. The Legislature has the authority to amend these policies. The annuity portion of the SERS and MTRS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets.

Chapter 32 of the General Laws directs the Secretary of Administration and Finance to prepare a funding schedule to meet actuarially determined requirements, and to update this funding schedule every three years on the basis of new actuarial valuation reports prepared under the Secretary's direction. Any such schedule is subject to legislative approval. If a schedule is not so approved, payments are to be made in accordance with the most recently approved schedule. Under the current schedule adopted in January 2017, the amortization payments are designed to eliminate the unfunded liability by FY36 according to the following schedule: annual appropriation increases of 9% per year until FY19 decreasing to 7% thereafter until FY36 (four years before the statutory deadline of FY40). The funding schedule as published follows an acceptable actuarial funding methodology to compute normal cost and the unfunded accrued actuarial liability.

Member contributions for SERS, MTRS and BRS vary depending on the most recent date of membership:

Hire Date	% of Compensation
Prior to 1975.....	5% of regular compensation
1975 - 1983 .....	7% of regular compensation
1984 to 6/30/1996 .....	8% of regular compensation
7/1/1996 to present.....	9% of regular compensation except for State Police, which is 12% of regular compensation
7/1/2001 to present.....	11% of regular compensation (for teachers hired after 7/1/01 and those accepting provisions of Chapter 114 of the Acts of 2000)
1979 to present .....	An additional 2% of regular compensation in excess of \$30,000

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

## **B. INVESTMENTS**

**Investment Policy.** SERS and MTRS are required to invest in the Pension Reserves Investment Trust (PRIT) Fund, which is managed by the Pension Reserves Investment Management (PRIM) Board. The PRIM Board seeks to maximize the total return on investments, within acceptable levels of risk and cost for an approximately 60% funded public pension fund. The PRIM Board recognizes that over the long term, asset allocation is the single greatest contributor of return and risk to the PRIT Fund. The investment policy statement adopted by the PRIM Board requires a comprehensive review of the PRIM Board's asset allocation plan and its underlying assumptions at reasonable intervals of not more than three to five years. In addition, the investment policy statement requires that the PRIM Board conduct an annual evaluation of the PRIT Fund's asset allocation. The PRIM Board's last comprehensive review of the PRIT Fund asset allocation was conducted during fiscal 2017.

The following was the PRIT Fund asset allocation as of June 30, 2017:

Asset Class	Target Allocation
Global Equity.....	40.0%
Portfolio Completion Strategies .....	13.0%
Core Fixed Income .....	12.0%
Private Equity .....	11.0%
Real Estate .....	10.0%
Value Added Fixed Income.....	10.0%
Timber/Natural Resources .....	4.0%
Total .....	<u>100.0%</u>

The annual money-weighted return on pension plan investments calculated as the internal rate of return on pension plan investments net of pension plan expenses for fiscal 2017 was 12.74% for SERS, 12.75% for MTRS. A money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

**C. NET PENSION LIABILITY OF THE SYSTEMS REQUIRED BY GASB 67**

The components of the net pension liability for SERS and MTRS at June 30, 2017 are as follows (amounts in thousands):

	SERS	MTRS
Total pension liability.....	\$ 39,107,000	\$ 50,024,000
Plan fiduciary net position.....	(26,282,232)	(27,138,609)
Net pension liability .....	<u>\$ 12,824,768</u>	<u>\$ 22,885,391</u>
Fiduciary net position as a percentage of the total pension liability .....	67.2%	54.3%

Additional information regarding changes in the net pension liability can be found in the Required Supplementary Information section of these financial statements.

**Actuarial assumptions.** The total pension liability, for both SERS and MTRS, was determined by an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017, using the following actuarial assumptions:

1. The actuarial assumptions included: (a) 7.50% investment rate of return, the same rate used in the January 1, 2016 actuarial valuation; (b) 3.5% interest rate credited to the annuity savings fund; and (c) 3.0% cost of living increase on the first \$13,000 per year.
2. Salary increases are based on analyses of past experience but range from 3.5% to 9.0% depending on group and length of service.
3. Experience studies were performed as follows:
  - a. **SERS:**
    - Dated February 27, 2014 and encompasses the period January 1, 2006 to December 31, 2011.
  - b. **MTRS:**
    - Dated July 21, 2014 and encompasses the period January 1, 2006 to December 31, 2011.
4. Mortality rates were as follows:
  - a. **SERS:**
    - Pre-retirement mortality reflects RP-2014 Blue Collar Employees table projected generationally with Scale MP-2016 set forward 1 year for females.
    - Post-retirement mortality reflects RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2016 set forward 1 year for females.
    - For disabled members, the mortality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2015 (gender distinct).
  - b. **MTRS:**
    - Pre-retirement mortality reflects RP-2014 White Collar Employees table projected generationally with Scale MP-2016 (gender distinct).
    - Post-retirement mortality reflects RP-2014 White Collar Healthy Annuitant table projected generationally with Scale MP-2016 (gender distinct).
    - For disabled members, the mortality rate is assumed to be in accordance with RP-2014 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2014 set forward 4 years.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate arithmetic expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These assumptions are converted into nominal assumptions by adding inflation, then combined by weighting them by the target asset allocation percentages. Finally, the arithmetic portfolio expected return is converted into a geometric expected return using assumed asset class standard deviations and correlations. Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2017 (see the discussion of the pension plan's investment policy in [Note 9\(B\)](#)) are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
Private Equity.....	6.6%
Global Equity .....	5.0%
Value Added Fixed Income.....	3.8%
Hedge Funds .....	3.6%
Portfolio Completion Strategies.....	3.6%
Real Estate .....	3.6%
Timberland/Natural Resources .....	3.2%
Core Fixed Income.....	1.1%

**Discount rate.** The discount rate used to measure the pension liability for SERS and MTRS was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and the Commonwealth's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the SERS and MTRS net positions were projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability for SERS and MTRS.

**Sensitivity of the net pension liability to changes in the discount rate.** The following presents the net pension liability of SERS and MTRS, calculated using the discount rate of 7.50%, as well as what the SERS and MTRS net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate (amounts in thousands):

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
SERS net pension liability.....	\$ 17,466,800	\$ 12,824,768	\$ 9,085,500
MTRS net pension liability .....	28,424,300	22,885,391	18,193,400

#### **D. NET PENSION LIABILITY OF THE SYSTEMS REQUIRED BY GASB 68**

##### ***Proportionate Share of Net Pension Liability***

As of the respective measurement dates below, the net pension liability for SERS, MTRS and BRS were \$13.789 billion, \$22.358 billion, and \$4.161 billion, respectively. The net pension liabilities for SERS and MTRS were determined by an actuarial valuation as of January 1, 2016 and rolled forward to June 30, 2016. The BRS net pension liability was determined by an actuarial valuation as of January 1, 2015 and rolled forward to December 31, 2016. The SERS, MTRS and BRS actuarial valuations were rolled forward to their respective measurement dates using generally accepted actuarial procedures.

The Commonwealth (the primary government) reported the following net pension liabilities for its proportionate share of the SERS, MTRS and BRS-Teachers net pension liabilities (amounts in thousands):

System	Measurement Date	Proportionate Share	Net Pension Liability
State Employees' Retirement System .....	June 30, 2016	94.3%	\$ 12,996,818
Massachusetts Teachers' Retirement System.....	June 30, 2016	100.0%	22,357,928
Boston Retirement System - Teachers.....	December 31, 2016	55.9%	2,325,286
Total net pension liability .....			<u>\$ 37,680,032</u>

Certain of the Commonwealth's discretely presented component units (the Massachusetts Convention Center Authority [MCCA] and the Massachusetts Department of Transportation [MassDOT]) participate in SERS. As of the measurement date the proportionate share of the SERS net pension liability for the discretely presented component units was as follows (amounts in thousands):

System	Measurement Date	Proportionate Share	Net Pension Liability
State Employees' Retirement System .....	June 30, 2016	5.0%	<u>\$ 690,172</u>

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

As of the measurement dates, the Commonwealth (primary government) recognized pension expense of approximately \$4.310 billion and the discretely presented component units recognized approximately \$90 million of pension expense. The following details the components of deferred outflows of resources and deferred inflows of resources related to pension expense (amounts in thousands):

	Primary Government						Discretely Presented Component Units	
	SERS		MTRS		BRS		Deferred Outflows of Resources	Deferred Inflows of Resources
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources		
Change of assumptions .....	\$ 1,441,216	\$ —	2,141,337	—	163,455	—	\$ 77,725	\$ 4,058
Changes in proportion.....	189,710	164,693	—	—	—	—	8,326	31,237
Net difference between projected and actual earnings on pension plan investments ...	872,453	—	978,282	—	67,790	—	174,858	1,875
Differences between expected and actual experience.....	617,314	—	103,645	62,085	—	117,748	151,261	7,325
Payments made after the measurement date.....	733,370	—	1,235,515	—	—	—	74,550	—
Totals .....	<u>\$ 3,854,063</u>	<u>\$ 164,693</u>	<u>\$ 4,458,779</u>	<u>\$ 62,085</u>	<u>\$ 231,245</u>	<u>\$ 117,748</u>	<u>\$ 486,720</u>	<u>\$ 44,495</u>

The statements reflect changes in proportion due to internal allocations between the governmental and business type activities, which are eliminated for footnote presentation.

The \$1.969 billion and \$75 million reported as deferred outflows of resources in the primary government and the discretely presented component units, respectively, are the contributions made subsequent to the measurement date and will be recognized as a reduction of the net pension liability in the next fiscal year. Other amounts reported above as deferred outflows of resources and deferred inflows of resource related to pension will be recognized in pension expense as follows (amounts in thousands):

Fiscal Year Ending June 30	Primary Government			Discretely Presented Component Units
	SERS	MTRS	BRS	
2018.....	\$ 658,360	\$ 626,257	\$ 43,312	\$ 114,362
2019.....	658,360	626,257	43,311	113,872
2020.....	1,008,642	1,024,921	41,812	92,462
2021.....	584,508	793,781	7,300	47,418
2022.....	46,130	92,351	(22,238)	(676)
Thereafter .....	—	(2,388)	—	237
Totals .....	<u>\$ 2,956,000</u>	<u>\$ 3,161,179</u>	<u>\$ 113,497</u>	<u>\$ 367,675</u>

The SERS and MTRS total pension liabilities were based on an actuarial valuation as of January 1, 2016 rolled forward to June 30, 2016, using the following actuarial assumptions:

1. The actuarial assumptions included (a) 7.5% investment rate of return, (b) 3.5% interest rate credited to the annuity savings fund and (c) 3.0% cost of living increase on the first \$13,000 per year.
2. Salary increases are based on analyses of past experience but range from 4.0% to 9.0% (SERS) and 4.0% to 7.5% (MTRS) depending on group and length of service.
3. Chapter 176 of the Acts of 2011 created a one-time election for eligible members of the Optional Retirement Plan (ORP) to transfer to SERS and purchase service for the period while members of the ORP. As a result, the total pension liability of SERS has increased by approximately \$400 million as of June 30, 2016.
4. Experience studies were performed as follows:

SERS:

- Dated February 27, 2014 and encompasses the period January 1, 2006 to December 31, 2011

MTRS:

- Dated July 21, 2014 and encompasses the period January 1, 2006 to December 31, 2011

5. Mortality rates were as follows:

SERS:

- Pre-retirement - reflects RP-2000 Employees Table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- Post-retirement - reflects RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- Disability - the mortality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2015 (gender distinct)

**MTRS:**

- Pre-retirement - reflects RP-2014 Employees Table projected generationally with Scale BB and a base year of 2014 (gender distinct)
- Post-retirement - reflects RP-2014 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2014 (gender distinct)
- Disability - assumed to be in accordance with the RP-2014 Healthy Annuitant Table projected generationally with Scale BB and a base year 2014 set forward 4 years

The BRS-Teachers total pension liability was based on an actuarial valuation as of January 1, 2016 rolled forward to December 31, 2016, using the following actuarial assumptions:

1. The actuarial assumptions included (a) 7.5% investment rate of return, (b) 4.5% interest rate credited to the annuity savings fund and (c) 3.0% cost of living increase on the first \$13,000 per year.
2. Salary increases range from 4.0% to 7.5% depending on length of service.
3. Mortality rates were as follows:
  - Healthy - reflects RP-2014 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2014.
  - Disabled - reflects RP-2014 Healthy Annuitant Mortality Table set forward four years projected generationally using Scale BB2D from 2014.

**Investments**

The Massachusetts legislature enacted Section 17 of Chapter 112 of the Acts of 2010, which requires the SBRS to invest all assets, current and future, related to BRS-Teachers in the PRIT pooled fund.

The following was the PRIT Fund target asset allocation and best estimates of geometric rates of return for each major asset class as of June 30, 2016:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Global Equity .....	40.0%	9.0%
Core Fixed Income.....	13.0%	1.6%
Private Equity.....	10.0%	8.7%
Real Estate .....	10.0%	4.6%
Value Added Fixed Income.....	10.0%	4.8%
Hedge Funds .....	9.0%	4.0%
Portfolio Completion Strategies.....	4.0%	3.6%
Timber/Natural Resources .....	4.0%	5.4%
Total .....	<u>100.0%</u>	

\* - BRS does not separately provide the long-term expected real rate of return for BRS-Teachers assets invested in the PRIT Fund as of the BRS measurement date.

Because SERS, MTRS and BRS-Teachers are all required to invest in the PRIT Fund, the long-term expected real rate of return was determined on that same basis as described in [Note 9C](#).

The discount rate used to measure the pension liabilities of SERS and MTRS was 7.5% as of the June 30, 2016 measurement date for those plans. The discount rate used to measure the pension liability of BRS-Teachers was 7.5% as of its December 31, 2016 measurement date.

***Sensitivity of the proportionate share of the net pension liability to changes in the discount rate.*** The following presents the net pension liability of SERS, MTRS and BRS-Teachers calculated using the discount rate of 7.5%, as well as what the SERS and MTRS net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate (amounts in thousands):

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
SERS net pension liability.....	\$ 16,944,767	\$ 12,996,818	\$ 9,661,978
MTRS net pension liability .....	27,464,000	22,357,928	18,022,000
BRS-Teachers net pension liability .....	2,760,530	2,325,286	1,964,698



**E. STATEMENTS OF NET POSITION AND CHANGES IN NET POSITION**

The following table displays the Statement of Net Position and the Statement of Changes in Net Position for the SERS, and the MTRS as of June 30, 2017, (amounts in thousands):

	Pension Trust Funds		
	State Employees' PERS	Teachers' PERS	Total
<b>ASSETS</b>			
Cash and cash equivalents.....	\$ 120,921	\$ 89,529	\$ 210,450
Net investment in PRIT at fair value.....	26,028,618	26,956,332	52,984,950
Other receivables.....	27,049	91,240	118,289
Other assets.....	124,163	7,664	131,827
<b>Total assets</b> .....	<b>26,300,751</b>	<b>27,144,765</b>	<b>53,445,516</b>
<b>LIABILITIES</b>			
Accounts payable.....	18,519	6,156	24,675
<b>Net position available for post-employment benefits</b> .....	<b>\$ 26,282,232</b>	<b>\$ 27,138,609</b>	<b>\$ 53,420,841</b>
	State Employees' PERS	Teachers' PERS	Total
<b>ADDITIONS</b>			
Contributions:			
Employer contributions - Commonwealth and MassDOT.....	\$ 716,266	\$ —	\$ 716,266
Non-employer contributions - Commonwealth.....	28,455	1,235,515	1,263,970
Employer and non-employer contributions - other.....	7,999	—	7,999
Employee contributions.....	604,772	730,212	1,334,984
ERIP funding contribution - Commonwealth.....	29,093	—	29,093
Boston teachers' contributions from Commonwealth.....	—	132,477	132,477
Other additions.....	232,548	91,269	323,817
<b>Total contributions</b> .....	<b>1,619,133</b>	<b>2,189,473</b>	<b>3,808,606</b>
Net investment gain/(loss):			
Investment gain/(loss).....	3,122,298	3,240,047	6,362,345
Less: investment expense.....	(134,666)	(139,695)	(274,361)
<b>Net investment gain/(loss)</b> .....	<b>2,987,632</b>	<b>3,100,352</b>	<b>6,087,984</b>
<b>Total additions</b> .....	<b>4,606,765</b>	<b>5,289,825</b>	<b>9,896,590</b>
<b>DEDUCTIONS</b>			
Administration.....	30,030	24,053	54,083
Retirement benefits and refunds.....	2,207,582	2,896,567	5,104,149
Payments to State Boston Retirement System.....	—	132,477	132,477
Other deductions.....	58,077	40,191	98,268
<b>Total deductions</b> .....	<b>2,295,689</b>	<b>3,093,288</b>	<b>5,388,977</b>
<b>Net increase/(decrease)</b> .....	<b>2,311,076</b>	<b>2,196,537</b>	<b>4,507,613</b>
Net position available for post-employment benefits			
at beginning of year.....	23,971,156	24,942,072	48,913,228
<b>Net position available for post-employment benefits at end of year</b> .....	<b>\$ 26,282,232</b>	<b>\$ 27,138,609</b>	<b>\$ 53,420,841</b>

**F. RESERVES**

Chapter 32 of the MGL establishes certain legally required reserve accounts for both SERS and MTRS. These reserves are used to account for the accumulation of resources according to purpose for which they are received, acquired or held. The reserve accounts can only be modified or changed by legislation.

The balances of legally required reserves at June 30, 2017 were as follows (amounts in thousands):

	SERS	MTRS	Purpose
Annuity Savings Fund .....	\$ 6,138,663	\$ 7,552,917	Active members' contribution balance
Annuity Reserve Fund .....	1,973,057	2,255,263	Retired members' contribution account
Special Military Service Fund ...	34	230	Members' contribution account while on military leave
Pension Reserve Fund .....	18,170,478	17,330,199	Amounts appropriated to fund future retirement benefits
Total	<u>\$ 26,282,232</u>	<u>\$ 27,138,609</u>	

**10. OTHER POST EMPLOYMENT BENEFITS****A. PLAN DESCRIPTIONS****Plan administration**

The Commonwealth administers an OPEB plan as a single employer defined benefit program. Benefits are managed by the Group Insurance Commission (GIC) and investments are managed by PRIM. The GIC has representation on the Board of Trustees of the State Retirees' Benefits Trust (SRBT).

At the inception of MassDOT, the employees of the former Massachusetts Turnpike Authority became eligible to participate in the Commonwealth's OPEB plan. All other employees of MassDOT were members of the plan prior to the creation of MassDOT and remain so. The liability for MassDOT (including former MTA employees) is included in the Commonwealth's liability.

The SRBT is set up solely to pay for OPEB benefits and the cost to administer those benefits. It can only be revoked when all such health care and other non-pension benefits, current and future, have been paid or defeased. GIC administers benefit payments, while the Trustees are responsible for investment decisions. The SRBT is administered by the board of trustees and is reported as an OPEB Trust Fund and does not issue a stand-alone audited financial report.

Management of the SRBT is vested with a board of trustees, which consists of 7 members including the Secretary of Administration and Finance (or their designee), the Executive Director of the GIC (or their designee), the Executive Director of PERAC (or their designee), the State Treasurer (or their designee), the Comptroller (or a designee), 1 person appointed by the Governor and 1 person appointed by the State Treasurer. The members elect 1 person to serve as chair of the board.

**Plan membership.** As of January 1, 2017 the date of the most recent actuarial valuation, plan membership consisted of the following:

	SRBT
Inactive plan members or beneficiaries currently receiving benefit payments .....	81,111
Inactive plan members entitled to but not yet receiving benefit payments .....	2,671
Active plan members .....	71,465
Total .....	<u>155,247</u>

**Benefits provided.** Under Chapter 32A of the Massachusetts General Laws the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth, housing authorities, redevelopment authorities and certain other governmental agencies. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs, which are comparable to contributions required from employees.

Employer and employee contribution rates are set in General Law. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2017 and as of the valuation date (January 1, 2017), Commonwealth participants contributed 0% to 20% of premium costs, depending on the date of hire and whether the participant is active, retiree, or survivor status. As part of the FY10 General Appropriation Act, all active employees pay an additional 5% of premium costs. Normal costs paid for OPEB to retirees during FY17 totaled approximately \$546 million.

Effective beginning FY14, the Commonwealth by statute is required to allocate, to the SRBT, a portion of revenue received under the Master Settlement Agreement with tobacco companies, increasing from 10% in FY14 to 100% by FY23. In FY17, 10% of tobacco settlement proceeds or approximately \$25 million was allocated to the SRBT. The percentage of proceeds to be transferred to the SRBT in FY17 was set at 10%, overriding existing statute.

## **B. INVESTMENTS**

**Investment Policy.** The SRBT is required to invest in the PRIT Fund. Consequently, information about SRBT's target asset allocation and long-term expected real rate of return as of June 30, 2017, are the same as discussed in [Notes 9 \(B\)](#) and [\(C\)](#).

The annual money-weighted return on OPEB plan investments calculated as the internal rate of return on OPEB plan investments net of OPEB plan expenses for fiscal 2017 was 12.90%. A money-weighted rate of return expresses investment performance, net of OPEB plan investment expense, adjusted for the changing amounts actually invested.

## **C. NET OPEB LIABILITY REQUIRED BY GASB 74**

The components of the net OPEB liability at June 30, 2017 are as follows (amounts in thousands);

	SRBT
Total OPEB liability.....	\$ 20,771,336
Plan fiduciary net position .....	(996,407)
Net OPEB liability .....	<u>\$ 19,774,929</u>
Fiduciary net position as a percentage of the total OPEB liability .....	4.8%

Additional information regarding changes in the net OPEB liability can be found in the Required Supplementary Information Section of these financial statements.

**Actuarial assumptions.** The total OPEB liability was determined by an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017, using the following actuarial assumptions:

1. The following annual healthcare cost trend rates: (1) 8.5%, decreasing by 0.5% each year to an ultimate rate of 5.0% in 2024 for Medical, (2) 5.0% for EGWP and (3) 5.0% for administration costs.
2. Mortality rate was in accordance with RP 2014 Blue Collar Mortality Table projected with scale MP-2016 from the central year, with females set forward one year.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the Commonwealth and those non-Commonwealth governments that participate in the GIC) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs on a premium basis between the Commonwealth and those non-Commonwealth governments that participate in the GIC to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

**Discount rate.** The discount rate used to measure the OPEB liability was 3.63%. This rate was based on a blend of the Bond Buyer Index rate (3.58%) as of the measurement date and the expected rate of return. The plan's fiduciary net position was not projected to be available to make all projected future benefit payments for current plan members. The projected "depletion date" when projected benefits are not covered by projected assets is 2023. Therefore, the long-term expected rate of return on plan investments of 7.50% per annum was not applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2017.

**Sensitivity of the net OPEB liability to changes in the discount rate.** The following presents the net OPEB liability of the Commonwealth calculated using the discount rate of 3.63%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.63%) or 1-percentage-point higher (4.63%) than the current rate (amounts in thousands):

	1% Decrease (2.63%)	Current Discount Rate (3.63%)	1% Increase (4.63%)
SRBT net OPEB liability .....	\$ 24,029,500	\$ 19,774,929	\$ 16,505,500

**Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.** The following presents the net OPEB liability of the Commonwealth, as well as what the net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rate (amounts in thousands):

	1% Decrease (B)	Current Healthcare Cost Trend Rate (A)	1% Increase (C)
SRBT net OPEB liability .....	\$ 16,226,600	\$ 19,774,929	\$ 24,499,900

A - The current healthcare cost trend rates are as follows: 8.5% for Medicare, 5.0% for EGWP and 5.0% for administration costs.

B - The healthcare cost trend rates after a 1% decrease are as follows: 7.5% for Medicare, 4.0% for EGWP and 4.0% for administration costs.

C - The healthcare cost trend rates after a 1% increase are as follows: 9.5% for Medicare, 6.0% for EGWP and 6.0% for administration costs.

#### **D. ANNUAL OPEB COSTS AND NET OPEB LIABILITY REQUIRED BY GASB 45**

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which determines how employers and nonemployer contributing entities will report other postemployment benefit (OPEB) liabilities on their financial statements, is effective for year beginning after June 15, 2017. Until that statement is implemented, the Commonwealth continues to report its annual OPEB cost and OPEB liability in accordance with GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*.

*Annual OPEB Cost and Net OPEB Obligation, Funded Status and Funding Progress*

The Commonwealth is not required to contribute the actuarially determined annual required contribution (ARC) under the provisions of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, and under Massachusetts General Laws. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. For FY17, the Commonwealth's annual OPEB contribution of approximately \$546 million for retiree benefits was less than the ARC. The Commonwealth's annual OPEB cost, the percentage of annual OPEB cost contributed to the SRBT and the net OPEB obligation for the Commonwealth for FY17 are as follows from the valuation calculated as of January 1, 2017 (amounts in millions except percentages):

<u>2017</u>	SRBT
Annual required contribution (ARC).....	\$ 1,623
Interest on net OPEB obligation .....	235
Adjustment to annual required contribution .....	(197)
Annual OPEB cost (AOC).....	1,661
Less: Contributions made* .....	(546)
Increase in net OPEB obligation.....	1,115
Net OPEB obligation as reported at beginning of year .....	6,466
Net OPEB obligation - end of year.....	<u>\$ 7,581</u>
Percentage of annual OPEB cost contribution.....	32.9%
 <u>2016</u> 	
Annual OPEB cost.....	\$ 1,475
Percentage of annual OPEB cost contributed.....	41.6%
Net OPEB obligation - end of year.....	\$ 6,466
 <u>2015</u> 	
Annual OPEB cost.....	\$ 1,410
Percentage of annual OPEB cost contributed.....	45.2%
Net OPEB obligation - end of year.....	\$ 5,605

\*Includes approximately \$25 million in tobacco settlement revenues.

	Actuarial Value of Plan Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll (1)	UAAL as a % of Covered Payroll (1)
Actuarial Valuation as of January 1, 2017 .....	\$ 817,400	\$ 20,263,500	\$ 19,446,100	4.0%	\$ 5,927,012	328.1%

(1) The covered payroll amount approximates the employer payroll

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the SRBT and the annual required contributions of the Commonwealth are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

*Actuarial Methods and Assumptions*

The actuarial assumptions included a 3.63% investment rate of return (net of administrative expenses and consistent with the requirements of GASB 74), a decrease from the 4.5% rate used in the January 1, 2016 valuation. This change resulted in an increase in the OPEB liability of approximately \$2.822 billion for FY2017.

Annual healthcare cost trend rates are as follows: (1) 8.5%, decreasing by 0.5% each year to an ultimate rate of 5.0% in 2024 for Medical, (2) 5.0% for EGWP and (3) 5.0% for administration costs.

The actuarial cost method was changed from the Projected Unit Credit method to the Entry Age Normal method (consistent with the requirements of GASB 74), which increased the OPEB liability by approximately \$1.176 billion for FY2017.

Changes in other actuarial assumptions resulted in an increase in the OPEB liability of approximately \$65 million for FY2017.

Administrative expenses are expected to rise 5.0% per annum. The Commonwealth's unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis for a period of thirty years, increasing at a rate of 4.5% per year, the same rate as the projected salary increases.

The most recent OPEB actuarial valuation for the Commonwealth is available on the Comptroller's web site at <http://www.macomptroller.info/docs/reports-audits/opeb/2017-mass-gasp-45-report.pdf>. There is currently no separate, audited GAAP-basis postemployment benefit plan report available for the Commonwealth.

***MSBA***

The MSBA has a separate OPEB trust fund. The amount of assets and actuarial accrued liabilities related to MSBA's OPEB plan are not material to the Commonwealth (approximately \$3 million) and are therefore, not included in these financial statements.

***E. STATEMENT OF NET POSITION AND CHANGES IN NET POSITION***

The following table displays the Statement of Net Position and Statement of Changes in Net Position for the State Retirees' Benefit Trust as of June 30, 2017 (amounts in thousands):

	OPEB Trust Fund
	State Retiree Benefits
<b>ASSETS</b>	
Cash and cash equivalents .....	\$ 25,743
Net investment in PRIT at fair value .....	970,676
<b>Total assets</b> .....	<b>996,419</b>
<b>LIABILITIES</b>	
Accounts payable .....	12
<b>Net position available for other post-employment benefits</b> .....	<b>\$ 996,407</b>
<b>ADDITIONS</b>	
Contributions:	
Employer contributions - Commonwealth .....	\$ 465,449
Other additions .....	784
<b>Total contributions</b> .....	<b>466,233</b>
Net investment gain/(loss):	
Investment gain/(loss) .....	110,825
Less: investment expense .....	(5,003)
<b>Net investment gain/(loss)</b> .....	<b>105,822</b>
<b>Total additions</b> .....	<b>572,055</b>
<b>DEDUCTIONS</b>	
Administration .....	127
Retirement benefits and refunds .....	441,064
Other deductions .....	500
<b>Total deductions</b> .....	<b>441,691</b>
<b>Net increase/(decrease)</b> .....	<b>130,364</b>
Net position available for other post-employment benefits at beginning of year .....	866,043
<b>Net position available for other post-employment benefits at end of year</b> .....	<b>\$ 996,407</b>

## 11. LEASES

### *Primary Government*

In order to finance the acquisition of equipment, the Commonwealth has entered into various lease/purchase agreements, including tax-exempt lease purchase (TELP) agreements, which are accounted for as capital leases. Included in the capital assets of the Commonwealth are additions financed by capital leases. For FY17, these additions are approximately \$1 million. Lease agreements are for various terms and contain clauses indicating that their continuation is subject to appropriation by the Legislature.

The Commonwealth has numerous operating lease agreements for real property and equipment with varying terms. These agreements contain provisions indicating that continuation is subject to appropriation by the Legislature.

The Institutions of Higher Education lease real property and equipment under numerous operating lease agreements for varying terms. The following schedule summarizes future minimum payments under non-cancelable leases for governmental activities and for the Institutions of Higher Education – reported as a business-type activity, for the fiscal year ended June 30, 2017 (amounts in thousands):

Fiscal Year Ended June 30	Governmental Activities					Business - Type Activities			
	Capital Leases		Operating Leases	MSBA Operating Leases	Governmental Activities Total	Capital Leases			Business - Type Activities Total
	Principal	Interest				Principal	Interest	Operating Leases	
2018.....	\$ 7,889	\$ 1,518	\$ 216,073	\$ 1,068	\$ 226,548	\$ 2,062	\$ 332	\$ 72,391	\$ 74,785
2019.....	3,635	699	141,111	1,092	146,537	1,514	280	67,923	69,717
2020.....	3,115	599	108,539	1,117	113,370	1,335	227	64,445	66,007
2021.....	3,017	581	74,767	1,141	79,506	921	189	62,721	63,831
2022.....	2,999	577	55,135	4,812	63,523	605	156	32,562	33,323
2023-2027.....	10,071	1,938	142,399	—	154,408	2,530	345	175,786	178,661
2028-2032.....	130	25	52,965	—	53,120	12	—	420	432
2033-2037.....	—	—	42,248	—	42,248	—	—	—	—
2038-2042.....	—	—	42,300	—	42,300	—	—	—	—
2043-2047.....	—	—	37,950	—	37,950	—	—	—	—
2048-2052.....	—	—	21,506	—	21,506	—	—	—	—
Total lease obligations.....	30,856	5,937	934,993	9,230	981,016	8,979	1,529	476,248	486,756
Less: current portion.....	(7,889)	(1,518)	(216,073)	(1,068)	(226,548)	(2,062)	(332)	(72,391)	(74,785)
Long-term lease obligations.....	<u>\$ 22,967</u>	<u>\$ 4,419</u>	<u>\$ 718,920</u>	<u>\$ 8,162</u>	<u>\$ 754,468</u>	<u>\$ 6,917</u>	<u>\$ 1,197</u>	<u>\$ 403,857</u>	<u>\$ 411,971</u>

Capital assets acquired under capital lease (amounts in thousands):

Asset type:	Primary Government	
	Governmental Activities	Business - Type Activities
Buildings .....	\$ —	\$ 11,231
Machinery and equipment.....	30,871	10,446
Total assets .....	30,871	21,677
Less: accumulated depreciation .....	(13,675)	(11,689)
Total.....	<u>\$ 17,196</u>	<u>\$ 9,988</u>

## 12. OTHER LONG-TERM LIABILITIES

### A. WORKERS' COMPENSATION AND GROUP INSURANCE LIABILITIES

Workers' Compensation is managed as part of the course of the Commonwealth's general operations. No separate fund for workers' compensation is provided for in Massachusetts General Laws. Claims for compensation are not separately insured and are funded by the Commonwealth only when incurred. Such losses, including estimates of amounts incurred, but not reported, are included as accrued liabilities in the accompanying financial statements when the loss is incurred. The Commonwealth assumes the full risk of claims filed under a program managed by the Human Resources Division. For personal injury, Massachusetts General Laws limit the risk assumed by the Commonwealth to \$100,000 per occurrence, in most circumstances.



Workers' compensation costs are recognized when claims are presented and paid. The Commonwealth's outstanding liability for such claims at June 30, 2017 is estimated to be \$260 million of which approximately \$40 million is expected to be paid during FY17.

Changes in the Commonwealth's liability relating to workers' compensation claims in FY17 and FY16 were (amounts in thousands):

	FY17	FY16
Claims liability, beginning of year.....	\$ 270,720	\$ 274,429
Increase in liability estimate .....	47,556	54,250
Payments and decreases in liability estimate.....	(58,096)	(57,959)
Claims liability, end of year.....	<u>\$ 260,180</u>	<u>\$ 270,720</u>

The Group Insurance Commission (GIC), a department of the Commonwealth, manages health insurance claims of the Commonwealth's active and retired employees. The Commonwealth is self-insured and various health insurance providers provide health care services to the employees. The accrued liability is estimated based on data provided to the GIC by the insurance companies who participate in the self-insured plans.

Changes in the Commonwealth's liability relating to group insurance claims in FY17 and FY16 were (amounts in thousands):

	FY17	FY16
Claims liability, beginning of year.....	\$ 110,925	\$ 107,949
Increase in liability estimate .....	1,667,920	1,630,534
Payments and decreases in liability estimate.....	(1,662,341)	(1,627,558)
Claims liability, end of year.....	<u>\$ 116,504</u>	<u>\$ 110,925</u>

#### **B. OTHER CLAIMS & JUDGMENTS**

A number of lawsuits are pending or threatened against the Commonwealth, which arise from the ordinary course of operations. These include claims for property damage and personal injury, breaches of contract, condemnation proceedings and other alleged violations of law. The Commonwealth records a liability for those cases in which it is probable that a loss will be incurred and the amount of the potential judgment can be reasonably estimated or a settlement or judgment has been reached but not paid. A short term liability of approximately \$13 million is recorded based on; 1) historical payments made and 2) actual claims settled and to be paid prior to June 30, 2017.

The following amounts were recognized for claims and judgments in FY17 and FY16 (amounts in thousands):

	FY17	FY16
Unpaid claims, beginning of year.....	\$ 11,411	\$ 11,819
Incurred claims .....	12,929	16,269
Claim payments and reductions.....	(11,822)	(16,677)
Unpaid claims end of year .....	<u>\$ 12,518</u>	<u>\$ 11,411</u>

### C. ENVIRONMENTAL REMEDIATION

Governmental Accounting Standards Board Statement No 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (GASB 49) became effective in FY09. GASB 49 provides guidance in estimating and reporting the potential costs of pollution remediation. While GASB 49 does not require the Commonwealth to search for pollution, it does require the Commonwealth to reasonably estimate and report a remediation liability when any of the following obligating events has occurred:

- Pollution poses an imminent danger to the public and the Commonwealth is compelled to take action;
- The Commonwealth is found in violation of a pollution-related permit or license;
- The Commonwealth is named, or has evidence that it will be named, as a responsible party by a regulator;
- The Commonwealth is named, or has evidence that it will be named, in a lawsuit to enforce a cleanup;
- The Commonwealth commences or legally obligates itself to conduct remediation activities.

Site investigation, planning and design, cleanup and site monitoring are typical remediation activities underway across the Commonwealth. Several Commonwealth agencies have dedicated programs, rules and regulations that routinely deal with remediation related issues; others become aware of pollution conditions in the fulfillment of their missions. The Commonwealth has the knowledge and expertise to estimate the remediation obligations presented herein based upon prior experience in identifying and funding similar remediation activities.

The standard requires the Commonwealth to calculate pollution remediation liabilities using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts. Where the Commonwealth cannot reasonably estimate a pollution remediation obligation it does not report a liability. Several state departments perform continual monitoring of polluted sites. Since the monitoring for such sites is perpetual, undiscounted multi-year costs for such sites have not been estimated. Because of a lack of information about the type and extent of the remediation effort that could be required, no range of outlays for the overall remediation effort for such sites could be developed at this time.

The remediation obligation estimates that appear in this report are subject to change over time. Cost may vary due to price fluctuations, changes in technology, changes in potential responsible parties, results of environmental studies, changes to statutes or regulations and other factors that could result in revisions to these estimates. Prospective recoveries from responsible parties may reduce the Commonwealth's obligation. Capital assets may be created when pollution remediation outlays are made under specific circumstances.

During the fiscal year, the Commonwealth had the following activity related to GASB 49 (amounts in thousands):

	Governmental Activities
Environmental remediation liability, beginning of year.....	\$ 530,849
Expected additional future outlays, changes in liability estimates.....	6,835
FY17 outlays for environmental remediation .....	(4,624)
Environmental remediation liability, end of year .....	<u>\$ 533,060</u>

*Massachusetts Military Reservation.* The Commonwealth, through the Executive Office of Energy and Environmental Affairs, the Department of Environmental Protection and the Attorney General's office, were engaged in discussions with federal Natural Resource Trustees, including the United States Army and Air Force, the Department of the Interior and the National Oceanic and Atmospheric Administration and private contractors regarding natural resource damages at the Massachusetts Military Reservation on Cape Cod. Federal Trustees and private contractors claim that the Commonwealth and others are liable for natural resource damages due to widespread contamination primarily from past military activities at the Reservation and are responsible for response actions and related clean-up activities. The assessment process for natural resource damages is set out in federal regulations and has not been completed. While no recent comprehensive estimate of natural resource damages and response actions is available, it is expected that the damages and response actions may cost at least tens of millions of dollars. In 2013, the state and federal trustees

reopened preliminary discussions per a Trustee Council resolution on a potential settlement framework.

*Closed State Facilities.* The Commonwealth has 17 facilities that contain a total of 235 buildings, mainly in closed state hospitals that may have varying degrees of asbestos, polychlorinated biphenyl (PCB's) and other compounds that are currently in a dormant state. The Commonwealth typically sells these facilities at minimal cost to private developers who assume full responsibility for all cleanup activity. Cost estimates are only performed during the sale process. At this time, the Commonwealth has no estimate of any potential asset that would be developed from these activities that would ready these sites for sale.

#### **D. COST OF LIVING ADJUSTMENTS**

The Commonwealth is financially responsible for the cost of living adjustment (COLA) granted to participants in various retirement systems of cities, towns and counties in fiscal years 1981 to 1997. Chapter 17 of the Acts of 1997 effective for fiscal year 1998 transferred the responsibility for funding COLAs for separate (non-teacher) retirement systems of cities and towns to their respective systems. Any future COLA granted by the Legislature to employees of these plans will be the responsibility of the individual system, assuming approval by the local board. The individual employer governments are also responsible for the basic pension benefits.

Payments of approximately \$15 million for COLAs granted to participants in retirement systems of cities, towns and counties were made during fiscal year 2017.

As of June 30, 2017, the Commonwealth's liability for COLA was approximately \$146 million.

### **13. CONTINGENCIES/COMMITMENTS**

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The Commonwealth receives significant financial assistance from the federal government. Entitlement to these resources is generally contingent upon compliance with terms and conditions of the grant or reimbursement agreements and with applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all federal financial assistance is subject to financial and compliance audits.

Chapter 200A of the Massachusetts General Laws, the Commonwealth's Abandoned Property Law, requires deposit of certain unclaimed assets into a managed Fiduciary Fund. These unclaimed assets are to be remitted to the General Fund each June 30, where it is included as miscellaneous revenue. Amounts remitted during FY17 totaled approximately \$107 million. A portion of accumulated claims since the law's enactment represent a contingency, because claims for refunds can be made by the owners of the property.

*Drug Testing Laboratory disputes.* On August 28, 2012, a chemist formerly employed at the Department of Public Health's drug testing laboratory in Boston admitted to several types of misconduct involving her handling of laboratory samples, which were used in criminal cases. The Governor was informed and ordered the immediate closure of the laboratory. The Governor established a central office to identify individuals who may have been affected by the chemist's alleged malfeasance, which the office has estimated as possibly tens of thousands of criminal drug cases. The Governor also announced that the Inspector General is conducting an independent assessment of the laboratory's operations. In addition, the Attorney General's Office is conducting a criminal investigation. On December 17, 2012, the former chemist was indicted by a Statewide Grand Jury on 27 charges in connection with altering drug evidence during the testing process and obstructing justice. She was arraigned on December 20, 2012 in Suffolk Superior Court and plead guilty in 2013. There likely will be significant, but as yet undetermined, state costs required to investigate and respond to the chemist's alleged malfeasance. Supplemental appropriations totaling \$30 million were approved during fiscal 2013 to create a fund to reimburse agencies and cities for costs associated with investigating and responding to misconduct at the state drug testing laboratory. In addition, there may be substantial costs to defend civil complaints alleging state liability in both state and federal court and for potential judgments. As the number of specific cases affected by the chemist's misconduct has not been definitively determined, there is not sufficient information to fully estimate these additional state costs.

**A. PRIMARY GOVERNMENT**

The Commonwealth continues to guarantee certain Massachusetts Bay Transportation Authority (MBTA) debt outstanding at June 30, 2017, totaling approximately \$197 million.

The MBTA's Forward Funding legislation of 1999 provides for the MBTA to issue general obligation, revenue or other debt secured by a pledge or conveyance of all or a portion of revenues, receipts or other assets or funds of the MBTA. Accordingly, all MBTA debt issued after this legislation is not backed by the full faith and credit of the Commonwealth.

Additional commitments of the Commonwealth remain for the University of Massachusetts Building Authority. As of June 30, 2017, the University of Massachusetts Building Authority has approximately \$3.036 billion, of outstanding debt, of which approximately \$115 million is guaranteed by the Commonwealth.

**B. TOBACCO SETTLEMENT**

A Master Settlement Agreement (MSA) was executed in November of 1998 between five tobacco companies and 46 states, including the Commonwealth. Several additional tobacco companies have joined the MSA and are bound by its terms.

The MSA called for, among other things, annual payments to the states in perpetuity. These payments have been estimated to total more than \$200 billion over the first 25 years, subject to various offsets, reductions and adjustments.

In FY17, the Commonwealth received approximately \$254 million, or 68.8% of the estimated amounts shown in the MSA. Amounts received in FY17 continued to be less than had previously been projected as payments under the MSA, primarily because the payment amounts are related to national tobacco sales volumes, which have continued to decline since the settlement. The Commonwealth's allocable share of the base amounts payable under the MSA is approximately 4.04%. The Commonwealth's allocable share of the base amounts under the agreement through 2025 is \$8.96 billion, which is subject to adjustments, reductions and offsets. However, in pending litigation, tobacco manufacturers are claiming that because of certain developments, they are entitled to reduce future payments under the MSA and, from FY06 to the present, certain manufacturers have withheld portions of the payments due to the states. The Commonwealth continues to pursue legal action to compel the payment of these additional funds and to obtain a legal determination that the Commonwealth is immune from any downward adjustment to its settlement payments.

In FY04, a Suffolk Superior Court jury rejected the claims of the Commonwealth's private tobacco attorneys that they should be paid a fee amounting to 25% of the Commonwealth's tobacco settlement money. The jury awarded the plaintiffs 10.5% of the amount the Commonwealth receives under the MSA through 2025, minus an offset for amounts received by the attorneys from the tobacco companies pursuant to an arbitration award. To date, however, the attorneys have received more than 10.5% of what the Commonwealth has received under the MSA. As of June 30, 2017, the Commonwealth owes nothing under the jury award. Whether the Commonwealth will in the future be required to pay any sum on private counsel's claim will depend on the actual payments received by the Commonwealth under the MSA through 2025, as well as on the amounts the attorneys receive through the arbitration payments.

**C. OTHER CONSTRUCTION COMMITMENTS**

At June 30, 2017, the Commonwealth had commitments of approximately \$626 million related to ongoing construction projects.

**D. CONTRACTUAL ASSISTANCE TO AUTHORITIES**

The Commonwealth is also authorized to pledge its credit in aid of and provide contractual support for certain independent authorities and political subdivisions within the Commonwealth. These Commonwealth liabilities are classified as: (a) general obligation contract assistance; (b) budgetary contractual assistance liabilities; or (c) contingent liabilities. In addition, the Commonwealth is authorized to pledge its credit in support of scheduled, periodic payments to be made by the Commonwealth under interest rate swaps and other hedging agreements related to bonds or notes of the Commonwealth.

General obligation contract assistance obligations arise from statutory requirements for payments by the Commonwealth to the Massachusetts Clean Water Trust, the Massachusetts Department of Transportation and the Massachusetts Development Finance Agency that are used by such entities to pay a portion of the debt service on certain of their outstanding bonds. Such assistance constitutes a pledge of the Commonwealth's credit for which a two-thirds vote of the Legislature is required.

Budgetary contract assistance liabilities do not constitute a pledge of the Commonwealth's credit. Contingent liabilities relate to debt obligations of independent authorities and agencies of the Commonwealth, or payment obligations of such entities on hedging transactions related to such debt, that are expected to be paid without Commonwealth assistance, but for which the Commonwealth has some kind of liability if expected payment sources do not materialize. These contingent liabilities consist of guarantees and similar obligations with respect to which the Commonwealth's credit has been or may be pledged. Under legislation approved by the Governor during FY09, the Commonwealth may pledge its credit to guarantee payment obligations of the Massachusetts Turnpike Authority (succeeded by MassDOT in FY10) with respect to certain hedging transactions or provide financial support subject to annual appropriation and without a pledge of the Commonwealth's credit. The same legislation authorizes the Commonwealth to provide credit support to the Turnpike Authority (succeeded by MassDOT) in connection with the issuance of certain refunding bonds, subject to annual appropriation and without a pledge of the Commonwealth's credit. In addition, the Commonwealth has certain statutorily contemplated payment obligations with respect to which the Commonwealth's credit has not been pledged, as in the case of the Commonwealth's obligation to replenish the capital reserve funds securing certain debt obligations of the Massachusetts Housing Finance Agency and the Commonwealth's obligation to fund debt service, solely from monies otherwise appropriated for the affected institution, owed by certain community colleges and state universities on bonds issued by the Massachusetts Health and Educational Facilities Authority and the Massachusetts State College Building Authority.

**E. MSBA**

The MSBA has estimated the amount of outstanding Waiting commitments and New Program commitments at June 30, 2017 to be \$2 million and \$949 million, respectively.

**F. SOCIAL IMPACT BONDS**

In January 2014, the Commonwealth entered into a "pay for success contract" ("Social Impact Bonds") with a nonprofit intermediary organization and a nonprofit social service agency to reduce the recidivism rate of young men in the juvenile justice system or on probation. The Commonwealth is obligated to make success payments totaling \$28 million through calendar year 2019 and the Commonwealth's obligation to make such payments is a general obligation for which the Commonwealth's full faith and credit are pledged. Payments are only made based upon successful achievement of specified outcomes based on defined performance targets contained in the contract. The Commonwealth entered into a second such contract in December 2014 to address chronic individual homelessness. The contract obligates the Commonwealth to make up to \$6 million in success payments, in the aggregate, through fiscal 2021. In June, 2016 the Commonwealth entered into a third contract to assist individuals in Adult Basic Education (ABE) or English for Speakers of Other Languages (ESOL) programs to transition to employment, higher wage jobs, and higher education. The contract obligates the Commonwealth to make up to \$15 million in success payments, in the aggregate, through fiscal 2023. The total amount of payments backed by the full faith and credit of the Commonwealth under such contracts may not exceed, in the aggregate, \$50 million. As the amount required to be paid as of June 30, 2017

cannot be determined until performance targets have been achieved as determined by independent evaluators, no liability has been accrued in these financial statements for these contracts.

### **G. PENSIONS**

The Massachusetts State Employees' Retirement System (SERS) and the Massachusetts Teachers' Retirement System (MTRS) (collectively referred to as the Retirement Systems) in conjunction with the Commonwealth are evaluating whether certain Massachusetts General Laws (MGL) or practices may be in conflict with the exclusive benefit rule of Section 401(a)(2) of the Internal Revenue Code or other IRS requirements relating to the operation of tax-exempt pension plans.

The activities being reviewed are: (1) the statutorily directed funding of the budget for the Public Employee Retirement Administration Commission (PERAC) solely from the investment income accounts of SERS and MTRS; (2) the statutorily directed contributions made from the assets of SERS in the Pension Reserves Investment Trust Fund (PRIT or PRIT Fund) to the Optional Retirement Plan (ORP), a statutorily authorized retirement plan available to certain employees of the Commonwealth's Higher Education System; (3) the statutorily mandated reimbursements issued from SERS to local retirement systems and municipalities for local cost of living adjustments (COLA's) issued to participants of those systems who retired between 1981 and 1994; (4) deposits of reimbursement revenues received from local retirement systems, i.e. so-called G.L. c. 32, §3(8)(c) payments, to the Commonwealth's General Fund rather than to MTRS and SERS assets in the PRIT fund; and, (5) deposits of federal grant fringe payments to the Commonwealth's General Fund rather than to MTRS and SERS assets in the PRIT fund.

The Retirement Systems, the Public Employee Retirement Administration Commission (PERAC) and the Executive Office for Administration and Finance have each engaged outside tax counsel, who have provided opinions with respect to the aforementioned activities as they relate to the degree, if any: (1) pension assets were expended for non-Retirement Systems' participants or their beneficiaries; and (2) revenues or reimbursements were redirected from the Retirement Systems to the General Fund of the Commonwealth.

On March 28, 2017, the Governor approved legislation to address prospectively certain aspects of the issues described above. Additional corrective legislation was approved as part of the Commonwealth's General Appropriations Act for fiscal 2018, approved on July 17, 2017. The Executive Office for Administration and Finance expects to submit for Internal Revenue Service consideration a request for a closing agreement in which the Commonwealth describes the activities listed above, explains the corrective actions already taken by legislation, and requests an affirmation that these activities do not adversely affect the tax qualification of the SERS and the MTRS in light of the corrections already made.

## **14. COMPONENT UNITS AND DETAILS OF DEPARTMENTS AND ENTITIES THAT ARE SEPARATELY AUDITED**

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The Commonwealth has also considered all potential component units for which it is financially accountable as well as other organizations for which the nature and significance of their relationship with the Commonwealth is such that exclusion would cause the Commonwealth's financial statements to be misleading or incomplete. As required by GAAP, these financial statements present the Commonwealth of Massachusetts (the primary government) and its component units. The Commonwealth has included 40 entities as component units in the reporting entity because of the significance of their operational and/or financial relationships with the Commonwealth. Details of those entities' operations can be found in those entities' basic financial statements and notes to those entities' basic financial statements.

The following entities are presented in the basic financial statements (all having a June 30, 2017 fiscal year end) (entities marked with an \* are not legally separate from the Commonwealth but have separately audited financial statements). Entities that are marked with a § also were not audited in accordance with *Governmental Auditing Standards* as promulgated by the Comptroller General of the United States.

**Entities Audited by KPMG LLP:**

The Pension Reserves Investment Trust Fund (PRIT)  
\*The Massachusetts State Lottery Commission  
The Massachusetts Department of Transportation (MassDOT)  
The Massachusetts Clean Water Trust  
Commonwealth Health Insurance Connector Authority  
\*§The Massachusetts Municipal Depository Trust (MMDT)

**Entities Audited by Other Auditors:**

\*The University of Massachusetts System  
\*Community Colleges:  
    Berkshire Community College  
    Bristol Community College  
    Bunker Hill Community College  
    Cape Cod Community College  
    Greenfield Community College  
    Holyoke Community College  
    Massasoit Community College  
    Massachusetts Bay Community College  
    Middlesex Community College  
    Mount Wachusett Community College  
    Northern Essex Community College  
    North Shore Community College  
    Quinsigamond Community College  
    Roxbury Community College  
    Springfield Technical Community College  
  
\*State Universities:  
    Bridgewater State University  
    Fitchburg State University  
    Framingham State University  
    Massachusetts College of Art  
    Massachusetts Maritime Academy  
    Massachusetts College of Liberal Arts  
    Salem State University  
    Westfield State University  
    Worcester State University  
The Massachusetts State College Building Authority  
  
The Massachusetts School Building Authority (MSBA)  
  
Massachusetts Convention Center Authority (MCCA)  
  
Massachusetts Development Finance Agency (MassDevelopment)  
  
§Massachusetts Technology Park Corporation (MTPC)  
  
Massachusetts Clean Energy Center (CEC)  
  
Massachusetts Housing Partnership (MHP)  
  
**Economic Development Entities (5 separate entities) including:**  
    Massachusetts Growth Capital Corporation (MGCC)  
    Commonwealth Corporation

Community Economic Development Assistance Corporation (CEDAC)  
 §Massachusetts Life Sciences Center  
 Commonwealth Zoological Corporation (Zoo)

**Higher Education Foundations (25 separate entities) including:**

Berkshire Community College Foundation  
 Bristol Community College Foundation  
 Bunker Hill Community College Foundation  
 Cape Cod Community College Educational Foundation, Inc.  
 Greenfield Community College Foundation, Inc.  
 Holyoke Community College Foundation  
 Massachusetts Bay Community College Foundation, Inc.  
 Massasoit Community College Foundation  
 Middlesex Community College Foundation, Inc.  
 North Shore Community College Foundation  
 Springfield Technical Community College Foundation  
 The Mount Wachusett Community College Foundation, Inc.  
 The Northern Essex Community College Foundation, Inc.  
 The Quinsigamond Community College Foundation, Inc.  
 The Roxbury Community College Foundation, Inc.

**Bridgewater State University Foundation:**

The Bridgewater State University Foundation  
 The Bridgewater Alumni Association of Bridgewater State University

Fitchburg State University Foundation, Inc.  
 Framingham State University Foundation, Inc.  
 Massachusetts College of Art Foundation, Inc.  
 Massachusetts College of Liberal Arts Foundation, Inc.  
 The Massachusetts Maritime Academy Foundation, Inc.  
 Salem State University Foundation:

The Salem State University Foundation, Inc.  
 Salem State University Assistance Corporation

Westfield State University Foundation, Inc.  
 Worcester State Foundation  
 The University of Massachusetts System Foundation

## 15. SUBSEQUENT EVENTS

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### *SUBSEQUENT BOND ISSUANCES*

On August 1, 2017, the Commonwealth issued approximately \$9 million in GO Bonds, Consolidated Loan of 2017 Series A (College Opportunity Bonds). These bonds carry an interest rate of 0.50%. The first principal payment is due on August 1, 2022 with final maturity on August 1, 2037.

On August 10, 2017, the Commonwealth issued \$1.5 billion in GO Revenue Anticipation Notes (RANS) in three \$500 million notes; 2017 Series A, 2017 Series B and 2017 Series C. These notes carry an interest rate of 2.0% and mature on April 23, 2018, May 21, 2018 and June 25, 2018, respectively.

On October 26, 2017, the Commonwealth issued \$600 million in GO Bonds in two \$300 million series; 2017 Series E and 2017 Series F. The Series E notes carry interests from 3.0% to 5.0% with the first principal payment due on November 1, 2018 and final maturity on November 1, 2036. The Series F notes carry a 5.0% interest rate with the first principal payment due on November 1, 2037 and final maturity due on November 1, 2046.



On October 26, 2017, the Commonwealth issued approximately \$215 million in GO Refunding Bonds 2017, Series E. These bonds were issued to advance refund approximately \$230 million of various GO Bonds and carries an interest rate of 5.0% with final maturity on November 1, 2027. The refunding resulted in reduced debt service of approximately \$20 million and a present value savings of approximately \$18 million over the life of the bonds.

On November 16, 2017, the Commonwealth issued approximately \$350 million in Commonwealth Transportation Fund Revenue Bonds (Rail Enhancement Program and Accelerated Bridge Program) 2017A. These bonds carry an interest rate of 5.0%. The first principal payment is due June 1, 2019 with final maturity on June 1, 2047.

On November 16, 2017, the Commonwealth issue approximately \$243 million in Commonwealth Transportation Fund Refunding Bonds 2017, Series A. These bonds were issued to advance refund approximately \$257 million of the 2012A and 2013A Accelerated Bridge Program bonds and carry interest rates from 3.0% to 5.0% with final maturity due on June 1, 2043. The refunding resulted in reduced debt service of approximately \$46 million and a present value savings of approximately \$33 million over the life of the bonds.

On November 16, 2017, the Commonwealth issued \$75 million in Federal Highway Grant Anticipation Notes (Accelerated Bridge Program) 2017, Series A. These bonds carry an interest rate of 5.0%. The first principal payment is due June 15, 2021 with final maturity on June 15, 2027.

On November 16, 2017, the Commonwealth issue approximately \$68 million in Federal Highway Grant Anticipation Notes (Accelerated Bridge Program) Refunding Bonds 2017, Series A. These bonds were issued to advance refund approximately \$71 million of the 2013A Federal Highway Grant Anticipation Notes (Accelerated Bridge Program) bonds and carries an interest rate of 5.0% with final maturity due on June 1, 2027. The refunding resulted in reduced debt service of approximately \$5 million and a present value savings of approximately \$4 million over the life of the bonds.

On November 27, 2017, the MSBA used funds on hand to defease \$53 million of the 2015 Series C Dedicated Sales Tax Bonds outstanding and \$23.4 million of 2016 Series A Dedicated Sales Tax Bonds outstanding. \$84.2 million in cash was used to purchase open market securities, which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the defeased portion of the 2015 Series C and 2016 Series A bonds. The MSBA's defeasance of these bonds reduces its debt service payments over the next 8 years by approximately \$90.4 million.

On January 9, 2018, the Commonwealth competitively sold \$400 million and \$200 million in GO bonds in two different series. The \$200 million in bonds will have a final maturity of January 1, 2032 and the \$400 million in bonds will have a final maturity of January 1, 2048. Both of these series of bonds are scheduled to close on January 17, 2018, at which time the interest rates will be finalized.

All debt issues were sold as tax exempt.

# *Required Supplementary Information Other Than Management Discussion and Analysis*

(Unaudited)

*Schedule of Revenue, Expenditures and Changes in Fund Balances – Statutory Basis – Budget and Actual –  
General Fund*

*Explanation of Differences Between Revenues, Expenditures and Other Financing Sources/(Uses) for the  
General Fund on a Budgetary Basis and GAAP Basis*

*Notes to Required Supplementary Information – Budgetary Reporting*

*Required OPEB and Pension Schedules*

# Schedule of Revenues, Expenditures and Changes In Fund Balances - Statutory Basis - Budget and Actual

General Fund

Fiscal Year Ended June 30, 2017

(Amounts in thousands )

	Original Budget	Final Budget	Actual	Variance
<b>REVENUES AND OTHER FINANCING SOURCES</b>				
<b>Revenues:</b>				
Taxes.....	\$ 23,079,900	\$ 23,079,900	\$ 22,510,484	\$ (569,416)
Assessments.....	426,261	426,261	431,576	5,315
Federal grants and reimbursements.....	10,753,035	10,753,035	10,850,378	97,343
Tobacco settlement revenue.....	257,500	257,500	254,490	(3,010)
Departmental.....	2,435,705	2,435,620	3,094,346	658,726
Miscellaneous.....	283,344	283,344	320,092	36,748
<b>Total revenues</b> .....	<b>37,235,745</b>	<b>37,235,660</b>	<b>37,461,366</b>	<b>225,706</b>
<b>Other financing sources:</b>				
Fringe benefit cost recovery.....	430,883	430,883	416,180	(14,703)
Lottery reimbursements.....	94,490	94,490	100,392	5,902
Lottery distributions.....	1,012,351	1,012,351	1,025,411	13,060
Operating transfers in.....	385,462	385,462	431,583	46,121
Commonwealth care transfer.....	—	—	76,552	76,552
Other fund deficit support.....	—	—	144,268	144,268
<b>Total other financing sources</b> .....	<b>1,923,186</b>	<b>1,923,186</b>	<b>2,194,386</b>	<b>271,200</b>
<b>Total revenues and other financing sources</b> .....	<b>39,158,931</b>	<b>39,158,846</b>	<b>39,655,752</b>	<b>496,906</b>
<b>EXPENDITURES AND OTHER FINANCING USES</b>				
<b>Expenditures:</b>				
Legislature.....	99,124	99,124	66,754	32,370
Judiciary.....	914,429	914,430	908,488	5,942
Inspector General.....	4,217	4,217	4,207	10
Governor and Lieutenant Governor.....	7,811	7,811	6,567	1,244
Secretary of the Commonwealth.....	47,442	47,791	45,849	1,942
Treasurer and Receiver-General.....	212,745	212,746	201,093	11,653
Auditor of the Commonwealth.....	18,481	18,481	18,227	254
Attorney General.....	47,716	47,696	46,282	1,414
Ethics Commission.....	1,969	1,969	1,883	86
District Attorney.....	120,542	120,542	119,790	752
Office of Campaign & Political Finance.....	1,586	1,586	1,521	65
Sheriff's Departments.....	590,541	610,988	610,052	936
Disabled Persons Protection Commission.....	3,043	3,043	3,043	—
Board of Library Commissioners.....	25,167	25,167	25,157	10
Comptroller.....	14,579	14,579	14,064	515
Administration and finance.....	2,503,061	2,503,061	2,375,466	127,595
Energy and environmental affairs.....	216,501	216,496	207,774	8,722
Health and human services.....	5,812,829	5,812,829	5,668,788	144,041
Office of the Child Advocate.....	994	994	633	361
Executive office of education.....	2,273,460	2,273,460	2,234,045	39,415
Center for Health Information and Analysis.....	30,080	30,085	23,031	7,054
Public safety and homeland security.....	1,152,392	1,160,526	1,118,586	41,940
Housing and economic development.....	524,723	524,723	495,960	28,763
Labor and workforce development.....	74,005	74,005	44,267	29,738
Direct local aid.....	5,664,525	5,664,525	5,639,056	25,469
Medicaid.....	15,254,269	15,254,269	15,251,717	2,552
Post employment benefits.....	2,638,100	2,638,100	2,643,761	(5,661)
Debt service:				
Principal retirement.....	729,607	729,607	704,981	24,626
Interest and fiscal charges.....	501,799	501,799	484,588	17,211
<b>Total expenditures</b> .....	<b>39,485,737</b>	<b>39,514,649</b>	<b>38,965,630</b>	<b>549,019</b>
<b>Other financing uses:</b>				
Operating transfers out.....	55,353	55,353	99,454	(44,101)
Medical assistance transfer.....	736,154	736,154	403,367	332,787
Delivery system transformation initiatives trust transfer.....	196,252	196,252	189,149	7,103
<b>Total other financing uses</b> .....	<b>987,759</b>	<b>987,759</b>	<b>691,970</b>	<b>295,789</b>
<b>Total expenditures and other financing uses</b> .....	<b>40,473,496</b>	<b>40,502,408</b>	<b>39,657,600</b>	<b>844,808</b>
<b>Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses</b> .....	<b>\$ (1,314,565)</b>	<b>\$ (1,343,562)</b>	<b>(1,848)</b>	<b>\$ 1,341,714</b>
Fund balances (deficits) at beginning of year.....			1,400,842	
Fund balances (deficits) at end of year.....			<u>\$ 1,398,994</u>	

See Independent Auditors' Report and notes to required supplementary information.

**Explanation of Differences between Revenues, Expenditures and Other Financing Sources/(Uses)  
for the General Fund on a Budgetary Basis and GAAP Basis (in thousands):**

**REVENUES**

Actual amounts (budgetary basis) "revenues" from the budgetary comparison schedules .....	\$ 37,461,366
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Tax receivable, net .....	(87,167)
Tax refunds and abatements payable, net .....	(136,035)
Federal reimbursements and other receivables .....	156,599
Reclassifications:	
Higher education revenue is reclassified for GAAP reporting .....	(104,907)
Inflows from component units and other miscellaneous financing sources .....	106,318
<b>Total revenues as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances -     Governmental Funds .....</b>	<b><u>\$ 37,396,174</u></b>

**OTHER FINANCING SOURCES**

Actual amounts (budgetary basis) "other financing sources" from the budgetary comparison schedule.....	\$ 2,194,386
Adjustments:	
Proceeds of capital lease on GAAP basis .....	804
Consolidation of transfers between funds.....	(5,840)
Inflows from component units and other miscellaneous financing sources .....	(106,297)
<b>Total other financing sources as reported on the Statement of Revenues, Expenditures and Changes in Fund     Balances - Governmental Funds.....</b>	<b><u>\$ 2,083,053</u></b>

**EXPENDITURES**

Actual amounts (budgetary basis) "expenditures" from the budgetary comparison schedule.....	\$ 38,965,630
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Medicaid payments .....	137,400
Compensated absences and other accrued liabilities .....	3,923
Reclassifications:	
Capital lease additions are additions to expenditures for GAAP purposes on a fund perspective .....	804
Budgetary debt service are reclassified to transfers out to a debt service fund for GAAP purposes as the Commonwealth does not have a statutory debt service fund .....	(1,189,569)
Higher education expenditures are reclassified for GAAP reporting .....	(1,437,709)
Expenditures to component units reported on a GAAP basis .....	26,626
<b>Total expenditures as reported on the Statement of Revenues, Expenditures and Changes in Fund     Balances - Governmental Funds.....</b>	<b><u>\$ 36,507,105</u></b>

**OTHER FINANCING USES**

Actual amounts (budgetary basis) "other financing uses" from the budgetary comparison schedule.....	\$ 691,970
Adjustments and Reclassifications:	
Consolidation of transfers between funds.....	(5,840)
Budgetary higher education amounts are reclassified to transfers under the modified accrual basis.....	1,332,802
Budgetary debt service are reclassified to transfers out to a debt service fund for GAAP purposes as the Commonwealth does not have a statutory debt service fund .....	1,189,569
<b>Total other financing uses as reported on the Statement of Revenues, Expenditures and Changes in Fund     Balances - Governmental Funds.....</b>	<b><u>\$ 3,208,501</u></b>

See Independent Auditors' Report and notes to required supplementary information.

**Note to Required Supplementary Information – Budgetary Reporting**

The Commonwealth passes a combined budget for all budgeted operations. State finance law requires that a balanced budget be approved by the Governor and the Legislature. The Governor presents an annual budget to the Legislature, which includes estimates of revenues and other financing sources and recommended expenditures and other financing uses. The Legislature, which has full authority to amend the budget, adopts an expenditure budget by appropriating monies at the individual appropriation account level in an annual appropriations act. Generally, expenditures may not exceed the level of spending authorized for an appropriation account.

Before signing the appropriations act, the Governor may veto or reduce any specific item, subject to legislative override. Further changes to the budget established in the annual appropriations act may be made via supplemental appropriation acts or other legislative acts. These must also be signed by the Governor and are subject to the line item veto.

In addition, Massachusetts General Laws authorize the Secretary of Administration and Finance, with the approval of the Governor, upon determination that available revenues will be insufficient to meet authorized expenditures, to withhold allotments of appropriated funds which effectively reduce the account's expenditure budget. The majority of the Commonwealth's appropriations are non-continuing accounts which lapse at the end of each fiscal year. Others are continuing accounts for which the Legislature has authorized that an unspent balance from the prior year be carried forward and made available for spending in the current fiscal year. In addition, the Legislature may direct that certain revenues be retained and made available for spending within an appropriation. Fringe benefits, pension costs, and certain other costs which are mandated by state finance law are not itemized in the appropriation process and are not separately budgeted.

Because revenue budgets are not updated subsequent to the original appropriation act, the comparison of the initial revenue budget to the subsequent, and often modified, expenditure budget can be misleading. Also, these financial statements portray fund accounting with gross inflows and outflows, thus creating a difference to separately published budget documents, which eliminate some interfund activity. In conducting the budget process, the Commonwealth excludes those interfund transactions that by their nature have no impact on the combined fund balance of the budgeted funds.

The FY04 General Appropriation Act (Chapter 26, Section 167 of the Acts of 2003), amended section 9C, directing the Governor to notify the Legislature in writing as to the reasons for and the effect of any reductions in spending. Alternatively, the Governor may propose specific additional revenues to fund the deficiency. The Governor may also propose to transfer funds from the Stabilization Fund to cure the deficiency. This proposal must be delivered to the Legislature 15 days before any reductions take effect.

The following table summarizes budgetary activity for FY17 (amounts in thousands):

	Revenues	Expenditures
General Appropriation Act, Chapter 133 of the Acts of 2016:		
Direct appropriations.....	\$ 39,065,600	\$ 38,655,408
Estimated revenues, transfers, retained revenue appropriations, and appropriations carried forward from FY2016.....	—	1,261,657
Total original budget .....	39,065,600	39,917,065
Supplemental Acts of 2016:		
Chapter 283 .....	—	279,191
Supplemental Acts of 2017:		
Chapter 5 .....	—	138,581
Chapter 20 .....	—	41,690
Chapter 41 .....	—	26,158
Chapter 110 .....	—	85,527
Total budgeted revenues and expenditures per Legislative action .....	—	571,147
Chapter 29, Section 9C Reductions.....	—	(115,592)
Plus: Pension contributions and revenue authorized outside of General Appropriation Act, and other transfers of revenue and spending.....	2,238,244	2,238,100
Budgeted revenues and expenditures as reported.....	<u>\$ 41,303,844</u>	<u>\$ 42,610,719</u>

As the budget is not passed taking into account the structure of funds, but of appropriations, reports contained within the Commonwealth's MMARS accounting system demonstrate budgetary compliance by appropriation. Those reports are available upon request at the Office of the State Comptroller, Financial Reporting and Analysis Bureau, at (617) 973-2660.

## Schedule of Funding Progress - Other Post Employment Benefits

(Amounts in thousands except for percentages)

### State Retiree Benefits Trust Funding Progress for the last six fiscal years

	Actuarial Value of Plan Assets	Actuarial Accrued Liability	Unfunded Actuarial Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as a % of Covered Payroll
Actuarial Valuation as of January 1, 2017.....	\$ 817,400	\$ 20,263,500	\$ 19,446,100	4.0%	\$ 5,927,012	328.1%
Actuarial Valuation as of January 1, 2016.....	760,400	17,082,900	16,322,500	4.5%	5,792,288	281.8%
Actuarial Valuation as of January 1, 2015.....	610,000	16,502,800	15,892,800	3.7%	5,591,911	284.2%
Actuarial Valuation as of January 1, 2014.....	511,200	15,670,200	15,159,000	3.3%	5,344,510	283.6%
Actuarial Valuation as of January 1, 2013.....	406,700	15,784,100	15,377,400	2.6%	5,183,195	296.7%
Actuarial Valuation as of January 1, 2012.....	360,500	16,659,400	16,298,900	2.2%	4,922,388	331.1%

## Schedule of Employer Contributions - Other Post Employment Benefits

(Amounts in thousands except for percentages)

	Fiscal Year Ended June 30,	Actuarially Determined/ Required Contribution	Amount Contributed	Percentage Contributed	Covered Employee Payroll	Contribution as a Percentage of Payroll
State Retirees' Benefit Trust	2017	\$ 1,623,000	\$ 546,000	33.6%	\$ 5,927,012	9.21%
	2016	1,418,000	614,000	43.3%	5,792,288	10.60%
	2015	1,361,000	637,000	46.8%	5,591,911	11.39%
	2014	1,251,000	608,000	48.6%	5,344,510	11.38%
	2013	1,251,000	585,000	46.8%	5,183,195	11.29%
	2012	1,286,000	558,000	43.4%	4,922,388	11.34%
	2011	1,276,000	557,000	43.7%	4,808,250	11.58%
	2010	1,163,000	372,000	32.0%	4,711,563	7.90%
	2009	1,222,000	352,000	28.8%	4,712,655	7.47%
	2008	839,000	683,000	81.4%	4,574,233	14.93%

For a complete analysis of the Commonwealth's actuarial valuation report, please contact the Office of the State Comptroller, 1 Ashburton Place, 9th Floor, Boston, MA 02108.

See Independent Auditors' Report

**Schedule of Changes in the State Employees' Retirement  
System (SERS) Net Pension Liability and Related Ratios**

(Amounts in thousands, except for percentages)

	2017	2016	2015	2014
Total pension liability, July 1 .....	\$ 37,760,000	\$ 35,425,414	\$ 31,355,000	\$ 29,988,000
Service cost .....	855,440	813,975	700,012	631,634
Interest .....	2,813,374	2,638,929	2,411,551	2,405,204
Change in benefit terms .....	10,000	400,000	230,302	—
Differences between expected and actual experience .....	(428,232)	589,009	275,000	—
Changes of assumptions .....	304,000	—	2,330,000	102,000
Benefit payments, including refunds of member contributions ....	(2,207,582)	(2,107,327)	(1,876,451)	(1,771,838)
Net change in total pension liability .....	1,347,000	2,334,586	4,070,414	1,367,000
Total pension liability, June 30 (a) .....	<u>\$ 39,107,000</u>	<u>\$ 37,760,000</u>	<u>\$ 35,425,414</u>	<u>\$ 31,355,000</u>
Plan fiduciary net position, July 1 .....	\$ 23,971,156	\$ 24,042,585	\$ 23,930,895	\$ 21,084,958
Contributions:				
Employers - Commonwealth and MassDOT .....	716,266	660,818	601,931	550,483
Non-employer contributions - Commonwealth .....	28,455	21,830	18,040	21,293
Employer and non-employer contributions - other .....	7,999	16,642	15,808	6,048
ERIP funding contribution - Commonwealth .....	29,093	29,093	—	—
Plan members .....	604,772	591,948	549,493	501,106
Other additions .....	232,548	397,077	92,503	68,967
Total contributions .....	1,619,133	1,717,408	1,277,775	1,147,897
Net investment income .....	2,987,632	422,938	800,886	3,551,012
Benefit payments, including refunds of plan member contributions .....	(2,207,582)	(2,107,327)	(1,876,451)	(1,771,838)
Administrative expense .....	(30,030)	(20,624)	(15,966)	(12,705)
Other changes .....	(58,077)	(83,824)	(74,554)	(68,429)
Net change in plan fiduciary net position .....	2,311,076	(71,429)	111,690	2,845,937
Plan fiduciary net position, June 30 (b) .....	<u>\$ 26,282,232</u>	<u>\$ 23,971,156</u>	<u>\$ 24,042,585</u>	<u>\$ 23,930,895</u>
Plan net pension liability - June 30 (a) - (b) .....	<u>\$ 12,824,768</u>	<u>\$ 13,788,844</u>	<u>\$ 11,382,829</u>	<u>\$ 7,424,105</u>
Plan fiduciary net position as a percentage of the total pension liability .....	67.2%	63.5%	67.9%	76.3%
Covered employee payroll (as of the actuarial valuation date) ....	\$ 5,927,012	\$ 5,792,288	\$ 5,591,911	\$ 5,344,510
Net pension liability as a percentage of covered employee payroll .....	216.4%	238.1%	203.6%	138.9%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule



## NOTES TO THE SERS SCHEDULE

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### **FY2017 Changes in Actuarial Assumptions**

#### **Changes of Benefit Terms:**

Chapter 79 of the Acts 2014 established an early retirement incentive (ERI) program for certain employees of the highway division of the Massachusetts Department of Transportation whose positions have been eliminated due to automation of toll collections. Most members retiring under the ERI program had a date retirement of October 28, 2016. 112 members took the ERI and retired during FY2017. As a result, the total pension liability of SERS increased by approximately \$10 million as of June 30, 2017.

#### **Changes of Assumptions:**

##### Change in mortality

The following mortality assumption changes were made in the January 1, 2017 Actuarial Valuation for SERS:

- Pre-retirement - was changed to RP-2014 Blue Collar Employees table projected generationally with Scale MP-2016 set forward 1 year for females from RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct).
- Post-retirement - was changed to RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2016 set forward 1 year for females from RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct).
- Disabled members - is assumed to be in accordance with the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year of 2015 (gender distinct), and is unchanged from the prior valuation.

These changes resulted in an increase of approximately \$304 million in the total pension liability as of June 30, 2017.

### **FY2016 Changes in Actuarial Assumptions**

#### **Changes in Benefit Terms:**

Chapter 176 of the Acts of 2011 created a one time election for eligible members of the Optional Retirement Plan (ORP) to transfer to the State Employee's Retirement System (SERS) and purchase service for the period while members of the ORP. As a result, the total pension liability of SERS has increased by approximately \$400 million as of June 30, 2016.

### **FY2015 Changes in Actuarial Assumptions**

#### **Changes in Benefit Terms:**

In May 2015, Chapter 19 of the Acts of 2015 created an Early Retirement Incentive (ERI) for certain members of SERS who upon election of the ERI retired effective June 30, 2015. As a result, the total pension liability of SERS has increased by approximately \$230 million as of June 30, 2015.

#### **Changes of Assumptions:**

##### Change in the investment rate of return

The Commonwealth revised its discount rate to 7.50% from 7.75%. This change resulted in an increase of approximately \$933 million which affected the net pension liability as of and for the fiscal year ending June 30, 2015.

##### Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation for SERS:

- Pre-retirement - was changed to RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct) from RP-2000 Employees table projected 22 years with Scale AA.
- Post-retirement - was changed to RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct) from RP-2000 Healthy Annuitant table projected 17 years with Scale AA.
- Disabled members - was changed to be assumed to be in accordance with RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2015 (gender distinct) from RP-2000 Healthy Annuitant table projected 7 years with Scale AA set forward 3 years for males.

These changes resulted in an increase of approximately \$1.397 billion in the total pension liability as of June 30, 2015.

### **FY2014 Changes in Actuarial Assumptions**

#### **Changes of Assumptions:**

##### Change in Experience

An updated experience study was issued on February 27, 2014 and encompassed the period January 1, 2006 to December 31, 2011. The study reviewed salary increases and rates of retirement, disability, turnover, and mortality. This study adjusted the mortality assumption which resulted in an increase of approximately \$102 million in the total pension liability as of June 30, 2014.

See Independent Auditors' Report

**Schedule of Changes in the Massachusetts Teachers' Retirement  
System (MTRS) Net Pension Liability and Related Ratios**

(Amounts in thousands, except for percentages)

	2017	2016	2015	2014
Total pension liability, July 1 .....	\$ 47,300,000	\$ 45,918,711	\$ 41,435,000	\$ 39,931,000
Service cost .....	891,760	843,800	768,032	720,712
Interest .....	3,505,761	3,402,525	3,166,728	3,227,025
Differences between expected and actual experience .....	47,046	(74,025)	153,000	—
Changes of assumptions .....	1,176,000	—	3,080,000	108,000
Benefit payments, including refunds of member contributions .....	(2,896,567)	(2,791,011)	(2,684,049)	(2,551,737)
Net change in total pension liability .....	2,724,000	1,381,289	4,483,711	1,504,000
Total pension liability, June 30 (a) .....	<u>\$ 50,024,000</u>	<u>\$ 47,300,000</u>	<u>\$ 45,918,711</u>	<u>\$ 41,435,000</u>
Plan fiduciary net position, July 1 .....	\$ 24,942,072	\$ 25,429,068	\$ 25,538,646	\$ 22,697,302
Contributions:				
Non-employer .....	1,235,515	1,124,583	1,021,930	937,379
Plan members .....	730,212	699,422	669,941	653,328
Other additions .....	223,746	202,796	190,925	150,522
Total contributions .....	2,189,473	2,026,801	1,882,796	1,741,229
Net investment income .....	3,100,352	441,363	845,503	3,771,883
Benefit payments, including refunds of plan member contributions .....	(2,896,567)	(2,791,011)	(2,684,049)	(2,551,737)
Administrative expense .....	(24,053)	(24,220)	(23,444)	(20,499)
Other changes .....	(172,668)	(139,929)	(130,384)	(99,532)
Net change in plan fiduciary net position .....	2,196,537	(486,996)	(109,578)	2,841,344
Plan fiduciary net position, June 30 (b) .....	<u>\$ 27,138,609</u>	<u>\$ 24,942,072</u>	<u>\$ 25,429,068</u>	<u>\$ 25,538,646</u>
Plan net pension liability - June 30 (a) - (b) .....	<u>\$ 22,885,391</u>	<u>\$ 22,357,928</u>	<u>\$ 20,489,643</u>	<u>\$ 15,896,354</u>
Plan fiduciary net position as a percentage of the total pension liability .....	54.3%	52.7%	55.4%	61.6%
Covered employee payroll (as of actuarial valuation date) .....	\$ 6,583,871	\$ 6,388,732	\$ 6,204,274	\$ 5,962,650
Net pension liability as a percentage of covered employee payroll .....	347.6%	350.0%	330.3%	266.6%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

## NOTES TO THE MTRS SCHEDULE

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### **FY2017 Changes in Actuarial Assumptions**

#### **Changes of Assumptions:**

##### Change in mortality

The following mortality assumption changes were made in the January 1, 2017 Actuarial Valuation for MTRS:

- Pre-retirement - was changed to RP-2014 White Collar Employees table projected generationally with Scale MP-2016 (gender distinct) from RP-2014 Employees table projected generationally with Scale BB).
- Post-retirement - was changed to RP-2014 White Collar Healthy Annuitant table projected generationally with Scale MP-2016 (gender distinct) from RP-2014 Healthy Annuitant table projected generationally with Scale BB).
- Disabled members - is assumed to be in accordance with RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year of 2014 set forward 4 years and is unchanged from the prior valuation.

These changes resulted in an increase of approximately \$1.176 billion in the total pension liability as of June 30, 2017.

### **FY2015 Changes in Actuarial Assumptions**

#### **Changes of assumptions:**

##### Change in the investment rate of return

The Commonwealth revised its discount rate to 7.50% from 7.75%. This change resulted in an increase of approximately \$1.190 billion which affected the net pension liability as of and for the fiscal year ending June 30, 2015.

##### Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation for MTRS:

- Pre-retirement - was changed to RP-2014 Employees table projected generationally with Scale BB and a base year of 2014 (gender distinct) from RP-2000 Employees table adjusted for "white-collar" employment projected 22 years with Scale AA.
- Post-retirement - was changed to RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year of 2014 (gender distinct) from RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 17 years with Scale AA.
- Disabled members - was changed to be assumed to be in accordance with RP-2014 Healthy Annuitant table projected generationally with Scale BB and a base year of 2014 set forward 4 years from RP-2000 Healthy Annuitant table adjusted for large annuity amounts and projected 7 years with Scale AA set forward 3 years for males.

These changes resulted in an increase of approximately \$1.890 billion in the total pension liability as of June 30, 2015.

### **FY2014 Changes in Actuarial Assumptions**

#### **Changes of Assumptions:**

##### Change in Experience

An updated experience study was issued on February 27, 2014 and encompassed the period January 1, 2006 to December 31, 2011. The study reviewed salary increases and rates of retirement, disability, turnover, and mortality. This study adjusted the mortality assumption which resulted in an increase of approximately \$108 million in the total pension liability as of June 30, 2014.

See Independent Auditors' Report

**Schedule of Changes in the State Retirees' Benefit Trust (SRBT)  
Net OPEB Liability and Related Ratios**

(Amounts in thousands, except for percentages)

	2017
Total OPEB liability, July 1 .....	\$ 22,704,400
Service cost .....	975,300
Interest .....	675,700
Differences between expected and actual experience .....	(62,600)
Changes of assumptions .....	(3,080,400)
Benefit payments, including refunds of member contributions .....	(441,064)
Net change in total pension liability .....	(1,933,064)
Total OPEB liability, June 30 (a) .....	<u>\$ 20,771,336</u>
Plan fiduciary net position, July 1 .....	\$ 866,043
Contributions:	
Employer .....	465,449
Other additions .....	784
Total contributions .....	466,233
Net investment income .....	105,822
Benefit payments, including refunds of plan member contributions .....	(441,064)
Administrative expense .....	(127)
Other changes .....	(500)
Net change in plan fiduciary net position .....	130,364
Plan fiduciary net position, June 30 (b) .....	<u>\$ 996,407</u>
Plan net OPEB liability - June 30 (a) - (b) .....	<u>\$ 19,774,929</u>
Plan fiduciary net position as a percentage of the total OPEB liability .....	4.8%
Covered employee payroll (as of actuarial valuation date) .....	\$ 5,927,012
Net OPEB liability as a percentage of covered employee payroll .....	333.6%

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

## NOTES TO THE SRBT SCHEDULE

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### **FY2017 Changes in Actuarial Assumptions**

#### **Changes of Assumptions:**

##### Change in discount rate

The discount rate was increased to 3.63% (based on a blend of the Bond Buyer Index rate (3.58%) as of the measurement date and the expected rate of return on assets) as required by GASB Statement No. 74. The June 30, 2016 discount rate was calculated to be 2.80%. This increase in the discount rate resulted in a decrease in the net OPEB liability of approximately \$3.080 billion as of June 30, 2017.

See Independent Auditors' Report

**Schedule of Investment Returns**

	Fiscal Year Ending June 30			
	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense - SERS.....	12.74%	1.79%	3.40%	17.13%
Annual money-weighted rate of return, net of investment expense - MTRS .....	12.75%	1.78%	3.40%	17.12%
Annual money-weighted rate of return, net of investment expense - SRBT .....	12.90%	(1)	(1)	(1)

(1) - GASB 74 implemented in FY2017.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report

**Schedule of Proportionate Share of the Net Pension Liability and Contributions**

**State Employees' Retirement System**

Last 10 Years  
(amounts in thousands)

<b>Proportionate Share of the Net Pension Liability</b>	2017 (measurement date June 30, 2016)	2016 (measurement date June 30, 2015)	2015 (measurement date June 30, 2014)
Proportion of the net pension liability .....	94.3%	93.8%	93.9%
Proportionate share of the net pension liability .....	\$ 12,996,818	\$ 10,682,765	\$ 6,972,443
Plan net position as a percentage of the total pension liability .....	63.5%	67.9%	76.3%
Covered payroll .....	\$ 5,249,985	\$ 5,136,405	\$ 4,975,346
Net pension liability as a percentage of covered payroll .....	247.6%	208.0%	140.1%

<b>Contributions</b>	Fiscal Year Ending June 30			
	2017	2016	2015	2014
Statutorily required contribution .....	\$ 744,721	\$ 682,648	\$ 619,971	\$ 571,776
Contributions in relation to the statutorily required contribution .....	744,721	682,648	619,971	571,776
Annual contribution deficiency/(excess) .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Covered payroll .....	\$ 5,397,203	\$ 5,249,985	\$ 5,136,405	\$ 4,975,346
Contributions as a percentage of covered payroll .....	13.8%	13.0%	12.1%	11.5%

The State Employees' Retirement System (SERS) is included in the CAFR as a pension trust fund in the fiduciary fund type. SERS is a defined-benefit multiple employer, cost-sharing public employee retirement system.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule



**Schedule of Proportionate Share of the Net Pension Liability and Contributions**

**Massachusetts Teachers' Retirement System**

Last 10 Years  
(amounts in thousands)

<b>Proportionate Share of the Net Pension Liability</b>	2017 (measurement date June 30, 2016)	2016 (measurement date June 30, 2015)	2015 (measurement date June 30, 2014)
Proportion of the net pension liability .....	100.0%	100.0%	100.0%
Proportionate share of the net pension liability .....	\$ 22,357,928	\$ 20,489,643	\$ 15,896,354
Plan net position as a percentage of the total pension liability .....	52.7%	55.4%	61.6%

	Fiscal Year Ending June 30			
	2017	2016	2015	2014
<b>Contributions</b>				
Statutorily required contribution.....	\$ 1,235,515	\$ 1,124,583	\$ 1,021,930	\$ 937,379
Contributions in relation to the statutorily required contribution.....	1,235,515	1,124,583	1,021,930	937,379
Annual contribution deficiency/(excess) .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The Massachusetts Teachers' Retirement System (MTRS) is included in the CAFR as a pension trust fund in the fiduciary fund type. MTRS is a defined-benefit multiple employer, cost-sharing public employee retirement system.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

**Schedule of Proportionate Share of the Net Pension Liability and Contributions**

**Boston Retirement System - Teachers**

Last 10 Years  
(amounts in thousands)

<b>Proportionate Share of the Net Pension Liability</b>	2017 (measurement date December 31, 2016)	2016 (measurement date December 31, 2015)	2015 (measurement date December 31, 2014)
Proportion of the net pension liability .....	55.9%	54.5%	53.7%
Proportionate share of the net pension liability .....	\$ 2,325,286	\$ 2,402,267	\$ 2,066,546
Plan net position as a percentage of the total pension liability.....	55.2%	55.8%	59.6%

<b>Contributions</b>	Fiscal Year Ending December 31			
	2016	2015	2014	2013
Statutorily required contribution.....	\$ 132,477	\$ 120,434	\$ 109,485	\$ 99,532
Contributions in relation to the statutorily required contribution .....	132,477	120,434	109,485	99,532
Annual contribution deficiency/(excess) .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The Boston Retirement System (BRS) is included in the City of Boston's CAFR. The Boston Teachers' portion of the BRS total pension liability is reported in the Commonwealth's CAFR as a part of the total net pension liability.

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

See Independent Auditors' Report and notes to the schedule

**NOTES TO THE SCHEDULES OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY  
AND CONTRIBUTIONS**

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**SERS and MTRS:**

In accordance with Chapter 32 of the Massachusetts General Laws (MGL), the Commonwealth’s statutorily determined contributions to SERS and MTRS are based on a three-year funding schedule adopted by the legislature based upon the previous year’s actuarial valuation. The most recent funding schedule was adopted in January 2017 (for fiscal years 2018 through 2020) based upon the January 1, 2016 actuarial valuation as prepared by the Public Employee Retirement Administration Commission (PERAC) using the following assumptions:

1. The annual required contribution for FY2017 was determined as part of the January 1, 2016 actuarial valuation using the entry age normal cost method.
2. The actuarial assumptions included (a) 7.50% investment rate of return, (b) 3.50% interest rate credited to the annuity savings fund and (c) 3.00% cost of living increase per year (on the first \$13,000 of an allowance).
3. Salary increases are based on analyses of past experience but range from 4.0% to 9.0% depending on group and length of service.
4. The assumptions do not include post-retirement benefit increases, which are taken into account when granted under amendments to General Laws.
5. The actuarial value of assets was determined using various techniques that smooth the effects of short-term volatility in the market value of investments, with a phased-in approach. Under this approach, 20% of the gains or losses occurring in the prior year are recognized, 40% of those occurring two years prior, etc., so that 100% of gains and losses occurring five years prior are recognized. The actuarial value of assets is adjusted if necessary in order to remain between 90% and 110% of market value.
6. Normal costs are amortized using level percentage of payroll, closed.
7. The remaining amortization period for the unfunded pension liability at January 1, 2016 was 20 years to FY36.

**BRS-Teachers:**

The actuarially determined contributions were calculated as of December 31, 2015. The funding requirements are established for the employers' fiscal year ended June 30, 2017 and later years and are analyzed based on the preceding two years' experience. The following actuarial methods and assumptions were used to determine the required contribution rates:

Actuarial cost method.....	Entry age normal cost method
Amortization method.....	Prior year's contribution increased by 10% for fiscal 2015, 2016 and 2017, and 7.0% per year thereafter for Boston Teachers
Remaining amortization period ...	20 years remaining as of January 1, 2016 for Boston Teachers
Asset valuation method .....	Sum of actuarial value at beginning of year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20% of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20% of market value.
	Similar formula used for negative adjustment toward market value if actuarial value exceeds market value.
Inflation .....	4.5%
Salary increases .....	Varies by length of service with ultimate rate of 4.00% for Boston Teachers
Investment rate of return .....	7.50% for Boston Teachers

# *Other Supplementary Information*

*Combining Balance Sheet – Other Governmental Funds*  
*Combining Statement of Revenues, Expenditures and Changes in Fund Balance – Other Governmental Funds*  
*Combining Statement of Revenues, Expenditures and Changes in Fund Balances – Budgetary Basis – Budget and Actual – Other Budgeted Nonmajor Governmental Funds*  
*Combining Budget to GAAP Reconciliation – Other Budgeted Nonmajor Governmental Funds*  
*Combining Statement of Net Position Available for Pension Benefits*  
*Combining Statement of Changes in Net Position Available for Pension Benefits*  
*Combining Statement of Net Position Held in Trust for Pool Participants*  
*Combining Statement of Changes in Net Position Held in Trust for Pool Participants*  
*Combining Statement of Changes in Assets and Liabilities – Agency Funds*  
*Combining Statement of Net Position – Nonmajor Component Units*  
*Combining Statement of Revenues, Expenses and Changes in Net Position – Nonmajor Component Units*

**Combining Balance Sheet**

Other Governmental Funds

June 30, 2017

(Amounts in thousands)

	<b>Special Revenue</b>						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Gaming Control	Gaming Revenue
<b>ASSETS</b>							
Cash and cash equivalents .....	\$ 482	\$ —	\$ 317,581	\$ 16,566	\$ 15,505	\$ 7,458	\$ 47
Restricted cash with fiscal agent.....	18,080	—	—	—	—	—	—
Receivables, net of allowance for uncollectibles:							
Taxes .....	69,199	—	10,107	90	—	—	—
Due from federal government.....	—	275,459	19,297	1,075	—	—	—
Loans receivable .....	—	—	—	—	—	—	—
Other receivables .....	85	—	38,113	303	—	6,122	—
Due from other funds .....	—	—	—	—	—	—	—
<b>Total assets .....</b>	<b>\$ 87,846</b>	<b>\$ 275,459</b>	<b>\$ 385,098</b>	<b>\$ 18,034</b>	<b>\$ 15,505</b>	<b>\$ 13,580</b>	<b>\$ 47</b>
<b>LIABILITIES AND FUND BALANCES</b>							
Liabilities:							
Accounts payable .....	\$ 482	\$ 231,257	\$ 61,077	\$ 683	\$ 194	\$ 1,869	\$ 47
Accrued payroll.....	—	3,418	73	201	13	216	—
Compensated absences.....	—	—	—	—	—	—	—
Tax refunds and abatements payable .....	244	—	—	—	—	—	—
Due to other funds.....	—	38,702	—	—	—	—	—
Due to component units .....	13,764	—	20,810	—	—	—	—
Other accrued liabilities .....	—	—	43,651	—	—	—	—
<b>Total liabilities .....</b>	<b>14,490</b>	<b>273,377</b>	<b>125,611</b>	<b>884</b>	<b>207</b>	<b>2,085</b>	<b>47</b>
Deferred inflows of resources.....	—	—	49,313	—	—	—	—
<b>Total liabilities and deferred inflows of resources .....</b>	<b>14,490</b>	<b>273,377</b>	<b>174,924</b>	<b>884</b>	<b>207</b>	<b>2,085</b>	<b>47</b>
Fund balances:							
Restricted .....	18,080	2,082	—	—	15,298	—	—
Committed.....	55,276	—	210,174	16,150	—	11,495	—
Assigned.....	—	—	—	1,000	—	—	—
Unassigned (deficits) .....	—	—	—	—	—	—	—
<b>Fund balances (deficits) .....</b>	<b>73,356</b>	<b>2,082</b>	<b>210,174</b>	<b>17,150</b>	<b>15,298</b>	<b>11,495</b>	<b>—</b>
<b>Total liabilities and fund balances .....</b>	<b>\$ 87,846</b>	<b>\$ 275,459</b>	<b>\$ 385,098</b>	<b>\$ 18,034</b>	<b>\$ 15,505</b>	<b>\$ 13,580</b>	<b>\$ 47</b>

See Independent Auditors' Report

**Special Revenue**

MBTA State & Local Contribution	Community Preservation Trust	Health Insurance Portability and Accountability Act	Division of Professional Licensure	Enhanced 911	Health Information Technology Trust	Regional Greenhouse Gas Initiative (RGGI) Auction Trust	Workforce Training Trust	Child Support Enforcement	Department of Industrial Accidents
\$ 86,440	\$ 21,538	\$ 6,786	\$ 5,131	\$ 139,061	\$ —	\$ 18,868	\$ 36,105	\$ 15,032	\$ 10,387
—	—	—	—	—	—	—	—	—	—
65,528	—	—	—	—	—	—	6,445	—	—
—	—	1,312	—	—	4,806	—	—	1,433	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	3,653	5,520
—	—	—	—	—	—	—	—	—	—
<b>\$ 151,968</b>	<b>\$ 21,538</b>	<b>\$ 8,098</b>	<b>\$ 5,131</b>	<b>\$ 139,061</b>	<b>\$ 4,806</b>	<b>\$ 18,868</b>	<b>\$ 42,550</b>	<b>\$ 20,118</b>	<b>\$ 15,907</b>
\$ 65,511	\$ 24,046	\$ 455	\$ 71	\$ 16,329	\$ 10,417	\$ 1,890	\$ 130	\$ 2,215	\$ 211
—	—	22	42	61	75	38	—	183	—
—	—	—	—	—	—	—	—	—	—
243	—	—	—	—	—	—	68	—	—
—	—	—	—	—	39,438	—	—	—	—
86,214	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
<b>151,968</b>	<b>24,046</b>	<b>477</b>	<b>113</b>	<b>16,390</b>	<b>49,930</b>	<b>1,928</b>	<b>198</b>	<b>2,398</b>	<b>211</b>
—	—	—	—	—	—	—	—	—	—
<b>151,968</b>	<b>24,046</b>	<b>477</b>	<b>113</b>	<b>16,390</b>	<b>49,930</b>	<b>1,928</b>	<b>198</b>	<b>2,398</b>	<b>211</b>
—	—	—	—	—	—	—	—	17,720	—
—	—	7,621	5,018	122,671	—	16,940	42,352	—	15,696
—	—	—	—	—	—	—	—	—	—
—	(2,508)	—	—	—	(45,124)	—	—	—	—
—	(2,508)	7,621	5,018	122,671	(45,124)	16,940	42,352	17,720	15,696
<b>\$ 151,968</b>	<b>\$ 21,538</b>	<b>\$ 8,098</b>	<b>\$ 5,131</b>	<b>\$ 139,061</b>	<b>\$ 4,806</b>	<b>\$ 18,868</b>	<b>\$ 42,550</b>	<b>\$ 20,118</b>	<b>\$ 15,907</b>

continued

**Combining Balance Sheet**

Other Governmental Funds

June 30, 2017

(Amounts in thousands)

	<b>Special Revenue</b>					
	Convention and Exhibition Center	Grant Anticipation Note Trust	Massachusetts Tourism Trust	Expendable Trust	Other	Debt Service
<b>ASSETS</b>						
Cash and cash equivalents .....	\$ 52,835	\$ 6,656	\$ 775	\$ 680,969	\$ 103,932	\$ 298
Restricted cash with fiscal agent.....	99,248	83,196	—	—	—	236
Receivables, net of allowance for uncollectibles:						
Taxes .....	17,521	—	6,292	—	62	—
Due from federal government.....	—	78,617	—	2,819	—	—
Loans receivable .....	—	—	—	914	13,678	—
Other receivables .....	—	—	—	9,154	141	—
Due from other funds .....	—	—	—	—	—	—
<b>Total assets .....</b>	<b>\$ 169,604</b>	<b>\$ 168,469</b>	<b>\$ 7,067</b>	<b>\$ 693,856</b>	<b>\$ 117,813</b>	<b>\$ 534</b>
<b>LIABILITIES AND FUND BALANCES</b>						
Liabilities:						
Accounts payable .....	\$ 24,884	\$ —	\$ 316	\$ 39,811	\$ 8,029	\$ —
Accrued payroll.....	—	—	27	991	395	—
Compensated absences.....	—	—	9	—	—	—
Tax refunds and abatements payable .....	—	—	—	—	—	—
Due to other funds.....	—	78,617	—	—	—	—
Due to component units .....	—	—	—	—	—	—
Other accrued liabilities .....	—	—	—	—	—	—
<b>Total liabilities .....</b>	<b>24,884</b>	<b>78,617</b>	<b>352</b>	<b>40,802</b>	<b>8,424</b>	<b>—</b>
Deferred inflows of resources.....	—	—	—	—	—	—
<b>Total liabilities and deferred inflows of resources .....</b>	<b>24,884</b>	<b>78,617</b>	<b>352</b>	<b>40,802</b>	<b>8,424</b>	<b>—</b>
Fund balances:						
Restricted .....	—	89,852	—	238,750	13,678	534
Committed.....	144,720	—	6,715	264,012	130,744	—
Assigned.....	—	—	—	150,292	—	—
Unassigned (deficits) .....	—	—	—	—	(35,033)	—
<b>Fund balances (deficits) .....</b>	<b>144,720</b>	<b>89,852</b>	<b>6,715</b>	<b>653,054</b>	<b>109,389</b>	<b>534</b>
<b>Total liabilities and fund balances .....</b>	<b>\$ 169,604</b>	<b>\$ 168,469</b>	<b>\$ 7,067</b>	<b>\$ 693,856</b>	<b>\$ 117,813</b>	<b>\$ 534</b>

See Independent Auditors' Report

**Capital Projects**

General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ 609,490	\$ 8,393	65,288	\$ 6,286	\$ 10	\$ 2,231,919
—	—	—	—	—	200,760
—	—	—	—	—	175,244
4,884	—	—	—	—	389,702
—	—	—	—	—	14,592
—	—	—	22	—	63,113
—	—	—	78,617	—	78,617
<b>\$ 614,374</b>	<b>\$ 8,393</b>	<b>\$ 65,288</b>	<b>\$ 84,925</b>	<b>\$ 10</b>	<b>\$ 3,153,947</b>
\$ 363,784	\$ —	\$ —	\$ —	\$ 500	\$ 854,208
553	—	—	—	—	6,308
—	—	—	—	—	9
—	—	—	—	—	555
—	—	—	—	—	156,757
5,255	—	277,050	94,692	—	497,785
—	—	—	—	—	43,651
<b>369,592</b>	<b>—</b>	<b>277,050</b>	<b>94,692</b>	<b>500</b>	<b>1,559,273</b>
—	—	—	—	—	49,313
<b>369,592</b>	<b>—</b>	<b>277,050</b>	<b>94,692</b>	<b>500</b>	<b>1,608,586</b>
244,782	8,393	—	—	10	649,179
—	—	—	—	—	1,049,584
—	—	—	—	—	151,292
—	—	(211,762)	(9,767)	(500)	(304,694)
<b>244,782</b>	<b>8,393</b>	<b>(211,762)</b>	<b>(9,767)</b>	<b>(490)</b>	<b>1,545,361</b>
<b>\$ 614,374</b>	<b>\$ 8,393</b>	<b>\$ 65,288</b>	<b>\$ 84,925</b>	<b>\$ 10</b>	<b>\$ 3,153,947</b>



**Combining Statement of Revenues, Expenditures and Changes in Fund Balances**

Other Governmental Funds  
Fiscal Year Ended June 30, 2017  
(Amounts in thousands)

	Special Revenue						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Gaming Control	Gaming Revenue
<b>REVENUES</b>							
Taxes .....	\$ 1,318,347	\$ —	\$ 145,179	\$ 1,009	\$ —	\$ —	\$ 63,432
Assessments .....	22,440	—	472,594	—	—	—	—
Federal grants and reimbursements.....	—	3,635,458	141,081	8,527	—	—	—
Departmental.....	666,638	—	320,360	8,815	—	32,331	10
Miscellaneous.....	240	7	1,142	255	—	—	—
<b>Total revenues .....</b>	<b>2,007,665</b>	<b>3,635,465</b>	<b>1,080,356</b>	<b>18,606</b>	<b>—</b>	<b>32,331</b>	<b>63,442</b>
<b>OTHER FINANCING SOURCES</b>							
Bonds premium .....	—	—	—	—	—	—	—
Issuance of general and special obligation bonds .....	—	—	—	—	—	—	—
Issuance of current refunding bonds .....	—	—	—	—	—	—	—
Issuance of advance refunding bonds .....	—	—	—	—	—	—	—
Transfers in for debt service.....	—	—	—	—	—	—	—
Transfers in.....	40,000	—	612,120	191	—	—	—
<b>Total other financing sources .....</b>	<b>40,000</b>	<b>—</b>	<b>612,120</b>	<b>191</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Total revenues and other financing sources .....</b>	<b>2,047,665</b>	<b>3,635,465</b>	<b>1,692,476</b>	<b>18,797</b>	<b>—</b>	<b>32,331</b>	<b>63,442</b>
<b>EXPENDITURES</b>							
Current:							
Judiciary.....	—	1,667	—	—	—	—	—
Inspector General.....	—	—	218	—	—	—	—
Governor and Lieutenant Governor.....	—	—	—	—	—	—	—
Secretary of the Commonwealth .....	—	1,135	—	—	—	—	—
Treasurer and Receiver-General .....	—	2,001	—	—	—	68	—
Auditor of the Commonwealth .....	—	—	—	—	—	—	—
Attorney General .....	—	22,521	—	—	—	1,297	—
District Attorney .....	—	2,553	—	—	—	—	—
Sheriff's Departments .....	—	4,007	—	—	—	—	—
Disabled Person Protection Commission .....	—	159	—	—	—	—	—
Board of Library Commissioners .....	—	2,854	—	—	—	—	—
Massachusetts Gaming Commission .....	—	—	—	—	—	20,481	—
Comptroller.....	—	—	—	—	—	—	—
Administration and Finance.....	125,000	5,235	25,919	126	—	14	—
Energy and Environmental Affairs .....	—	36,348	—	15,808	—	—	—
Health and Human Services .....	—	1,703,963	20,980	—	31,616	431	—
Massachusetts Department of Transportation.....	628,287	83	—	—	—	—	—
Executive Office of Education.....	—	1,012,862	—	—	—	—	—
Center for Health and Information Analysis.....	—	208	—	—	—	—	—
Public Safety and Homeland Security .....	—	141,491	—	—	—	7	—
Housing and Economic Development .....	—	484,455	—	—	—	—	—
Labor and Workforce development .....	—	125,376	—	—	—	—	—
Medicaid .....	—	—	1,541,179	—	9,571	—	—
Post employment benefits.....	15,948	—	—	—	—	—	—
Direct local aid.....	—	—	—	—	—	—	—
Capital outlay:							
Capital acquisition and construction.....	—	—	—	—	—	—	—
Debt service.....	—	—	—	—	—	—	—
Principal on current refundings.....	—	—	—	—	—	—	—
<b>Total expenditures.....</b>	<b>769,235</b>	<b>3,546,918</b>	<b>1,588,296</b>	<b>15,934</b>	<b>41,187</b>	<b>22,298</b>	<b>—</b>
<b>OTHER FINANCING USES</b>							
Payments to refunding bond escrow agent .....	—	—	—	—	—	—	—
Transfers out.....	183,843	109,581	185,302	3,384	1,233	4,011	63,442
Transfers of appropriations .....	—	—	—	—	—	—	—
Transfers of bond proceeds .....	—	—	—	—	—	—	—
Transfers out for debt service.....	1,095,108	—	—	—	—	—	—
<b>Total other financing uses .....</b>	<b>1,278,951</b>	<b>109,581</b>	<b>185,302</b>	<b>3,384</b>	<b>1,233</b>	<b>4,011</b>	<b>63,442</b>
<b>Total expenditures and other financing uses .....</b>	<b>2,048,186</b>	<b>3,656,499</b>	<b>1,773,598</b>	<b>19,318</b>	<b>42,420</b>	<b>26,309</b>	<b>63,442</b>
<b>Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses .....</b>	<b>(521)</b>	<b>(21,034)</b>	<b>(81,122)</b>	<b>(521)</b>	<b>(42,420)</b>	<b>6,022</b>	<b>—</b>
Fund balances (deficits) at beginning of year.....	73,877	23,116	291,296	17,671	57,718	5,473	—
<b>Fund balances (deficits) at end of year .....</b>	<b>\$ 73,356</b>	<b>\$ 2,082</b>	<b>\$ 210,174</b>	<b>\$ 17,150</b>	<b>\$ 15,298</b>	<b>\$ 11,495</b>	<b>\$ —</b>

See Independent Auditors' Report

Special Revenue									
MBTA State & Local Contribution	Community Preservation Trust	Health Insurance Portability and Accountability Act	Division of Professional Licensure	Enhanced 911	Health Information Technology Trust	Regional Greenhouse Gas Initiative (RGGI) Auction Trust	Workforce Training Trust	Child Support Enforcement	Department of Industrial Accidents
\$ 997,277	\$ 26,676	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 24,600	\$ —	\$ —
163,998	—	—	—	—	—	—	—	—	21,970
—	—	14,189	—	—	67,717	—	—	25,210	—
—	—	—	10,998	105,827	—	34,582	—	4,898	5,911
—	97	—	—	196	—	—	—	131	24
<b>1,161,275</b>	<b>26,773</b>	<b>14,189</b>	<b>10,998</b>	<b>106,023</b>	<b>67,717</b>	<b>34,582</b>	<b>24,600</b>	<b>30,239</b>	<b>27,905</b>
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	8,853	—	—	—	—
—	—	—	—	—	8,853	—	—	—	—
<b>1,161,275</b>	<b>26,773</b>	<b>14,189</b>	<b>10,998</b>	<b>106,023</b>	<b>76,570</b>	<b>34,582</b>	<b>24,600</b>	<b>30,239</b>	<b>27,905</b>
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1,161,275	—	—	—	—	—	—	—	7	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	214	—
—	—	—	—	4,868	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	24,182	—	—	1,037	—	—	—	30,254	—
—	—	—	—	—	—	44,346	—	—	—
—	—	—	—	57	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	95,703	—	—	—	—	—
—	—	—	8,374	—	—	—	—	—	—
—	—	—	—	—	—	—	25,386	—	747
—	—	13,821	—	—	116,143	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
<b>1,161,275</b>	<b>24,182</b>	<b>13,821</b>	<b>8,374</b>	<b>101,665</b>	<b>116,143</b>	<b>44,346</b>	<b>25,386</b>	<b>30,475</b>	<b>747</b>
—	—	—	—	—	—	—	—	—	—
—	42	390	2,398	5,041	1,589	—	98	3,542	23,937
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	42	390	2,398	5,041	1,589	—	98	3,542	23,937
<b>1,161,275</b>	<b>24,224</b>	<b>14,211</b>	<b>10,772</b>	<b>106,706</b>	<b>117,732</b>	<b>44,346</b>	<b>25,484</b>	<b>34,017</b>	<b>24,684</b>
—	2,549	(22)	226	(683)	(41,162)	(9,764)	(884)	(3,778)	3,221
—	(5,057)	7,643	4,792	123,354	(3,962)	26,704	43,236	21,498	12,475
<b>\$ —</b>	<b>\$ (2,508)</b>	<b>\$ 7,621</b>	<b>\$ 5,018</b>	<b>\$ 122,671</b>	<b>\$ (45,124)</b>	<b>\$ 16,940</b>	<b>\$ 42,352</b>	<b>\$ 17,720</b>	<b>\$ 15,696</b>

continued

**Combining Statement of Revenues, Expenditures and Changes in Fund Balances**

Other Governmental Funds  
Fiscal Year Ended June 30, 2017  
(Amounts in thousands)

	<b>Special Revenue</b>					
	Convention and Exhibition Center	Grant Anticipation Note Trust	Massachusetts Tourism Trust	Expendable Trust	Other	Debt Service
<b>REVENUES</b>						
Taxes .....	\$ 134,958	\$ —	\$ 10,097	\$ —	\$ 1,010	\$ —
Assessments .....	—	—	—	83,126	25,883	—
Federal grants and reimbursements.....	—	536,280	—	26,810	819	46,778
Departmental.....	—	—	—	64,305	71,711	—
Miscellaneous.....	418	591	—	477,467	10,535	—
<b>Total revenues .....</b>	<b>135,376</b>	<b>536,871</b>	<b>10,097</b>	<b>651,708</b>	<b>109,958</b>	<b>46,778</b>
<b>OTHER FINANCING SOURCES</b>						
Bonds premium .....	—	—	—	—	—	420,260
Issuance of general and special obligation bonds .....	—	—	—	—	—	—
Issuance of current refunding bonds .....	—	—	—	—	—	188,490
Issuance of advance refunding bonds .....	—	—	—	—	—	1,664,790
Transfers in for debt service.....	—	—	—	—	—	2,431,826
Transfers in.....	—	36,046	—	29,986	87,662	—
<b>Total other financing sources .....</b>	<b>—</b>	<b>36,046</b>	<b>—</b>	<b>29,986</b>	<b>87,662</b>	<b>4,705,366</b>
<b>Total revenues and other financing sources .....</b>	<b>135,376</b>	<b>572,917</b>	<b>10,097</b>	<b>681,694</b>	<b>197,620</b>	<b>4,752,144</b>
<b>EXPENDITURES</b>						
Current:						
Judiciary.....	—	—	—	455	1	—
Inspector General.....	—	—	—	—	—	—
Governor and Lieutenant Governor.....	—	—	—	33	—	—
Secretary of the Commonwealth .....	—	—	—	—	3,730	—
Treasurer and Receiver-General .....	—	184	—	98,628	25	17,230
Auditor of the Commonwealth .....	—	—	—	104	—	—
Attorney General .....	—	—	—	4,485	698	—
District Attorney .....	—	—	—	7,135	275	—
Sheriff's Departments .....	—	—	—	3,885	692	—
Disabled Person Protection Commission .....	—	—	—	—	—	—
Board of Library Commissioners .....	—	—	—	—	—	—
Massachusetts Gaming Commission .....	—	—	—	—	16,268	—
Comptroller.....	—	—	—	485	2,022	—
Administration and Finance.....	41,295	—	—	64,751	3,616	—
Energy and Environmental Affairs .....	—	—	—	69,428	31,062	—
Health and Human Services .....	—	—	—	104,542	31,206	—
Massachusetts Department of Transportation.....	—	—	—	—	—	—
Executive Office of Education.....	—	—	—	13,802	1,188	—
Center for Health and Information Analysis.....	—	—	—	77	—	—
Public Safety and Homeland Security .....	—	—	—	8,184	8,805	—
Housing and Economic Development .....	—	—	6,468	21,714	4,069	—
Labor and Workforce development .....	—	—	—	58,500	5,147	—
Medicaid .....	—	—	—	15,644	1	—
Post employment benefits.....	—	—	—	—	—	—
Direct local aid.....	—	—	—	—	63,970	—
Capital outlay:						
Capital acquisition and construction.....	—	—	—	—	—	—
Debt service.....	—	—	—	—	—	2,478,553
Principal on current refundings.....	—	—	—	—	—	188,490
<b>Total expenditures.....</b>	<b>41,295</b>	<b>184</b>	<b>6,468</b>	<b>471,852</b>	<b>172,775</b>	<b>2,684,273</b>
<b>OTHER FINANCING USES</b>						
Payments to refunding bond escrow agent .....	—	—	—	—	—	2,079,768
Transfers out.....	—	489,130	3,100	200,823	18,505	8,216
Transfers of appropriations .....	—	—	—	1,261	—	—
Transfers of bond proceeds .....	—	—	—	—	—	—
Transfers out for debt service.....	54,540	80,359	—	—	12,250	—
<b>Total other financing uses .....</b>	<b>54,540</b>	<b>569,489</b>	<b>3,100</b>	<b>202,084</b>	<b>30,755</b>	<b>2,087,984</b>
<b>Total expenditures and other financing uses .....</b>	<b>95,835</b>	<b>569,673</b>	<b>9,568</b>	<b>673,936</b>	<b>203,530</b>	<b>4,772,257</b>
<b>Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses .....</b>	<b>39,541</b>	<b>3,244</b>	<b>529</b>	<b>7,758</b>	<b>(5,910)</b>	<b>(20,113)</b>
Fund balances (deficits) at beginning of year.....	105,179	86,608	6,186	645,296	115,299	20,647
<b>Fund balances (deficits) at end of year .....</b>	<b>\$ 144,720</b>	<b>\$ 89,852</b>	<b>\$ 6,715</b>	<b>\$ 653,054</b>	<b>\$ 109,389</b>	<b>\$ 534</b>

See Independent Auditors' Report

<b>Capital Projects</b>					
General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ —	\$ —	\$ —	\$ —	\$ —	\$ 2,722,585
—	—	—	—	—	790,011
53,308	—	—	5,046	—	4,561,223
—	—	—	2,757	—	1,329,143
—	—	12,946	—	—	504,049
<b>53,308</b>	<b>—</b>	<b>12,946</b>	<b>7,803</b>	<b>—</b>	<b>9,907,011</b>
161,491	—	119,744	—	—	701,495
1,747,599	—	1,123,051	—	—	2,870,650
—	—	—	—	—	188,490
—	—	—	—	—	1,664,790
—	—	—	—	—	2,431,826
—	—	—	600,302	—	1,415,160
<b>1,909,090</b>	<b>—</b>	<b>1,242,795</b>	<b>600,302</b>	<b>—</b>	<b>9,272,411</b>
<b>1,962,398</b>	<b>—</b>	<b>1,255,741</b>	<b>608,105</b>	<b>—</b>	<b>19,179,422</b>
—	—	—	—	—	2,123
—	—	—	—	—	218
—	—	—	—	—	33
—	—	—	—	—	4,865
9,751	—	5,912	—	—	1,295,081
—	—	—	—	—	104
—	—	—	—	—	29,001
—	—	—	—	—	10,177
—	—	—	—	—	13,452
—	—	—	—	—	159
—	—	—	—	—	2,854
—	—	—	—	—	36,749
—	—	—	—	—	2,507
—	—	—	—	—	321,429
—	—	—	—	—	196,992
—	—	—	—	—	1,892,795
94,184	—	1,069,042	599,024	—	2,390,620
—	—	—	—	—	1,027,852
—	—	—	—	—	285
—	—	—	—	—	254,190
—	—	—	—	—	525,080
—	—	—	—	—	215,156
—	—	—	—	—	1,696,359
—	—	—	—	—	15,948
—	—	—	—	—	63,970
1,193,117	—	5,945	2,118	501	1,201,681
—	—	—	—	—	2,478,553
—	—	—	—	—	188,490
<b>1,297,052</b>	<b>—</b>	<b>1,080,899</b>	<b>601,142</b>	<b>501</b>	<b>13,866,723</b>
—	—	—	—	—	2,079,768
14,044	—	111,172	11	—	1,432,834
—	—	—	—	—	1,261
193,632	—	—	—	—	193,632
—	—	—	—	—	1,242,257
<b>207,676</b>	<b>—</b>	<b>111,172</b>	<b>11</b>	<b>—</b>	<b>4,949,752</b>
<b>1,504,728</b>	<b>—</b>	<b>1,192,071</b>	<b>601,153</b>	<b>501</b>	<b>18,816,475</b>
457,670	—	63,670	6,952	(501)	362,947
(212,888)	8,393	(275,432)	(16,719)	11	1,182,414
<b>\$ 244,782</b>	<b>\$ 8,393</b>	<b>\$ (211,762)</b>	<b>\$ (9,767)</b>	<b>\$ (490)</b>	<b>\$ 1,545,361</b>

**Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Budgetary Basis - Budget and Actual**

Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Commonwealth Transportation Fund				Environmental Funds			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
<b>REVENUES AND OTHER FINANCING SOURCES</b>								
Revenues:								
Taxes .....	\$ 1,347,500	\$ 1,347,500	\$ 1,316,807	\$ (30,693)	\$ 1,000	\$ 1,000	\$ 1,007	\$ 7
Assessments .....	13,296	13,296	22,464	9,168	—	—	—	—
Federal grants and reimbursements .....	—	—	—	—	6,200	6,200	7,452	1,252
Departmental.....	663,216	663,301	666,638	3,337	8,468	8,468	8,795	327
Miscellaneous .....	217	217	240	23	34	34	254	220
Total revenues.....	<u>2,024,229</u>	<u>2,024,314</u>	<u>2,006,149</u>	<u>(18,165)</u>	<u>15,702</u>	<u>15,702</u>	<u>17,508</u>	<u>1,806</u>
Other financing sources:								
Operating transfers in.....	40,000	40,000	40,000	—	182	182	191	9
Other fund deficit support.....	—	—	—	—	—	—	—	—
Total other financing sources.....	<u>40,000</u>	<u>40,000</u>	<u>40,000</u>	<u>—</u>	<u>182</u>	<u>182</u>	<u>191</u>	<u>9</u>
Total revenues and other financing sources .....	<u>2,064,229</u>	<u>2,064,314</u>	<u>2,046,149</u>	<u>(18,165)</u>	<u>15,884</u>	<u>15,884</u>	<u>17,699</u>	<u>1,815</u>
<b>EXPENDITURES AND OTHER FINANCING USES</b>								
Expenditures:								
Treasurer and Receiver-General .....	259,778	—	—	—	—	—	—	—
Attorney General.....	—	—	—	—	—	—	—	—
Sheriffs' Department .....	—	—	—	—	—	—	—	—
Administration and Finance .....	—	—	—	—	162	162	126	36
Energy and Environmental Affairs .....	—	—	—	—	18,047	19,047	15,808	3,239
Health and human services .....	—	—	—	—	—	—	—	—
Massachusetts Department of Transportation....	187,000	187,000	140,250	46,750	—	—	—	—
Public Safety and Homeland Security .....	—	—	—	—	—	—	—	—
Direct local aid.....	—	—	—	—	—	—	—	—
Post employment benefits .....	—	—	15,948	(15,948)	—	—	—	—
Debt service:								
Principal retirement .....	—	621,644	595,516	26,128	—	—	—	—
Interest and fiscal charges .....	—	539,365	499,592	39,773	—	—	—	—
Total expenditures .....	<u>446,778</u>	<u>1,348,009</u>	<u>1,251,306</u>	<u>96,703</u>	<u>18,209</u>	<u>19,209</u>	<u>15,934</u>	<u>3,275</u>
Other financing uses:								
Fringe benefit cost assessment.....	—	—	—	—	—	—	3,384	(3,384)
Operating transfers out.....	434,781	644,443	648,656	(4,213)	—	—	—	—
Other fund deficit support.....	—	—	144,797	(144,797)	—	—	—	—
Total other financing uses.....	<u>434,781</u>	<u>644,443</u>	<u>793,453</u>	<u>(149,010)</u>	<u>—</u>	<u>—</u>	<u>3,384</u>	<u>(3,384)</u>
Total expenditures and other financing uses .....	<u>881,559</u>	<u>1,992,452</u>	<u>2,044,759</u>	<u>(52,307)</u>	<u>18,209</u>	<u>19,209</u>	<u>19,318</u>	<u>(109)</u>
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses.....	<u>\$ 1,182,670</u>	<u>\$ 71,862</u>	<u>1,390</u>	<u>\$ (70,472)</u>	<u>\$ (2,325)</u>	<u>\$ (3,325)</u>	<u>(1,619)</u>	<u>\$ 1,706</u>
Fund balances at beginning of year .....			<u>16,690</u>				<u>17,301</u>	
Fund balances at end of year .....			<u>\$ 18,080</u>				<u>\$ 15,682</u>	

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Public Safety Trust Fund				Community First Trust Fund				Gaming Local Aid Fund			
Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
800	800	1,171	371	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
800	800	1,171	371	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	64,000	64,000	63,442	(558)
—	—	—	—	—	—	—	—	—	—	528	528
—	—	—	—	—	—	—	—	64,000	64,000	63,970	(30)
800	800	1,171	371	—	—	—	—	64,000	64,000	63,970	(30)
—	—	—	—	—	—	—	—	—	—	—	—
—	2	1	1	—	—	—	—	—	—	—	—
—	10	10	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	31,976	31,616	360	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	691	670	21	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	63,973	63,970	3
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	703	681	22	—	31,976	31,616	360	—	63,973	63,970	3
—	—	88	(88)	—	—	968	(968)	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	88	(88)	—	—	968	(968)	—	—	—	—
—	703	769	(66)	—	31,976	32,584	(608)	—	63,973	63,970	3
<u>\$ 800</u>	<u>\$ 97</u>	402	<u>\$ 305</u>	<u>\$ —</u>	<u>\$ (31,976)</u>	(32,584)	<u>\$ (608)</u>	<u>\$ 64,000</u>	<u>\$ 27</u>	—	<u>\$ (27)</u>
		2,490				44,621				—	
		<u>\$ 2,892</u>				<u>\$ 12,037</u>				<u>\$ —</u>	

continued

**Combining Statement of Revenues, Expenditures and Changes in Fund Balances - Budgetary Basis - Budget and Actual**

Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Local Aid Stabilization Fund				Totals			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
<b>REVENUES AND OTHER FINANCING SOURCES</b>								
Revenues:								
Taxes .....	\$ —	\$ —	\$ —	\$ —	\$ 1,348,500	\$ 1,348,500	\$ 1,317,814	\$ (30,686)
Assessments .....	—	—	—	—	13,296	13,296	22,464	9,168
Federal grants and reimbursements .....	—	—	—	—	6,200	6,200	7,452	1,252
Departmental .....	—	—	—	—	672,484	672,569	676,604	4,035
Miscellaneous .....	—	—	—	—	251	251	494	243
Total revenues .....	—	—	—	—	2,040,731	2,040,816	2,024,828	(15,988)
Other financing sources:								
Operating transfers in .....	—	—	—	—	104,182	104,182	103,633	(549)
Other fund deficit support .....	—	—	—	—	—	—	528	528
Total other financing sources .....	—	—	—	—	104,182	104,182	104,161	(21)
Total revenues and other financing sources .....	—	—	—	—	2,144,913	2,144,998	2,128,989	(16,009)
<b>EXPENDITURES AND OTHER FINANCING USES</b>								
Expenditures:								
Treasurer and Receiver-General .....	—	—	—	—	259,778	—	—	—
Attorney General .....	—	—	—	—	—	2	1	1
Sheriffs' Department .....	—	—	—	—	—	10	10	—
Administration and Finance .....	—	—	—	—	162	162	126	36
Energy and Environmental Affairs .....	—	—	—	—	18,047	19,047	15,808	3,239
Health and human services .....	—	—	—	—	—	31,976	31,616	360
Massachusetts Department of Transportation .....	—	—	—	—	187,000	187,000	140,250	46,750
Public Safety and Homeland Security .....	—	—	—	—	—	691	670	21
Direct Local Aid .....	—	—	—	—	—	63,973	63,970	3
Post employment benefits .....	—	—	—	—	—	—	15,948	(15,948)
Debt service:								
Principal retirement .....	—	—	—	—	—	621,644	595,516	26,128
Interest and fiscal charges .....	—	—	—	—	—	539,365	499,592	39,773
Total expenditures .....	—	—	—	—	464,987	1,463,870	1,363,507	100,363
Other financing uses:								
Fringe benefit cost assessment .....	—	—	—	—	—	—	4,440	(4,440)
Operating transfers out .....	—	—	—	—	434,781	644,443	648,656	(4,213)
Other fund deficit support .....	—	—	—	—	—	—	144,797	(144,797)
Total other financing uses .....	—	—	—	—	434,781	644,443	797,893	(153,450)
Total expenditures and other financing uses .....	—	—	—	—	899,768	2,108,313	2,161,400	(53,087)
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses .....	\$ —	\$ —	—	\$ —	\$ 1,245,145	\$ 36,685	(32,411)	\$ (69,096)
Fund balances at beginning of year .....			50				81,152	
Fund balances at end of year .....			\$ 50				\$ 48,741	

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**Combining Budget to GAAP Reconciliation**  
**Other Budgeted Nonmajor Governmental Funds**

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Commonwealth Transportation Fund	Environmental Funds	Public Safety Trust Fund*	Community First Trust Fund
Total actual revenues - budgetary basis (pages 164–166) .....	\$ 2,006,149	\$ 17,508	\$ 1,171	\$ —
Adjustments:				
Taxes receivable, net .....	1,774	2	—	—
Tax refunds and abatements payable, net .....	(234)	—	—	—
Federal grants receivables, net .....	—	1,075	—	—
Departmental and other receivables, net .....	(24)	21	—	—
Total actual revenues - GAAP basis (pages 160–163).....	<u>\$ 2,007,665</u>	<u>\$ 18,606</u>	<u>\$ 1,171</u>	<u>\$ —</u>
Total actual other financing sources - budgetary basis (pages 164–166) ..	\$ 40,000	\$ 191	\$ —	\$ —
Adjustments:				
MassDOT transfers in is reclassified to revenues .....	—	—	—	—
Total actual other financing sources - GAAP basis (pages 160–163).....	<u>\$ 40,000</u>	<u>\$ 191</u>	<u>\$ —</u>	<u>\$ —</u>
Total actual expenditures- budgetary basis (pages 164–166) .....	\$ 1,251,306	\$ 15,934	\$ 681	\$ 31,616
Adjustment:				
Due to component units accrual, net .....	3,427	—	—	—
Reclassification:				
MassDOT transfers out is reclassified to expenditures .....	609,610	—	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund .....	(1,095,108)	—	—	—
Nonbudgeted fund included on a GAAP basis .....	—	—	—	9,571
Total actual expenditures - GAAP basis (pages 160–163).....	<u>\$ 769,235</u>	<u>\$ 15,934</u>	<u>\$ 681</u>	<u>\$ 41,187</u>
Total actual other financing uses - budgetary basis (pages 164–166) .....	\$ 793,453	\$ 3,384	\$ 88	\$ 968
Reclassification:				
MassDOT transfers out is reclassified to expenditures .....	(609,610)	—	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund .....	1,095,108	—	—	—
Nonbudgeted fund included on a GAAP basis .....	—	—	—	265
Total actual other financing uses - GAAP basis (pages 160–163).....	<u>\$ 1,278,951</u>	<u>\$ 3,384</u>	<u>\$ 88</u>	<u>\$ 1,233</u>

\* On a GAAP basis, the activity for the Public Safety Trust fund, the Gaming Local Aid fund and the Local Aid Stabilization Fund are combined in the other special revenue funds in the combined statement of revenues, expenditures and changes in fund balance. The revenues, other financing sources, expenditures and other financing uses of the other special revenue funds are \$109,958, \$87,662, \$172,775 and \$30,755, respectively (all amounts in thousands).

See Independent Auditors' Report

Gaming Local Aid Fund*	Local Aid Stabilization Fund*	Totals
\$ —	\$ —	\$ 2,024,828
—	—	1,776
—	—	(234)
—	—	1,075
—	—	(3)
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 2,027,442</u>
\$ 63,970	\$ —	104,161
—	—	—
<u>\$ 63,970</u>	<u>\$ —</u>	<u>\$ 104,161</u>
\$ 63,970	\$ —	1,363,507
—	—	3,427
—	—	609,610
—	—	(1,095,108)
—	—	9,571
<u>\$ 63,970</u>	<u>\$ —</u>	<u>\$ 891,007</u>
\$ —	\$ —	\$ 797,893
—	—	(609,610)
—	—	1,095,108
—	—	265
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,283,656</u>

**Combining Statement of Net Position Available for Post-Employment Benefits**

Pension and OPEB Trust Funds

June 30, 2017

(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	Total
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 120,921	\$ 89,529	\$ 25,743	\$ 236,193
Net investment in PRIT at fair value .....	26,028,618	26,956,332	970,676	53,955,626
Other receivables .....	27,049	91,240	—	118,289
Other assets .....	124,163	7,664	—	131,827
<b>Total assets .....</b>	<b>26,300,751</b>	<b>27,144,765</b>	<b>996,419</b>	<b>54,441,935</b>
<b>LIABILITIES</b>				
Accounts payable .....	18,519	6,156	12	24,687
<b>Net position available for post-employment benefits .....</b>	<b>\$ 26,282,232</b>	<b>\$ 27,138,609</b>	<b>\$ 996,407</b>	<b>\$ 54,417,248</b>

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## Combining Statement of Changes in Net Position Available for Post-Employment Benefits

### Pension and OPEB Trust Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	Total
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	
<b>ADDITIONS</b>				
Contributions:				
Employer contributions - Commonwealth and MassDOT.....	\$ 716,266	\$ —	\$ 465,449	\$ 1,181,715
Non-employer contributions - Commonwealth.....	28,455	1,235,515	—	1,263,970
Employer and non-employer contributions - other .....	7,999	—	—	7,999
ERIP funding contribution - Commonwealth.....	29,093	—	—	29,093
Employee contributions.....	604,772	730,212	—	1,334,984
Boston teachers' contribution from Commonwealth.....	—	132,477	—	132,477
Other additions .....	232,548	91,269	784	324,601
<b>Total contributions.....</b>	<b>1,619,133</b>	<b>2,189,473</b>	<b>466,233</b>	<b>4,274,839</b>
Net investment gain/(loss):				
Investment gain/(loss) .....	3,122,298	3,240,047	110,825	6,473,170
Less: investment expense .....	(134,666)	(139,695)	(5,003)	(279,364)
<b>Net Investment gain/(loss) .....</b>	<b>2,987,632</b>	<b>3,100,352</b>	<b>105,822</b>	<b>6,193,806</b>
<b>Total additions.....</b>	<b>4,606,765</b>	<b>5,289,825</b>	<b>572,055</b>	<b>10,468,645</b>
<b>DEDUCTIONS</b>				
Administration.....	30,030	24,053	127	54,210
Retirement benefits and refunds.....	2,207,582	2,896,567	441,064	5,545,213
Payments to State Boston Retirement System .....	—	132,477	—	132,477
Other deductions.....	58,077	40,191	500	98,768
<b>Total deductions.....</b>	<b>2,295,689</b>	<b>3,093,288</b>	<b>441,691</b>	<b>5,830,668</b>
<b>Change in net position .....</b>	<b>2,311,076</b>	<b>2,196,537</b>	<b>130,364</b>	<b>4,637,977</b>
Net position available for post-employment benefits at beginning of year .....	23,971,156	24,942,072	866,043	49,779,271
<b>Net position available for post-employment benefits at end of year .....</b>	<b>\$ 26,282,232</b>	<b>\$ 27,138,609</b>	<b>\$ 996,407</b>	<b>\$ 54,417,248</b>

See Independent Auditors' Report

**Combining Statement of Net Position Held in Trust for Pool Participants**

External Investment Trust Funds

June 30, 2017

(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
<b>ASSETS</b>			
Cash and cash equivalents .....	\$ 3,790,390	\$ —	\$ 3,790,390
Short-term investments.....	39,052	—	39,052
Net investment in PRIT at fair value.....	—	12,894,815	12,894,815
Receivables, net of allowance for uncollectibles:			
Other receivables .....	4,025	—	4,025
<b>Total assets .....</b>	<b>3,833,467</b>	<b>12,894,815</b>	<b>16,728,282</b>
<b>LIABILITIES</b>			
Accounts payable .....	27,506	—	27,506
<b>Net position held in trust for pool/pension participants .....</b>	<b>\$ 3,805,961</b>	<b>\$ 12,894,815</b>	<b>\$ 16,700,776</b>

See Independent Auditors' Report

**Combining Statement of Changes in Net Position Held in Trust for Pool Participants**  
**External Investment Trust Funds**  
**Fiscal Year Ended June 30, 2017**  
(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
<b>ADDITIONS</b>			
Contributions:			
Other participant contributions .....	\$ —	\$ 994,315	\$ 994,315
Proceeds from sale of units .....	26,870,148	—	26,870,148
<b>Total contributions .....</b>	<b>26,870,148</b>	<b>994,315</b>	<b>27,864,463</b>
Net investment gain/(loss):			
Investment gain/(loss) .....	33,549	1,776,372	1,809,921
Less: investment expense .....	(1,833)	(297,503)	(299,336)
<b>Net Investment gain/(loss) .....</b>	<b>31,716</b>	<b>1,478,869</b>	<b>1,510,585</b>
<b>Total additions .....</b>	<b>26,901,864</b>	<b>2,473,184</b>	<b>29,375,048</b>
<b>DEDUCTIONS</b>			
Cost of units redeemed .....	26,255,251	—	26,255,251
Distributions to unit holders from net interest income .....	32,235	—	32,235
Retirement benefits and refunds .....	—	1,054,703	1,054,703
<b>Total deductions .....</b>	<b>26,287,486</b>	<b>1,054,703</b>	<b>27,342,189</b>
<b>Change in net position .....</b>	<b>614,378</b>	<b>1,418,481</b>	<b>2,032,859</b>
Net position held in trust for pool/participants at beginning of year .....	3,191,583	11,476,334	14,667,917
<b>Net position held in trust for pool/participants at end of year .....</b>	<b>\$ 3,805,961</b>	<b>\$ 12,894,815</b>	<b>\$ 16,700,776</b>

See Independent Auditors' Report

## Combining Statement of Changes in Assets and Liabilities

### Agency Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Balance July 1, 2016	Additions	Deductions	Balance June 30, 2017
<b><u>Central Agency Funds</u></b>				
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 315,169	\$ 10,647,918	\$ (10,603,714)	\$ 359,373
Investments, restricted investments and annuity contracts .....	1,194,945	27,592	(160,187)	1,062,350
Taxes receivable .....	34,638	37,578	(34,638)	37,578
Other receivables .....	6,703	9,480	(6,703)	9,480
<b>Total assets .....</b>	<b>\$ 1,551,455</b>	<b>\$ 10,722,568</b>	<b>\$ (10,805,242)</b>	<b>\$ 1,468,781</b>
<b>LIABILITIES</b>				
Accounts payable .....	\$ 76,578	\$ 4,413,266	\$ (4,374,974)	\$ 114,870
Due to cities and towns .....	46,754	593,684	(592,902)	47,536
Due to federal government .....	4	63	(66)	1
Lottery prizes payable .....	1,194,945	27,592	(160,187)	1,062,350
Agency liabilities .....	233,174	3,821,012	(3,810,162)	244,024
<b>Total liabilities .....</b>	<b>\$ 1,551,455</b>	<b>\$ 8,855,617</b>	<b>\$ (8,938,291)</b>	<b>\$ 1,468,781</b>
<b><u>Court Escrow and Client Accounts</u></b>				
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 175,617	\$ 1,557,579	\$ (1,562,946)	\$ 170,250
Other receivables .....	126,565	121,437	(126,565)	121,437
<b>Total assets .....</b>	<b>\$ 302,182</b>	<b>\$ 1,679,016</b>	<b>\$ (1,689,511)</b>	<b>\$ 291,687</b>
<b>LIABILITIES</b>				
Accounts payable .....	\$ 165	\$ 1,999,388	\$ (1,999,197)	\$ 356
Agency liabilities .....	302,017	792,990	(803,676)	291,331
<b>Total liabilities .....</b>	<b>\$ 302,182</b>	<b>\$ 2,792,378</b>	<b>\$ (2,802,873)</b>	<b>\$ 291,687</b>
<b><u>Statutory Bonds and Deposits</u></b>				
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 96,309	\$ 729,940	\$ (725,091)	\$ 101,158
Investments, restricted investments and annuity contracts .....	582,672	24,854	(54,549)	552,977
<b>Total assets .....</b>	<b>\$ 678,981</b>	<b>\$ 754,794</b>	<b>\$ (779,640)</b>	<b>\$ 654,135</b>
<b>LIABILITIES</b>				
Agency liabilities .....	\$ 678,981	\$ 667,046	\$ (691,892)	\$ 654,135

See Independent Auditors' Report

**Combining Statement Changes in Assets and Liabilities**

Agency Funds

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Balance July 1, 2016	Additions	Deductions	Balance June 30, 2017
<b><u>Total Agency Funds</u></b>				
<b>ASSETS</b>				
Cash and cash equivalents .....	\$ 587,095	\$ 12,935,437	\$ (12,891,751)	\$ 630,781
Investments, restricted investments and annuity contracts .....	1,777,617	52,446	(214,736)	1,615,327
Taxes receivable .....	34,638	37,578	(34,638)	37,578
Other receivables .....	133,268	130,917	(133,268)	130,917
<b>Total assets .....</b>	<b>\$ 2,532,618</b>	<b>\$ 13,156,378</b>	<b>\$ (13,274,393)</b>	<b>\$ 2,414,603</b>
<b>LIABILITIES</b>				
Accounts payable .....	\$ 76,743	\$ 6,412,654	\$ (6,374,171)	\$ 115,226
Due to cities and towns .....	46,754	593,684	(592,902)	47,536
Due to federal government .....	4	63	(66)	1
Lottery prizes payable .....	1,194,945	27,592	(160,187)	1,062,350
Agency liabilities .....	1,214,172	5,281,048	(5,305,730)	1,189,490
<b>Total liabilities .....</b>	<b>\$ 2,532,618</b>	<b>\$ 12,315,041</b>	<b>\$ (12,433,056)</b>	<b>\$ 2,414,603</b>

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## Combining Statement of Net Position

### Nonmajor Component Units

June 30, 2017

(Amounts in thousands)

	Massachusetts Convention Center Authority	Massachusetts Development Finance Agency	Massachusetts Clean Energy Center	Massachusetts Technology Park Corporation	Massachusetts Housing Partnership	Economic Development Entities	Higher Education Foundations	Total
<b>ASSETS AND DEFERRED OUTFLOWS</b>								
Current assets:								
Cash and cash equivalents .....	\$ 36,557	\$ 20,274	\$ 30,106	\$ 111	\$ 14,555	\$ 76,036	\$ 29,291	\$ 206,930
Short-term investments .....	—	48,696	145,700	13,333	26,166	4,206	40,626	278,727
Restricted cash and investments .....	587	90,777	28,217	30,319	64,804	86,925	1,387	303,016
Assets held in trust .....	—	—	—	—	—	1,576	—	1,576
Receivables, net of allowance for uncollectibles:								
Loans .....	364	11,900	2,287	—	29,297	17,925	—	61,773
Other receivables .....	5,957	8,857	2,766	398	2,555	4,362	9,780	34,675
Due from primary government .....	21,359	16,514	—	4,701	—	42,902	123	85,599
Inventory .....	—	—	—	—	—	53	—	53
Other current assets .....	1,559	969	470	457	—	445	463	4,363
<b>Total current assets .....</b>	<b>66,383</b>	<b>197,987</b>	<b>209,546</b>	<b>49,319</b>	<b>137,377</b>	<b>234,430</b>	<b>81,670</b>	<b>976,712</b>
Noncurrent assets:								
Cash and cash equivalents - restricted .....	—	13,406	—	8,157	—	—	—	21,563
Long - term investments .....	—	72,619	—	—	—	—	690,588	763,207
Restricted investments .....	—	—	—	—	—	—	47,695	47,695
Accounts receivables, net .....	—	1,574	—	—	—	1,542	12,573	15,689
Loans receivables, net .....	16,051	76,185	—	—	554,299	39,470	—	686,005
Non-depreciable capital assets .....	180,398	15,500	3,505	—	—	—	16,042	215,445
Depreciable capital assets, net .....	549,382	151,368	120,479	71,329	714	15,733	37,294	946,299
Other noncurrent assets .....	—	7,120	—	—	176	4,097	6,645	18,038
<b>Total noncurrent assets .....</b>	<b>745,831</b>	<b>337,772</b>	<b>123,984</b>	<b>79,486</b>	<b>555,189</b>	<b>60,842</b>	<b>810,837</b>	<b>2,713,941</b>
Deferred outflows of resources:								
Deferred change in fair value of interest rate swaps .....	—	15	—	—	—	—	—	15
Deferred outflows related to pension .....	11,668	—	—	—	—	—	—	11,668
<b>Total assets and deferred outflows .....</b>	<b>823,882</b>	<b>535,774</b>	<b>333,530</b>	<b>128,805</b>	<b>692,566</b>	<b>295,272</b>	<b>892,507</b>	<b>3,702,336</b>
<b>LIABILITIES AND DEFERRED INFLOWS</b>								
Current liabilities:								
Accounts payable and other liabilities .....	18,654	11,149	8,993	13,433	439	54,753	30,502	137,923
Accrued payroll .....	—	—	—	—	1,000	430	—	1,430
Compensated absences .....	968	990	—	—	—	646	—	2,604
Accrued interest payable .....	—	285	—	—	1,632	—	29	1,946
Due to primary government .....	—	526	—	—	—	—	1,524	2,050
Unearned revenue .....	13,602	—	—	1,166	—	34,264	1,351	50,383
Bonds, notes payable and other obligations .....	—	5,370	—	—	25,840	5,943	1,058	38,211
<b>Total current liabilities .....</b>	<b>33,224</b>	<b>18,320</b>	<b>8,993</b>	<b>14,599</b>	<b>28,911</b>	<b>96,036</b>	<b>34,464</b>	<b>234,547</b>
Noncurrent liabilities:								
Compensated absences .....	1,363	—	—	—	—	136	—	1,499
Due to primary government .....	—	8,477	—	—	—	—	—	8,477
Unearned revenue .....	750	—	—	—	35,508	113	—	36,371
Bonds, notes payable and other obligations .....	—	29,115	—	—	558,859	68,238	12,979	669,191
Net pension liability .....	45,107	—	—	—	—	—	—	45,107
Net OPEB liability .....	11,336	—	—	—	—	—	—	11,336
Liability for derivative instruments .....	—	15	—	—	—	—	—	15
Other noncurrent liabilities .....	1,930	2,991	—	—	15,157	1,775	2,920	24,773
<b>Total noncurrent liabilities .....</b>	<b>60,486</b>	<b>40,598</b>	<b>—</b>	<b>—</b>	<b>609,524</b>	<b>70,262</b>	<b>15,899</b>	<b>796,769</b>
Deferred inflows of resources:								
Deferred service concession arrangements .....	—	—	—	—	—	190	—	190
Deferred inflows related to pension .....	477	—	—	—	—	—	—	477
<b>Total liabilities and deferred inflows .....</b>	<b>94,187</b>	<b>58,918</b>	<b>8,993</b>	<b>14,599</b>	<b>638,435</b>	<b>166,488</b>	<b>50,363</b>	<b>1,031,983</b>
<b>NET POSITION</b>								
Net investment in capital assets .....	729,780	123,112	123,985	71,329	714	19,815	36,744	1,105,479
Restricted for:								
Economic development financing .....	—	180,912	—	—	—	14,373	—	195,285
Other purposes .....	587	—	28,216	29,432	21,959	43,842	731,707	855,743
Unrestricted .....	(672)	172,832	172,336	13,445	31,458	50,754	73,693	513,846
<b>Total net position .....</b>	<b>\$ 729,695</b>	<b>\$ 476,856</b>	<b>\$ 324,537</b>	<b>\$ 114,206</b>	<b>\$ 54,131</b>	<b>\$ 128,784</b>	<b>\$ 842,144</b>	<b>\$ 2,670,353</b>

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## Combining Statement of Revenues, Expenses and Changes in Net Position

### Nonmajor Component Units

Fiscal Year Ended June 30, 2017

(Amounts in thousands)

	Massachusetts Convention Center Authority	Massachusetts Development Finance Agency	Massachusetts Clean Energy Center	Massachusetts Technology Park Corporation	Massachusetts Housing Partnership	Economic Development Entities	Higher Education Foundations	Total
<b>Operating revenues:</b>								
Charges for services.....	\$ 70,894	\$ 56,269	\$ 1,912	\$ 4,478	\$ 8,532	\$ 123,593	\$ 22,854	\$ 288,532
Other .....	2,808	4,522	22,649	16,011	6,532	1,318	16,455	70,295
<b>Total operating revenues .....</b>	<b>73,702</b>	<b>60,791</b>	<b>24,561</b>	<b>20,489</b>	<b>15,064</b>	<b>124,911</b>	<b>39,309</b>	<b>358,827</b>
<b>Operating expenses:</b>								
Cost of services.....	53,672	46,797	39,256	24,711	6,582	122,191	—	293,209
Administration costs .....	36,006	19,459	10,647	—	5,809	18,444	47,499	137,864
Depreciation.....	53,852	8,698	3,637	7,135	144	1,257	1,314	76,037
<b>Total operating expenses .....</b>	<b>143,530</b>	<b>74,954</b>	<b>53,540</b>	<b>31,846</b>	<b>12,535</b>	<b>141,892</b>	<b>48,813</b>	<b>507,110</b>
<b>Operating income/(loss) .....</b>	<b>(69,828)</b>	<b>(14,163)</b>	<b>(28,979)</b>	<b>(11,357)</b>	<b>2,529</b>	<b>(16,981)</b>	<b>(9,504)</b>	<b>(148,283)</b>
<b>Nonoperating revenues/(expenses):</b>								
Operating grants .....	20,333	409	12,357	—	—	11,930	—	45,029
Interest income/(loss) .....	805	5,926	—	493	662	492	54,717	63,095
Other nonoperating revenue/(expense).....	1,068	(1,652)	8,294	—	—	(1,907)	64,806	70,609
<b>Nonoperating revenues/(expenses), net..</b>	<b>22,206</b>	<b>4,683</b>	<b>20,651</b>	<b>493</b>	<b>662</b>	<b>10,515</b>	<b>119,523</b>	<b>178,733</b>
<b>Income/(loss) before contributions .....</b>	<b>(47,622)</b>	<b>(9,480)</b>	<b>(8,328)</b>	<b>(10,864)</b>	<b>3,191</b>	<b>(6,466)</b>	<b>110,019</b>	<b>30,450</b>
Capital contributions.....	18,520	21,214	—	—	—	2,109	—	41,843
<b>Change in net position/(deficits) .....</b>	<b>(29,102)</b>	<b>11,734</b>	<b>(8,328)</b>	<b>(10,864)</b>	<b>3,191</b>	<b>(4,357)</b>	<b>110,019</b>	<b>72,293</b>
Net position - beginning.....	758,797	465,122	332,865	125,070	50,940	133,141	732,125	2,598,060
<b>Net position - ending .....</b>	<b>\$ 729,695</b>	<b>\$ 476,856</b>	<b>\$ 324,537</b>	<b>\$ 114,206</b>	<b>\$ 54,131</b>	<b>\$ 128,784</b>	<b>\$ 842,144</b>	<b>\$ 2,670,353</b>

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# *Statistical Section*

*(Unaudited)*

*Schedule of Net Position by Component – Last Ten Fiscal Years*  
*Changes in Net Position – Last Ten Fiscal Years*  
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## *Statistical Section Narrative and Table of Contents*

This part of the Commonwealth of Massachusetts' comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Commonwealth's overall financial health.

### **Contents**

#### **Financial Trends**

These schedules contain trend information to help the reader understand how the Commonwealth's financial performance and fiscal health has changed over time. The schedules are presented for the last ten fiscal years, except where noted. Schedules included are:

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These schedules contain information to help the reader assess the Commonwealth's most significant revenue source, income taxation. Schedules included are:

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## Schedule of Net Position by Component

Last Ten Fiscal Years

(Amounts in thousands)

	2017	2016	2015*	2014*	2013
<b>Governmental activities</b>					
Net investment in capital asset .....	\$ (1,320,834)	\$ (1,067,098)	\$ (768,411)	\$ (502,370)	\$ (592,483)
Restricted .....	1,926,716	1,538,662	1,541,566	1,455,704	1,386,416
Unrestricted .....	(63,992,915)	(59,111,509)	(55,626,596)	(53,381,910)	(26,733,809)
<b>Total governmental activities net position...</b>	<b>\$ (63,387,033)</b>	<b>\$ (58,639,945)</b>	<b>\$ (54,853,441)</b>	<b>\$ (52,428,576)</b>	<b>\$ (25,939,876)</b>
<b>Business-type activities</b>					
Net investment in capital assets .....	\$ 3,623,966	\$ 3,311,658	\$ 3,055,444	\$ 2,794,845	\$ 2,605,263
Restricted .....	1,735,575	1,745,840	1,539,785	1,590,545	1,209,630
Unrestricted .....	722,923	678,667	697,056	675,796	1,026,230
<b>Total business-type activities net position ...</b>	<b>\$ 6,082,464</b>	<b>\$ 5,736,165</b>	<b>\$ 5,292,285</b>	<b>\$ 5,061,186</b>	<b>\$ 4,841,123</b>
<b>Commonwealth net position</b>					
Net investment in capital assets .....	\$ 2,303,132	\$ 2,244,560	\$ 2,287,033	\$ 2,292,475	\$ 2,012,780
Restricted .....	3,662,291	3,284,502	3,081,351	3,046,249	2,596,046
Unrestricted .....	(63,269,992)	(58,432,842)	(54,929,540)	(52,706,114)	(25,707,579)
<b>Total Commonwealth net position .....</b>	<b>\$ (57,304,569)</b>	<b>\$ (52,903,780)</b>	<b>\$ (49,561,156)</b>	<b>\$ (47,367,390)</b>	<b>\$ (21,098,753)</b>

\*Restated

See Independent Auditors' Report

2012	2011	2010*	2009*	2008*
\$ (849,338)	\$ (722,469)	\$ (885,593)	\$ 189,913	\$ 446,666
1,456,715	1,520,702	1,403,877	1,377,951	1,413,968
(24,905,165)	(23,631,098)	(22,891,629)	(13,721,519)	(11,022,084)
<b>\$ (24,297,788)</b>	<b>\$ (22,832,865)</b>	<b>\$ (22,373,345)</b>	<b>\$ (12,153,655)</b>	<b>\$ (9,161,450)</b>
\$ 2,366,038	\$ 2,026,223	\$ 1,767,434	\$ 1,698,825	\$ 1,562,002
1,576,865	1,364,646	1,148,751	1,609,145	2,390,206
969,309	978,043	857,263	621,952	644,363
<b>\$ 4,912,212</b>	<b>\$ 4,368,912</b>	<b>\$ 3,773,448</b>	<b>\$ 3,929,922</b>	<b>\$ 4,596,571</b>
\$ 1,516,700	\$ 1,303,754	\$ 881,841	\$ 1,888,738	\$ 2,008,668
3,033,580	2,885,348	2,552,628	2,987,096	3,804,174
(23,935,856)	(22,653,055)	(22,034,366)	(13,099,567)	(10,377,721)
<b>\$ (19,385,576)</b>	<b>\$ (18,463,953)</b>	<b>\$ (18,599,896)</b>	<b>\$ (8,223,733)</b>	<b>\$ (4,564,879)</b>



**Changes in Net Position**  
**Last Ten Fiscal Years**  
(Amounts in thousands)

	2017	2016	2015	2014 (1)	2013 (1)
<b>EXPENSES</b>					
<b>Governmental Activities:</b>					
General government.....	\$ 2,764,614	\$ 2,616,051	\$ 2,703,519	\$ 2,521,394	\$ 2,571,685
Judiciary.....	1,226,221	1,154,038	1,026,429	1,007,234	983,314
Direct local aid.....	5,734,682	5,598,687	5,469,412	5,353,521	5,179,104
Medicaid.....	17,182,691	16,825,110	15,086,742	14,034,862	12,286,342
Group health insurance.....	1,668,100	1,632,703	1,657,018	1,403,590	1,282,661
Energy and environmental.....	720,182	1,069,510	671,801	615,854	524,632
Housing and economic development.....	1,411,189	1,367,957	1,314,980	1,289,156	1,250,008
Health and human services.....	8,131,843	7,912,817	7,605,180	7,308,295	7,737,736
Transportation and public works.....	2,535,121	2,711,910	2,689,975	2,379,178	1,868,020
Early elementary and secondary education.....	6,243,115	5,420,052	4,654,161	4,714,555	4,493,537
Public safety and homeland security.....	2,913,849	2,746,612	2,486,107	2,451,881	2,391,982
Labor and workforce development.....	312,510	324,678	309,091	352,454	385,757
Lottery.....	4,128,209	4,299,592	4,109,611	3,980,980	3,982,700
Interest (unallocated).....	1,384,248	1,250,004	1,263,218	1,197,709	1,206,542
<b>Total governmental activities.....</b>	<b>\$ 56,356,574</b>	<b>\$ 54,929,721</b>	<b>\$ 51,047,244</b>	<b>\$ 48,610,664</b>	<b>\$ 46,144,020</b>
<b>Business-type Activities:</b>					
Unemployment compensation.....	1,514,002	1,499,811	1,598,084	2,036,431	2,718,447
<b>Higher Education:</b>					
University of Massachusetts.....	3,167,596	3,151,215	2,809,062	2,925,013	2,759,488
State Universities.....	1,063,196	1,002,577	994,341	922,383	864,161
Community Colleges.....	936,241	928,067	891,906	852,946	814,245
<b>Total business-type activities.....</b>	<b>\$ 6,681,035</b>	<b>\$ 6,581,670</b>	<b>\$ 6,293,393</b>	<b>\$ 6,736,773</b>	<b>\$ 7,156,341</b>
<b>Total Commonwealth expenses.....</b>	<b>\$ 63,037,609</b>	<b>\$ 61,511,391</b>	<b>\$ 57,340,637</b>	<b>\$ 55,347,437</b>	<b>\$ 53,300,361</b>
<b>REVENUES</b>					
<b>Program Revenues:</b>					
<b>Governmental Activities:</b>					
<b>Charges for services:</b>					
General government.....	\$ 594,132	\$ 565,434	\$ 634,289	\$ 361,105	\$ 352,291
Judiciary.....	95,937	100,568	105,521	108,766	111,384
Medicaid.....	897,542	841,697	1,052,170	1,226,108	471,539
Group health insurance.....	802,628	799,011	755,712	660,359	619,982
Energy and environmental.....	249,565	289,738	253,856	262,339	228,019
Housing and economic development.....	194,940	173,941	164,438	165,365	150,690
Health and human services.....	1,359,519	1,224,967	405,710	483,080	1,143,551
Transportation and public works.....	596,200	577,292	577,430	530,853	567,348
Early elementary and secondary education.....	7,919	7,508	7,649	10,067	6,748
Public safety and homeland security.....	280,400	284,264	256,596	228,730	218,643
Labor and workforce development.....	40,652	38,581	175,130	150,394	246,577
Lottery.....	5,254,468	5,405,128	5,193,545	5,049,536	5,041,329
<b>Total Charges for services.....</b>	<b>10,373,902</b>	<b>10,308,129</b>	<b>9,582,046</b>	<b>9,236,702</b>	<b>9,158,101</b>
Operating grants and contributions.....	15,519,380	15,158,087	13,950,227	13,121,648	12,836,122
Capital grants and contributions.....	58,354	85,759	81,475	30,699	18,726
<b>Total governmental activities.....</b>	<b>\$ 25,951,636</b>	<b>\$ 25,551,975</b>	<b>\$ 23,613,748</b>	<b>\$ 22,389,049</b>	<b>\$ 22,012,948</b>
<b>Business-type Activities:</b>					
<b>Charges for services:</b>					
Unemployment Compensation.....	1,468,492	1,611,096	1,492,067	1,897,495	1,923,476
<b>Higher Education:</b>					
University of Massachusetts.....	1,882,899	1,875,144	1,602,043	1,697,585	1,640,296
State Universities.....	654,170	616,025	583,669	558,170	533,347
Community Colleges.....	274,868	274,252	266,956	270,512	281,428
Operating grants and contributions.....	909,228	891,823	936,917	1,347,423	1,791,196
Capital grants and contributions.....	238,621	265,714	206,128	122,081	123,396
<b>Total business-type activities.....</b>	<b>\$ 5,428,278</b>	<b>\$ 5,534,054</b>	<b>\$ 5,087,780</b>	<b>\$ 5,893,266</b>	<b>\$ 6,293,139</b>
<b>Total Commonwealth program revenues.....</b>	<b>\$ 31,379,914</b>	<b>\$ 31,086,029</b>	<b>\$ 28,701,528</b>	<b>\$ 28,282,315</b>	<b>\$ 28,306,087</b>
<b>General Revenues and Other Changes in Net Position (all types consolidated):</b>					
<b>Governmental Activities:</b>					
Taxes (all types).....	\$ 25,949,577	\$ 25,676,303	\$ 25,209,826	\$ 23,319,168	\$ 22,599,332
Investment earnings and miscellaneous.....	994,982	1,160,994	1,251,193	1,131,754	985,713
Transfers.....	(1,286,709)	(1,246,055)	(1,429,174)	(1,205,141)	(1,096,061)
Transfers to/from MassDOT.....	—	—	—	—	—
<b>Total governmental activities.....</b>	<b>\$ 25,657,850</b>	<b>\$ 25,591,242</b>	<b>\$ 25,031,845</b>	<b>\$ 23,245,781</b>	<b>\$ 22,488,984</b>
<b>Business-type Activities:</b>					
Investment earnings and miscellaneous.....	312,347	245,441	7,536	306,690	271,832
Other losses.....	—	—	—	—	—
Transfers.....	1,286,709	1,246,055	1,429,174	1,205,141	1,096,061
<b>Total business-type activities.....</b>	<b>\$ 1,599,056</b>	<b>\$ 1,491,496</b>	<b>\$ 1,436,710</b>	<b>\$ 1,511,831</b>	<b>\$ 1,367,893</b>
<b>Total Commonwealth general revenues.....</b>	<b>\$ 27,256,906</b>	<b>\$ 27,082,738</b>	<b>\$ 26,468,555</b>	<b>\$ 24,757,612</b>	<b>\$ 23,856,877</b>
<b>CHANGES IN NET POSITION</b>					
Governmental activities.....	\$ (4,747,088)	\$ (3,786,504)	\$ (2,401,651)	\$ (2,975,834)	\$ (1,642,088)
Business-type activities.....	346,299	443,880	231,099	668,324	504,691
Restatements.....	—	—	—	—	—
<b>Total changes in net position including restatements.....</b>	<b>\$ (4,400,789)</b>	<b>\$ (3,342,624)</b>	<b>\$ (2,170,552)</b>	<b>\$ (2,307,510)</b>	<b>\$ (1,137,397)</b>

(1) - Prior year amounts were reclassified to conform to current year presentation.

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	2012 (1)	2011 (1)	2010	2009	2008
\$	2,384,142	\$ 2,312,037	\$ 2,317,016	\$ 2,591,953	\$ 2,329,454
	936,113	1,000,902	991,310	1,089,569	1,003,754
	4,991,532	4,845,738	5,030,363	5,210,451	5,118,858
	11,708,397	12,124,261	10,677,999	10,842,549	9,769,893
	1,218,079	1,113,544	1,092,178	977,565	828,297
	568,898	689,258	305,233	407,289	541,840
	1,246,213	1,365,368	1,291,142	1,036,891	900,577
	7,619,987	7,139,948	7,110,366	7,326,979	6,753,620
	1,759,589	2,270,136	2,062,054	1,319,110	1,202,748
	4,336,326	3,585,958	3,806,149	3,574,455	2,854,730
	2,323,452	2,295,561	2,292,163	2,462,398	2,118,161
	472,044	498,560	470,878	463,901	342,907
	3,877,305	3,661,834	3,649,396	3,693,318	3,910,362
	1,202,772	1,177,569	1,090,471	1,116,278	1,152,162
	<b>44,644,849</b>	<b>44,080,673</b>	<b>42,186,717</b>	<b>42,112,704</b>	<b>38,827,362</b>
	3,466,500	4,388,360	5,435,611	3,475,027	1,554,885
	2,684,039	2,865,015	2,640,134	2,474,797	2,274,312
	851,118	834,453	762,043	736,972	733,842
	801,038	772,883	716,526	671,923	685,235
	<b>7,802,695</b>	<b>8,860,711</b>	<b>9,554,314</b>	<b>7,358,719</b>	<b>5,248,274</b>
\$	<b>52,447,544</b>	<b>52,941,384</b>	<b>51,741,031</b>	<b>49,471,424</b>	<b>44,075,636</b>
\$	458,320	\$ 443,869	\$ 464,592	\$ 436,344	\$ 414,614
	114,170	120,293	128,198	123,819	124,542
	297,566	258,032	185,463	180,380	176,471
	495,377	431,078	349,870	230,456	209,008
	214,340	270,449	214,269	226,754	162,639
	142,320	142,387	221,340	178,011	185,019
	931,535	896,328	797,929	718,628	601,483
	505,842	502,004	517,045	494,733	477,420
	6,783	6,645	9,661	15,728	10,766
	205,546	193,983	202,427	175,069	153,641
	237,772	142,731	38,319	37,728	31,758
	4,940,151	4,630,205	4,626,777	4,643,592	4,905,509
	8,549,722	8,038,003	7,755,891	7,461,243	7,452,873
	12,909,908	14,217,481	12,771,164	12,059,019	9,271,936
	79,733	168,912	779,403	853,221	484,172
	<b>21,539,363</b>	<b>22,424,397</b>	<b>21,306,458</b>	<b>20,373,482</b>	<b>17,208,980</b>
	1,982,602	1,945,801	1,727,964	1,671,098	1,587,543
	1,519,496	1,685,386	1,527,880	1,419,932	1,160,513
	523,979	530,078	479,900	442,685	400,369
	275,778	250,341	235,865	219,986	204,190
	2,525,342	3,500,210	4,020,351	1,721,199	710,974
	162,271	42,819	48,684	56,377	35,893
	<b>6,989,468</b>	<b>7,954,635</b>	<b>8,040,644</b>	<b>5,531,277</b>	<b>4,099,482</b>
\$	<b>28,528,831</b>	<b>30,379,032</b>	<b>29,347,102</b>	<b>25,904,759</b>	<b>21,308,462</b>
\$	21,403,426	\$ 21,066,430	\$ 19,034,227	\$ 18,499,273	\$ 21,174,430
	1,393,094	991,230	1,474,995	1,489,018	2,057,309
	(1,155,955)	(860,904)	(864,697)	(1,070,652)	(1,178,030)
	—	—	(8,983,955)	—	—
	<b>21,640,565</b>	<b>21,196,756</b>	<b>10,660,570</b>	<b>18,917,639</b>	<b>22,053,709</b>
	214,056	652,489	504,404	83,850	234,252
	—	(10,746)	(12,125)	(11,530)	—
	1,155,955	860,904	864,697	1,070,652	1,178,030
	<b>1,370,011</b>	<b>1,502,647</b>	<b>1,356,976</b>	<b>1,142,972</b>	<b>1,412,282</b>
\$	<b>23,010,576</b>	<b>22,699,403</b>	<b>12,017,546</b>	<b>20,060,611</b>	<b>23,465,991</b>
\$	(1,464,923)	\$ (459,521)	\$ (10,219,688)	\$ (2,821,583)	\$ 435,327
	556,784	596,571	(156,694)	(684,470)	263,490
	—	—	—	(152,800)	—
\$	<b>(908,139)</b>	<b>137,050</b>	<b>(10,376,382)</b>	<b>(3,658,853)</b>	<b>698,817</b>

## Fund Balances, Governmental Funds

Last Ten Fiscal Years

(Modified accrual basis of accounting)

(Amounts in thousands)

	2017	2016	2015	2014	2013
<b>Total Unreserved general fund</b> .....	\$ —	\$ —	\$ —	\$ —	\$ —
<b>All Other Governmental Funds</b>					
Reserved.....	—	—	—	—	—
Unreserved:					
Special Revenue Funds .....	—	—	—	—	—
Capital Projects Funds.....	—	—	—	—	—
Permanent Trust Funds.....	—	—	—	—	—
<b>Total Unreserved</b> .....	—	—	—	—	—
<b>Total all other governmental funds</b> .....	—	—	—	—	—
<b>Total governmental fund balances</b> .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

\* 2010 has been restated for GASB 54 presentation. Years prior have not been restated.

**Fund balances GASB 54 :**

Nonspendable ** .....	\$ —	\$ —	\$ —	\$ —	\$ —
Restricted ** .....	1,926,716	1,377,671	1,792,461	1,518,671	1,558,842
Committed .....	2,351,175	2,421,647	2,375,021	2,249,906	2,324,228
Assigned .....	684,655	845,567	576,632	510,353	595,085
Unassigned.....	634,324	628,420	561,105	340,505	391,795
<b>Total governmental fund balances</b> .....	<u>\$ 5,596,870</u>	<u>\$ 5,273,305</u>	<u>\$ 5,305,218</u>	<u>\$ 4,619,434</u>	<u>\$ 4,869,950</u>

\*\* amounts in prior years have been reclassified to conform to current year presentation

See Independent Auditors' Report

2012	2011	2010*	2009*	2008*
\$ —	\$ —	\$ —	\$ 1,734,822	\$ 3,171,278
—	—	—	1,401,985	1,809,058
—	—	—	2,044,674	2,437,897
—	—	—	(125,138)	(360,570)
—	—	—	5,000	5,000
—	—	—	1,924,536	2,082,327
—	—	—	3,326,521	3,891,385
<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 5,061,343</b>	<b>\$ 7,062,663</b>

\$ —	\$ —	\$ 5,000
2,196,201	1,675,969	1,906,663
2,404,158	2,020,009	2,166,175
574,621	750,462	156,483
1,143,978	821,188	351,395
<b>\$ 6,318,958</b>	<b>\$ 5,267,628</b>	<b>\$ 4,585,716</b>

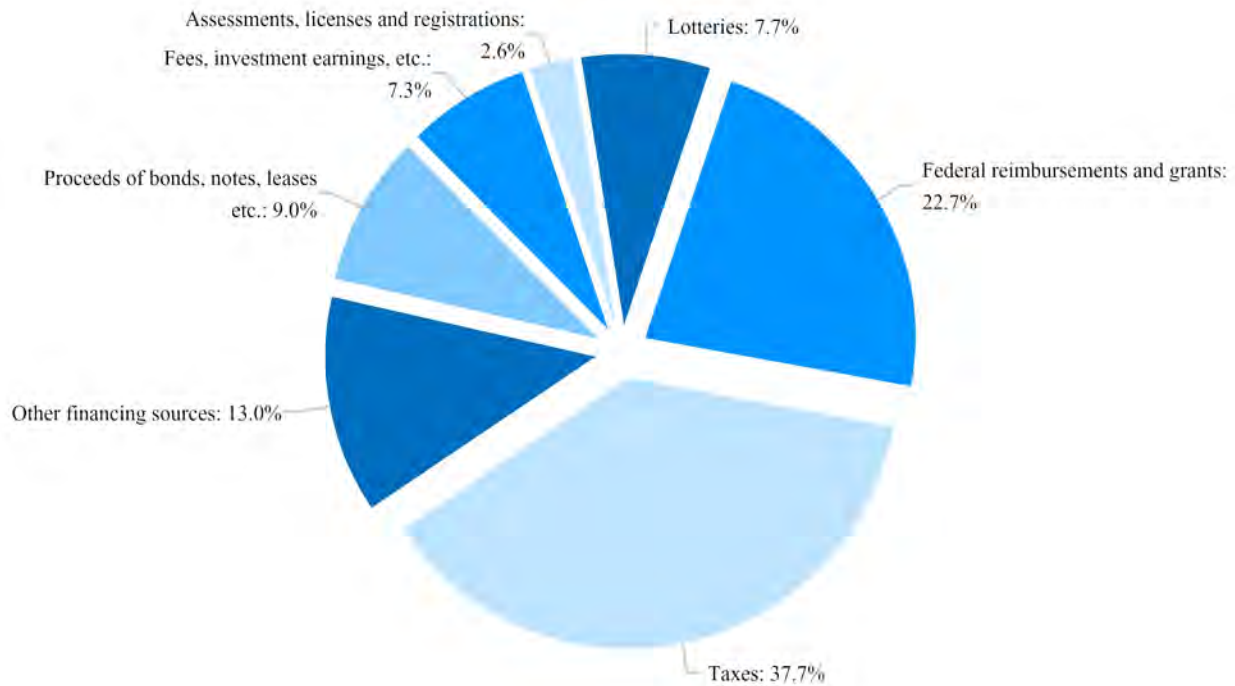
**Ten-Year Schedule of Revenues and Other Financing Sources**  
**All Governmental Fund Types - Fund Perspective**  
*(Modified Accrual Basis of Accounting)*

(Amounts in millions)

	2017	% Total	2016	% Total	2015	% Total	2014	% Total	2013	% Total
Taxes.....	\$ 25,828	37.7	\$ 25,746	38.0	\$ 25,258	41.7	\$ 23,786	41.6	\$ 22,391	40.5
Federal reimbursements.....	11,932	17.4	11,577	17.1	10,462	17.2	9,417	16.5	8,981	16.2
Federal grants .....	3,635	5.3	3,656	5.4	3,583	5.9	3,730	6.5	3,887	7.0
Lotteries.....	5,258	7.7	5,406	8.0	5,194	8.6	5,049	8.8	5,042	9.1
Assessments.....	1,219	1.8	1,104	1.6	1,026	1.7	1,080	1.8	1,093	2.0
Motor vehicle licenses and registrations .....	554	0.8	546	0.8	546	0.9	495	0.9	487	0.9
Fees, investment earnings, etc.....	4,966	7.3	4,957	7.3	4,540	7.5	4,152	7.3	3,750	6.8
Issuance of general and special obligation bonds.....	3,464	5.1	3,969	5.9	3,761	6.2	2,360	4.1	1,471	2.7
Issuance of refunding bonds.....	1,853	2.7	1,463	2.2	632	1	1,236	2.2	1,913	3.5
Bond premiums .....	812	1.2	613	0.9	379	0.6	193	0.3	398	0.7
Proceeds of capital lease.....	1	—	31	—	31	0.1	11	—	1	—
Other financing sources.....	8,915	13.0	8,682	12.8	5,247	8.6	5,701	10.0	5,876	10.6
<b>Total revenues and other financing sources.....</b>	<b>\$ 68,437</b>	<b>100.0</b>	<b>\$ 67,750</b>	<b>100.0</b>	<b>\$ 60,659</b>	<b>100.0</b>	<b>\$ 57,210</b>	<b>100.0</b>	<b>\$ 55,290</b>	<b>100.0</b>

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**Apportionment of Revenues by Source -  
Fiscal Year Ended June 30, 2017**



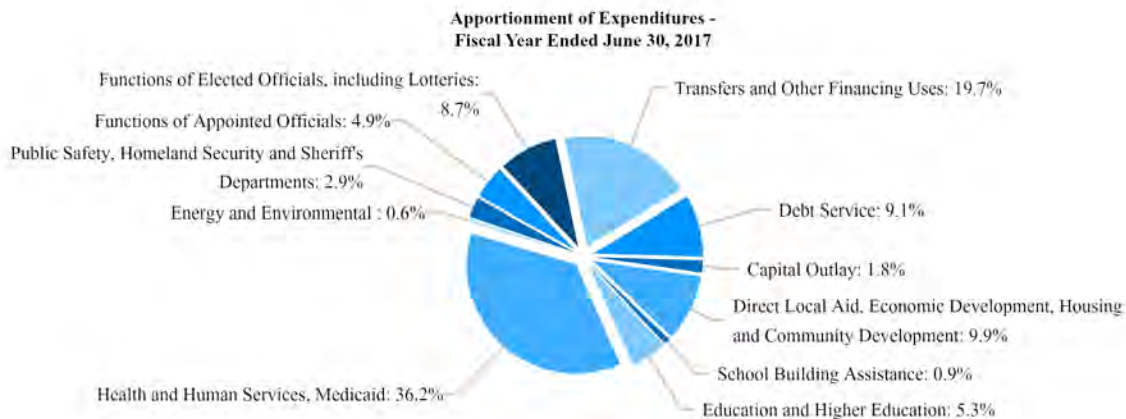
2012	% Total	2011	% Total	2010	% Total	2009	% Total	2008	% Total
\$ 21,533	39.6	\$ 20,854	38.7	\$ 18,991	37.3	\$ 18,354	36.9	\$ 21,120	42.1
8,934	16.4	10,066	18.8	9,453	18.5	9,392	18.9	7,037	14
4,051	7.5	4,311	8.0	4,097	8.0	3,510	7	2,681	5.4
4,944	9.1	4,631	8.6	4,628	9.1	4,650	9.3	4,915	9.8
1,024	1.9	980	1.8	965	2.0	929	1.9	858	1.8
474	0.9	461	0.9	463	0.9	383	0.8	376	0.7
3,823	7.0	3,246	6.0	3,365	6.6	3,204	6.4	3,546	7.1
2,902	5.3	2,233	4.1	2,419	4.7	2,042	4.1	1,281	2.6
388	0.7	888	1.6	538	1.1	390	0.8	—	—
260	0.5	130	0.2	16	0.0	99	0.2	25	—
4	—	12	—	17	0.0	18	—	17	—
6,033	11.1	6,086	11.3	6,027	11.8	6,817	13.7	8,280	16.5
<u>\$ 54,370</u>	<u>100.0</u>	<u>\$ 53,898</u>	<u>100.0</u>	<u>\$ 50,979</u>	<u>100.0</u>	<u>\$ 49,788</u>	<u>100.0</u>	<u>\$ 50,136</u>	<u>100.0</u>

**Ten-Year Schedule of Expenditures and Other Financing Uses by Secretariat**  
**All Governmental Fund Types - Fund Perspective**  
*(Modified Accrual Basis of Accounting)*  
 (Amounts in millions)

	2017	% Total	2016	% Total	2015	% Total	2014	% Total	2013	% Total
Legislature .....	\$ 67	0.1	\$ 61	0.1	\$ 61	0.1	\$ 56	0.1	\$ 57	0.1
Judiciary.....	908	1.3	880	1.3	845	1.4	816	1.4	792	1.4
Inspector General.....	4	—	5	—	5	—	6	—	6	—
Governor and Lieutenant Governor.....	7	—	7	—	6	—	5	—	6	—
Secretary of the Commonwealth .....	51	0.1	44	0.1	50	0.1	51	0.1	49	0.1
Treasurer and Receiver-General .....	5,657	8.2	5,799	8.7	5,602	9.7	5,327	9.5	5,307	9.5
Auditor of the Commonwealth.....	18	—	19	—	18	—	18	—	18	—
Attorney General .....	76	0.1	67	0.1	41	0.1	88	0.2	76	0.1
Ethics Commission .....	2	—	2	—	2	—	2	—	2	—
District Attorney .....	130	0.2	124	0.2	119	0.2	115	0.2	115	0.2
Office of Campaign and Political Finance .....	2	—	2	—	3	—	1	—	1	—
Sheriff's Department.....	624	0.9	616	0.9	593	1.0	565	1.0	541	1.0
Disabled Persons Protection Commission.....	3	—	3	—	3	—	2	—	2	—
Board of Library Commissioners .....	28	—	28	—	28	—	25	—	25	—
Massachusetts Gaming Commission.....	37	0.1	34	0.1	23	—	23	—	14	—
Comptroller.....	17	—	17	—	16	—	16	—	14	—
Administration and finance .....	2,444	3.6	2,416	3.6	2,490	4.2	2,296	4.0	2,295	4.1
Energy and environmental.....	405	0.6	436	0.6	417	0.7	410	0.7	365	0.6
Health and human services.....	7,463	11.0	7,402	10.9	7,211	12.0	6,957	12.1	7,384	13.1
Transportation and public works .....	—	—	—	—	—	—	—	—	—	—
Massachusetts department of transportation.....	2,391	3.5	2,595	3.8	2,611	4.4	2,296	4.0	1,785	3.1
Office of the Child Advocate.....	1	—	1	—	—	—	—	—	—	—
Executive office of education*.....	3,589	5.3	3,478	5.1	3,320	5.5	3,201	5.6	3,008	5.3
Center for Health and Information Analysis.....	23	—	27	—	28	—	26	—	9	—
Massachusetts school building assistance .....	621	0.9	626	0.9	732	1.2	869	1.5	1,037	1.8
Higher education.....	—	—	—	—	—	—	—	—	—	—
Public safety and homeland security .....	1,374	2.0	1,385	2.0	1,334	2.2	1,274	2.2	1,296	2.3
Housing and economic development*.....	1,021	1.5	1,048	1.5	1,021	1.7	1,035	1.8	988	1.7
Labor and workforce development*.....	259	0.4	277	0.4	269	0.4	330	0.6	350	0.6
Medicaid .....	17,183	25.2	16,825	24.9	15,087	25.2	14,035	24.4	12,286	21.7
Pension .....	1,127	1.7	1,103	1.6	902	1.5	865	1.5	878	1.5
Direct local aid.....	5,735	8.4	5,599	8.3	5,469	9.1	5,353	9.3	5,179	9.1
Capital outlay:										
Local aid .....	—	—	1	—	—	—	—	—	—	—
Capital acquisition and construction.....	1,202	1.8	1,162	1.7	1,205	2.0	999	1.7	854	1.5
Debt service:										
Principal/commercial paper repayment.....	4,676	6.9	4,487	6.6	1,781	3.0	1,546	2.7	1,525	2.7
Interest .....	1,262	1.9	1,248	1.8	1,187	2.0	1,223	2.1	1,229	2.2
Principal on current refunding.....	188	0.3	250	0.4	203	0.3	159	0.3	230	0.4
Other financing uses:										
Payments to refunding bond escrow agent.....	2,304	3.4	2,613	3.9	615	1.0	562	1.0	2,046	3.6
Transfers .....	7,215	10.6	7,094	10.5	6,676	11.1	6,907	12.0	6,972	12.3
<b>Total expenditures and other financing uses.....</b>	<b>\$ 68,114</b>	<b>100.0</b>	<b>\$ 67,781</b>	<b>100.0</b>	<b>\$ 59,973</b>	<b>100.0</b>	<b>\$ 57,461</b>	<b>100.0</b>	<b>\$ 56,739</b>	<b>100.0</b>
Change in Governmental Fund Balance.....	<u>\$ 324</u>		<u>\$ (32)</u>		<u>\$ 686</u>		<u>\$ (251)</u>		<u>\$ (1,448)</u>	

\* NOTE: Reflects departmental and functional reorganizations as of the year implemented. Prior years not restated.

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	2012	% Total	2011	% Total	2010	% Total	2009	% Total	2008	% Total
\$	58	0.1	\$ 58	0.1	\$ 59	0.1	\$ 60	0.1	\$ 58	0.1
	757	1.4	771	1.4	769	1.5	797	1.5	796	1.6
	3	—	4	—	4	—	3	—	3	—
	7	—	5	—	5	—	8	—	9	—
	41	0.1	45	0.1	52	0.1	51	0.1	51	0.1
	5,282	9.9	5,084	9.6	4,862	9.4	5,097	9.8	5,089	10.0
	17	—	18	—	18	—	19	—	19	—
	55	0.1	34	0.1	52	0.1	53	0.1	45	0.1
	2	—	2	—	2	—	2	—	2	—
	110	0.2	104	0.2	102	0.2	112	0.2	111	0.2
	1	—	3	—	1	—	1	—	1	—
	529	1.0	514	1.0	394	0.8	296	0.6	295	0.6
	2	—	2	—	2	—	3	—	2	—
	24	—	25	—	28	0.1	37	0.1	36	0.1
	1	—	—	—	—	—	—	—	—	—
	14	—	14	—	13	—	14	—	14	—
	1,949	3.7	1,852	3.3	1,686	3.3	1,709	3.4	1,528	3.1
	351	0.7	368	0.7	403	0.8	352	0.7	312	0.6
	7,301	13.6	6,791	12.8	6,655	12.9	6,684	12.9	6,423	12.6
	—	—	—	—	474	0.9	389	0.8	347	0.7
	1,679	3.1	2,086	3.9	1,209	2.3	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	3,069	5.8	3,232	6.1	2,968	5.8	2,920	5.6	2,205	4.3
	—	—	—	—	—	—	—	—	—	—
	975	1.8	791	1.5	973	1.9	657	1.3	765	1.5
	—	—	—	—	—	—	—	—	131	0.3
	1,208	2.3	1,146	2.2	1,282	2.5	1,416	2.7	1,407	2.8
	999	1.9	1,082	2.0	1,060	2.1	793	1.5	710	1.4
	455	0.9	478	0.9	447	0.9	398	0.8	308	0.6
	11,708	22.0	12,124	22.8	10,678	20.8	10,843	20.9	9,770	19.2
	801	1.5	744	1.4	587	1.1	647	1.2	368	0.7
	4,991	9.4	4,846	9.1	5,030	9.8	5,208	10.1	5,108	10.1
	—	—	—	—	1	—	3	—	10	—
	847	1.6	885	1.7	1,300	2.5	2,514	4.9	1,698	3.3
	1,297	2.4	1,071	2.0	1,300	2.5	1,296	2.5	1,336	2.6
	1,207	2.3	1,149	2.2	1,107	2.2	1,114	2.2	1,150	2.3
	—	—	—	—	—	—	—	—	—	—
	388	0.7	945	1.8	537	1.0	410	0.8	—	—
	7,189	13.5	6,947	13.1	7,395	14.4	7,887	15.2	10,141	20.0
<u>\$</u>	<u>53,319</u>	<u>100.0</u>	<u>\$ 53,217</u>	<u>100.0</u>	<u>\$ 51,455</u>	<u>100.0</u>	<u>\$ 51,789</u>	<u>100.0</u>	<u>\$ 50,810</u>	<u>100.0</u>
<u>\$</u>	<u>1,051</u>		<u>\$ 681</u>		<u>\$ (476)</u>		<u>\$ (2,001)</u>		<u>\$ (674)</u>	



**Personal Income by Industry**  
**Last Ten Calendar Years**

(Amounts in millions)

	2016	2015	2014	2013	2012
<b>Total personal income</b> .....	<b>\$ 442,500</b>	<b>\$ 415,636</b>	<b>\$ 396,206</b>	<b>\$ 381,271</b>	<b>\$ 363,944</b>
Unearned income.....	108,349	97,728	94,494	91,615	87,333
Farm earnings .....	151	195	178	151	150
Nonfarm earnings .....	334,000	317,713	301,534	289,505	276,461
<b>Private earnings</b> .....	<b>292,750</b>	<b>272,533</b>	<b>262,843</b>	<b>252,939</b>	<b>243,502</b>
Agricultural services, forestry, fishing.....	677	406	354	373	426
Mining.....	379	276	270	201	113
Construction.....	19,473	17,197	15,481	14,759	13,426
<b>Manufacturing</b> .....	<b>27,181</b>	<b>26,497</b>	<b>25,921</b>	<b>25,341</b>	<b>26,375</b>
Durable goods .....	18,894	18,193	18,224	17,977	19,223
Nondurable goods .....	8,287	8,304	7,697	7,364	7,152
Transportation and utilities .....	8,330	7,600	7,295	7,083	6,742
Wholesale trade.....	14,621	13,938	13,546	13,483	12,979
Retail trade.....	15,520	14,716	14,137	13,565	13,333
Services.....	233,750	191,903	185,839	178,134	170,109
<b>Government</b> .....	<b>41,130</b>	<b>39,921</b>	<b>38,691</b>	<b>36,567</b>	<b>32,959</b>
Federal, civilian .....	5,427	5,202	5,007	4,792	5,442
Military .....	860	860	874	943	1,221
State and local .....	34,843	33,859	32,810	30,832	26,296
Personal income tax revenue (fiscal year, statutory basis)...	\$ 14,394	\$ 14,449	\$ 13,202	\$ 12,831	\$ 11,911
Total personal income .....	\$ 442,500	\$ 415,636	\$ 396,206	\$ 381,271	\$ 363,944
Average Effective Rate.....	3.25%	3.48%	3.33%	3.40%	3.30%
Highest Earned Income Tax Rate.....	5.10%	5.15%	5.20%	5.25%	5.25%

*Sources: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System and the Massachusetts Department of Revenue. Average effective rate is individual income tax revenue divided by personal income.*

*Note: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System adjusted its methodology in 2008. Prior years restated.*

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2011	2010	2009	2008	2007
<b>\$ 352,243</b>	<b>\$ 336,400</b>	<b>\$ 324,680</b>	<b>\$ 335,722</b>	<b>\$ 322,543</b>
83,338	81,190	78,336	80,365	71,529
136	186	137	180	135
268,769	255,024	246,208	255,176	250,878
<b>236,763</b>	<b>223,784</b>	<b>215,396</b>	<b>225,122</b>	<b>222,302</b>
409	383	376	383	405
124	97	101	181	301
12,526	11,687	11,717	13,671	14,900
<b>25,387</b>	<b>25,108</b>	<b>23,290</b>	<b>25,449</b>	<b>25,865</b>
18,319	18,053	16,466	18,170	18,464
7,069	7,055	6,824	7,280	7,401
6,604	6,208	6,029	6,235	5,891
13,082	12,501	12,458	13,412	13,025
12,891	12,599	12,255	12,545	12,960
165,740	155,202	149,171	153,246	148,954
<b>32,006</b>	<b>31,240</b>	<b>30,812</b>	<b>30,054</b>	<b>28,577</b>
5,426	5,431	5,314	5,157	5,045
1,245	1,260	1,220	1,092	1,025
25,335	24,550	24,278	23,806	22,507
\$ 11,576	\$ 10,110	\$ 10,584	\$ 12,484	\$ 11,400
\$ 352,243	\$ 336,400	\$ 324,680	\$ 335,722	\$ 322,543
3.30%	3.00%	3.30%	3.70%	3.50%
5.30%	5.30%	5.30%	5.30%	5.30%

**Commonwealth of Massachusetts**  
**Personal Income Tax Filers and Liability by Income Level**  
**Calendar (Tax) Years 2015 and 2006**

(Amounts, except income level are in thousands)

**Calendar Year 2015 (or Fiscal Year 2016)**

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher.....	767,806	20.4%	\$ 9,973,474	73.0%
\$75,001 - \$100,000.....	304,463	8.1%	1,120,835	8.2%
\$50,001 - \$75,000.....	485,199	12.9%	1,214,919	8.9%
\$25,001 - \$50,000.....	801,169	21.3%	1,040,421	7.6%
\$10,001 - \$25,000.....	668,452	17.7%	273,681	2.0%
\$10,000 and lower.....	739,023	19.6%	35,019	0.3%
Total.....	<u>3,766,112</u>	<u>100.0%</u>	<u>\$ 13,658,349</u>	<u>100.0%</u>

**Calendar Year 2006 (or Fiscal Year 2007)**

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher.....	525,235	15.4%	\$ 6,781,949	65.2%
\$75,001 - \$100,000.....	282,446	8.3%	1,061,034	10.2%
\$50,001 - \$75,000.....	455,418	13.3%	1,162,407	11.2%
\$25,001 - \$50,000.....	791,755	23.2%	1,070,143	10.3%
\$10,001 - \$25,000.....	656,999	19.3%	287,161	2.8%
\$10,000 and lower.....	701,070	20.5%	33,004	0.3%
Total.....	<u>3,412,923</u>	<u>100.0%</u>	<u>\$ 10,395,698</u>	<u>100.0%</u>

*Source: Massachusetts Department of Revenue - 2015 is the most recent tax year for which complete data is available.*

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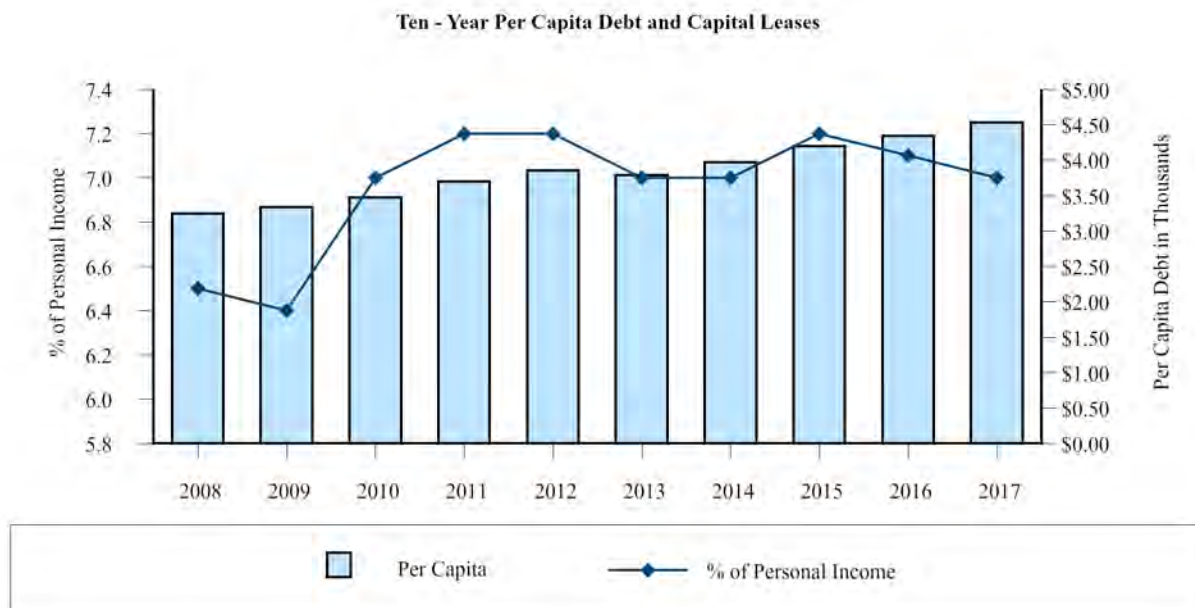
## Ten - Year Schedule of Per Capita General Long-Term Bonded Debt and Capital Leases

(Amounts in thousands, except for percentages)

Fiscal Year Ended June 30	Governmental Activities		Business-Type Activities		Total Primary Government	Prior Year Personal Income	Massachusetts Resident Population (4)	Debt as a Percentage of Personal Income	Amount of Debt Per Capita
	Bonded Debt (1)	Capital Leases (2)	Bonded Debt (3)	Capital Leases					
2017	\$ 26,445,665	\$ 30,856	\$ 4,529,353	\$ 8,979	\$ 31,014,853	\$ 442,500,000	6,812	7.0%	\$ 4.55
2016	25,079,591	41,302	4,438,282	9,887	29,569,062	415,636,000	6,784	7.1%	4.36
2015	23,826,301	42,928	4,553,105	9,895	28,432,229	396,206,000	6,750	7.2%	4.22
2014	22,419,852	55,878	4,243,731	14,529	26,733,990	381,271,000	6,707	7.0%	3.99
2013	21,513,039	50,831	3,736,432	19,299	25,319,601	363,943,750	6,658	7.0%	3.81
2012	21,907,683	60,457	3,370,389	23,327	25,361,856	352,242,750	6,612	7.2%	3.87
2011	20,875,055	60,975	3,277,413	31,105	24,244,548	336,399,750	6,566	7.2%	3.72
2010	19,726,507	76,608	2,731,124	40,924	22,575,163	324,680,250	6,518	7.0%	3.49
2009	19,264,569	109,765	2,103,675	58,885	21,536,894	335,721,500	6,469	6.4%	3.35
2008	18,734,440	83,741	2,026,551	67,631	20,912,363	322,542,500	6,432	6.5%	3.26

- (1) Excludes Massachusetts School Building Authority debt. Amounts of bonded debt for governmental activities are the amount of debt for statutory debt calculation purposes. For fiscal 2008 through 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are calculated using net proceeds; fiscal 2013 and thereafter are calculated using principal.
- (2) Governmental capital leases exclude the lease between the Commonwealth and the Route 3 North Transportation Improvement Association, a discretely presented component unit.
- (3) Business-type activities bond debt includes notes payable of the Institutions of Higher Education.
- (4) Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year. *Source: - HTTP://www.fedstats.gov (US Census Bureau.)*

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### Ten Year Schedule of Outstanding Direct Debt and Statutory Debt Limit

(Amounts in thousands)

	2017 (3)	2016 (3)	2015 (3)	2014 (3)	2013 (3)
Outstanding principal as of June 30 (1) .....	\$ 26,445,665	\$ 25,079,591	\$ 23,826,301	\$ 22,419,852	\$ 21,513,039
Plus/(less) amounts excluded:					
Net amortized (discount)/premium and issuance costs .....	—	—	—	—	—
Total net proceeds/principal .....	26,445,665	25,079,591	23,826,301	22,419,852	21,513,039
Less net proceeds/principal of direct debt excluded from statutory debt limit:					
Central artery project bonds .....	(1,110,195)	(1,150,296)	(1,197,127)	(1,241,263)	(1,303,013)
Accelerated bridge program .....	(2,380,740)	(2,192,930)	(2,195,004)	(1,756,395)	(1,088,605)
County debt assumed .....	—	—	—	—	—
(Premium)/discount .....	—	—	—	—	—
Grant anticipation notes (2) .....	—	—	—	(178,390)	(349,100)
School Modernization and Reconstruction Trust Bonds ..	(632,348)	(652,197)	(689,446)	(723,917)	(764,337)
Convention center bonds .....	(575,420)	(597,630)	(618,705)	(638,700)	(638,700)
MBTA forward funding bonds .....	(207)	(207)	(207)	(207)	(207)
Special obligation gas bonds .....	(128,270)	(170,735)	(210,635)	(249,705)	(296,395)
Rail enhancement program bonds (4) .....	(644,540)	—	—	—	—
Outstanding direct debt, net proceeds/principal .....	20,973,945	20,315,596	18,915,177	17,631,275	17,072,682
Statutory debt limit* .....	21,786,126	20,748,692	19,760,659	18,819,675	17,923,500
Debt margin (debt limit less direct debt) .....	<u>\$ 812,181</u>	<u>\$ 433,096</u>	<u>\$ 845,482</u>	<u>\$ 1,188,400</u>	<u>\$ 850,818</u>
Debt margin as a percentage of direct debt limit .....	<u>3.7%</u>	<u>2.1%</u>	<u>4.3%</u>	<u>6.3%</u>	<u>4.7%</u>

(1) Exclusive of the Massachusetts School Building Authority debt.

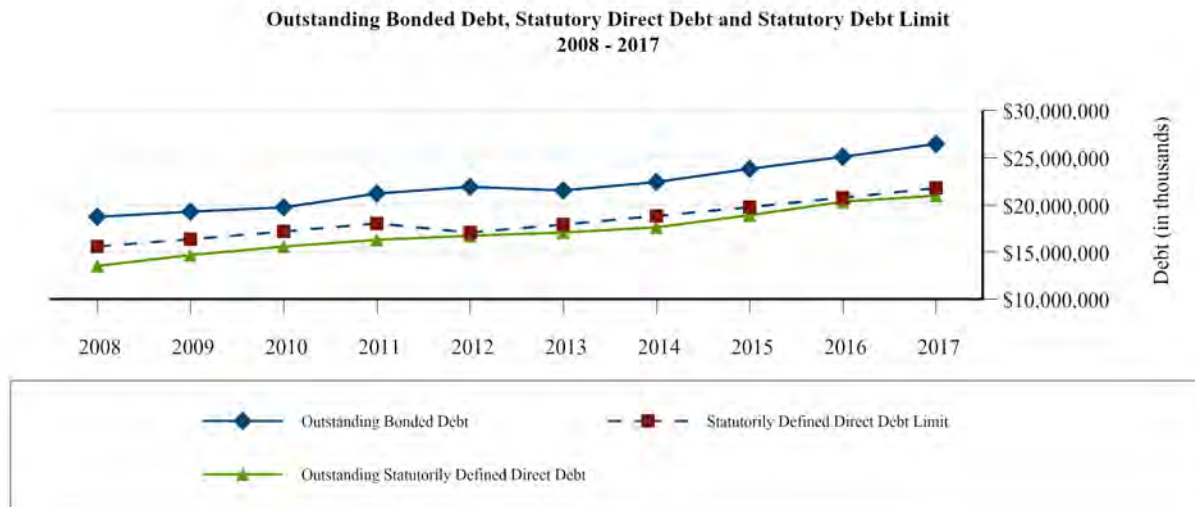
(2) Inclusive of crossover refunding amounts.

(3) For fiscal 2008 through 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are calculated using net proceeds; fiscal 2013 and thereafter are calculated using principal.

(4) Section 4 of Chapter 220 of the Acts of 2016 exempted bonds issued under the Rail Enhancement Program from the statutory debt limit.

\* Section 60A of Chapter 165 of the Acts of 2012, as amended, reset the statutory defined debt limit, effective July 1, 2012, to \$17.070 billion

See Independent Auditors' Report



2012	2011	2010	2009	2008
\$ 21,433,553	\$ 20,875,056	\$ 19,509,819	\$ 19,047,679	\$ 18,611,105
474,130	335,078	216,688	216,890	123,335
21,907,683	21,210,134	19,726,507	19,264,569	18,734,440
(1,342,841)	(1,356,606)	(1,243,250)	(1,401,581)	(1,434,654)
(1,095,385)	(676,125)	—	—	—
(75)	(150)	(225)	(300)	(375)
(474,130)	(335,078)	216,688	216,890	123,335
(510,385)	(666,790)	(997,467)	(1,134,797)	(1,536,206)
(795,009)	(824,279)	(894,502)	(921,751)	(946,285)
(638,700)	(643,715)	(643,715)	(643,715)	(643,715)
(207)	(44,472)	(165,559)	(231,000)	(309,203)
(337,545)	(371,665)	(419,785)	(456,984)	(482,953)
—	—	—	—	—
16,713,406	16,291,254	15,578,692	14,691,331	13,504,384
17,070,000	18,042,424	17,183,261	16,365,011	15,585,725
\$ 356,594	\$ 1,751,170	\$ 1,604,569	\$ 1,673,680	\$ 2,081,341
2.1%	9.7%	9.3%	10.2%	13.4%

**Ten Fiscal Year Schedule of Pledged Revenue Coverage**

**Special Obligation Highway Bonds (Motor Fuels Taxation and Motor Vehicle Fees), Convention Center Bonds (Tax Incremental Financing) and Grant Anticipation Notes (Federal Highway Grants)**

(Statutory Basis, Amounts in Thousands, Except for Federal Highway Appropriations which are in Billions and on a Federal Fiscal Year, and Except for Ratios)

	2017	2016	2015	2014	2013
<b>Highway Bonds</b>					
For issues prior to December 2010, the bonds are secured by a pledge of 6.86¢ of the 21¢ per gallon state gasoline excise tax for FY2008 and before. For FY2009 and after, the pledge is up to 10¢ of the tax. Bonds issued in December 2010, May 2012 and November 2013 (Commonwealth Transportation Fund, or "CTF bonds") are secured by a senior lien on 17.085 cents of the total 24 cent per gallon gasoline tax, the full 21 cents per gallon of special fuels taxes (comprised primarily of taxes on diesel fuel), the full 19.1% of the average price per gallon tax on liquefied natural gas and all Registry of Motor Vehicle fees deposited in the Commonwealth Transportation Fund. Federal Build America Bonds subsidies are also pledged to all CTF bonds. The bonds also have a subordinate lien on 6.86¢ of the 24¢ per gallon gasoline tax not included in the senior lien. Revenues pledged to the bonds are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table. The 2010 bonds were issued as federally taxable Build America Bonds/Recovery Zone Economic Development Bonds; the programs provide an interest subsidy of 35-45% directly to the Commonwealth. The interest subsidy is shown as pledged funds and debt service is gross of the subsidy.					
<b>Pre-2010 Bond Issues</b>					
Tax Receipts.....	\$ 193,122	\$ 190,803	\$ 187,913	\$ 187,467	\$ 186,638
Operating Expenses .....	N/A	N/A	N/A	N/A	N/A
Net Available Revenues .....	\$ 193,122	\$ 190,803	\$ 187,913	\$ 187,467	\$ 186,638
Annual Debt Service .....	\$ 51,276	\$ 50,906	\$ 52,225	\$ 52,228	\$ 58,922
Debt Service Coverage Ratio.....	3.77	3.75	3.60	3.59	3.17
Ratings History of Bonds (Fitch, Moody's and S&P)* .....	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA
<b>Post-2010 Bond Issues (Includes Revenues in Excess of Those Needed to Pay Debt Service on Pre-2010 Highway Bonds)</b>					
Receipts .....	\$ 1,328,886	\$ 1,294,357	\$ 1,283,248	\$ 1,210,405	\$ 1,170,297
Operating Expenses .....	N/A	N/A	N/A	N/A	N/A
Net Available Revenues .....	\$ 1,328,886	\$ 1,294,357	\$ 1,283,248	\$ 1,210,405	\$ 1,170,297
Annual Debt Service .....	\$ 129,024	\$ 94,859	\$ 81,054	\$ 69,921	\$ 58,108
Debt Service Coverage Ratio.....	10.30	13.65	15.83	17.31	20.14
Ratings History of Bonds (Fitch, Moody's and S&P)* .....	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA	NA, Aaa, AAA
<b>Convention Center Bonds</b>					
These bonds are secured by amounts payable to the Convention Center Fund, which include certain hotel tax receipts in Boston, Cambridge, Springfield, surcharges on car rentals, parking, sightseeing tours and cruises and sales tax receipts in those cities. Revenues pledged to the bonds are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table.					
Receipts.....	\$ 133,789	\$ 134,806	\$ 124,937	\$ 109,879	\$ 100,631
Operating Expenses .....	N/A	N/A	N/A	N/A	N/A
Net Available Revenues .....	\$ 133,789	\$ 134,806	\$ 124,937	\$ 109,879	\$ 100,631
Annual Debt Service .....	\$ 54,540	\$ 54,540	\$ 52,852	\$ 34,486	\$ 34,486
Debt Service Coverage Ratio.....	2.45	2.47	2.36	2.99	2.76
Ratings History of Bonds (Fitch, Moody's and S&P)* .....	NA, A1, A	NA, A1, A	NA, A1, A	NA, A1, A	NA, A1, A
<b>Grant Anticipation Notes (GANS)</b>					
Notes issued prior to December 2010 ("Senior Federal Highway Notes") were secured by all federal highway reimbursements, which are deposited in the Grant Anticipation Note Trust fund. The outstanding pre-December 2010 notes were retired in June 2015 and Notes issued in December 2010 ("Federal Highway Grant Anticipation Notes") and after are secured by all federal highway reimbursements. Revenues pledged to the notes are available prior to use for any other purposes. Thus, operating expenses paid from these revenue sources are not applicable for the purpose of calculating debt service coverage ratios and are not shown in this table. The 2010 bonds were issued as federally taxable Build America Bonds; the program provides an interest subsidy of 35% directly to the Commonwealth. The interest subsidy is shown as pledged funds and debt service is gross of the subsidy.					
<b>Post 2010 GANS (Includes Revenues in Excess of those Needed to Pay Debt Service on Pre-2010 Highway Bonds)</b>					
Receipts.....	\$ 1,688,830	\$ 1,751,672	\$ 1,556,243	\$ 1,562,732	\$ 1,575,266
Operating Expenses .....	N/A	N/A	N/A	N/A	N/A
Net Available Revenues .....	\$ 1,688,830	\$ 1,751,672	\$ 1,556,243	\$ 1,562,732	\$ 1,575,266
Annual Debt Service .....	\$ 80,486	\$ 76,049	\$ 33,472	\$ 4,268	\$ 4,973
Debt Service Coverage Ratio.....	20.98	23.03	46.49	366.15	316.76
Ratings History of Bonds (Fitch, Moody's and S&P)* .....	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa1, AAA	AA+, Aa2, AAA

\*Uninsured rating, if available.

\*\* Receipts for fiscal years 2016 - 2013 have been restated to reflect 3 cent increase in gasoline tax that is pledged to post-2010 highway bonds.

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2012	2011	2010	2009	2008
\$ 190,129	\$ 189,763	\$ 188,666	\$ 189,246	\$ 194,785
N/A	N/A	N/A	N/A	N/A
\$ 190,129	\$ 189,763	\$ 188,666	\$ 189,246	\$ 194,785
\$ 58,939	\$ 59,453	\$ 58,931	\$ 58,924	\$ 56,535
3.23	3.19	3.2	3.21	3.45
AA+, Aa1, AAA	AA, Aa1, AAA	AA, Aa2, AA+	AA+, Aa3, AA+	AA-, Aa3, AA
\$ 1,121,709	\$ 626,619			
N/A	N/A			
\$ 1,121,709	\$ 626,619			
\$ 32,623	\$ 14,318			
34.38	43.76			
NA, Aaa, AAA	NA, Aaa, AAA			
\$ 94,234	\$ 84,905	\$ 75,432	\$ 73,918	\$ 78,984
N/A	N/A	N/A	N/A	N/A
\$ 94,234	\$ 84,905	\$ 75,432	\$ 73,918	\$ 78,984
\$ 34,486	\$ 34,486	\$ 34,486	\$ 34,486	\$ 34,486
2.59	2.40	2.08	2.04	2.22
NA, A1, A	NA, A1, A	NA, A1, A	NA, A1, A	NA, A2, A
\$ 1,674,485	\$ 909,546			
N/A	N/A			
\$ 1,674,485	\$ 909,546			
\$ 4,271	\$ 2,039			
392.06	446.01			
AA+, Aa2, AAA	AA+, Aa2, AAA			



**Ten-Year Schedule of Percentage of Annual Debt Service Expenditures  
For General Bonded Debt to Total Non-Capital Expenditures - Fund Perspective  
All Governmental Fund Types**

(Amounts in thousands)

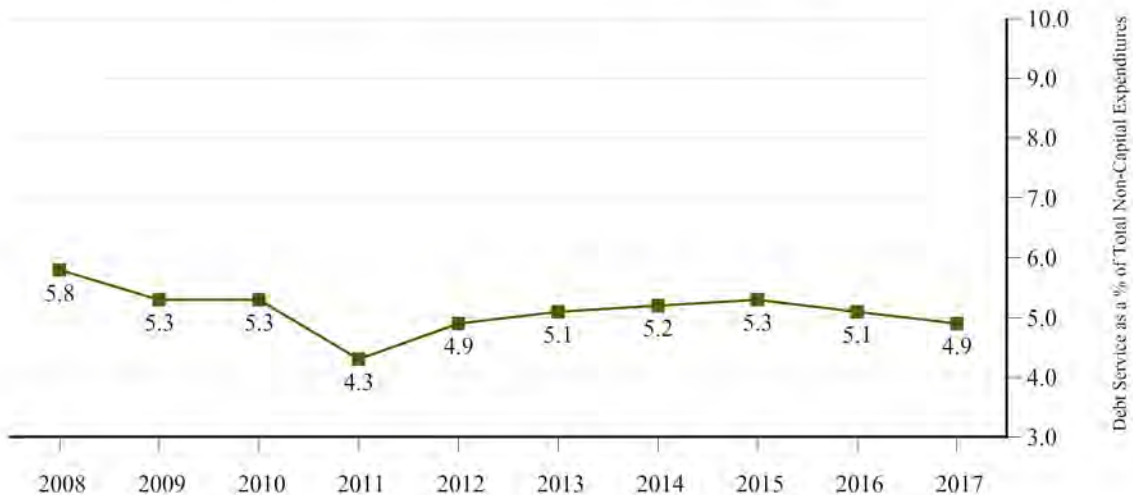
Fiscal year ended June 30	Debt service (1)	Total non-capital expenditures (2)	Ratio (%)
2017	\$ 2,667,043	\$ 54,239,919	4.9
2016	2,720,117	53,748,227	5.1
2015*	2,703,200	51,171,135	5.3
2014*	2,534,285	48,312,870	5.2
2013*	2,351,074	45,733,298	5.1
2012*	2,160,589	44,070,405	4.9
2011*	1,904,881	43,881,014	4.3
2010*	2,116,507	40,152,632	5.3
2009*	2,144,733	40,605,292	5.3
2008*	2,238,939	38,709,686	5.8

- (1) Business type activities debts are secured solely by leases between the Institutions of Higher Education and two blended building authorities. Excludes Massachusetts School Building Authority debt service paid by the Authority.
- (2) Expenditures are shown net of Massachusetts School Building Authority expenditures as they are school building assistance capital grants to local cities and towns.

\* - Amounts have been restated to conform to current year presentation.

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**Debt Service to Non-Capital Expenditures Ratio 2008 - 2017**



**Component Units Revenue Bond Coverage  
For the Last Ten Fiscal Years**

(Amounts in thousands)

Fiscal year ended June 30	Net Revenues <sup>(1)</sup>	Debt service requirements <sup>(2)</sup>	Coverage Ratio (%)
2017	\$ 1,763,564	\$ 1,169,651	1.51
2016	1,817,135	1,298,267	1.40
2015	1,950,292	1,417,420	1.38
2014	1,481,374	1,126,392	1.32
2013	1,585,500	1,244,358	1.27
2012	1,584,013	1,517,899	1.04
2011	1,444,813	1,170,149	1.23
2010	1,460,045	1,383,231	1.06
2009	1,825,018	1,066,175	1.71
2008	1,753,149	831,978	2.11

- (1) Net revenues represent revenue pledged and available for the repayment of revenue bonds. In most cases, revenue pledged for the bonds is available prior to use for any other purposes. Thus operating expenses paid from these revenue sources are not applicable when calculating debt service coverage and are not subtracted from pledged revenues.
- (2) Debt service requirements represent total debt service payments made less debt service paid on short-term borrowings of only those Authorities with revenue bonds outstanding.

Source: Office of the Comptroller

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**Component Units Revenue Bond Coverage 2008 - 2017**



## Ten-Year Schedule of Massachusetts and United States Resident Population

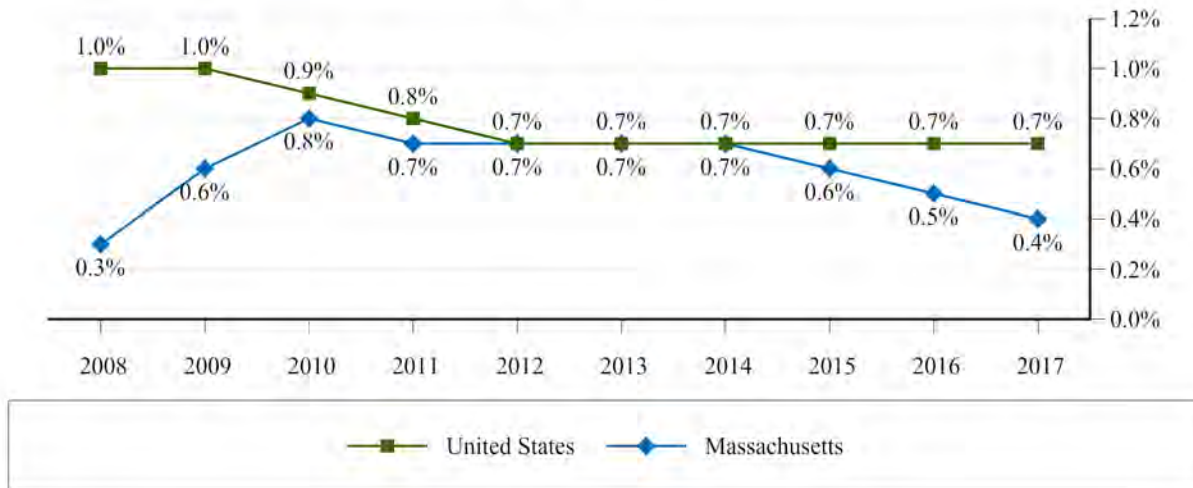
(Amounts in thousands)

Beginning of Fiscal Year	United States	% Change	Massachusetts Resident Population <sup>(1)</sup>	% Change	Massachusetts as % of U.S.
2017	323,128	0.7%	6,812	0.4%	2.1%
2016	320,897	0.7%	6,784	0.5%	2.1%
2015	318,563	0.7%	6,750	0.6%	2.1%
2014	316,205	0.7%	6,707	0.7%	2.1%
2013	313,998	0.7%	6,658	0.7%	2.1%
2012	311,663	0.7%	6,612	0.7%	2.1%
2011	309,348	0.8%	6,566	0.7%	2.1%
2010	306,772	0.9%	6,518	0.8%	2.1%
2009	304,094	1.0%	6,469	0.6%	2.1%
2008	301,231	1.0%	6,432	0.3%	2.1%

(1) Population estimates have been restated using most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year and has been restated to most recent United States Census Bureau Data.

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**Massachusetts and United States Estimated Year-to-Year Population Change  
2008 - 2017**

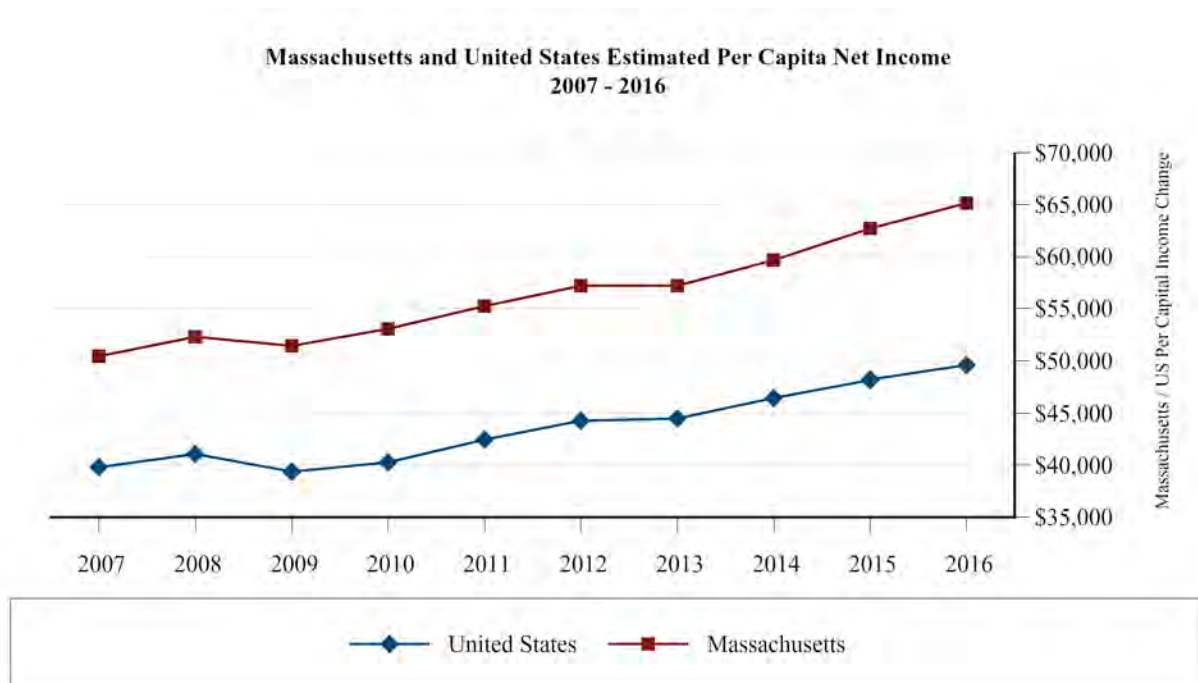


## Ten-Year Schedule of Massachusetts and United States Resident Per Capita Net Income

Calendar year	United States	% Change	Massachusetts	% Change	Massachusetts as % of U.S.
2016	\$ 49,571	2.9 %	\$ 65,137	3.9 %	131.4%
2015	48,190	3.7 %	62,697	5.1 %	130.1%
2014	46,464	4.4 %	59,650	4.3 %	128.4%
2013	44,493	0.5 %	57,182	— %	128.5%
2012	44,282	4.3 %	57,192	3.5 %	129.2%
2011	42,461	5.4 %	55,232	4.1 %	130.1%
2010	40,277	2.3 %	53,054	3.2 %	131.7%
2009	39,376	(4.2)%	51,412	(1.7)%	130.6%
2008	41,082	3.2 %	52,283	3.7 %	127.3%
2007	39,821	4.4 %	50,417	4.4 %	126.6%

Source: Bureau of Economic Analysis, US Department of Commerce. Prior years restated due to revised estimates released on March 28, 2017.

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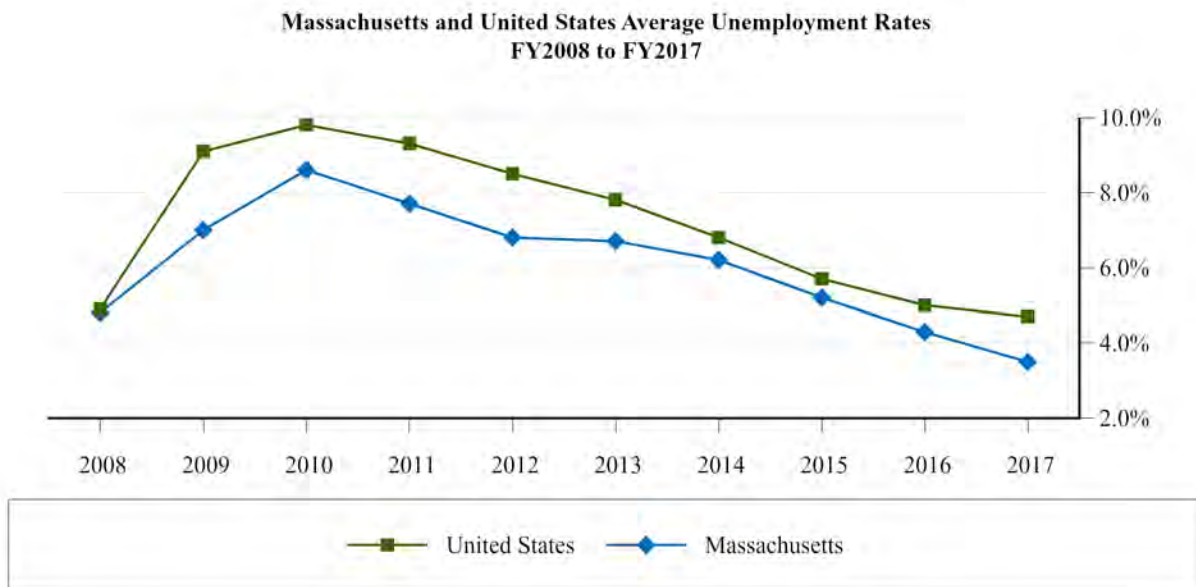


**Ten-Year Schedule of Fiscal Year Annual Average Civilian Labor Force,  
Unemployment and Unemployment Rates  
For Massachusetts and the United States**  
(Amounts in thousands)

Fiscal Year	Massachusetts			United States			Massachusetts Rate as % of U.S. Rate
	Labor Force	Unemployment	Unemployment Rate %	Labor Force	Unemployment	Unemployment Rate %	
2017	3,626	128	3.5%	159,791	7,454	4.7%	75.7%
2016	3,582	153	4.3%	158,029	7,890	5.0%	85.6%
2015	3,580	187	5.2%	156,618	8,903	5.7%	91.9%
2014	3,523	218	6.2%	155,474	10,513	6.8%	91.5%
2013	3,494	235	6.7%	155,330	12,076	7.8%	86.5%
2012	3,472	236	6.8%	154,297	13,153	8.5%	79.7%
2011	3,464	268	7.7%	153,615	14,252	9.3%	83.4%
2010	3,470	300	8.6%	153,906	15,009	9.8%	88.7%
2009	3,470	244	7.0%	154,559	14,094	9.1%	77.1%
2008	3,434	165	4.8%	153,680	7,593	4.9%	97.2%

Source: Federal Bureau of Labor Statistics, September, 2017. Seasonally adjusted. Previous data has been updated by the Federal Bureau of Labor Statistics

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**Largest Private Sector Massachusetts Employers 2017 and 2008**  
(Alphabetical Order)

2017			2008		
Employer	Headquarters	Product or Service	Employer	Headquarters	Product or Service
Bay State Medical Center, Inc.	Springfield	Hospital	Bay State Medical Center, Inc.	Springfield	Hospital
Beth Israel Deaconess Medical Center	Boston	Hospital	Beth Israel Deaconess Medical Center	Boston	Hospital
Big Y Foods, Inc.	Springfield	Supermarket	Boston Medical Center Corporation	Boston	Hospital
Boston Medical Center Corporation	Boston	Hospital	Boston University	Boston	University
Boston University	Boston	University	Brigham and Women's Hospital, Inc.	Boston	Hospital
Brigham and Women's Hospital, Inc.	Boston	Hospital	DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket
DeMoulas Supermarkets, Inc.	Tewksbury	Supermarket	EMC Corporation	Hopkinton	Computer Storage & Peripherals
EMC Corporation	Hopkinton	Computer Storage & Peripherals	General Hospital Corporation	Boston	Hospital
General Hospital Corporation	Boston	Hospital	Massachusetts Institute of Technology	Cambridge	University
Massachusetts Institute of Technology	Cambridge	University	New England Medical Center	Boston	Hospital
Partners Healthcare Systems, Inc.	Boston	Hospital	President and Fellows of Harvard College	Cambridge	University
President and Fellows of Harvard College	Cambridge	University	Raytheon Company	Lexington	Electronics / Defense
Raytheon Company	Lexington	Electronics / Defense	Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket
The Stop & Shop Supermarkets, Co.	Quincy	Supermarket	Southcoast Hospitals Group	New Bedford	Hospital
Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket	State Street Bank and Trust Company	Boston	Banking
State Street Bank and Trust Company	Boston	Banking	The Children's Hospital Corporation	Boston	Hospital
The Children's Hospital Corporation	Boston	Hospital	Tufts University	Boston	University
The TJX Companies, Inc.	Framingham	Retail	UMASS Memorial Medical Center, Inc.	Worcester	Hospital
UMASS Memorial Medical Center, Inc.	Worcester	Hospital	Verizon New England, Inc.	Boston	Telecommunications

*Source: Massachusetts Executive Office of Labor and Workforce Development, Division of Unemployment Assistance - March 2017 survey. In addition, CVS Pharmacy, Inc, Home Depot U.S.A.; Inc., Target Corp, United Parcel Services, Inc., Wal-Mart Associates, Inc. and Whole Foods Market Group, Inc. are all large Massachusetts employers, but are headquartered outside of Massachusetts. Verizon New England is a subsidiary of Verizon Communications, headquartered in New York. The information is based on employers registered for unemployment insurance. The list may not include those employers who do business in Massachusetts under multiple legal corporations and those who register each store, facility or franchisee as a separate employer.*

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**Full Time Equivalent Employees**  
**By Function / Program**  
**Last Ten Years**

Functions/Programs	2017	2016	2015 *	2014	2013
General government.....	6,905	7,017	7,696	7,637	7,627
Judiciary.....	7,208	7,263	7,264	7,195	7,297
Energy and environmental affairs.....	2,509	2,539	2,689	2,629	2,684
Health and human services .....	21,817	21,557	22,060	21,496	21,996
Transportation and construction .....	3,482	4,004	4,357	4,301	4,243
Education .....	815	907	970	1,099	928
Public safety and homeland security .....	16,522	16,868	17,057	17,215	16,907
Housing and economic development.....	818	844	884	891	868
Higher Education:					
University of Massachusetts.....	15,032	15,130	14,670	14,066	14,688
State universities.....	5,186	5,050	5,036	4,969	4,856
Community colleges.....	5,066	5,032	5,077	4,990	5,111
<b>Totals.....</b>	<b>85,360</b>	<b>86,211</b>	<b>87,760</b>	<b>86,488</b>	<b>87,205</b>
<b>Percentage change .....</b>	<b>(1.0)%</b>	<b>(1.8)%</b>	<b>1.5%</b>	<b>(0.8)%</b>	<b>3.2%</b>

Source: Office of the State Comptroller

\* Certain amounts were reclassified to conform to current year presentation.

"Education" includes the Department of Elementary & Secondary Education, Executive Office of Education, Board of Higher Education and in 2009 Early Education and Care. Transportation and construction includes MassDOT. FTE's are rounded. Prior years not restated for changes. Includes approximately 6,600 FTEs transferred to the Commonwealth's payroll in FY09 and FY10 in the categories of Higher Education, Transportation and construction and Public safety and homeland security (see pages 20–21 of Management's Discussion and Analysis for details).

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2012	2011	2010	2009	2008	Change - 2017 from 2008
7,408	8,020	8,280	6,277	6,368	8.4 %
7,087	7,111	7,388	7,821	8,021	(10.1)%
2,685	2,737	2,783	2,955	2,928	(14.3)%
21,042	21,011	21,401	22,605	23,322	(6.5)%
4,230	4,209	4,127	3,043	2,892	20.4 %
922	1,037	1,575	844	615	32.5 %
16,503	15,785	15,857	13,951	14,242	16.0 %
845	831	846	2,314	2,302	(64.5)%
14,159	14,159	14,031	13,814	13,651	10.1 %
4,747	4,487	4,282	4,650	4,519	14.8 %
4,834	4,684	4,276	4,781	4,775	6.1 %
<b>84,462</b>	<b>84,071</b>	<b>84,846</b>	<b>83,055</b>	<b>83,636</b>	2.1 %
<b>(0.9)%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>(0.7)%</b>	<b>1.7%</b>	



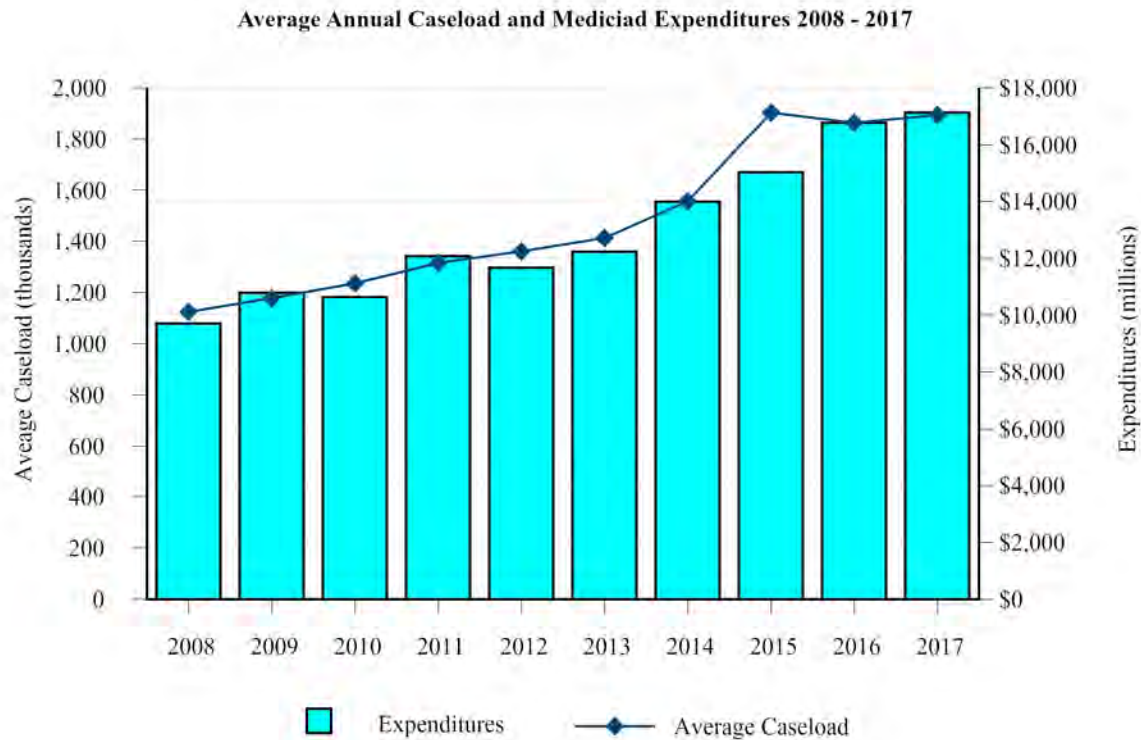
**Average Annual Medicaid Caseload and  
Medicaid Expenditures - Fund Perspective  
Last Ten Fiscal Years**

(Caseload amount in thousands, Expenditure amounts in Millions)

Fiscal year ended June 30	Average Annual Caseload	Medicaid expenditures	Average Expenditures per Case
2017*	1,893	\$17,183	\$9,077
2016*	1,863	16,825	9,031
2015*	1,903	15,087	7,928
2014*	1,556	14,035	9,020
2013	1,413	12,286	8,695
2012	1,361	11,708	8,602
2011	1,315	12,124	9,220
2010	1,263	10,678	8,454
2009	1,178	10,843	9,205
2008	1,124	9,770	8,690

\* Includes members in transitional coverage program starting January 1, 2014.

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**Massachusetts Road Inventory**  
**Calendar Year End, Lane Miles by Type**  
**Last Ten Calendar Years**

Calendar Year	Interstate	Arterial	Collector	Local	Total	% Change	Total Urban	Total Rural
2016	3,204	15,624	9,050	43,926	71,804	(1.02)%	85.9%	14.1%
2015	3,204	15,641	9,048	44,654	72,547	0.24 %	85.8%	14.2%
2014	3,211	15,645	9,048	44,472	72,376	(0.01)%	85.7%	14.3%
2013	3,211	15,674	9,058	44,438	72,381	0.16 %	85.7%	14.3%
2012	3,212	15,639	9,038	44,379	72,268	0.13 %	85.8%	14.2%
2011	3,212	15,051	9,611	44,300	72,174	0.2 %	81.1%	18.9%
2010*	3,210	15,047	9,607	44,169	72,033	0.2 %	81.1%	18.9%
2009	3,212	14,974	9,589	44,112	71,887	0.3 %	81.1%	18.9%
2008	3,212	14,976	9,591	43,893	71,672	0.4 %	81.1%	18.9%
2007	3,213	14,993	9,566	43,612	71,383	0.17 %	80.9%	19.1%

\*2010 was restated to include both urban and rural roads.

*Source: Massachusetts Highway Department, Bureau of Transportation Planning and Development Annual Road Inventory Reports, Lane Miles Table 8. Exclusive of shoulders*

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**Massachusetts Real Property Owned and Leased  
Annual Inventory, Acreage, Improvements and Square Footage  
Last Ten Years**

Functions/Programs	Survey Year 2017	Survey Year 2016	Survey Year 2015	Survey Year 2014	Survey Year 2013
<b>General Government:</b>					
Total Acreage.....	4,964	2,488	2,574	3,114	3,101
Number of Improvements .....	268	118	173	513	333
Gross square footage .....	6,054,449	4,808,125	6,803,498	10,916,681	9,076,550
<b>Judiciary:</b>					
Total Acreage.....	154	153	153	149	148
Number of Improvements .....	75	75	75	74	73
Gross square footage .....	5,224,810	4,843,949	4,843,949	5,310,049	4,700,920
<b>Energy and environmental affairs</b>					
Total Acreage.....	688,129	680,310	674,046	668,631	652,400
Number of Improvements .....	2,184	2,186	2,186	1,806	2,192
Gross square footage .....	8,214,843	8,134,142	8,134,142	6,507,161	7,287,961
<b>Housing and economic development:</b>					
Total Acreage.....	2	2	2	—	2
Number of Improvements .....	6	6	6	4	5
Gross square footage .....	78,012	78,012	78,012	57,812	68,412
<b>Health and human services:</b>					
Total Acreage.....	2,862	5,568	5,623	5,834	5,829
Number of Improvements .....	455	627	627	907	792
Gross square footage .....	8,131,022	8,361,435	8,360,310	10,995,096	9,759,611
<b>Transportation and public works:</b>					
Total Acreage.....	7,195	6,968	6,966	7,014	6,965
Number of Improvements .....	952	930	929	675	921
Gross square footage .....	6,123,984	5,820,282	4,919,282	1,989,583	4,876,689
<b>Education:</b>					
Total Acreage.....	208	208	208	208	208
Number of Improvements .....	40	40	40	40	43
Gross square footage .....	207,633	207,633	207,633	205,503	272,352
<b>Public safety and homeland security:</b>					
Total Acreage.....	19,271	19,150	19,150	19,166	19,169
Number of Improvements .....	1,118	1,063	1,014	1,083	997
Gross square footage .....	14,998,157	13,845,503	13,376,555	14,402,161	12,213,112
<b>Higher Education:</b>					
Total Acreage.....	6,770	7,244	7,243	7,128	7,473
Number of Improvements .....	1,101	1,078	1,076	873	1,009
Gross square footage .....	43,339,713	38,443,057	38,411,260	29,666,140	32,594,800
<b>Totals for Commonwealth (exclusive of Component Units):</b>					
<b>Total Acreage .....</b>	<b>729,555</b>	<b>722,091</b>	<b>715,965</b>	<b>711,244</b>	<b>695,295</b>
<b>Number of Improvements.....</b>	<b>6,199</b>	<b>6,123</b>	<b>6,126</b>	<b>5,975</b>	<b>6,365</b>
<b>Gross square footage.....</b>	<b>92,372,623</b>	<b>84,542,138</b>	<b>85,134,641</b>	<b>80,050,186</b>	<b>80,850,407</b>
<b>Percentage Change for Commonwealth:</b>					
<b>Acreage.....</b>	<b>1.0%</b>	<b>0.9 %</b>	<b>0.7%</b>	<b>2.3 %</b>	<b>1.4%</b>
<b>Improvement.....</b>	<b>1.2%</b>	<b>— %</b>	<b>2.5%</b>	<b>(6.1)%</b>	<b>—%</b>
<b>Gross square footage.....</b>	<b>9.3%</b>	<b>(0.7)%</b>	<b>6.4%</b>	<b>(1)%</b>	<b>0.4%</b>

Source: Executive Office of Administration and Finance, Division of Capital Asset Management. See <http://www.mass.gov/anf/property-mgmt-and-construction/sale-and-lease-of-state-assets/comprehensive-real-estate-serv/massets-reports.html>

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Survey Year 2012	Survey Year 2011	Survey Year 2010	Survey Year 2009	Survey Year 2008
3,039	2,993	2,373	2,495	1,858
279	255	227	240	163
7,690,761	7,206,548	6,797,819	6,660,792	5,736,028
148	141	141	141	145
73	68	68	69	71
4,700,920	4,787,564	4,787,564	4,826,836	5,080,836
642,799	627,286	623,952	606,662	591,511
2,191	2,182	2,183	2,170	2,162
7,283,666	7,295,922	7,299,322	7,246,280	7,242,870
2	2	2	2	2
5	6	6	6	6
68,412	77,642	77,642	77,642	77,642
6,407	6,449	7,196	7,166	7,259
855	866	866	902	980
10,923,090	10,834,266	10,809,259	11,214,034	12,270,433
6,972	7,013	6,966	7,050	6,930
919	918	918	915	915
4,876,689	4,873,783	4,876,689	4,876,936	4,876,936
208	233	233	233	233
43	43	43	43	43
272,352	272,352	272,352	272,352	272,352
19,172	19,158	18,693	18,331	18,324
990	991	1,029	1,028	1,023
12,191,229	12,141,396	12,685,447	12,632,897	12,631,497
7,254	7,178	7,169	7,151	7,149
1,007	987	975	937	940
32,523,400	32,144,815	32,117,854	31,101,329	31,197,929
<b>686,001</b>	<b>670,454</b>	<b>666,725</b>	<b>649,231</b>	<b>633,412</b>
<b>6,362</b>	<b>6,316</b>	<b>6,315</b>	<b>6,310</b>	<b>6,303</b>
<b>80,530,519</b>	<b>79,634,288</b>	<b>79,723,948</b>	<b>78,909,098</b>	<b>79,386,523</b>
<b>2.3 %</b>	<b>0.6 %</b>	<b>2.7%</b>	<b>2.5 %</b>	<b>0.8%</b>
<b>0.7 %</b>	<b>— %</b>	<b>0.1%</b>	<b>0.1 %</b>	<b>0.1%</b>
<b>1.1 %</b>	<b>(0.1)%</b>	<b>1%</b>	<b>(0.6)%</b>	<b>0.3%</b>

**Massachusetts Public Higher Education**  
**Enrollment and Degrees Conferred**  
**Last Ten Academic Years**

Academic Year	Fall 2016	Fall 2015	Fall 2014	Fall 2013	Fall 2012
<b><u>ENROLLMENT</u></b>					
<b><u>University System</u></b>					
Undergraduate (FTE).....	51,209	50,816	49,725	48,893	48,136
Graduate (FTE).....	12,769	12,517	12,576	12,442	12,202
<b>System Enrollment.....</b>	<b>63,978</b>	<b>63,333</b>	<b>62,301</b>	<b>61,335</b>	<b>60,338</b>
<b><u>State University System</u></b>					
Undergraduate (FTE).....	35,909	34,700	35,507	35,429	34,773
Graduate (FTE).....	5,641	8,007	7,507	7,704	7,894
<b>System Enrollment.....</b>	<b>41,550</b>	<b>42,707</b>	<b>43,014</b>	<b>43,133</b>	<b>42,667</b>
<b><u>Community College System</u></b>					
Undergraduate (FTE).....	55,336	59,827	58,764	64,584	62,445
<b><u>DEGREES CONFERRED</u></b>					
	2017	2016	2015	2014	2013
<b><u>University System</u></b>					
Certificates (MD's).....	505	423	435	376	426
Associate's.....	73	85	103	96	121
Bachelors.....	12,754	12,125	11,841	11,544	10,910
Masters.....	3,771	3,669	3,787	3,559	3,442
Doctoral.....	603	575	504	501	486
Cert. of Adv. Grad. Study.....	76	86	81	77	62
Post-Bacc. Certificate .....	842	769	738	691	664
First Professional .....	50	53	64	79	103
<b>Total Degrees .....</b>	<b>18,674</b>	<b>17,785</b>	<b>17,553</b>	<b>16,923</b>	<b>16,214</b>
<b><u>State University System</u></b>					
Certificates.....	35	40	29	34	37
Bachelors.....	8,775	8,762	8,534	8,184	8,024
Masters.....	2,283	2,353	2,116	2,478	2,327
Cert. of Adv. Grad. Study.....	83	73	64	113	108
Post-Bacc. Certificate .....	359	283	304	327	371
<b>Total Degrees .....</b>	<b>11,535</b>	<b>11,511</b>	<b>11,047</b>	<b>11,136</b>	<b>10,867</b>
<b><u>Community College System</u></b>					
Certificates.....	3,147	3,131	3,288	3,365	2,929
Associates .....	11,067	11,318	11,517	11,341	10,772
<b>Total Degrees .....</b>	<b>14,214</b>	<b>14,449</b>	<b>14,805</b>	<b>14,706</b>	<b>13,701</b>
<b>Total All Systems - Degrees .....</b>	<b>44,423</b>	<b>43,745</b>	<b>43,405</b>	<b>42,765</b>	<b>40,782</b>

Source: Massachusetts Board of Higher Education. Enrollment information based at the start of the academic year.

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Fall 2011	Fall 2010	Fall 2009	Fall 2008	Fall 2007	Change - 2016 from 2007
47,432	48,018	44,543	42,768	40,806	25.5 %
12,048	11,734	10,177	9,460	9,328	36.9 %
<b>59,480</b>	<b>59,752</b>	<b>54,720</b>	<b>52,228</b>	<b>50,134</b>	27.6 %
35,639	36,721	34,129	33,040	32,106	11.8 %
6,224	7,227	4,582	4,495	4,428	27.4 %
<b>41,863</b>	<b>43,948</b>	<b>38,711</b>	<b>37,535</b>	<b>36,534</b>	13.7 %
64,586	64,971	60,602	54,228	51,257	8.0 %
2012	2011	2010	2009	2008	% Change - 2017 from 2008
348	246	329	280	270	87.0 %
97	100	111	103	96	(24.0)%
10,399	9,958	9,362	8,763	8,437	51.2 %
3,360	3,242	3,029	2,882	2,808	34.3 %
450	414	400	381	390	54.6 %
89	87	79	70	86	(11.6)%
659	550	509	173	133	533.1 %
43	47	—	—	—	100.0 %
<b>15,445</b>	<b>14,644</b>	<b>13,819</b>	<b>12,652</b>	<b>12,220</b>	52.8 %
29	35	572	605	597	(94.1)%
7,722	7,190	6,886	6,621	6,328	38.7 %
2,404	2,376	2,467	2,343	2,318	(1.5)%
143	116	170	157	224	(62.9)%
362	408	362	406	347	3.5 %
<b>10,660</b>	<b>10,125</b>	<b>10,457</b>	<b>10,132</b>	<b>9,814</b>	17.5 %
2,888	3,020	2,770	2,587	2,495	26.1 %
10,404	9,693	9,257	8,549	8,247	34.2 %
<b>13,292</b>	<b>12,713</b>	<b>12,027</b>	<b>11,136</b>	<b>10,742</b>	32.3 %
<b>39,397</b>	<b>37,482</b>	<b>36,303</b>	<b>33,920</b>	<b>32,776</b>	35.5 %

## Calculation of Transfers: Stabilization Fund\*

June 30, 2017

(Amounts are in thousands)

This statement is prepared on the statutory basis of accounting pursuant to General Laws Chapter 29, Section 5c. It presents information contained in the official books and accounting records of the Commonwealth. Financial statements supporting this calculation are presented in the Financial Section of this report.

	General	Commonwealth Transportation	Massachusetts Tourism	Gaming Local Aid	Total
Budgeted Fund Undesignated Balances .....	\$ (144,268)	\$ 144,797		\$ (528)	\$ —
Fund Balance Deficit Elimination Transfers Per Section 5C of Ch. 29 .....	144,268	(144,797)	—	528	—
Fund Balances after Deficit Elimination Transfers (Consolidated Net Surplus) .....	—	—	—	—	—
<u>Disposition of Consolidated Net Surplus per Section 107 of Ch. 47 of the Acts of 2017:</u>					
To the Massachusetts Community Preservation Trust Fund .....	—	—	—	—	—
To the Massachusetts Life Sciences Investment Fund .....	—	—	—	—	—
Remaining Consolidated Net Surplus to be Deposited in Stabilization Fund.....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

**Stabilization Balance Reconciliation:**

Balance as of July 1, 2016 .....	<b>\$ 1,291,514</b>
Transfer to Stabilization Fund from Abandoned Property Revenue Growth from Prior Fiscal Year .....	—
Transfer of certain tax revenues to the Stabilization Fund .....	377
Adjustment to General Fund transfer for change in market value and other accruals.....	8,787
Less Transfers from Stabilization Fund during FY 2017.....	—
Remaining Consolidated Net Surplus Deposited in Stabilization Fund, per Calculation Above .....	—
<b>Stabilization Fund Balance as of June 30, 2017 .....</b>	<b><u>\$ 1,300,678</u></b>

\* Excludes funds with no FY17 balances or activity

Note: Details may not add to totals due to rounding

See Independent Auditors' Report

**Calculation Of Transfers: Tax Reduction Fund**

June 30, 2017

(Amounts in thousands)

This statement is prepared pursuant to Chapters 29 Sections 2H and 2I of the Massachusetts General Laws, as amended. It is prepared on the statutory basis of accounting and presents information contained in the official books and accounting records of the Commonwealth. Supporting information is presented in individual schedules, as indicated, and in the Financial Section of this report.

The computation is as follows:

Part 1: Comparison of Stabilization Fund, after current fiscal year transfers, to 15% of budgeted revenues and other financial resources:

Undesignated fund balance in the Stabilization Fund .....	\$ 1,300,678
Allowable Stabilization Fund balance .....	<u>6,175,099</u>
Stabilization Fund excess, if any, transferable to Tax Reduction Fund .....	<u>\$ —</u>

Part 2: Status of Stabilization Fund after transfers:

Stabilization Fund balance .....	\$ 1,300,678
Transfer to Tax Reduction Fund .....	<u>—</u>
Stabilization Fund balance after transfer to Tax Reduction Fund .....	<u>\$ 1,300,678</u>

Part 3: Status of Tax Reduction Fund after transfers:

Tax Reduction Fund balance .....	\$ —
Transfers from Stabilization Fund .....	<u>—</u>
Tax Reduction Fund balance after transfers .....	<u>\$ —</u>

See Independent Auditors' Report



**MASSACHUSETTS GENERAL INFORMATION**

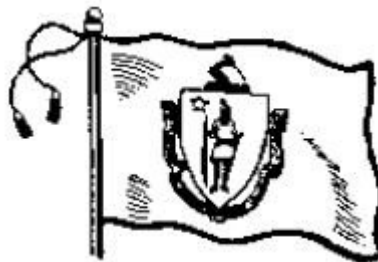
**Admitted to Union (6th State):** 1788  
**Population:** 6,811,779

**Capital:** Boston  
**Nickname:** Bay State

**The State Seal**



**The State Flag**



The State Seal, adopted by Governor John Hancock and the Council on December 13, 1780 and made official by the General Court on June 4, 1885, is circular and bears a representation of the arms of the Commonwealth encircled with the words “Sigillum Reipublicae Massachusettensis” (Seal of the Republic of Massachusetts). The arms, according to legislative enactment, consists of “a shield having a blue field or surface with an Indian thereon, dressed in a shirt and moccasins, holding in his right hand a bow, and in his left hand an arrow, point downward, all of gold; and in the upper corner of the field, above his right arm, bent at the elbow, clothed and ruffled, with the hand grasping a broadsword.”

The State Flag is white, bearing on both sides a representation of the coat of arms. It was adopted in its final form in 1971; before that, the obverse side depicted a pine tree.

**The State Flower**



**The Mayflower**

**The State Fish**



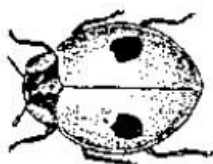
**The Cod**, a soft-finned fish, usually 10-20lbs. A sculpture of a cod hangs in the House of Representatives as a tribute to this useful aquatic creature.

**The State Bird**



**The Black Capped Chickadee**

**The State Insect**



**The Lady Bug**

**The State Tree**



**The American Elm** was adopted as the official tree March 21, 1941 to commemorate the fact that General George Washington took command of the Continental Army beneath one on Cambridge Common in 1775.

**The State Dog**



**The Boston Terrier**, the first purebred dog developed in America (1869), is a cross between an English bulldog and an English terrier.

**Beverage:** Cranberry Juice  
**Dessert:** Boston Cream Pie

**Muffin:** The Corn Muffin  
**Cookie:** Chocolate Chip

**Horse:** The Morgan Horse  
**Bean:** Navy Bean



# Commonwealth of Massachusetts

**COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**FISCAL YEAR ENDED JUNE 30, 2017**